The Relationship Between Supervisors' Transformational Leadership Behaviors & Employees' Psychological Safety Climate Among U.S. Department of the Navy Civilians

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Disclaimer: The views and opinions expressed in this study are those of the author and do not necessarily reflect those of Columbia International University.

DISSERTATION APPROVAL SIGNATURE PAGE

We hereby certify that this dissertation, submitted by Vernon S. Brown, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the dissertation requirements for the degree of Doctor of Philosophy.

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"The Lord hath done great things for us; whereof we are glad." --Psalm 126:3 KJV

Abstract

Psychological safety is a key component of healthy and effective organizations, particularly in high-risk and structured environments such as the federal government. The leadership behaviors associated with the theory of transformational leadership are important in the ability to effectively foster a climate of psychological safety. The purpose of this quantitative non-experimental correlational study was to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. A total of 9,160 archival responses from the Federal Employee Viewpoint Survey were analyzed using Spearman's rank-order correlation and linear regression. Results revealed significant positive relationships between all transformational leadership dimensions and psychological safety climate, with the strongest correlation observed between intellectual stimulation and psychological safety ($r_s[9160] = .783$, $p < .001$). Regression analysis confirmed that intellectual stimulation had the strongest predictive power, while individualized consideration also showed moderate predictive strength. Inspirational motivation and idealized influence, while correlated with psychological safety, did not significantly contribute to its prediction when considered alongside the other dimensions. The findings of the study support the role of transformational leadership in building a safe and inclusive organizational climate in a high-performing government workplace.

Keywords: leadership behaviors, transformational leadership, psychological safety, psychological safety climate, organizational leadership, federal employee viewpoint survey, government organization, United States Navy, government civilian employees

Table of Contents

Tables

Figures

CHAPTER 1: INTRODUCTION

The Relationship Between Supervisors' Transformational Leadership Behaviors & Employees' Psychological Safety Climate Among U.S. Department of the Navy Civilians

Leadership behaviors and styles have a significant influence on the culture and performance of an organization (Al Marshoudi et al., 2023). Transformational leadership and the associated behaviors of this leadership style impact the organization by inspiring followers and meeting their developmental needs (Bass, 1985). Within rigid bureaucratic environments, such as government agencies, transformational leadership can foster greater *psychological safety*, which refers to an employee's belief that they can speak up, ask questions, and express concerns without fear of retaliation (Edmondson, 1999). The existence of psychological safety can prevent *organizational silence*, a phenomenon that occurs when employees feel unsafe to speak up in the workplace (Dillon et al., 2023). By developing and empowering employees, transformational leaders shape climates in which employees feel safe voicing issues especially in high-demanding organizations such as government agencies.

As organizations face increasing demands to rapidly adapt and innovate to effectively serve stakeholders (Higgins et al., 2022), efforts to foster openness, transparency, and psychological safety become increasingly important. High-demanding government bureaucracies can unknowingly limit psychological safety and employee engagement due to rigid hierarchies and rules (Ku et al., 2022; Mathende & Yousefi, 2021). To understand the relationship better, further studies are needed to determine the impact that leadership behaviors have on organizational culture and employee silence (Al Marshoudi et al., 2023; Fernandez et al., 2010; Karimi et al., 2023). Using the fundamental dimensions of transformational leadership theory offers an empowering approach focused on inspiring followers to higher levels of performance

(Bass, 1985), which makes the transformational style of leadership beneficial within the complex and high-demanding workplace that is often found within a government organization.

The link between how leaders transform organizations and create environments in which employees feel safe to speak up is crucial for developing public sector workplaces that can adapt and engage effectively in today's volatile environment. The catastrophic loss the National Aeronautics and Space Administration (NASA) faced in the *Challenger* and *Columbia* disasters powerfully demonstrates why psychological safety and open communication in leadership matter. In these two challenges for NASA, organizational silence was found to be rampant and thus contributed to a lack of engaged employees (Dillon et al., 2023). Despite the complexity and high demands in government agencies, minimal research has explored the relationship between leadership behaviors, employee voice, and psychological safety within government organizations, representing a gap in knowledge (Al Marshoudi et al., 2023; Fernandez et al., 2010; Karimi et al., 2023; J.-K. Kim et al., 2023; Mathende & Yousefi, 2021).

To address this problem and the research gap, this study explored the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The research lays the groundwork for future studies to pinpoint key leadership actions and processes that shape how transformational leaders build environments in which employees feel secure enough to take risks and speak up. While this study explored the relationships, follow-on studies could employ different methodologies to further explain how leaders can effectively foster psychological safety and reduce organizational and employee silence.

Chapter 1 establishes the foundation for determining the relationship between transformational leadership behaviors among U.S. Department of the Navy civilian supervisors

and their influence on employees' psychological safety climate. The chapter progresses from an introduction of the central research focus to a detailed exploration of the problem's background and significance. Building on this context, the discussion then outlines the study's contributions to leadership scholarship in government settings before presenting the research questions (RQs) and hypotheses that framed the investigation. The overview also introduces the processes and methodology for this quantitative study based on the Federal Employee Viewpoint Survey (FEVS) instrument, explains the theoretical foundation, provides definitions of relevant terms, and describes the limitations and delimitations for the study. The chapter ends with a summary of the elements of the study used to explore the relationship between transformational leadership behaviors and psychological safety climate within the U.S. Department of the Navy.

Background of the Problem

A leader's behavior and their actions within the organization determine the level at which employees engage or remain silent (Dillon et al., 2023). This foundation of trust and psychological safety is especially important for employees when faced with the critical decision to share negative information, or any information at all. Research in the field of organizational leadership suggests that leadership behavior exerts a noticeable impact on culture and employee performance within the organization (Bainade et al., 2023; De Simone & Franco, 2023). Leaders who embrace transformational approaches shape organizational culture in powerful ways that model strong ethics, paint compelling visions of the future, push boundaries of conventional thinking, and invest in each employee's growth (Bass, 1985). This leadership philosophy centers on lifting people above and beyond their perceived limitations while also addressing their core needs for development and purpose (Bainade et al., 2023; Bass, 1985).

When examining leadership behaviors, scholars have identified two distinct categories: (a) transformational approaches that elevate both leader and follower and (b) transactional exchanges based on rewards and consequences (Bass, 1985). The transformational leader's focus extends beyond basic management to challenge, inspire, and develop their people in ways that transcend self-interest (J.-K. Kim et al., 2023). In contrast, transactional behaviors focus on basic management processes and exchanges that often involve a relationship based on rewards and penalties (Bass, 1985). The distinguishing attributes between each of these leadership categories are highlighted in studies that demonstrate how transformational leadership creates positive ripple effects throughout the organization (Bass, 1985; G. Wang et al., 2011). Most significant are indications that transformational leaders inspire and elevate their people, which leads to stronger commitment and enhanced performance in teams.

Along with developing high-performing teams, transformational leaders are pivotal in shaping the organization and its underlying culture. To accomplish this behavior, leaders must inspire employees to go above and beyond normal expectations through actions that support organizational objectives (Bass, 1985; J.-K. Kim et al., 2023). Using this leadership approach strengthens engagement by fostering a compelling vision and opportunity for innovative thinking (Avolio et al., 1999; Ravet-Brown et al., 2023). Transformational leadership motivates workers to exhibit above-average performance for the benefit of the organization. Placing an emphasis on motivation and open communication contributes to a climate of psychological safety and a culture built on trust. This culture creates an environment in which employees feel comfortable sharing ideas and concerns without fear of negative consequences (Dillon et al., 2023; L. Zhang et al., 2022).

Leaders who increase trust within the workplace directly influence employee involvement in meaningful work (Lai et al., 2020; Tims et al., 2011); they also strengthen team member alignment with the organization's broader mission and long-term goals due to perceived trust in the system. Achieving this alignment is best accomplished through psychological safety, which refers to the belief that individuals can express themselves without fear of retaliation or negative consequences (Kahn, 1990). The foundation of psychological safety centers on a healthy mental state and the benefits of reduced interpersonal risk that can enhance innovation and upward voice (Frazier et al., 2017). A climate of psychological safety reflects the broader organizational environment surrounding policies, practices, and behaviors that signal to all employees the feeling of a psychologically safe workplace that is institutionally supported (Edmondson & Lei, 2014). As a personal resource, psychological safety helps explain how contextual factors and leader behaviors influence employee engagement and other work-related outcomes (ten Brummelhuis & Bakker, 2012).

Transformational leadership strongly influences organizational climate within government agencies, which in turn influences the level of psychological safety (Al Marshoudi et al., 2023; Karimi et al., 2023). Historically, public sector and government bureaucracies consist of hierarchical structures with traditionally low psychological safety (Backhaus & Vogel, 2022; Dillon et al., 2023). These organizations are often characterized by a culture perceived as unwilling to listen, depending on an individual's rank or level held within the organizational structure (Fantus et al., 2022). To overcome this culture of silence and induce change, the public sector requires a transformative mindset built on modeling the way (Awais-E-Yazdan et al., 2023). By role modeling ethical behavior, sharing inspiring visions, and supporting employee growth, transformational leaders can shift climates to foster and support greater voice and

psychological safety (Frazier et al., 2017; Hernandez et al., 2015). The result is a climate that mitigates silence by promoting openness throughout the organization (Dillon et al., 2023).

While studies have shown a positive relationship between transformational leadership and psychological safety in health care and education (Hernandez et al., 2015; Kranabetter & Niessen, 2017), few have examined the linkage in government organizations or the public sector. This study addressed the research gap by investigating the relationship between transformational leadership and psychological safety climate in the U.S. Department of the Navy, a public sector organization. In doing so, the study may provide practical solutions to enhance psychological safety within public sector organizations and improve the efficiency of support and services the U.S. government provides to its citizens.

Statement of the Problem

The problem this study addressed was that it was not known if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. Psychological safety, a belief that consists of interpersonal trust and openness, enables employees to take risks and voice ideas without fear of negative judgment (Edmondson, 1999). In the field of psychological safety, research suggests higher team performance is linked to leadership behavior and engagement (Edmondson, 1999; Frazier et al., 2017; Hunt et al., 2021). Despite this discovery, little research has examined whether specific leadership behaviors shape an organizational climate of psychological safety in a high-demanding and volatile public sector context, which is often found within government organizations.

While prior studies demonstrate the positive effects of transformational leadership approaches in corporate settings, including enhanced trust, engagement, and willingness to take

risks (Al Marshoudi et al., 2023; Iqbal et al., 2023), scarce research has exposed how transformational leadership relates to psychological safety climate in the public sector, such as that of the U.S. Department of the Navy. Public organizations face increasing demands for innovation and adaptation, which psychological safety facilitates (Dillon et al., 2023; Miao et al., 2020). The largely underexplored nature of this topic in a public sector and government context raises great concern. The problem and research gap support the need to determine the relationship between transformational leadership behaviors and psychological safety climate in government organizations.

The problem centers on the absence of information surrounding the relationship between transformational leadership behaviors and psychological safety climate in government organizations. Determining if and to what extent this relationship exists may inform organizational strategies to foster climates in which employees feel safe to collaborate, learn, and excel in high-demanding and volatile settings. By focusing the research to determine if transformational leadership behaviors relate to psychological safety climate in a government organization, the study addressed a gap in understanding potentially effective leadership practices in public sector and high-demanding and volatile government organizations. Conducting this research may provide insight into how U.S. Department of the Navy civilian supervisors' transformational behaviors shape their employees' willingness to take interpersonal risks and speak up in the workplace (Al Marshoudi et al., 2023; Karimi et al., 2023).

Rationale

The purpose of this quantitative non-experimental correlational study was to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy

civilians. The study used publicly available archival survey data collected from the FEVS, which the U.S. Office of Personnel Management (U.S. OPM) facilitated in 2023. Prior research recommendations and literature support the construct and validity of the FEVS, deeming it a feasible choice for this study (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; Resh et al., 2021). The necessity of access to the data from federal employees made the FEVS the preferred quantitative instrument, backed by years of research and recommendations by scholars in government leadership, organizational design, and organizational climate (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; Resh et al., 2021). The FEVS consists of 91 individual response items, 19 demographic questions, and five indices, each with its own subindices and validated scales of measure. Two relevant indices and scales of measure include the Employee Engagement Index and the Diversity, Equity, Inclusion, Accessibility Index, which are aligned, validated, and reliable for use in leadership behaviors and psychological measurement (Fernandez et al., 2015; Resh et al., 2021; U.S. Office of Personnel Management [USOPM], 2023).

Using the FEVS, introduced in 2002 within the U.S. OPM (Fernandez et al., 2015), provided a feasible process to employ a quantitative non-experimental correlational methodology to determine the relationship between transformational leadership behavior and psychological safety climate in the U.S. Department of the Navy. The FEVS, which provides government employees a way to share their opinions on significant subjects such as their work climate, agency, and leadership, served as the study's main source of data (Fernandez et al., 2015; Orr & Leider, 2023). Chapter 3 of the study includes an in-depth discussion of the details of the indices, subindices, multi-item scales of measure, validity, and reliability of the FEVS.

Conducting a study using a quantitative non-experimental correlational methodology addressed a knowledge gap surrounding the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians (Al Marshoudi et al., 2023; Fernandez et al., 2010; Karimi et al., 2023; J.-K. Kim et al., 2023). The study's results may contribute to identifying targeted leadership techniques within the public sector, particularly in high-demanding and volatile government organizations. Determining if and to what extent a relationship existed between transformational leadership behaviors and psychological safety climate may also support future research on the causal factors and practical implications that executive leadership in government organizations at all levels (local, state, federal) need to implement.

Contribution of the Study

In high-demanding organizations, such as government agencies, maintaining the ability to speak up and voice concerns is of utmost importance (Dillon et al., 2023). Research in health-care settings has revealed critical connections between leadership approaches and psychological safety in high-stress environments (Kaur & Arora, 2023). These insights are particularly relevant to government organizations that navigate similar challenges (Al Marshoudi et al., 2023; Fernandez et al., 2010; Karimi et al., 2023). Focusing specifically on the U.S. Department of the Navy's civilian workforce, this research explored how supervisors who employ transformational leadership methods shape their employees' comfort in taking interpersonal risks.

For government leaders seeking to strengthen their organizations, the findings may highlight leadership behaviors that create environments in which employees feel secure voicing both problems and possibilities, which can ultimately drive innovation and organizational growth (Dillon et al., 2023; Miao et al., 2020). Given the limited understanding of leadership behavior

and its relationship to psychological safety in government organizations (Al Marshoudi et al., 2023; Fernandez et al., 2010; Karimi et al., 2023; J.-K. Kim et al., 2023), the aim for this study was to explore whether a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. Such an investigation may provide a basis for identifying the leadership behaviors most conducive to fostering psychological safety in government contexts. Based on the problem statement and RQs, the study's results may have a practical impact on leadership styles in public sector organizations that must meet increasingly high demands for responsiveness in turbulent situations, such as those experienced within the U.S. Department of the Navy.

Research Questions & Hypotheses

The problem this study addressed was that it was not known if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians (Al Marshoudi et al., 2023; Karimi et al., 2023; J.-K. Kim et al., 2023). The analysis focused on determining the relationship between transformational leadership behaviors and the psychological safety climate of government employees within the U.S. Department of the Navy. Objectively the study explored transformational leadership and its dimensions as independent variables that may correlate to the dependent variable of psychological safety climate. This study was conducted through a focused investigation within the U.S. Department of the Navy.

The framework of the analysis was built on transformational leadership theory. This theory guides the exploration of how leaders can influence follower attitudes, motivations, and actions (Al Marshoudi et al., 2023; Edmondson, 1999) and provided a foundation to determine the relationship between leadership behaviors and the openness and transparency found within a

psychologically safe climate (Karimi et al., 2023). To aid in the investigation, five RQs and five hypotheses guided this quantitative non-experimental correlational study into the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The first RQ explored the relationship between government agency leaders' transformational leadership behaviors and employees' psychological safety climate. RQ2–RQ5 examined each specific dimension of transformational leadership behaviors to investigate the strength and predictability of their relationship with employees' psychological safety climate. The following RQs and associated hypotheses guided the study:

- RQ1: To what extent is there a relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_01: There is not a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A1: There is a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.
- RQ2: To what extent is there a relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_02: There is not a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.

  - H_A2: There is a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.

- RQ3: To what extent is there a relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians?
  - H_03: There is not a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.
  - H_A3: There is a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.
- RQ4: To what extent is there a relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians?
  - H_04: There is not a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.
  - H_A4: There is a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.

- RQ5: To what extent is there a relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_05: There is not a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A5: There is a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.

Process to Accomplish

The purpose of this study was to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The population for the study comprised an estimated 2.3 million civilian employees who work in the U.S. government (Congressional Budget Office, 2024). The target population used for the study consisted of an estimated 200,248 civilian employees who work in the U.S. Department of the Navy (Ott, 2022).

Based on the results from a Raosoft (2004) power analysis, a sample size of 384 participants taken from the target population was determined as the minimum number of participants needed to effectively conduct the study. Using the recommendation from the power analysis (n = 384) as a guide, the study exceeded the minimum required sample size with a total of 9,160 responses obtained from the 2023 U.S. OPM FEVS data set. No retrieval, handling, or analysis of data was conducted prior to the submission and approval of a formal package to the Columbia International University (CIU) Institutional Review Board (IRB).

The research and data analysis for the study were conducted using the 2023 U.S. OPM FEVS and associated data set collected through an agency-administered and agency-reported online government survey that took place from May 9 to July 14, 2023. The U.S. OPM FEVS is a federally mandated and annually distributed survey consisting of multiscale indices (U.S. Office of Personnel Management, 2024a). The survey is administered internally within the U.S. government-distributed email system by the U.S. OPM. Informed consent for the FEVS online survey is obtained through the internal government delivery process that is facilitated by the U.S. OPM (H.-W. Lee & Rhee, 2023; USOPM, 2023). Given the absence of independent variable manipulation, the study employed a quantitative non-experimental correlational methodology using publicly available archival survey data collected from the FEVS (McCusker & Gunaydin, 2015). To ensure compliance with research on human subjects, training (see Appendix A) was completed and an IRB package was submitted to CIU to gain approval to conduct the study.

A quantitative methodology using a non-experimental correlational design was employed to determine the relationship between transformational leadership behaviors and psychological safety climate perceptions as indicated through responses collected from the 2023 U.S. OPM FEVS, which uses a 5-point Likert-type scale. The FEVS instrument, comprising 91 individual response items, 19 demographic questions, and five indices, each with its own subindices and validated scales of measure, provides a combination of multiple survey items and scales. Two relevant indices and scales of measure include the Employee Engagement Index and the Diversity, Equity, Inclusion, Accessibility Index, which are aligned, validated, and reliable for use in leadership behaviors and psychological measurements (Fernandez et al., 2015; USOPM, 2023).

Five RQs and hypotheses guided the research and data analysis of the study. To answer the five RQs, a quantitative methodology using correlational analysis, linear regression, and multiple linear regression was implemented using the 2023 FEVS indices, scales of measure, and collected data. SPSS version 29 provided the means to conduct an analysis of the data collected through the FEVS instrument. The FEVS data set was prepared and cleaned by the U.S. OPM before public release and then further prepared and cleaned for the intent and purpose of this study by identifying missing data within the data set (Abuhaija et al., 2023). A descriptive statistical analysis was also performed using SPSS to better understand the dispersion, central tendency, and frequency within the data (Creswell & Creswell, 2023).

The FEVS provided a unique opportunity to gain access and data from federal employees, which was needed to conduct a proper analysis of the sample population. Access to federal employees for surveys and research is a time-consuming bureaucratic process that is often unachievable given the permissions needed from the government and CIU IRB reviews. However, the U.S. OPM's facilitation of the FEVS has allowed many scholars to overcome the stringent bureaucratic requirements by providing a feasible precedent and means to study the problem under investigation (Resh et al., 2021). The U.S. OPM FEVS, composed of multiple indices and scales of measure, was leveraged as the primary quantitative instrument of choice for the study. Selection of the U.S. OPM FEVS was based on its validity, reliability, ease of access, and recommendations by scholars who have explored the government setting and organizational context (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021). While the FEVS is made publicly available for use, confirmation of permissions to use the FEVS instrument and data set was obtained from the U.S. OPM as a precautionary measure and then submitted with the CIU IRB

package (see Appendix B). The quantitative non-experimental correlational study commenced following a successful proposal defense and approval from the CIU IRB (see Appendix C).

A quantitative non-experimental correlational design was selected as the best fit for addressing the study's objectives as it allows for the examination of variables and their relationships in a measurable way (Ghanad, 2023; McDonald, 2006). The method was particularly suitable for the study given that the research involved numerical data and hypothesis testing. Furthermore, a quantitative approach ensured a high level of objectivity by maintaining clear distinction between the researcher and the participants (McCusker & Gunaydin, 2015; McDonald, 2006). While a quantitative methodological approach was selected, a qualitative methodology was explored to determine its applicability for the study. However, given the gap in research and the problem and purpose statement, a qualitative methodology was deemed inappropriate for examining the relationship between transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.

The intent for the study was to examine the relationship between the variables of transformational leadership and psychological safety climate, which is best explored using a quantitative analysis of the variable relationship (Creswell & Creswell, 2023). Had the problem and purpose of the study been to explore a phenomenon and the lived experiences of participants, a qualitative methodology would have been more closely considered to gain reflections through interviews and open-ended questionnaires, as in similar research and recommendations for social sciences research (Barnham, 2015; Fantus et al., 2022; Neuman, 2003). Finally, given the constraints of time, money, population access, and resources for the study, both a qualitative methodology and mixed-methods approach combining qualitative and quantitative methods were

rejected as both methods require a significant investment of time that was neither feasible nor aligned with the study's intent (J. Park & Park, 2016).

Removing the constraints of time, money, population access, and resources as well as changing the research focus would have significantly altered the process to accomplish the study and presented alternative methodologies and research designs. For example, conducting a longitudinal or mixed-methods study would have produced more data and information contributing to understanding the relationship between transformational leadership behaviors and psychological safety climate and the causal relationship (Merriam & Tisdell, 2019; Salkind & Frey, 2020). However, exploring causality through a longitudinal or mixed-methods design was not the objective; therefore, a quantitative methodology was chosen to accomplish the study.

Based on recommendations from previous research, a quantitative methodology was selected as the most suitable approach to analyze variables through hypothesis testing (Edmonds & Kennedy, 2017). Quantitative methods offer strong justification in research due to their emphasis on reliability and validity within a controlled environment (J. Park & Park, 2016). These methods also provide a framework to collect and analyze data objectively in larger populations. Barnham (2015) highlighted key strengths in quantitative research, such as its reliance on controlled settings, larger sample sizes, and the use of statistical analysis to draw inferences about broader populations. For this study, a quantitative non-experimental correlational design was identified as the best approach to determine the relationship between the dimensions of transformational leadership (independent variables) and psychological safety climate (dependent variable). Given that the research explored the relationship between transformational leadership and psychological safety in the workplace, the study employed a quantitative non-experimental correlational approach.

Theoretical Foundation

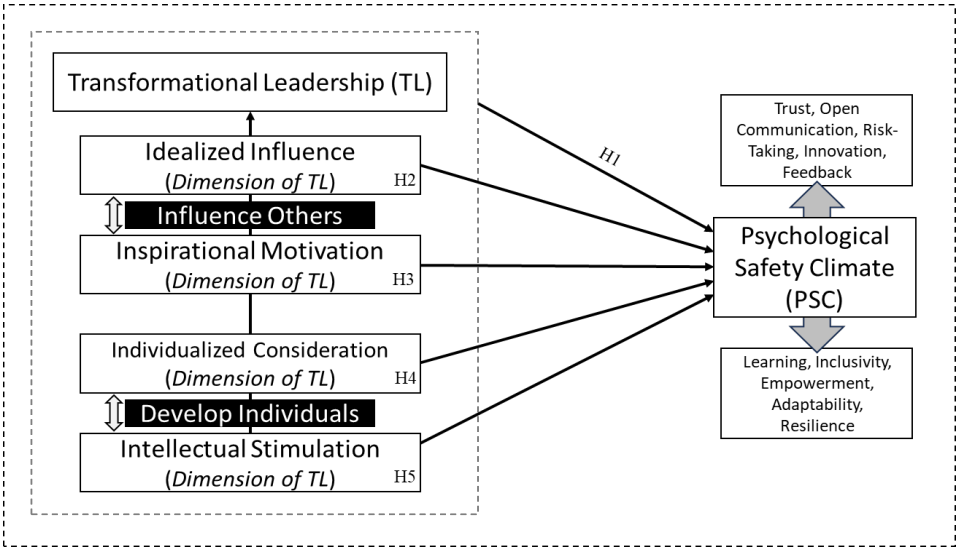
Transformational leadership theory served as the theoretical foundation by providing the lens to explore the relationship between transformational leadership behaviors and psychological safety climate. Using transformational leadership theory to explore how leaders influence the attitudes, motivations, and actions of followers enables determination of the extent of such leadership behaviors. The theoretical foundation was crucial to explore transformational behavior and the relationship to openness, communication, risk taking, innovation, and transparency commonly found within a psychologically safe climate (Al Marshoudi et al., 2023; Bush, 2018; Karimi et al., 2023).

Burns (1978) introduced transformational leadership theory to explain the actions and behaviors by which leaders can influence followers' expectations, views, and ambitions to advance one another's morals and motivation. According to scholars, transformational leaders possess the ability to affect the attitudes, motivations, and actions of their followers to accomplish common goals and objectives (Andersen, 1995; Bush, 2018; J.-K. Kim et al., 2023). Bass (1985) expanded on Burns's transformational leadership theory and original ideas to present a model theory in which these leaders inspire and motivate followers to strive for more than is normally expected of them, going above and beyond normal expectations.

In the context of this study, the theoretical foundation of transformational leadership theory was based on the four dimensions from Burns's theory (see Figure 1). Idealized influence and inspirational motivation are the dimensions that make up the qualities of a leader that can influence others (Burns, 1978; Kwan, 2020). Individualized consideration and intellectual stimulation are the dimensions that center on leader recognition of follower needs and the ability to develop individuals through an established vision (Burns, 1978; Kwan, 2020).

Figure 1

Theoretical Foundation: Transformational Leadership Theory



Based on existing research, these constructs were anticipated to significantly predict the psychological safety climate assessments made by civilian workers in a government agency (Al Marshoudi et al., 2023; Bainade et al., 2023; Dillon et al., 2023; Fernandez et al., 2010; Karimi et al., 2023). Burns's (1978) assertion that transformational leaders have the power to influence and develop their followers formed the basis of the expectation that a relationship between transformational leadership behaviors and psychological safety climate would be present within the public sector and a government agency. This study employed the theoretical foundation of transformational leadership, with a focus on its four dimensions, to examine whether a statistical relationship exists between transformational leadership behaviors and psychological safety climate as perceived by U.S. Department of the Navy civilian employees.

Definitions of Terms

This section provides definitions of common words used throughout the study regarding if and to what extent a relationship existed between supervisors' transformational leadership

behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The intent of these definitions is to provide the reader with a basic understanding of the language and general terms used throughout the study that typically are not within the common public vocabulary or daily usage. The definitions also serve to clarify the study terms and their meanings, which could differ from understandings used in another context or normal daily setting.

- *Employee silence:* An individual behavior characterized by the deliberate choice of an employee to not speak up or share information, ideas, concerns, or feedback with management or colleagues (Kaur & Arora, 2023). This behavior may stem from personal fear of negative consequences, perceived futility of speaking up, or a lack of trust in organizational leadership and processes (Kaur & Arora, 2023).
- *Federal Employee Viewpoint Survey (FEVS):* A comprehensive validated and reliable survey instrument administered annually by the U.S. OPM. First conducted in 2002, the FEVS collects federal employee evaluations of climate, work environment, leadership, and agency outcomes (Fernandez et al., 2015).
- *Government agency:* A public sector organization that is established to administer legislation and deliver public services and/or goods (Armstrong et al., 2023). These agencies exist at various levels of government and are typically tasked with overseeing areas of public policy, safety, regulation, and services (Armstrong et al., 2023). They are often characterized by regulatory or administrative functions that consist of mandates to ensure effective implementation of laws and policies (Armstrong et al., 2023).
- *High-demanding organization:* An organization in which employees routinely encounter turbulent, stressful, and chaotic experiences that require leadership-guided decisions in

areas of preparation and preparedness in handling organizational resources (Armanu et al., 2023). A high-demanding organization is also characterized by an evolving and uncertain environment of change that is associated with complexity, volatility, and ambiguity (Armanu et al., 2023).

- *Idealized influence:* Describes behavior of leaders who set an example that makes employees want to emulate them, building trust and respect by demonstrating integrity and care (Kwan, 2020).
- *Individualized consideration:* Describes behavior of leaders who mentor employees, coaching them to develop their strengths so they can achieve personal growth goals aligned to benefit the organization (Kwan, 2020).
- *Inspirational motivation:* A leadership behavior that builds team spirit and encourages employees to support a compelling vision of progress that is focused on achieving ambitious goals and organizational success (Kwan, 2020).
- *Intellectual stimulation:* A leadership behavior that promotes innovation, critical thinking, and problem solving by encouraging others to think outside the box and challenge ordinary views (Kwan, 2020). Intellectual stimulation empowers creative problem solving in ways that can improve the organization (Kwan, 2020).
- *Organizational silence:* An organizational phenomenon in which employees choose to withhold vital perspectives, concerns, and input regarding critical issues (She et al., 2023). Organizational silence typically emerges from the fear of negative consequences, perceptions that speaking up holds no value, or an entrenched organizational culture that discourages open dialogue (She et al., 2023).

- *Psychological safety:* The belief that individuals are capable of expressing themselves openly without fear of retaliation or repercussion for their actions that could negatively affect their work status, image, or psychological state (Edmondson & Lei, 2014).
- *Psychological safety climate:* Expands on the individual meaning of psychological safety and describes the collective perceptions by employees that their workplace or team feels interpersonally safe for taking calculated risks (Eldor et al., 2023). Specifically, psychological safety climate is an emergent property describing the extent to which a workgroup views speaking up, collaborating, asking for help, and voicing concerns as carrying minimal risk or consequence to their work status, image, or psychological state (Eldor et al., 2023).
- *Public sector organization:* A nonprofit federal, state, or local organization operating within government authority whose purpose is to deliver essential public services; these organizations operate under legal guidelines that require transparency, fiscal responsibility, and accountability to the public (Zahari & Kaliannan, 2022).
- *Transformational leadership:* A leadership philosophy that elevates people beyond conventional performance by nurturing individual development, reinforcing shared values, modeling ethical behavior, and pursuing enduring organizational goals; a leadership approach that models the way for others to follow (Burns, 1978).
- *U.S. Department of the Navy:* One of six military branches within the U.S. Department of Defense whose purpose is to oversee both the Navy and Marine Corps; manages personnel recruitment, training, equipment and logistics (O'Rourke, 2022). The core mission of the branch is to build and maintain a combat-ready naval force that safeguards national security through maritime power and superiority (O'Rourke, 2022).

Limitations & Delimitations

In research, factors exist in which the scope of a study design may be considered out of control or within certain limits of control by the researcher. Researchers must explore the elements of a study that are within control or beyond control to determine both the limitations and delimitations of a study (Coker, 2022; Leedy & Ormrod, 2018; Neuman, 2003). Leedy and Ormrod (2018) explained that *limitations* are issues that could occur in the execution of research, commonly considered beyond the researcher's control. *Delimitations*, on the other hand, depict the process and controls enacted in areas of research in which the researcher maintains input and control of the outcomes (Coker, 2022; Neuman, 2003). Following are the limitations and delimitations of the study to determine if and to what extent a relationship existed between transformational leadership behaviors and psychological safety climate in a public sector context.

Limitations

A significant limitation is the lack of qualitative and quantitative research and data to provide an understanding of the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians (Al Marshoudi et al., 2023; Iqbal et al., 2023). Another limitation is the lack of time to accomplish the research and lack of available funding and finances to execute the study. The availability and access to federal employees and their data also presented a limitation, often unachievable without the use of a federally mandated and facilitated survey such as the FEVS (Fernandez et al., 2015; USOPM, 2023).

The quantitative non-experimental correlational design of the study limited the ability to determine a causal relationship and only allowed for the exploration and determination of whether a relationship existed. The identification of and control for confounding variables, or

variables that might exist but were not measured in the context of the study, pose another limitation (Andrade, 2021). Finally, the potential to generalize the results of the study may be limited due to the possibility of unknown confounding variables, as the study used archival FEVS data collected by the U.S. OPM.

Delimitations

The study focused on the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The study was delimited to data collected from the publicly available FEVS facilitated by the U.S. OPM in 2023. The study population was delimited to the public sector and U.S. government organizations, with a sample taken from the U.S. Department of the Navy. However, doing so was deemed acceptable as the study's intent was to access data from federal employees and U.S. Department of the Navy civilians to conduct the analysis. A final delimitation is the chosen problem and the RQs and hypotheses implemented to explore the topic of transformational leadership behavior and its relationship to psychological safety climate.

Chapter Summary

In summary, the purpose of this quantitative non-experimental correlational study was to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. Drawing from the broader population of federal civilian employees, the study specifically focused on U.S. Department of the Navy civilian personnel to investigate these leadership dynamics. The study used archival survey data collected from the FEVS, facilitated by the U.S. OPM in 2023, to address a gap in understanding how transformational leadership

behaviors relate to psychological safety climate in public sector organizations such as the U.S. Department of the Navy.

Five RQs and hypotheses guided this quantitative non-experimental correlational study. Using the theoretical underpinning of transformational leadership theory and its fundamental dimensions, as explained by Burns (1978), the study explored the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians using the validated and reliable multiscale FEVS data instrument (Fernandez et al., 2015). This work may set the stage for deeper investigations into how specific leadership actions and processes shape environments in which employees feel secure enough to take risks and voice concerns. Such research can further reveal the ways transformational leaders build and sustain psychologically safe workplaces.

Chapter 1 established the foundation for this research through a carefully structured progression that began with an introduction to the study, moving through the problem's background, presenting the study's rationale and its contributions to current literature, outlining the RQs and hypotheses, detailing the methodological approach, examining the theoretical foundation, defining key terms, and addressing limitations and delimitations. Beyond this structured framework, the chapter revealed a critical gap in understanding, prompting a need to determine the extent to which transformational leadership behaviors influence psychological safety climate within public sector and government organizations (Al Marshoudi et al., 2023; Bainade et al., 2023; Dillon et al., 2023; Fernandez et al., 2010; Karimi et al., 2023).

Chapter 2 provides a comprehensive literature review of relevant research and theories related to the study RQs, hypotheses, purpose statement, and problem statement. Chapter 3 includes a description of the study methodology, including design, instrument, participants,

research procedures, data analysis strategy, and ethical issues. Chapter 4 presents the analysis of the data in a nonevaluative, unbiased, and organized manner to address the guiding RQs and hypotheses of the study. Finally, Chapter 5 includes a comparison of the study results with the literature reviewed in Chapter 2 and summarizes the study findings. Also included in Chapter 5 are recommendations for future research.

CHAPTER 2: LITERATURE REVIEW

Psychological safety occurs when employees reach a level of trust within their environment that allows them to confidently engage in interpersonal risks (Hunt et al., 2021). This level of trust fosters strong team results and enhanced engagement that supports innovation and learning in the workplace (Edmondson, 1999; Hunt et al., 2021). Although current research has been consistent in the outcomes of psychological safety, a gap remains in understanding how specific leadership behaviors contribute to creating a safe climate within a government setting (Al Marshoudi et al., 2023; Karimi et al., 2023; J.-K. Kim et al., 2023). This gap presented a critical area for investigation, which was explored by the present study. The problem was that it was not known if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.

The purpose of this quantitative non-experimental correlational study was to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. Despite decades of research in leadership theory, a significant gap remains in understanding this dynamic within a government setting (Fernandez et al., 2010; Higgins et al., 2022). By exploring transformational leadership behaviors and their relationship to the psychological safety climate in government, the study addressed a gap in understanding effective leadership practices within the public sector and high-demanding government organizations. The study's outcomes and results may provide a deeper understanding of the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians (Al Marshoudi et al., 2023; Karimi et al., 2023).

Presented in Chapter 2 was an extensive review of relevant leadership theory and supporting topics that were explored to inform the study.

Information in Chapter 2 examines the research foundation through a structured progression of five sections: transformational leadership theory; transformational leadership in a public sector context; psychological safety; transformational leadership and psychological safety; and volatile, uncertain, complex, and ambiguous environments. To build a comprehensive review, an extensive database search was conducted across multiple academic platforms. The search strategy centered on key terms essential to understanding these relationships: *transformational leadership behaviors*, *transformational leadership theory*, *psychological safety*, *psychological safety climate*, *leadership theory*, *federal government employees*, *public sector organizations*, *high demanding organizations*, *complex environments*, *volatile environments*, *uncertain environments*, *ambiguous environments*, *psychological safety evaluations*, *organizational silence*, *employee silence*, and *employee voice*.

Using the search terms within multiple databases of the Columbia International University library and that of Google Scholar, JSTOR, EBSCO, ERIC, and ProQuest provided rich seminal and empirical sources related to the topic under investigation. The results achieved were prioritized for use, starting with scholarly articles found in peer-reviewed journals that had been published no more than 5 years (2020) from the intended graduation year (2025). Columbia International University guidelines specify that 100–150 sources must be used throughout all five chapters of the study, 50% of which should be published within 5 years of the projected graduation. Additionally, of the total number of sources, at least 75% should be academic articles, with the remaining 25% or less consisting of books, doctoral dissertations, and other content.

A total of 170 sources were collected for this research, 109 (64%) of which were published between 2020 and 2025. The detailed breakdown of the sources is as follows: 159 sources (94%) were scholarly articles published in peer-reviewed academic journals, while 11 sources (6%) were categorized as other content such as books and doctoral dissertations. A total of 120 of the sources (71%) were used to support the literature review. Following is a discussion of the reviewed literature, beginning with the history, background, and current research in transformational leadership theory, which underpinned the study.

Transformational Leadership Theory

Transformational leadership theory emerged through parallel discoveries in the late 1970s and early 1980s, when sociologist James Downton and political scientist James MacGregor Burns independently began exploring this new leadership perspective (Avolio et al., 1999). Burns in particular shaped the field's trajectory, introducing the term *transformational leadership* in his groundbreaking 1978 work *Leadership* (Alessa, 2021; Berkovich & Eyal, 2019). Burns's (1978) analysis derived from a sharp distinction between transformational and transactional approaches, describing how transformational leaders elevate their followers beyond basic exchanges to achieve both high performance and deeper moral development.

The dimensions of Burns's (1978) transformational leadership theory established the groundwork for subsequent research and advancement of the theory in many fields, including the influence and development of followers. Bernard Bass, a psychologist, further developed Burns's research and is seen as pivotal in advancing transformational leadership theory (Fareed et al., 2022). As a result, Bass and Avolio collaborated in the 1980s to create the Multifactor Leadership Questionnaire (MLQ), a frequently used tool for assessing different leadership styles and for developing additional tools of measure such as the multiscale Federal Employee

Viewpoint Survey (FEVS; Fernandez et al., 2015; Orr & Leider, 2023; Thompson & Siciliano, 2021). The multiscale FEVS, like the MLQ, highlights essential elements of transformational leadership: ethical role modeling or idealized influence, motivation through inspiration, innovation through intellectual stimulation, and personalized support through individualized consideration (Fernandez et al., 2015; Thompson & Siciliano, 2021).

Seminal research in the field of transformational leadership theory predominantly concentrates on conceptualization and quantification (Andersen, 1995; Bush, 2018; J.-K. Kim et al., 2023). To advance the theory, scholars have progressively transitioned to investigating the practical outcomes of the leadership approach within corporate contexts (Al Marshoudi et al., 2023; Karimi et al., 2023; Kwan, 2020). This redirect has made the theory instrumental in understanding organizational development. The 1990s marked a turning point in the understanding of transformational leadership as researchers began documenting concrete evidence of the theory's impact across various organizations (Kwan, 2020). The findings at the time revealed that the transformational leadership approach strengthened multiple organizational dimensions ranging from employee satisfaction and team dynamics to psychological safety and individual achievement (Andersen, 1995; Bush, 2018; Edmondson, 1999).

The foundational work in transformational leadership theory sparked a renaissance in research that continues today. Scholars continue to examine how transformational leadership shapes different cultural contexts and organizational environments around the globe (Al Marshoudi et al., 2023; Iqbal et al., 2023; J.-K. Kim et al., 2023; G. Wang et al., 2011). An important advancement born from this renaissance is a recognition of the foundational dimensions within the framework of the theory and the associated practical applications. For example, Alessa (2021) performed a comprehensive thematic analysis of the dimensions of

transformational leadership in Saudi Arabian public universities to study the perceived effectiveness of their relationship to organizational outcomes. The results of the study revealed the importance in detailed comprehension of each dimension to maximize their application within the organization (Alessa, 2021).

Within the field of leadership studies, the four dimensions of transformational leadership have been investigated to understand correlation between transformational leadership and various factors of a company (Al Marshoudi et al., 2023; Karimi et al., 2023). From research by Fareed et al. (2022), trust and work satisfaction were examined to investigate a potential bond between the theory and project performance. The study contributed to an increased comprehension of the mechanisms by which transformational leadership impacts organizational outcomes. The results revealed multiple recommendations that can influence and mediate organizational outcomes using one or all of the dimensions of transformational leadership (Fareed et al., 2022).

The theory of transformational leadership has continued to grow as a relevant leadership theory with proven results in various organizational constructs (Bommer et al., 2004; Karimi et al., 2023; Luo et al., 2020; Mat et al., 2019). Given the renaissance in the research of the theory, practitioners have experienced an increase in understanding through application of the underlying dimensions of transformational leadership in a variety of settings (Fareed et al., 2022). The fundamentals of each dimension of transformational leadership bring to light the importance of not only leadership influence on individuals but also leadership development of followers, which can shift the climate of an organization (Al Marshoudi et al., 2023; Awais-E-Yazdan et al., 2023).

Continued interest and research in transformational leadership reveal other benefits, such as organizational citizenship behavior (OCB) and its function as a mediator (Alhashedi et al., 2021). Findings from these studies have provided insights into the dimensions of the theory and their applicability across a variety of settings. As researchers have continued to explore leadership styles and their effectiveness on employees' well-being and safety behavior, increased awareness of the benefits of transformational leadership have emerged (Alessa, 2021; Fareed et al., 2022). The result is a confirmed correlation between leadership style, leadership behavior, and the well-being of employees and their safety behaviors (Awais-E-Yazdan et al., 2023). A better understanding of the relevance of transformational leadership behaviors has also emerged in the context of various organizational settings and within the construct of psychological safety and the organizational climate (J.-K. Kim et al., 2023).

Behaviors & Characteristics of Transformational Leadership

Transformational leadership is known for its distinct behaviors and qualities, which have been extensively acknowledged for their impact on organizational outcomes (Karimi et al., 2023). The leadership approach centers on inspiring and motivating followers to attain elevated performance and professional development (Andersen, 1995; Bush, 2018; J.-K. Kim et al., 2023). In this quantitative non-experimental correlational study, transformational leadership theory was crucial to exploring leadership behaviors and their relationship to openness, communication, and risk taking within a climate of psychological safety (Al Marshoudi et al., 2023; Bush, 2018; Karimi et al., 2023).

The four dimensions of transformational leadership are ethical role modeling or idealized influence, motivation through inspiration, innovation through intellectual stimulation, and personalized support through individualized consideration (Burns, 1978; Kwan, 2020).

Following is a synthesis of each transformational leadership dimension and its importance and contribution to organizational development. Best practice and the ideal ways to cultivate and exercise each dimension are also discussed.

Idealized Influence

A fundamental pillar of transformational leadership is idealized influence, whereby leaders serve as exemplars that cultivate the trust, admiration, and respect of their followers (Burns, 1978; Kwan, 2020). Leaders who demonstrate idealized influence inspire a feeling of purpose and shared values among the members of the organization, fostering a pleasant and ethical atmosphere (Kwan, 2020). This behavior is consistent with the conclusions of Alessa (2021), who highlighted the significance of certain aspects of transformational leadership, such as influence, in Saudi Arabian public universities. Alessa discovered, through a systematic review of 22 studies of transformational leadership, that the underlying dimension of ethical role modeling and influence had a positive impact on organizational outcomes. The increased benefit to organizational outcomes was due to the behavioral influence the leaders possessed over followers when using the transformational leadership approach (Alessa, 2021).

Leaders successfully develop and exercise idealized influence by consistently modeling ethical conduct, demonstrating unwavering commitment to organizational values, and making personal sacrifices for the overall benefit of their teams (Rafferty & Griffin, 2004). Research suggests that leaders cultivate idealized influence over time through authentic displays of conviction, confidence, and optimism that are particularly important when facing challenging situations (S. Zhang et al., 2021). By developing a strategic vision and aligning their actions with stated values, leaders earn the trust and respect of followers and promote their idealized influence (Tafvelin et al., 2023).

Inspirational Motivation

Another aspect of transformational leadership is the underlying dimension of inspirational motivation. Through inspirational motivation, transformational leaders effectively communicate a captivating vision for the future and motivate their followers to embrace and support that vision (Bass, 1985; J.-K. Kim et al., 2023). In their quantitative research on frontline health-care professionals amid the COVID-19 crisis, Awais-E-Yazdan et al. (2023) discovered a correlation between inspirational motivation and heightened employee well-being and safety conduct. The researchers concluded a favorable correlation exists between the core pillars of transformational leadership, including motivation and the conduct exhibited by employees in terms of safety behavior (Awais-E-Yazdan et al., 2023).

Leaders can foster and display inspirational motivation by honing their communication skills and learning to develop a strategic vision that connects with followers' values and beliefs (Rafferty & Griffin, 2004). Leveraging the benefits of inspirational motivation requires crafting and delivering persuasive messages that promote collective goals and a shared purpose (Alessa, 2021). To exercise inspirational motivation, leaders must consistently display confidence in the abilities of their followers (Tafvelin et al., 2023). Tafvelin et al. (2023) explained that confidence in followers is accomplished by setting high but achievable expectations that include framing challenges as opportunities for growth. Finally, leaders must cultivate inspirational motivation by developing their emotional intelligence (Dóci et al., 2020); doing so requires the elevation of soft skills that can assist in the recognition and response to the emotional needs of others.

Individualized Consideration

Individualized consideration is a dimension of transformational leadership that projects a leader's ability to recognize and serve the needs of others (Kwan, 2020; Pradhan & Pradhan,

2015). This individualized approach cultivates a feeling of inclusion and builds emotional security among staff. Hapsari et al. (2021) studied a segment of Indonesian public officials to understand how individualized consideration helps to develop organizational citizenship from within. The authors measured four critical elements: organizational culture, compensation system, transformational leadership, and OCB (Hapsari et al., 2021). The findings of the quantitative analysis revealed that leaders who considered the individualized requirements of their team members contributed to cultivating a favorable organizational culture and climate (Hapsari et al., 2021).

To develop and exercise individualized consideration, leaders must practice active listening skills and cultivate empathy toward others (Rafferty & Griffin, 2004), which requires dedicated time and attention in understanding each team member's unique strengths, weaknesses, and aspirations (Baran & Woznyj, 2021; Rafferty & Griffin, 2004). Research suggests that leaders can actively promote and display individualized consideration by creating personalized development plans (Tafvelin et al., 2023), including exercising constructive feedback and mentorship as team members work toward achieving their goals. By providing feedback and opportunities for growth, leaders remain aligned with individual interests through a personal level of care (Kao et al., 2023). To continually improve on this dimension, leaders must foster a supportive environment that consists of open communication and genuine concern for each follower's well-being at both the professional and personal levels (S. Zhang et al., 2021).

Intellectual Stimulation

The dimension of intellectual stimulation includes leadership behaviors that foster creativity, critical thinking, and problem solving within a team (Kwan, 2020). Leaders who display these behaviors enhance workplace performance and employee engagement in various

organizational constructs (J.-K. Kim et al., 2023; Lai et al., 2020). In a quantitative correlational study by Lai et al. (2020), transformational leadership and the underlying ability to stimulate intellectual thinking directly resulted in favorable job performance and organizational outcomes. These outcomes were a result of leadership's promoting intellectual exploration that directly affected workers' willingness to explore and engage in solving tasks. Leaders who exert the behaviors of intellectual stimulation positively enhance the performance of their followers and increase work engagement through openness and fostering of a climate conducive to innovation (Kwan, 2020; Pradhan & Pradhan, 2015).

Intellectual stimulation and the foundation that enables the behavior is developed and exercised by building a climate of innovative thinking that challenges the status quo (Rafferty & Griffin, 2004). The approach leaders must follow involves regularly posing thought-provoking questions and soliciting diverse perspectives (S. Kim et al., 2020). Intellectual stimulation also requires that leaders reframe issues to stimulate creative problem solving by the team. To enhance and develop this dimension, leaders must promote a learning culture in which mistakes are viewed as opportunities for growth and experimentation is encouraged (Tafvelin et al., 2023). Research has shown that intellectual stimulation is cultivated when leaders remain informed on industry trends and emerging technologies (Dóci et al., 2020). This engagement allows leaders to intellectually stimulate employees through conversation on how new developments could influence workplace tasks or decisions. By modeling the way through curiosity and a willingness to challenge assumptions, leaders instill a similar behavior within their followers through a climate of continuous learning and innovation (B. J. Kim et al., 2019).

Trust & Organizational Citizenship Behavior

The exploration of transformational leadership encompasses the theory's influence on trust and employee satisfaction in the workplace (H.-W. Lee & Rhee, 2023). In a time-lagged quantitative analysis, Fareed et al. (2022) examined how trust and work satisfaction act as mediators between transformational leadership and project performance in the workplace. The findings of their research underscored the significance of trust-building behaviors in attaining favorable results in project management and organizational outcomes (Fareed et al., 2022).

An examination of how transformational leadership affects OCB and performance over time was also conducted within the field of transformational leadership, showing a strong correlation (Alhashedi et al., 2021; Kao et al., 2023). The results of the research revealed a direct relationship between leadership behavior and the influence on trust and engagement using the motivational power of transformational leadership. Hapsari et al. (2021) observed that transformational leadership favors OCB among public officials in Indonesia due to the power of motivation and building trust. In their study, the researchers emphasized the power of leadership influence and trust building to shape and mold employees' habits in ways that extend above and beyond their official job obligations (Hapsari et al., 2021). Results of the research revealed that building trust enhances the general welfare of the organization and the ability of leaders to push employees to excel (Hapsari et al., 2021).

Antecedents of Transformational Leadership

Three key factors shape how transformational leadership behaviors emerge and develop within the organization: individual factors, contextual factors, and developmental experiences (Bommer et al., 2004; Jin et al., 2016). Organizations developing transformational leaders must grasp these elements, as they reveal which conditions best nurture adaptive leadership

approaches (Dóci et al., 2020; Tafvelin et al., 2023). Understanding the antecedents can help researchers and practitioners create methods for identifying potential leaders and building environments in which these leaders can thrive (S. Zhang et al., 2021).

Individual Factors

Studies exploring why individuals naturally gravitate toward transformational leadership have revealed compelling links to personal characteristics (Dóci et al., 2020). Bono and Judge's (2004) comprehensive meta-analysis uncovered that outgoing, agreeable personalities more readily adopt transformational approaches. Building on this finding, researchers discovered that emotional intelligence shapes leadership tendencies, with emotionally perceptive leaders showing stronger transformational qualities (Harms & Credé, 2010). S. Zhang et al. (2021) added another layer to this understanding by highlighting that leaders who deeply value human connection and environmental stewardship tend to embrace transformational practices. Taken together, these findings reveal a consistent picture that certain personality traits create natural pathways toward transformational leadership behaviors (Bommer et al., 2004; Dóci et al., 2020).

Contextual Factors

The organizational and environmental contexts can significantly impact the emergence and effectiveness of transformational leadership (Bommer et al., 2004). Research findings demonstrate that time pressure, or constraints in the amount of time to complete a task, can affect a leader's ability to engage in transformational behaviors, with moderate levels of pressure and stress in the workplace potentially enhancing transformational leadership (Dóci et al., 2020). In the study of contextual influence on transformational leadership, researchers have also found that organizational factors such as role clarity in the organization and opportunities for development are instrumental in their influence of transformational leadership and well-being (Jin et al.,

2016). Contextual influence is of particular interest in the development of young leaders early in their careers who are easily shaped in the pursuit of an effective leadership style (Tafvelin et al., 2023). Results of research that has explored the precursors of transformational leadership suggest that contextual supports are crucial for fostering transformational leadership behaviors across different career stages and hierarchical levels throughout the organization (Bono & Judge, 2004; Tafvelin et al., 2023).

Developmental Experiences

Transformational leadership is an approach that can be developed through various experiences and developmental interventions (Bommer et al., 2004). Day et al. (2014) identified key catalysts that shape transformational leaders, including stretch assignments that push boundaries, strong mentoring connections, and structured leadership development programs. This finding gains deeper context through Avolio and Hannah's (2008) exploration of developmental readiness, or how prepared and motivated individuals are to absorb and apply new leadership approaches. Their research revealed that leaders who deeply understand themselves and actively seek learning opportunities extract more value from development experiences, which enables them to display transformational leadership behaviors in their practice (Avolio & Hannah, 2008). Research into developmental experiences reveals that investing in an individual's personal and professional development leads to transformational behaviors that become evident over time (Avolio & Hannah, 2008; Bommer et al., 2004).

Understanding what drives transformational leadership gives organizations practical pathways to develop these vital leadership qualities (Dóci et al., 2020). When organizations recognize natural leadership tendencies, build environments that nurture growth, and create meaningful development opportunities, they lay the groundwork for leaders who can truly

inspire their people to exceed expectations (Rafferty & Griffin, 2004). Furthermore, recognizing the interplay and connecting links between the various antecedents allows for a more integrated approach to leadership development, especially in young leaders (Tafvelin et al., 2023). This perspective also acknowledges that transformational leadership is a style that emerges from a complex interaction of personal characteristics, environmental factors, and intentional growth opportunities (Day et al., 2014). Maintaining a comprehensive understanding of the necessary precursors of transformational leadership enables organizations to create an effective strategy for identifying, developing, and supporting individuals toward this style throughout the stages of their careers (Bono & Judge, 2004; Tafvelin et al., 2023).

Outcomes of Transformational Leadership for Followers & Organizations

The outcomes and benefits of transformational behaviors are important for the development of the organization. Leaders who embrace transformation push their teams to discover untapped potential that ignites growth far beyond routine expectations (Bass, 1985; J.-K. Kim et al., 2023). Research repeatedly validates this belief and reveals that, from small teams to large institutions, organizations consistently see enhanced benefits when leaders commit to this path (Bainade et al., 2023; Lai et al., 2020). By building a foundation of trust and investing in personal development, transformational leaders create the conditions through which sustained excellence can naturally emerge (Kwan, 2020).

Enhanced Employee Performance

The impact of transformational leadership is most noticeable through the ability to elevate both individual and organizational achievement. J.-K. Kim et al. (2023) documented enhanced performance gains in organizations led by those embracing this leadership approach. Lai et al. (2020) illuminated why these gains occur, asserting that when leaders connect with

their people's core motivations, they ignite the engagement that promotes performance to new levels. Similarly, Fareed et al. (2022) revealed that trust and workplace satisfaction bridge the gap between transformational leadership and project success. The researchers asserted that leaders do more than just inspire, they build environments in which trust runs deep and job satisfaction flourishes (Fareed et al., 2022). The result is a trust-based climate that flourishes with the essential conditions supportive of team excellence. This foundation of trust opens channels for authentic communication and psychological safety that can enable higher levels of performance (Al Marshoudi et al., 2023; Iqbal et al., 2023). Through a combination of inspiration and positive climate, transformational leaders unlock their followers' full potential and drive enhanced organizational commitment (Karimi et al., 2023).

Increased Job Satisfaction & Well-Being

Transformational leadership has a wide range of impacts that go beyond individual performance indicators within the organization (Jaroliya & Gyanchandani, 2021), including influence in job satisfaction and general well-being, which is conducive to a climate of openness and psychological safety (Dillon et al., 2023; Khan et al., 2020; H.-D. Kim & Cruz, 2022). In their mixed-methods study analyzing both lexical and statistical data, H.-D. Kim and Cruz (2022) explored the beneficial impact of transformational leadership on the psychological well-being of service-oriented workers. The researchers found that transformational leaders foster a work environment that boosts individual job happiness and well-being by providing support and motivation in a stressful environment (H.-D. Kim & Cruz, 2022).

In a similar study of job satisfaction and well-being, Khan et al. (2020) argued that transformational leadership has a dual effect in that it enhances work performance and protects against burnout. The findings of the study suggest that transformational leaders are crucial in

creating a healthy work environment that improves satisfaction and safeguards against harmful work-related problems. Transformational leadership is especially relevant to safeguard against harmful situations in high-demanding and stressful environments (Mathende & Yousefi, 2021). In a high-demanding environment, inspirational and motivating leadership behaviors are necessary for the establishment of a work climate that is safe and free of unnecessary contempt or repercussions (Dillon et al., 2023; L. Zhang et al., 2022).

Organizational Citizenship Behavior

Transformational leadership significantly influences OCB, which consists of voluntary behaviors that rise above official duties or obligations of employment (Hapsari et al., 2021; Iqbal et al., 2023; J.-K. Kim et al., 2023). In a quantitative analysis, Hapsari et al. (2021) investigated how transformational leadership contributes to developing OCB among public officials in Indonesia. The researchers posited that transformational leaders have a favorable impact on employees that instills dedication and willful involvement in the processes of the organization (Hapsari et al., 2021). The result from the research asserts that leaders who display the dimensions and behaviors of transformational leadership build a climate conducive to OCB within the workplace. Adding to this viewpoint, Alhashedi et al. (2021) argued that OCB is an intermediary between the behaviors that emerge within transformational leadership and the outcomes of performance in organizational settings. Their research suggests that transformational leaders not only influence the actions of individuals but also enhance the overall efficiency of the organization. This organizational efficiency is achieved by creating an open and safe climate that encourages employees to engage in positive citizenship behavior (Alhashedi et al., 2021; J.-K. Kim et al., 2023).

Trust & Team Performance

Trust can be seen as a fundamental aspect of successful leadership. Transformational leaders are particularly skilled in the area of promoting trust (De Simone & Franco, 2023). According to Berkovich and Eyal (2019), trust is a significant intermediary element in the connection between transformational leadership behavior and moral reasoning. The ethical and inspiring conduct of transformational leaders fosters interpersonal trust among followers, which is impactful on the organization's moral decision making. Jaroliya and Gyanchandani (2021) argued that transformational leadership has a positive effect on team performance in the workplace. This effect is a result of building trust and performance outcomes through the influence of ethical behaviors.

The existence of ethical behaviors and trust in leadership can be a catalyst to organizational outcomes and improved performance (Joo et al., 2023; Maximo et al., 2019). Transformational leaders foster an atmosphere that promotes cooperation and interpersonal trust, thereby enhancing team performance and psychological safety (Edmondson, 1999; Frazier et al., 2017; Hunt et al., 2021). The significant impact of transformational leadership behaviors on team dynamics through interpersonal trust and psychological safety emphasizes the effectiveness of the leadership theory and its contribution to shaping organizational success (Ilyas et al., 2021).

Critiques & Limitations of Transformational Leadership Theory

The theory of transformational leadership, centered on inspiring and motivating followers, has gained significant attention in organizational research (Al Marshoudi et al., 2023; Karimi et al., 2023; Kwan, 2020). However, the theory is not without its criticisms and constraints (Alessa, 2021; Awais-E-Yazdan et al., 2023; Khan et al., 2020). Following is a synthesis of the literature covering the lack of universality of transformational leadership,

overemphasis on leader charisma, measurement challenges, contextual dependency, and limited focus on outcomes. Also included is a discussion on the dearth of longitudinal studies within the field of organizational leadership.

Lack of Universality

A major criticism is the assumption that transformational leadership is universally applicable to all cultural and organizational settings (Kwan, 2020; G. Wang et al., 2011). Existing research has found the efficacy of transformational leadership can differ in various cultural contexts (Alessa, 2021; De Simone & Franco, 2023). The leadership style and behavior in one cultural setting may not necessarily produce the same outcomes or transcend to another (Kwan, 2020). This notion is evident in leadership studies conducted within the public sector of Indonesia and Taiwan, which differs significantly from that of the United States (Hapsari et al., 2021; Kao et al., 2023).

The specific setting and cultural foundation of an organization can shape the perception and response of followers to all types of leadership behaviors (Jaroliya & Gyanchandani, 2021; Karimi et al., 2023; Luo et al., 2020). Fundamentally, the differences in culture and norms question the idea that actions are universally applicable for leadership practices to be executed across all settings and contexts (Chau et al., 2022). The results from the literature suggest a challenge to the universality of transformational leadership theory that remains a topic of interest as the theory continues to advance (Kwan, 2020).

Overemphasis on Leader Charisma

A frequent critique of transformational leadership theory is the excessive focus on leader charisma (Bush, 2018; Jaroliya & Gyanchandani, 2021). Berkovich and Eyal (2019) argued the emphasis on charismatic leadership may overlook other crucial leadership attributes and the

underlying dimensions that work to develop followers through individualized consideration and intellectual stimulation. While charisma can have a significant influence, it may not be the exclusive factor in determining effective leadership posited by researchers in the field (Berkovich & Eyal, 2019; Karimi et al., 2023; Kwan, 2020). Fundamentally, the belief is that leaders who do not possess charisma can still demonstrate transformational behaviors that have a positive impact on their teams (Iqbal et al., 2023). This finding indicates that charisma is not a must-have condition or behavioral trait required for effective transformational leadership (Kwan, 2020).

Measurement Challenges

Measuring transformational leadership presents another inherent difficulty (Pradhan & Pradhan, 2015). Scholars both past and present have asserted that transformational leadership's multifaceted nature, composed of four specific dimensions, poses challenges in developing a comprehensive and universally acceptable scale of measurement (Awais-E-Yazdan et al., 2023; Bush, 2018; De Simone & Franco, 2023; G. Wang et al., 2011). This ambiguity suggests that the real challenge may result from within the complex nature of the four dimensions of the theory, which often contribute to uncertainty and subjectivity when evaluating transformational leadership practices and behaviors (G. Wang et al., 2011).

Context Dependency

Another area of concern in transformational leadership surrounds the efficacy of the theory and its underlying dimensions, which may depend on organizational and situational conditions (Bush, 2018). Jaroliya and Gyanchandani (2021) posited the effectiveness of transformational leadership is contingent on the task's nature and the team's individual qualities. In such cases, transactional leadership behaviors may be more effective than transformational

leadership behaviors, especially in a dynamic and fast-paced environment that demands rapid decision making (Avolio et al., 1999; Berkovich & Eyal, 2019). This notion implies the applicability of transformational leadership is contingent on the specific circumstances and environment in which it is implemented. In other words, transformational leadership may be considered a situational leadership practice in which certain behaviors are used through a combination of other leadership styles (De Simone & Franco, 2023).

Limited Focus on Outcomes

Although transformational leadership is associated with favorable results, such as enhanced employee well-being and job performance, scholars contend the approach fails to consider potential adverse or negative effects (Bush, 2018; Khan et al., 2020; Kwan, 2020). Khan et al. (2020) asserted a singular emphasis on favorable results might ignore the possibility of burnout or social loafing among subordinates. When leaders ignore or remain unaware of the potential negative consequences of their transformational behaviors, they unknowingly contribute to less-than-favorable results and outcomes of an organization (De Simone & Franco, 2023).

Lack of Longitudinal Studies

The reliance on cross-sectional data in many studies on transformational leadership hampers the establishment of causation and the determination of the long-term effects of transformational leadership behaviors (Fareed et al., 2022). Longitudinal studies are crucial for comprehending the enduring influence of behaviors across time and are warranted to support the advanced understanding of transformational leadership (Higgins et al., 2022). Without longitudinal data, determining whether the beneficial impacts linked to transformational leadership are long-lasting or temporary is difficult (Alessa, 2021; Ravet-Brown et al., 2023).

Conclusion

Transformational leadership is a fundamental leadership theory regarding the influence of leadership behaviors on organizational results (Andersen, 1995), including teamwork, psychological safety, organizational commitment, and individual performance (Bush, 2018; Edmondson, 1999). The inception of transformational leadership theory can be attributed to Downton, Burns, and Bass, who made significant contributions to the development and growth of the theory in the late 1970s and early 1980s (Avolio et al., 1999). The MLQ created by Bass and Avolio in the 1980s was a breakthrough in assessing and comprehending transformational leadership and its dimensions. The frequently used MLQ for assessing transformational leadership has continued to influence research and the development of additional leadership measures, such as the multiscale FEVS (Fernandez et al., 2015; Orr & Leider, 2023). The FEVS is used to explore essential elements of transformational leadership that encompass the four core dimensions and their impact within the public sector context (Thompson & Siciliano, 2021).

Since the introduction of the theory of transformational leadership in the late 1970s, research in the field has increased to include an understanding of its practical implications and implementation in various industries and cultural settings (J.-K. Kim et al., 2023; Lai et al., 2020). Such research has examined the correlations between transformational leadership and variables such as trust, job satisfaction, OCB, and project performance (Al Marshoudi et al., 2023; Hapsari et al., 2021; Karimi et al., 2023). Today, the theory continues to demonstrate its relevance even in the midst of catastrophic events such as the global COVID-19 pandemic. During COVID-19, researchers investigated the leadership style and its influence on the well-being and safety practices of health-care professionals (Awais-E-Yazdan et al., 2023; De Simone & Franco, 2023). The studies found a positive impact on the mental health and well-being of

frontline health-care professionals battling the global pandemic (Awais-E-Yazdan et al., 2023; De Simone & Franco, 2023).

The unique behaviors and dimensions of transformational leadership, which encompass ethical role modeling or idealized influence, motivation through inspiration, innovation through intellectual stimulation, and personalized support through individualized consideration, have been linked to favorable results and outcomes for both followers and organizations (Dillon et al., 2023; Khan et al., 2020; H.-D. Kim & Cruz, 2022). The results include improved employee productivity, heightened job contentment and welfare, encouragement of organizational citizenship activity, and fostering trust and psychological safety within teams. Climates conducive to psychological safety have continued to emerge, suggesting a connection between transformational leadership behaviors and psychological safety in individuals, teams, and high-demanding organizations (Dillon et al., 2023; Edmondson, 1999; Frazier et al., 2017).

While transformational leadership theory is widely accepted, it is not without its criticisms and limitations (Alessa, 2021; Awais-E-Yazdan et al., 2023; Khan et al., 2020). Concerns regarding the theory include the absence of universality, excessive emphasis on leader charisma, difficulties in measurement of behaviors, dependence on context, and a restricted focus on potentially negative consequences (Higgins et al., 2022). Also, longitudinal studies, which have been deemed necessary to evaluate the long-term effects of transformational behaviors over time, are lacking (Fareed et al., 2022).

Research has shown that transformational leadership is a relevant theory for understanding the nuances of effective leadership (Kwan, 2020). Recognizing the importance of the theory and its intricacies and limitations helps to continue the application of the theory and improve its employment within multiple organizational and cultural contexts (De Simone &

Franco, 2023). As research in leadership theory continues to progress, the investigation of transformational leadership within high-demanding and stressful environments is expected to increase (Dillon et al., 2023; Mathende & Yousefi, 2021). The growth in results will enhance the much-needed understanding of leadership dynamics and behaviors across a variety of organizational contexts. Following is a discussion of the literature surrounding transformational leadership in the public sector.

Transformational Leadership in a Public Sector Context

Transformational leadership has become a crucial form of leadership for organizations, especially in the public sector (De Simone & Franco, 2023), because leaders in the public sector face distinct problems and expectations that require them to inspire and encourage their staff (Dillon et al., 2023; Fantus et al., 2022). The public sector has an internal struggle with a climate of government bureaucracy that cultivates a rigid hierarchical structure with low psychological safety (Miao et al., 2020). Public sector organizations are often found to not foster an open and transparent culture that is willing to listen to employees (Al Marshoudi et al., 2023; Edmondson, 1999; Karimi et al., 2023). Transformational leadership presents a unique opportunity through positive influence over followers within the highly demanding public sector (Mathende & Yousefi, 2021).

Transformational Leadership in Government Agencies

Transformational leadership is much needed in government agencies as it provides a dynamic leadership strategy that goes above and beyond standard bureaucratic concepts (Backhaus & Vogel, 2022). The theory of transformational leadership involves inspiring and motivating followers to accomplish above-average results by promoting a common vision, supporting innovation, nurturing intellectual development, and demonstrating personalized care

(Alessa, 2021). This leadership style is essential in government agencies due to the complex and ever-changing nature of public service (Mathende & Yousefi, 2021).

Impact on Organizational Performance

The ability of transformational leadership to create an impact on motivation and organizational performance is significant (Al Marshoudi et al., 2023; De Simone & Franco, 2023). Employees motivated by a common goal are more inclined to experience a feeling of meaning, which can result in higher levels of efficiency and devotion (Khan et al., 2020). In a meta-analysis of leadership styles within the public sector, Backhaus and Vogel (2022) examined the favorable results of transformational leadership on organizational performance. What was discovered is a connection between higher performance measures, heightened efficiency, and greater organizational effectiveness. This connection was found to be linked to the leadership behaviors exerted through transformational leadership (Backhaus & Vogel, 2022). The results suggest a prioritization of the dimension of intellectual stimulation can foster a mindset among employees that goes above and beyond traditional limits—in other words, exploration outside the status quo (Backhaus & Vogel, 2022). Findings of the study indicate that transformational leadership theory and the dimension of intellectual stimulation create the foundation for the implementation of change.

The ability to change and adjust to change is important when working in a bureaucratic government institution. This necessary adherence to change within government is found to be directly supported through aspects of transformational leadership (Dillon et al., 2023; Miao et al., 2020). Based on a culture of innovation, transformational leaders emerge as the catalyst to change by fostering an environment of innovation and continuous improvement. Alessa's (2021) systematic research of the dimensions of transformational leadership explored the aspects of

innovation and intellectual stimulation and how change is initiated through actions and attitudes of individuals. Although the study was conducted within the educational setting, findings revealed that transformational leaders fostered a perpetual state of learning backed by an innovative culture that can transcend across multiple disciplines and organizational contexts (Alessa, 2021).

Collaboration & Team Building

Transformational leaders demonstrate exceptional skills in promoting cooperation that fosters robust and unified teams (Chau et al., 2022). Transformational leadership establishes an atmosphere conducive to employee empowerment, idea sharing, risk taking, and organizational success by fostering trust, open communication, and collective problem solving (Andersen, 1995; Bush, 2018; J.-K. Kim et al., 2023). Using the dimensions of transformational leadership, government agencies can facilitate interdepartmental collaboration by dismantling rigid organizational barriers and fostering cross-functional teamwork (Armanu et al., 2023).

In a mixed-methods study, Chau et al. (2022) investigated the impact of transformational leadership on the performance of teams in public service organizations. The study was conducted in developing countries and did not include the United States. The researchers focused on the interventionist effects of New Public Management cultural orientations, which strive to improve efficiency that can overcome government forms of bureaucracy within the organization (Chau et al., 2022). Chau et al.'s study revealed that transformational leadership fosters teamwork and a broader organizational culture of openness. This culture promotes both a comprehensive and unified approach to tackling intricate problems. The study by Chau et al. highlighted the direct and indirect impacts of transformational leadership on organizational performance in a complex and high-demanding environment. As a result, the researchers concluded that transformational

leadership behaviors play a significant role in the public sector given the turbulent and high-demanding bureaucratic environment (Chau et al., 2022).

Enhancing Employee Engagement & Empowerment

Transformational leadership prioritizes the core pillar of individualized consideration (Kwan, 2020) due to its ability to acknowledge and appreciate the distinct talents and needs of every employee (Pradhan & Pradhan, 2015). The individualized approach cultivates a feeling of inclusion and enables employees to achieve their maximum capabilities (J.-K. Kim et al., 2023). Individualized consideration is crucial in a diverse workforce found within a government institution because this leadership behavior openly acknowledges and uses individual capabilities to achieve success (Tan et al., 2021).

Karimi et al. (2023) investigated transformational leadership and innovative work behaviors using a quantitative methodology. The study revealed the strong mediating effect of employee psychological capital and the connection between transformational leadership and innovation. The researchers emphasized the impact of transformational behaviors on empowering people (Karimi et al., 2023). Karimi et al. asserted that empowerment is accomplished due to enhanced psychological resources, which then contributes to higher levels of engagement and satisfaction in the workplace. The results from the study indicate that when employees are given authority and autonomy, backed by openness, they become more inclined to engage in their tasks (Karimi et al., 2023). Furthermore, employees assume a higher level of responsibility in the process.

Openness and the ability to engage without fear unlocks a commitment from within. When employees feel a sense of openness and a lack of fear to speak up, they become more willing to offer creative suggestions that commit to organizational objectives (Edmondson,

1999). The positive results are empowerment and psychological safety, which create a heightened sense of job contentment that leads to greater involvement from the bottom up (B. J. Kim et al., 2019). The existence of a safe space to speak up and individual empowerment are crucial for maintaining exceptional performance within government organizations and teams (Edmondson & Bransby, 2022; Karimi et al., 2023).

Overcoming Resistance to Change

Government agencies frequently encounter opposition to change due to the bureaucratic characteristics of their organizational structure and policies (Dillon et al., 2023; Fantus et al., 2022). Transformational leaders help overcome resistance to change by constructing a strategic vision for the future that can successfully communicate the advantages of change (Bass, 1985; Ravet-Brown et al., 2023). Having this ability to recognize the advantages of change are both inspiring and motivating for others and a direct contribution of transformational leaders. Furthermore, transformational leaders cultivate a sense of urgency and enthusiasm for adopting new approaches (J.-K. Kim et al., 2023) through the traits of inspirational motivation that compel individuals to go above and beyond what is expected of them.

Adopting change is a process whereby proactive involvement can bring satisfaction based on the results. Kao et al. (2023) examined the relationship between perceived organizational support, OCB, and the influence of volunteer involvement backed by motivation. Their research demonstrated that transformational leaders effectively reduced resistance to change by engaging employees in decision making and open feedback (Kao et al., 2023). The findings support the belief that transformational leadership fosters a sense of ownership and dedication toward the proposed changes within an organization.

Challenges & Considerations

Although transformational leadership has significant potential for a government institution, it is not exempt from challenges and limitations (Alessa, 2021; Awais-E-Yazdan et al., 2023; Khan et al., 2020). The public sector is commonly defined by bureaucratic frameworks, stringent laws, and a risk-averse ethos, all of which become challenging when adopting transformational leadership fundamentals (Awais-E-Yazdan et al., 2023; Backhaus & Vogel, 2022). The employment and efficacy of transformational leadership is contingent on the congruence between the values held by leadership within the organization and the values of the organization itself (De Simone & Franco, 2023; Jaroliya & Gyanchandani, 2021).

Government agencies often face difficulties in maintaining consistency in leadership ideology due to the frequent political transitions and changes in leadership structure (Backhaus & Vogel, 2022). Within the public sector, the effectiveness of transformational leadership relies on the cultivation of leadership abilities across all tiers of the organization (Ku et al., 2022; Mathende & Yousefi, 2021). According to Backhaus and Vogel (2022), to fully benefit from the transformational leadership approach, senior leaders as well as midlevel and frontline managers must adopt and exemplify transformational attributes and behaviors.

Case Study: Transformational Leadership in Singapore's Public Service

An exemplary case study of effective transformational leadership in government can be found in Singapore's public sector. Exploring Singapore's remarkable journey from a developing nation in the 1960s to a global economic powerhouse today provides a testament to the power of visionary leadership (Luo et al., 2020; Tan et al., 2021). The basis of Singapore's success lies in the unwavering commitment to transformational leadership within public service that has helped catapult the nation onto the world stage (Tan et al., 2021).

The revolution that brought about the success of Singapore today emerged from transformational behaviors implemented by the country's founding father and first prime minister, Lee Kuan Yew (Tan et al., 2021). Yew earned widespread praise for his distinctive approach that inspired sweeping changes and a system built on meritocracy (Asmawi & Fulazzaky, 2021; Rajaram, 2023). This system quickly emerged as one that both recognized and rewarded individual ambition. The persistence by Yew to achieve high standards has had a long-lasting impact on the public service sector in Singapore (Hapsari et al., 2021; Kao et al., 2023). Today, the application of transformational leadership in public governance has served as a model for countries such as Indonesia and Taiwan, which have implemented this approach to meet their public sector needs. As a result of transformational leadership, Singapore and the associated government agencies were established with a strong emphasis on innovation and the efficient and timely fulfillment of citizen requirements (Luo et al., 2020).

To build on the success of Yew in the Singapore public sector, researchers continue to explore the results of transformational leadership witnessed throughout Singapore (Luo et al., 2020; Tan et al., 2021). In a quantitative exploration by Luo et al. (2020), the specific components of transformational leadership that had a role in Singapore's achievements were analyzed. The authors focused on investigating the connections between transformational leadership and the outcomes of public school teachers in Singapore, which involved an examination of the mediating effects of mastery goals and self-efficacy (Luo et al., 2020). The results from the research provided insight into how these elements enhance the influence of transformational leadership within the public sector (Luo et al., 2020). The research is both significant and important to understanding behavior and self-confidence as crucial processes by which transformational leaders achieve favorable results and outcomes (Luo et al., 2020).

In a similar study of successful leadership behaviors in the public sector, Tan et al. (2021) examined the connection between transformational leadership and innovative work behavior. The researchers focused their investigation on how transformational leaders encourage innovation through support mechanisms that create a culture of preparedness and open voice (Tan et al., 2021). In the study, the authors highlighted the significant impact of transformational leadership in promoting an innovative environment within the public service in which everyone is allowed to contribute and voice their concerns (Tan et al., 2021). The focus on innovation and the results Tan et al. revealed aligned with Singapore's path to a dominant global economic force. The positive outcome of transformational leadership in Singapore's public sector emphasizes the practical impact of this leadership approach in achieving positive results within the public sector (Luo et al., 2020; Tan et al., 2021).

While the Singaporean public sector has emerged globally because of the achievements of Yew's transformational behaviors, it is the consistently adopted and assimilated dimensions of transformational leadership throughout successive cohorts of executives in government that continue to contribute to the success (Asmawi & Fulazzaky, 2021; Luo et al., 2020; Rajaram, 2023; Tan et al., 2021). Government agencies aggressively promote the emulation of Yew's legacy by encouraging leaders to inspire and motivate their staff (Tan et al., 2021). The public service cultivates a culture that promotes ongoing learning and enhancement, guaranteeing its ability to adapt and respond to the changing requirements of the population and uncertain events (Asmawi & Fulazzaky, 2021; Zahari & Kaliannan, 2022).

Following the case study and example set by Yew, government agency leaders in Singapore continue to encourage and prioritize efforts to deliver high-quality public services (Asmawi & Fulazzaky, 2021). This effort maintains an ongoing commitment to excellence

exemplified by transformational leadership behaviors (Xu et al., 2022). Through behaviors consistent with transformational leadership and the dimensions of the leadership theory itself, Yew showed that, in the public sector context, transformational leadership has a profound impact (Tan et al., 2021).

Due to the increased desire to understand transformational leadership in a rigid and high-demanding organization, the focus on developing leadership skills has become fundamental in the context of government agencies and the public sector (Dillon et al., 2023; Fantus et al., 2022). As evident in existing research, transformational leadership is both achievable and beneficial in the government and public sector, as presented by the case study of Singapore and its founding prime minister, Lee Kuan Yew (Luo et al., 2020; Rajaram, 2023; Tan et al., 2021). This example demonstrates that public institutions, even those shaped by bureaucracy and hierarchy, can implement visionary leadership to achieve long-term national development.

Public Sector Aspects That Influence Transformational Leadership & Outcomes

Transformational leadership, an approach characterized by inspiring change and motivating followers to go beyond their own interests for the good of the group, has garnered significant attention across various organizational contexts (Bass, 1985; G. Wang et al., 2011). The growing interest within the public sector presents a unique set of challenges as well as opportunities to highlight the direct influence leadership behaviors can have on organizational outcomes (Alessa, 2021; Awais-E-Yazdan et al., 2023; Khan et al., 2020). The public sector environment, marked by political dynamics, bureaucratic structures, and a strong public service ethos, plays a pivotal role in shaping the future effectiveness and approach of transformational leadership and its associated behaviors (Northouse, 2018). Unlike the private sector, leaders in the public sector navigate demanding and complex environments in which decisions are deeply

intertwined with social welfare, ethical standards, and a commitment to serving the public (Awais-E-Yazdan et al., 2023; Backhaus & Vogel, 2022). The government and public sector necessitates a leadership approach that is not only visionary and inspirational but also grounded in ethical principles (Avolio et al., 1999; Bass, 1985). This approach allows government organizations to remain responsive to the diverse needs and expectations of the public.

Research and theoretical insights reveal a need for comprehensive understanding of the complex interplays of transformational leadership, especially within the public sector context (Backhaus & Vogel, 2022; Hapsari et al., 2021). To achieve this objective, following is a discussion of the different aspects of the public sector environment and how they impact the evolution and effectiveness of transformational leadership. First up for discussion are the political dynamics inherent within a public sector organization, followed by bureaucratic structures, public service ethos, accountability and transparency, and the sociopolitical environment.

Political Dynamics

The public sector is characterized by an inherent political aspect and high-demanding structure that is built using a hierarchical foundation (Awais-E-Yazdan et al., 2023; Backhaus & Vogel, 2022; Fantus et al., 2022). In contrast to the private sector, in which leadership decisions focus on generating profits and increasing shareholder value, public sector leaders function within a bureaucratic setting that involves various levels of stakeholders often with conflicting interests and competing goals (Backhaus & Vogel, 2022). The bureaucratic environment within many public sector organizations significantly influences the manifestation of transformational behaviors and their effects on the organization (Chau et al., 2022).

Leaders in the public sector who desire to bring about change must often negotiate intricate political networks (Fantus et al., 2022). This task requires frequent engagement with elected politicians, special interest groups, and the public. Public sector leaders must skillfully align their visions with political goals while at the same time promoting the welfare of the people (Bass, 1985; J.-K. Kim et al., 2023). This unique approach requires a disciplined equilibrium that leverages the fundamental pillars of transformational leadership to positively shift the culture and climate of the organization (Al Marshoudi et al., 2023; Awais-E-Yazdan et al., 2023). The visionary component of transformational leadership becomes important in effectively expressing a compelling vision that aligns with various political factors that can shape the organization and provide positive results (Berkovich & Eyal, 2019).

Political factors have a direct impact on the stability of leadership positions within government (Fantus et al., 2022). The frequent turnover of politically appointed leaders can interrupt the ongoing progress of transformational projects, which highlights the importance of being agile, especially during political transitions and turnovers (Bainade et al., 2023; De Simone & Franco, 2023; Fantus et al., 2022). Due to the political nature of a public sector organization, the ability of transformational leaders to endure political shifts and uphold a consistent vision is crucial for long-term efficiency and organizational continuity (Berkovich & Eyal, 2019).

Bureaucratic Structures

The hierarchical and rigid bureaucratic structure of a public sector organization can both positively and negatively affect transformational leadership behaviors (Dillon et al., 2023; Fantus et al., 2022). The bureaucratic aspects of government routinely hinder swift execution of innovative ideas and suppress reformative initiatives due to a lack of openness and psychological safety (Backhaus & Vogel, 2022; Chau et al., 2022). Government bureaucracies unknowingly

limit psychological safety and employee engagement due to policies and procedures that are counterproductive to innovation, change, and positive organizational outcomes (Ku et al., 2022; Mathende & Yousefi, 2021). Breaking through the bureaucracy is necessary to foster a climate of psychological safety and openness; otherwise, the opposite will take effect. When proper leadership behaviors, such as transformational leadership, are not practiced in government organizations, failure to foster psychological safety can negatively impact organizational culture, weaken organizational climate, and perpetuate organizational silence (Dillon et al., 2023).

Given the environment within public sector organizations, transformational leaders must adeptly negotiate bureaucratic layers that impede the efficiency of the decision-making process (Alhashedi et al., 2021). As evident in public sector research, transformational leadership behaviors are directly linked to motivation and loyalty that result in higher levels of efficiency and devotion (Backhaus & Vogel, 2022; Khan et al., 2020). Research indicates heightened efficiency and greater organizational effectiveness are linked to leadership behaviors exerted directly through the dimensions of transformational leadership (Backhaus & Vogel, 2022).

Although public sectors are based on a rigid hierarchical foundation, the structure provides systematic opportunity for transformational leaders to influence the entire organization (Ku et al., 2022). Using the hierarchical conduit of delivery, transformational leaders are positioned to exert charismatic and inspirational behaviors that can spread throughout different levels of an organization, cultivating a collective vision and dedication to achieving organizational objectives (Backhaus & Vogel, 2022). Through personalized support, or the individualized consideration pillar of transformational leadership, leaders are able to comprehend the distinct obstacles encountered by various organizational units and individuals by adapting their transformational endeavors accordingly (Kwan, 2020; Pradhan & Pradhan, 2015).

Public Service Ethos

The public sector functions with a unique set of principles focused on providing a public service and promoting the welfare of society (Hapsari et al., 2021). Government agencies require transformational leaders who can effectively synchronize their vision with the overarching objective of serving the public interest (Backhaus & Vogel, 2022). In the transformational leadership approach, leaders are uniquely compelled by their intrinsic dedication to public service beliefs, which in turn impacts their behaviors (Berkovich & Eyal, 2019).

Within the public sector, transformational leaders are required to prioritize the needs of the public and society at large (Awais-E-Yazdan et al., 2023; Backhaus & Vogel, 2022). The focus on personalized attention extends beyond the scope of a business organization to include the varied requirements and anticipations of the public (Zahari & Kaliannan, 2022). Leaders must actively engage with stakeholders, including the public, to ensure the transformational initiatives align with the wider community's expectations and values (Berkovich & Eyal, 2019). Because the public service ethos enhances the ethical aspect of leadership, transformational leaders in the public sector are expected to adhere to rigorous ethical standards due to their responsibility for managing public resources and making decisions that significantly influence society (Hapsari et al., 2021). The components of inspiring motivation and moral reasoning in transformational leadership play a crucial role in cultivating an ethical organizational culture (Burns, 1978; Kwan, 2020).

Accountability & Transparency

Public sector organizations adhere to a higher degree of accountability and transparency in comparison to their private sector counterparts (Zahari & Kaliannan, 2022). Transformational leaders bear responsibility not just for attaining organizational objectives but also for

guaranteeing that these objectives are in harmony with public expectations that are pursued transparently (Backhaus & Vogel, 2022). The accountability factor in the public sector brings about a level of examination that can impact the propensity for risk taking among transformational leaders (Chau et al., 2022). While transformational leadership promotes innovation and ambitious initiatives, leaders in the public sector tend to be more cautious because they are aware of the possible negative outcomes of failure in a highly visible and accountable context (Hapsari et al., 2021).

Transformational leaders must skillfully balance the imperative for innovation and the pressure to avoid perceived failures (Berkovich & Eyal, 2019). Likewise, because transparency standards impact the communication methods employed by transformational leaders, ensuring that a proper understanding of the dimensions of transformational leadership is absorbed becomes increasingly important (Zahari & Kaliannan, 2022). Through the transformational leadership dimensions, leaders ensure that openness, communication, risk taking, innovation, and transparency, commonly found within a psychologically safe climate, are invoked (Al Marshoudi et al., 2023; Edmondson, 1999; Karimi et al., 2023). The transparent and inspiring communication style inherent within transformational leadership aligns with the expectations for open communication in the public sector (Berkovich & Eyal, 2019). As evident in the literature, leaders must strike a delicate balance between openness and the necessity to handle information in a manner that is consistent with the objectives of mitigating possible hazards and achieving organizational success (Dillon et al., 2023; L. Zhang et al., 2022).

Sociopolitical Environment

Transformational leadership has a complex relationship with the sociopolitical environment in which it functions (Ku et al., 2022; Mathende & Yousefi, 2021). Public sector

leaders are required to navigate a constantly evolving landscape that can shift due to public opinion, developing societal concerns, and adherence to emerging policy or agendas (Berkovich & Eyal, 2019). Based on the research, transformational leaders must exercise a keen sense of awareness to societal demands and be capable of addressing unforeseen obstacles (Berkovich & Eyal, 2019; Chau et al., 2022).

For leaders in the public sector context, modifying the organization's vision based on change and demand is essential (Zahari & Kaliannan, 2022). This ability is important to address urgent societal needs and at the same time remain relevant and effective in a high-demanding environment (Armanu et al., 2023). To be effective in their roles, leaders must consistently engage with external stakeholders and incorporate feedback into organizational initiatives (Backhaus & Vogel, 2022). Leaders who fail to consistently engage with external stakeholders and incorporate feedback into organizational initiatives will fall behind in their ability to effectively respond within the sociopolitical environment.

The changes within the sociopolitical climate influence the public's perception of trust and therefore must be factored into the leadership and decision-making process of a public sector organization (Chau et al., 2022). To be successful in the public sector, leaders must exemplify the principles of transparency, inclusiveness, and responsiveness (Al Marshoudi et al., 2023; Iqbal et al., 2023). These principles allow leaders to earn the public trust and endorsement of their decisions. In the sociopolitical environment, transformational leaders must remain aware of how the public perceives them (Zahari & Kaliannan, 2022). Doing so allows for the conscious establishment of trust that remains upheld through leadership actions and transparent behaviors.

Conclusion

Transformational leadership emerges as a pivotal and efficient approach within the public sector, adeptly navigating the inherent complexities and unique challenges of government institutions (De Simone & Franco, 2023). The interplay of political dynamics, bureaucratic structures, public service ethos, demands for accountability and transparency, and ever-evolving sociopolitical landscape critically shape the behaviors and outcomes of leadership (Backhaus & Vogel, 2022; Berkovich & Eyal, 2019). The profound impact of transformational leadership on performance within the organization underscores the importance of fostering collaboration, team cohesion, employee engagement, and individual empowerment (Kwan, 2020; Pradhan & Pradhan, 2015). Visionary communication and a participative decision-making process help to address the bureaucratic resistance to change in the public sector (Chau et al., 2022).

The illustrative case study of Singapore's public sector under Yew's leadership exemplifies the transformative potential of transformational leadership in which remarkable economic and organizational milestones were achieved in the government sector (Luo et al., 2020; Tan et al., 2021). The Singapore model and exemplary case study represent the enduring influence of transformational behaviors on a culture of excellence and innovation within government agencies (Asmawi & Fulazzaky, 2021; Rajaram, 2023). Within the example can be found both the challenges of political volatility and the necessary strategic application of transformational leadership principles anchored in ethical integrity and leadership transparency (Hapsari et al., 2021; Zahari & Kaliannan, 2022). Through proper application of the dimensions of transformational leadership, leaders can effectively foster an ethos that prioritizes the collective welfare commonly found within government (Northouse, 2018). This leadership

approach can help to establish the core values of public service that are necessary for public trust.

In summary, transformational leadership is essential for the effective stewardship of public sector entities amidst a growing web of contemporary societal challenges (Mathende & Yousefi, 2021). Not only does transformational leadership provide government agencies with the leadership acumen to spearhead innovation and enhance collaborative efforts, but it also delivers leadership that fosters quality public services in response to dynamic societal needs and high-demanding situations (Asmawi & Fulazzaky, 2021). As the public sector continues to evolve within a complex sociopolitical environment, the foundational dimensions of transformational leadership remain important for achieving sustained organizational excellence and a profound societal impact (Backhaus & Vogel, 2022).

Psychological Safety

Organizational psychologists increasingly recognize psychological safety as pivotal in workplace effectiveness (Hunt et al., 2021). While Edmondson brought this concept to light, her insights have sparked a deeper investigation into how teams develop the collective confidence to voice thoughts without fear of backlash or punishment (Edmondson, 1999; Edmondson & Bransby, 2022). As a result, this social concept, supported by a belief of openness and safe space within the workplace, has revealed outcomes that can foster efficient cooperation, collaboration, and organizational success (Chin et al., 2023). When psychological safety takes root, it transforms workplace dynamics and people begin sharing candid feedback, raising difficult questions, and contributing through novel ideas that might otherwise remain unspoken (Karimi et al., 2023).

Building on Edmondson's (1999) foundational research and findings, *psychological safety* is defined as a shared belief among team members about the security of interpersonal risk taking. This collective understanding proves fundamental as it determines whether teams develop environments in which members willingly engage with challenging interpersonal dynamics and, as a result, value such engagement (Higgins et al., 2022). The growing organizational emphasis on psychological safety has pushed researchers to dig deeper, examining its core dimensions and the specific conditions that help it emerge and persist (Edmondson, 1999; Frazier et al., 2017).

Dimensions of Psychological Safety

Research reveals psychological safety as a complex web of interconnected dimensions that create environments in which people feel safe, secure, and supported (Fyhn et al., 2022). At its core lie several essential components of psychological safety, including trust, open communication, risk taking, innovation, feedback and learning, inclusivity, empowerment, and adaptability commingled with resilience (Edmondson & Lei, 2014; Frazier et al., 2017; Kahn, 1990). Each building block of psychological safety shapes whether people feel genuinely safe and secure to express their authentic selves (Edmondson, 1999). The strength or weakness of any of these aspects profoundly affects how deeply employees engage, how freely they create, and how well they perform (Edmondson, 1999; Hernandez et al., 2015).

Trust

Trust stands at the forefront of psychological safety; without it, the entire concept dissolves (Edmondson & Lei, 2014). When team members and leaders build genuine confidence in each other, they naturally begin to share their authentic thoughts and perspectives (Fyhn et al., 2022). This trust grows through consistent communication, reliability, and demonstrated

integrity (Fareed et al., 2022). Trust creates a stable base that lets people take interpersonal risks without fear of negative consequences (Frazier et al., 2017; Kahn, 1990).

Studies consistently highlight that trust in leadership particularly shapes team psychological safety (Hunt et al., 2021; J. Yin et al., 2020). Teams who trust their leaders more readily voice concerns, propose innovative solutions and offer constructive feedback (Edmondson & Lei, 2014). Yet this dynamic reaches beyond leader–team relationships and permeates peer interactions throughout the organization (Fareed et al., 2022). As colleagues develop mutual trust, they engage more openly, building relationships that power effective teamwork (J.-K. Kim et al., 2023).

Trust fundamentally alters how people perceive workplace vulnerability, breaking down the barriers that typically prevent open dialogue and calculated workplace risk (Edmondson, 1999). Within trusted environments, team members show greater willingness to acknowledge mistakes, seek guidance from others, and participate in continuous learning—all genuine characteristics of psychological safety (Edmondson & Lei, 2014). Organizations that prioritize trust-building initiatives, such as transparency in decision-making processes and consistent follow-through on commitments, are better positioned to cultivate a climate of psychological safety that supports employee engagement and performance (H. F. Wang et al., 2021).

Open Communication

When organizations commit to open dialogue across all levels, they create natural pathways toward psychological safety (Miao et al., 2020; L. Zhang et al., 2022). People begin voicing authentic thoughts, concerns, and questions because they trust that the environment is free of backlash for speaking up (S. Kim et al., 2020). Leaders play a crucial role in this

evolution by staying accessible, providing thoughtful feedback, and demonstrating fundamental listening skills (Eldor et al., 2023).

Displaying a genuine commitment to open communication is the first step for any organization that desires innovation and problem solving in the workplace (Miao et al., 2020). As people gain confidence in sharing their diverse viewpoints in an open forum, decision making improves due to the increase in rich perspectives (Awais-E-Yazdan et al., 2023). Teams who welcome diverse views and unique perspectives naturally evolve and achieve substantial and innovative results (S. Kim et al., 2020). During this evolution, the traditional barriers to communication begin to subside and a robust collaborative space develops across the organization (Bainade et al., 2023). The result is an increase in knowledge and improved results.

Research reveals that organizations with policies promoting open communication achieve higher levels of engagement and increased workplace satisfaction (Al Marshoudi et al., 2023; Karimi et al., 2023; Kwan, 2020). This result occurs because open communication creates a sense of transparency and inclusion that brings a feeling of safety (L. Zhang et al., 2022). In this safe space, employees feel valued and respected and therefore want to contribute more. Open communication helps to align individual goals with organizational objectives and in turn creates a shared sense of purpose (Karimi et al., 2023). For organizations and leadership, promoting open communication requires more than just encouraging employees to speak up (Backhaus & Vogel, 2022), it requires a commitment to eliminating barriers through collaborative processes that facilitate the transfer of information (Chin et al., 2023). This open communication includes vertical and horizontal channels within the organization through which people communicate.

Organizational leadership plays a pivotal role in cultivating open communication (S. Zhang et al., 2021). By displaying the aspects of open and honest communication, leaders set the

tone for the entire organization (H. F. Wang et al., 2021). This open communication requires leadership behaviors that project transparency in the decision-making process, allows for admitting mistakes, and actively seeks input from team members at all levels (Tafvelin et al., 2023). Leaders who create opportunities for dialogue using means such as town halls or open-door policies contribute to a culture of open communication that strengthens psychological safety (Zaman & Abbasi, 2020).

Risk Taking & Innovation

A workplace climate dedicated to the principles of psychological safety can foster an optimal environment for risk taking and innovation (Higgins et al., 2022). When employees experience a feeling of psychological safety within the workplace, they begin to engage by taking calculated risks that stimulate new ideas (Awais-E-Yazdan et al., 2023). The ability to take risks is a direct benefit that results from a climate of psychological safety (Miao et al., 2020). This risk-enabled behavior becomes especially important for organizations, such as those in the health-care and technology industries, in which innovation is considered the catalyst for success.

The relationship between psychological safety and risk taking can be viewed as mutually beneficial (Al Marshoudi et al., 2023; Edmondson, 1999). The two evolve from each other and grow together, meaning that, while psychological safety encourages risk taking, taking risk acts as a stimulant to an environment in which innovation is encouraged. In other words, taking risks and receiving constructive feedback to failures can reinforce the perception of psychological safety within the team (Edmondson & Lei, 2014). The ability to take risks creates a safe and positive cycle in which innovation becomes ingrained within the organizational culture (Miao et al., 2020). Encouraging a risk-taking environment built on psychological safety allows

employees to not only propose a novel solution but also challenge an ordinary view by experimentation that thinks outside the box (Frazier et al., 2017).

The art of innovation within a climate of psychological safety extends beyond product or service development (Cao & Zhang, 2020; Miao et al., 2020). Innovation manifests through process improvements, new management approaches, and creative solutions to organizational challenges. When employees feel safe to take risks, they engage in innovation and are more willing to accept failure as part of the learning process, in which calculated risks are acknowledged and encouraged (Edmondson, 1999). The process of strategic risk taking promotes strength during times of failure and creates valuable learning opportunities for organizational growth (Kwan, 2020).

Creating a culture of innovation and risk taking demands more than just encouragement (J.-K. Kim et al., 2023). Leaders must create spaces, backed by processes, that support and reward innovative behavior and calculated risk (Asmawi & Fulazzaky, 2021; Rajaram, 2023). Supporting a culture of innovation and risk taking includes allocating resources for experimentation and implementing fair evaluations of new ideas (H. F. Wang et al., 2021). Encouraging such a culture also involves celebrating both employee successes and failures in a constructive way that promotes growth rather than discouragement.

In the context of psychological safety, risk taking is not reckless or uncontrolled (Higgins et al., 2022). Risk taking involves creating an environment in which employees feel secure enough to propose and pursue calculated risks (Awais-E-Yazdan et al., 2023). Employees willfully contribute to the organization when they recognize that their efforts and risk taking will be supported and that potential failures will be viewed as learning opportunities rather than reasons for punishment (Kwan, 2020). Creating a balanced approach to risk and innovation,

rooted in psychological safety, can significantly enhance an organization's ability to adapt and grow in a rapidly changing global environment (Backhaus & Vogel, 2022). The support for risk taking is important in the overarching belief of learning within the organization and provides value through a safe environment that allows individuals to openly share what has been learned from the process of taking calculated risks (Awais-E-Yazdan et al., 2023; Edmondson, 1999; Senge, 1990).

Feedback & Learning

Constructive feedback is a crucial component of fostering psychological safety (Kao et al., 2023). Employees and team members must feel comfortable in providing and receiving feedback to promote ongoing learning and enhancement (H.-D. Kim & Cruz, 2022). According to H. F. Wang et al. (2021), to foster and sustain psychological safety, leaders must cultivate a culture and climate in which feedback is viewed as a means for personal and professional development rather than as a form of criticism.

The feedback and learning dimension of psychological safety is closely related to the concept of a *learning organization* (Senge, 1990). Senge (1990) explained a learning organization is one in which people expand their knowledge capacity to create desired results. An organization that invokes the fundamentals of a learning organization builds on new and extensive modalities of thinking and nurtures them as collective aspirations that are set free (Senge, 1990). In a learning organization, especially one built on the foundation of psychological safety, feedback is not just tolerated but actively sought out and valued (Edmondson, 1999). The result is a continuous and holistic loop of learning and improvement (Frazier et al., 2017; Senge, 1990). This approach aligns with the core principles of psychological safety, in which individuals feel safe to take risks, make mistakes, and learn from them (J.-K. Kim et al., 2023).

Organizations that foster strong feedback experience more innovation, deeper engagement, and better results (Frazier et al., 2017). Teams who feel psychologically safe naturally embrace group learning through after-action reviews or project debriefs that build a collection of lessons learned (Edmondson & Lei, 2014). These organizational modes of feedback and learning practices allow teams to reflect on their successes and failures and then apply those insights to future projects in an adaptive capacity (Bainade et al., 2023).

Leaders play an important role in fostering feedback and learning by modeling the way through desired behaviors (Karimi et al., 2023; Zaman & Abbasi, 2020). This process can include actively seeking feedback or creating formal structures that encourage learning. Creating a culture of feedback and learning requires a mindset shift across the organization (Awais-E-Yazdan et al., 2023) and must start with leadership and a desire to create a culture built on curiosity and continuous improvement, in which value is not ranked based on perfection or avoidance of blame. Building a culture of curiosity brings about learning and feedback in a way that becomes integral to the success of the organization (H. F. Wang et al., 2021).

Inclusivity

The feeling of psychological safety and the inclusive nature of organizational culture are closely connected (Kwan, 2020). This connection begins with the inclusion of individuals from different backgrounds and viewpoints, which can foster a sense of value within a team (Edmondson, 1999; Plouffe et al., 2023). Cultivating the mindset of inclusion is critical to promoting creativity and mitigating the effects of groupthink (Crivelli & Balconi, 2023).

The perception of psychological safety and feeling of inclusivity go beyond the visual diversity or makeup of a team (Plouffe et al., 2023). Inclusivity exists when everyone feels that their unique perspectives and contributions are valued and respected to the point that they

actually belong (Nembhard & Edmondson, 2006). This sense of belonging encourages an expression of one's authentic self, which enhances team creativity and innovation (Randel et al., 2018). When individuals feel psychologically safe to share their unique perspectives, the fear of marginalization subsides and the performance of the team improves (Backhaus & Vogel, 2022).

To instill a sense of belonging within a team, leaders must prioritize inclusive policies and actively challenge biases (Nishii, 2013; H. F. Wang et al., 2021). This ability includes modeling the way by demonstrating inclusive behaviors so that people can thrive. Creating an inclusive environment is an ongoing process that requires regular assessments with a willingness to make necessary changes (Karimi et al., 2023). By prioritizing inclusivity as a key dimension of a psychologically safe culture, organizations foster a work environment that supports individual well-being and employee success (Awais-E-Yazdan et al., 2023). Such an environment empowers employees and shows genuine concern for their professional development and growth.

Empowerment

Psychological safety is strongly connected with the feeling of empowerment (Edmondson & Lei, 2014). When employees are given the authority to make decisions and actively contribute to organizational objectives, it improves their perception of psychological safety (Hapsari et al., 2021; Jaroliya & Gyanchandani, 2021). Leaders foster empowerment by granting individuals authority and acknowledging their contributions to the team (Karimi et al., 2023).

Viewed through the lens of psychological safety, empowerment requires an environment in which employees feel confident in their abilities to influence meaningful outcomes through their work (Bush, 2018; J.-K. Kim et al., 2023). When employees believe in the value of their contributions, they push past their comfort zone and bring new ideas forward without fear of

adverse reactions (Frazier et al., 2017). Research posits that employees who feel a sense of empowerment voice their thoughts more often, even during stressful situations (Dillon et al., 2023; Ilyas et al., 2021). Seeing employees speak up without fear of retaliation is a clear sign to leaders that employees are confident in their psychological safety and mental well-being.

To enable employee empowerment, leaders must provide the necessary resources to support and cultivate a sense of autonomy in the workplace (Armanu et al., 2023). Empowering employees requires that autonomy and empowerment remain balanced with appropriate guidance to avoid anxiety and uncertainty that might undermine psychological safety (Hapsari et al., 2021; Plouffe et al., 2023). Leaders must also find the right balance in establishing the psychological dimension of empowerment (Edmondson & Bransby, 2022; Nembhard & Edmondson, 2006). Empowering employees also means communicating clear expectations to employees and creating a safe space in which initiative and proactive decision making are encouraged and celebrated.

Adaptability & Resilience

Workplace behaviors that are psychologically safe promote the development of adaptability and resilience within the organization (Bainade et al., 2023). When employees feel supported by their team, they become inclined to assume new duties or adapt when necessary (Fyhn et al., 2022). The dimension of adaptability and resilience in psychological safety is crucial in maneuvering through the rapidly evolving environment (Backhaus & Vogel, 2022). With change occurring globally at a rapid pace and new organizational designs constantly developing, adaptability and resilience are necessary within the culture and psychological safety of the organization.

In a psychologically safe environment, employees are more likely to view change as an opportunity rather than a threat (Edmondson & Lei, 2014) because psychological safety enables

openness and trust, which directly contribute to adaptability and resilience within the workplace. Adaptability is vital for organizations that face uncertain and complex challenges (Frazier et al., 2017). Likewise, psychological safety enhances resilience by providing a supportive environment in which individuals feel comfortable taking risks (Awais-E-Yazdan et al., 2023).

A leader who fully supports the process of taking risks enables their team to build resilience during change and the unknown (Frazier et al., 2017; Kahn, 1990). Leaders who help their teams face uncertainty head-on create spaces in which people naturally pursue learning and feel psychologically safe (B. J. Kim et al., 2019; Senge, 1990). To remain successful, leaders must establish a climate supported by psychological safety so the organization can adapt to industry changes in a complex world (Baran & Woznyj, 2021; Edmondson & Lei, 2014).

Psychological Safety Climate

A team will experience a climate of psychological safety when everyone believes they can speak up and take risks without facing negative consequences (Edmondson, 1999). This shared understanding extends outside the workplace and shapes how people communicate and work together in everyday life (Fyhn et al., 2022). Research reveals that teams excel when they feel secure in taking interpersonal risks (Edmondson & Bransby, 2022). A climate of psychological safety is more than establishing a personal feeling of safety, it is a collective awareness in which the organizational culture is rooted in transparency and open communication (Hunt et al., 2021), a climate in which everyone feels safe.

In a climate of psychological safety, trust and social interaction are highly valued (Chin et al., 2023; Edmondson, 1999). This established trust and social engagement encourage employees to express their thoughts and opinions freely (Fyhn et al., 2022). The environment promotes openness and minimizes communication obstacles. Within a climate of psychological

safety, constructive feedback is expected and serves as a gauge of progress in which mistakes are viewed as opportunities for learning (Tu et al., 2019). According to S. Kim et al. (2020), feedback and learning are essential in the development of a psychologically safe climate. Leadership support is also crucial to a psychologically safe climate because leaders establish the atmosphere and set the tone (Higgins et al., 2022).

Inclusivity and diversity are aspects in organizations that prioritize and actively encourage the acceptance and respect of individuals from all backgrounds (Awais-E-Yazdan et al., 2023). Maintaining a level of diversity and inclusivity is important because it promotes trust and respect, which are aspects of psychological safety. Trust and respect within an organizational climate create safe interpersonal connections that are necessary for risk taking and psychological safety (J. Yin et al., 2020; L. Zhang et al., 2022). When interpersonal trust is built within a team, a shared belief emerges to signal that team members genuinely prioritize each other's well-being (Plouffe et al., 2023). This component of psychological safety highlights the significance of mutual respect for differing opinions even when in the midst of conflict (Fyhn et al., 2022).

The promotion of risk taking and respectful conflict resolution is prioritized in a climate in which employees feel comfortable in questioning existing norms (Karimi et al., 2023). Effective conflict resolution is also important in a climate of psychological safety because it necessitates the implementation of well-defined procedures to resolve disagreements in a manner that is equitable and fair (Zhu et al., 2019). An open and respectful approach toward conflict fosters employee trust within the process and the belief that all conflicts will be mediated. A well-implemented process can result in a climate that encourages open communication for resolving conflicts in a safe and fair setting (Fyhn et al., 2022).

Establishing a climate of psychological safety is important for organizations that value employee well-being and respectful collaboration in the workplace (Armanu et al., 2023). By prioritizing the psychological aspects of the organizational climate, firms establish a workplace in which employees are inclined to provide varying viewpoints (Karimi et al., 2023). Doing so enhances problem solving and nurtures the level of innovation. Taking this approach fosters a robust and flexible organizational culture, which can establish a roadmap toward success even in the presence of obstacles and imminent change (Bainade et al., 2023; De Simone & Franco, 2023).

Antecedents of Psychological Safety Climate

A climate supported by psychological safety consists of the collective belief that taking interpersonal risks is safe and secure (Eldor et al., 2023). The existence of a climate of psychological safety is impacted by key factors and antecedents that create the underlying culture and working conditions of an organization (Edmondson & Lei, 2014). While all the fundamentals that create a climate of psychological safety are important, leadership behavior ranks at the top given the influence that leaders exert on followers (Bush, 2018; Edmondson, 1999).

Leadership Behavior

Transformational leadership, which includes influence, inspiring motivation, intellectual stimulation, and personalized consideration, is a significant factor in creating a climate of psychological safety (Edmondson, 1999). Leaders who demonstrate transformational leadership characteristics establish a culture characterized by trust, transparency, and assistance, establishing the foundation for building psychological safety within teams (Edmondson & Lei, 2014). More importantly, leaders who exhibit transformational behaviors directly impact

organizational culture and climate and play a significant role in how safe employees feel (Bainade et al., 2023; De Simone & Franco, 2023).

Organizational Support

The employee perception of organizational support plays a critical role in determining the climate of psychological safety and how willing employees are to contribute to the organization (Kao et al., 2023). Supportive policies, processes, and resources enhance a feeling of security, indicating to employees that their well-being and contributions are highly regarded. When employees experience a feeling of support, they feel included and safe to contribute, which builds ownership and pride in the organization (Hapsari et al., 2021).

Team Dynamics

Team cohesion and trust are factors that directly influence the psychological safety of individuals within the team (Hunt et al., 2021). Teams with a strong foundation of trust foster both a supportive and safe space in which members feel confident expressing their viewpoints (Fyhn et al., 2022). Establishing a team dynamic built on trust and psychological safety enables openness and a collaborative spirit that unites individuals in a mission to solve problems and pursue goals together (Fareed et al., 2022). Trust and safety alleviate fear in the workplace and mitigate the worries of criticism or adverse consequences.

Training & Development

Training is an important precursor in the establishment of psychological safety within an organization in which inclusion and openness are promoted (Iqbal et al., 2023). Training and training development programs that target communication skills, conflict resolution, and emotional intelligence are important to the establishment of a psychologically safe environment (Karimi et al., 2023). The development of soft skills enables individuals to communicate with

respect in an open and safe environment that is built on the characteristics of a climate of psychological safety (Edmondson, 1999).

Outcomes of Psychological Safety Climate

An optimistic climate of psychological safety has extensive implications for both individuals and organizations to coexist and work toward common goals (J.-K. Kim et al., 2023). The effects of a psychologically safe environment go beyond personal welfare and impact a group's interactions, creativity, and overall effectiveness to the organization (Zadow et al., 2023). Establishing a climate of psychological safety is imperative for organizations to enable attributes and behaviors that allow employees to fully contribute their all to the organization and its objectives through trust and transparency (Bainade et al., 2023).

Increased Employee Engagement

A psychologically safe workplace fosters an atmosphere in which employees feel safe and enabled to engage and invest in their work (Edmondson & Lei, 2014). When individuals experience a sense of security in freely expressing their feedback and concerns, they are more inclined to dedicate their time and energy to assignments and team objectives (Lai et al., 2020). Creating an environment in which people feel safe to speak up can mitigate the effect of organizational silence, in which a disengaged workforce becomes unwilling to contribute to the organizational mission (Bas & Tabancali, 2020; Dillon et al., 2023).

Enhanced Creativity & Innovation

A climate of psychological safety establishes an environment in which individuals feel secure and confident to suggest novel concepts (Hunt et al., 2021). In a climate devoted to psychological safety, individuals and their mental state are prioritized to reduce interpersonal risks that can often hinder feedback and contributions to the team (Edmondson, 1999; Frazier et

al., 2017). Research suggests that teams with a high level of psychological safety participate actively in innovative problem solving and methods that contribute to developing new ideas (Zadow et al., 2023).

Problem Solving & Decision Making

An effective team gains their advantage from diverse thought and opinion when individuals feel safe enough to express them openly in a group (Edmondson, 1999; Khan et al., 2020). An environment that promotes psychological safety supports open communication, which enhances team problem solving and decision making (S. Kim et al., 2020). In an environment of psychological safety, individuals are encouraged to engage in critical thinking and problem solving that can develop a mindset equipped to challenge the status quo (Kwan, 2020; Pradhan & Pradhan, 2015).

Adaptability & Resilience

Organizations that foster a climate of psychological safety are skillful at managing and adapting to change (Armanu et al., 2023). The willingness of an employee to embrace risks and adjust to evolving problems enhances the overall resilience of the organization (Fyhn et al., 2022). This ability to accept change and remain flexible in the face of growing issues is important within a volatile, uncertain, complex, and ambiguous (VUCA) environment, such as that of a government organization (Dillon et al., 2023). In a high-demanding VUCA organization, a foundation of psychological safety provides support in times of uncertainty and constant change (Mathende & Yousefi, 2021). This foundation is accomplished using the principles of openness, transparency, and trust. Adaptability and resilience are crucial in the public sector context given that a need for safety and public welfare is elevated based on the operating environment (Dillon et al., 2023; Rego et al., 2021; Zahari & Kaliannan, 2022).

Safety Performance

Psychological safety is strongly correlated with safety performance in industries that prioritize safety (Wei & Kuo, 2023). Employees who have a sense of security when reporting errors or safety issues make a valuable contribution to fostering a proactive safety culture, eventually decreasing workplace accidents and incidents. An environment in which general safety is prioritized helps employees feel secure by allowing them to speak up and contribute to the process (Khan et al., 2020). The result of implementing a climate of psychological safety is a high-performing team who are safe in all aspects of the workplace, both physically and mentally (Frazier et al., 2017; Hunt et al., 2021).

Importance of Psychological Safety in High-Risk Organizations

Psychological safety is necessary in high-risk organizations, such as the government, in which important decision making is required and the well-being of the public is at stake (Higgins et al., 2022). Psychological safety pertains to how an individual perceives the consequence of taking risks, especially when the ability to speak up and voice concerns becomes important (Dillon et al., 2023). A climate of psychological safety represents the collective belief within a group that the environment is conducive to taking such risks (Al Marshoudi et al., 2023). Government and public sector work demands psychological resilience from employees. Research asserts that building psychological safety in a high-risk organization is more than just an option and is essential to the safe and effective outcomes of the organization (Ku et al., 2022; Mathende & Yousefi, 2021).

Risk Mitigation & Incident Reporting

Within high-risk organizations, individuals must have the capacity and freedom to promptly communicate a potential hazard, mistake, or safety issue (Armanu et al., 2023; Dillon

et al., 2023). The ability to communicate and report issues is essential to avoid incidents and to uphold the public safety and trust (Armstrong et al., 2023). A climate of psychological safety establishes a space in which employees can freely communicate without fear or worry of adverse consequences (Hunt et al., 2021; L. Zhang et al., 2022). This climate creates a pathway of communication that transcends the barriers of the hierarchy and allows everyone to become a participant in the process (Fantus et al., 2022).

Agencies responsible for public safety, defense, and emergency services must cultivate a culture in which individuals feel confident in voicing concerns (Wei & Kuo, 2023). The absence of psychological safety in high-risk organizations can result in the most essential information being withheld (Ku et al., 2022); this can lead to difficulty in the detection and response to dangers, which may affect decisions in life-and-death scenarios. Psychological safety provides a pathway to overcome barriers through unfiltered communication (Wei & Kuo, 2023). In the public sector, having the ability to communicate openly is required to adequately respond to emergencies and significant world events (Dillon et al., 2023).

Decision Making in Crisis Situations

The government and public sector frequently encounter crisis scenarios that necessitate prompt and efficient decision making (Backhaus & Vogel, 2022; Dillon et al., 2023). An environment that is psychologically safe is crucial in high-stakes scenarios and within VUCA organizations or work environments that are stressful and turbulent (Armanu et al., 2023; Mathende & Yousefi, 2021). Leaders and team members require a sense of security while sharing their viewpoints, challenging assumptions, and suggesting different approaches without worrying about negative consequences (Kaur & Arora, 2023). Creating transparency through

psychological safety enables trust in the process and ensures that decisions are being made with sufficient knowledge that uses the intellect of the team (Backhaus & Vogel, 2022).

Innovation & Adaptability

Government and public sector organizations that operate in high-risk environments, such as defense and cybersecurity, need to develop new ideas and continuously adjust to changing threats (Dillon et al., 2023; Fernandez et al., 2010; Karimi et al., 2023). A climate of psychological safety cultivates a setting in which employees feel secure to explore alternative ideas, question conventional approaches, and suggest inventive resolutions (Hunt et al., 2021). When individuals break through the fear of repercussions, they become more inclined to participate actively in organizational learning and continuous improvement (Fyhn et al., 2022). Organizations built on psychological safety empower employees to voice concerns, which in turn supports innovation and continuous improvement within the organization (Dillon et al., 2023; Miao et al., 2020).

Resilience in Complex Environments

Government agencies frequently function within intricate and unpredictable contexts that address complex policy matters, geopolitical obstacles, and public scrutiny (Armstrong et al., 2023; W. Wang et al., 2023). An environment that fosters psychological safety enhances the ability of an organization to adapt and withstand challenges in the most turbulent of situations (Emidy, 2024). Team members who work in an environment supported by psychological safety possess the ability to effectively deal with ambiguity, confront difficulties directly, and derive lessons learned from failures without the apprehension of being penalized (Fareed et al., 2022).

Employee Well-Being & Mental Health

Employees in high-risk sectors experience substantial emotional and psychological stress in the workplace (Fernandez et al., 2010; Karimi et al., 2023). A workplace supported by psychological safety is essential for fostering employee well-being and mental health (Hunt et al., 2021). Creating an atmosphere in which individuals feel comfortable discussing their difficulties, seeking assistance when necessary, and expressing their worries without criticism fosters a positive work environment (O'Donovan et al., 2021). Due to the openness and encouragement provided by psychological safety, the workplace becomes a supportive environment in which everyone can thrive both physically and mentally through communication, interpersonal relationships, and an absence of fear (Edmondson & Lei, 2014; Frazier et al., 2017; Kahn, 1990).

Public Trust & Accountability

Government entities are responsible for answering to the public, and trust is of utmost importance (W. Wang et al., 2023). An environment that fosters psychological safety promotes open and honest communication within the workplace and enhances external transparency and responsibility (Zahari & Kaliannan, 2022). An organization that demonstrates openness, transparency, and a willingness to learn from mistakes is more likely to gain the trust of the public (Vaktskjold Hamre et al., 2023). Public sector and government organizations are considered taxpayer-funded entities mandated by transparency, accountability, and service to the public good (Zahari & Kaliannan, 2022). Establishing psychological safety in public sector organizations can ensure the mandates that are required under the legal framework of the public sector are adhered to and that transparency and accountability are maintained (Backhaus & Vogel, 2022; Chau et al., 2022).

Conflict Resolution & Collaboration

High-risk government organizations require the cooperation of multiple teams from different areas of competence (S. Park & Liang, 2020). An environment that fosters psychological safety facilitates the ability to conduct successful conflict resolution and open collaboration (Eldor et al., 2023). An environment built on the principles of psychological safety allows team members to express divergent viewpoints and participate in productive discussions (S. Kim et al., 2020). Such communication leads to swift agreements over the concern of interpersonal discord that can impede the decision-making process. Emphasizing conflict resolution through a climate of psychological safety allows employees to openly suggest new ideas or question existing organizational norms (Karimi et al., 2023). Openness and trust, which are prioritized in psychological safety, provide a secure sense that conflicts will be mediated and resolved in an equitable way (Fyhn et al., 2022; Zhu et al., 2019).

Critiques & Limitations of Psychological Safety

Although psychological safety is generally viewed as having a positive impact on team dynamics and performance, research has identified potential limitations and unintended consequences (Durrah, 2022; Yang et al., 2023). Y. Zhang and Wan (2021) proposed that psychological safety can act as a double-edged sword that brings about negative outcomes under certain conditions. Research argues that dysfunctional team behaviors can emerge when psychological safety climate is weak or when team members hold differing perceptions of psychological safety (Mehraein et al., 2023; Y. Zhang & Wan, 2021). These findings challenge the assumption that psychological safety can universally lead to positive outcomes and hint at a potential dark side of openness, risk taking, and transparency (Edmondson, 1999; Higgins et al., 2022; Mehraein et al., 2023).

Another critique of psychological safety centers on the potential for the emergence of unethical and abusive behaviors under certain contexts (Pearsall & Ellis, 2011; Yang et al., 2023). In their research, Pearsall and Ellis (2011) discovered that teams found to be high in utilitarianism can suffer from increased unethical behavior, as team members feel more comfortable taking risks without fear of negative consequences. This finding was supported by Mehraein et al. (2023), who asserted that certain forms of dark leadership can foster counterintuitive creativity and innovation in certain contexts. This outcome is most evident when employees have a strong perception of psychological safety that promotes risk taking without fear of repercussions. These findings suggest that psychological safety, when unbalanced by either ethics or checks and balances, may inadvertently create harmful behaviors that are unconstrained (Mehraein et al., 2023; Pearsall & Ellis, 2011).

Methodology concerns also exist in the research on psychological safety (Frazier et al., 2017). Researchers typically examine self-reported qualitative data, leading to the question of whether the method truly captures how psychological safety works within team dynamics (Edmondson & Bransby, 2022; Frazier et al., 2017). Most studies focus their measurements on the team level, which avoids an understanding into how deeply personal and multifaceted psychological safety can be for different team members (Edmondson, 1999; Edmondson & Lei, 2014). The constraints and limitations in the methods may greatly affect the ability to fully understand how psychological safety operates across all organizational settings and levels (Plouffe et al., 2023).

The relationship between psychological safety and innovation is more complex than often assumed (Zadow et al., 2023). While psychological safety is believed to promote innovation, Durrah (2022) found the relationship between workplace friendship, a factor closely related to

psychological safety, and innovative behavior was mediated by psychological safety in some organizational contexts but not all. This finding suggests that the relationship between psychological safety and innovation may be dependent on internal and external organizational factors (Tu et al., 2019) and challenges the simplistic view of the innovation and psychological safety relationship, which requires a deeper look.

Conclusion

In summary, the belief and existence of psychological safety is a defining factor to the dynamics of the organization and the impact on employee well-being (Hunt et al., 2021). Psychological safety is a shared perception that promotes a willingness to take interpersonal risks without the concern of adverse consequences (Edmondson, 1999). A shared perception of psychological safety promotes a workplace in which trust and openness are not only appreciated but actively nurtured (Edmondson & Lei, 2014).

Psychological safety consists of multiple dimensions that collectively enable a safe and supportive work environment (Fyhn et al., 2022). The various aspects of psychological safety, supported by overarching fundamentals of trust, open communication, and willingness to take chances, contribute to establishing a work atmosphere in which individuals feel confident in exposing their thoughts and ideas through calculated risks (Edmondson & Bransby, 2022). The interconnection of the characteristics of mental health and safety contributes to establishing a psychologically safe climate (Hunt et al., 2021).

The precursors of a psychological safety climate consist of leadership behavior, organizational support, team dynamics, and training and development (Liang et al., 2012). While all the fundamentals and antecedents contribute to a climate of psychological safety, leadership behavior ranks at the top given the influence that leadership behavior can have on followers

(Bush, 2018; Edmondson, 1999). A workplace supported by psychological safety yields an array of benefits, including heightened employee engagement, improved creativity, enhanced problem-solving abilities, higher adaptability, and superior safety performance (Edmondson & Lei, 2014).

Psychological safety is particularly important in high-risk sectors such as the government, in which the consequences of decisions are significant and the need for sound judgment is crucial (Emidy, 2024). An environment that ensures psychological safety is important in all organizational contexts, especially in the most turbulent and complex of situations (Backhaus & Vogel, 2022). The existence of a climate of psychological safety is essential for minimizing risks, reporting incidents, making effective decisions during crises, and fostering innovation and adaptability (Dillon et al., 2023). In government and the public sector, psychological safety is especially important to enable the creation of public trust and accountability (Zahari & Kaliannan, 2022).

While a climate of psychological safety is considered a foundational belief to promote positive team dynamics and performance, potential limitations and unintended consequences of the perception have been critiqued (Durrah, 2022; Yang et al., 2023). Concerns regarding psychological safety also encompass the existence of a dark side regarding openness and leadership transparency (Mehraein et al., 2023). Too much openness equals a level of consequential risk taking in which unethical and abusive behavior emerge unchecked (Pearsall & Ellis, 2011). The relationship between psychological safety and innovation is more complex than often assumed (Zadow et al., 2023), the assertion being that, while psychological safety is overwhelmingly considered a positive aspect within an organization, it is not a one-size-fits-all approach. Both internal and external organizational factors can challenge a simplistic view of

psychological safety, depending on the context and setting (Durrah, 2022). The result are alternate outcomes that might not be expected.

The consensus from research asserts that psychological safety is crucial to the openness and transparency required to resolve conflict by collaborative means (Fareed et al., 2022; Zhu et al., 2019). The benefits of psychological safety transcend all organizational settings and contexts in ways that positively support an individual's mental health (Hunt et al., 2021). Investing in psychological safety and the support it provides to mental health is crucial for achieving organizational success (Chin et al., 2023; Edmondson, 1999). This investment shows dedication to the welfare of individuals and the overall health of the workplace. Fundamentally, research shows that organizations that prioritize psychological safety are better prepared to succeed in a rapidly changing environment (Joo et al., 2023).

Transformational Leadership & Psychological Safety

Researchers have increasingly recognized the relationship between transformational leadership and psychological safety to shape workplace effectiveness and employee success (J.-K. Kim et al., 2023; H. F. Wang et al., 2021). The key elements of transformational leadership, which include modeling ethical behavior, inspiring motivation, stimulating innovation, and providing individualized support, create a foundation for psychological safety to flourish within teams (Bass, 1985; Edmondson, 1999). By examining the ways that transformational behaviors build environments in which people feel safe to take risks, crucial insights for practice are gained (Kwan, 2020; Zaman & Abbasi, 2020). Expanding this understanding is both necessary and important when considering the existing knowledge gap within the public sector and government context (Backhaus & Vogel, 2022; Karimi et al., 2023).

Connecting Transformational Leadership & Psychological Safety

Recent studies have explored the relationship between psychological safety and transformational leadership using an emphasis on open communication and trust (J.-K. Kim et al., 2023). Trust and open communication are considered the underlying aspects that accurately identify the existence of a climate of psychological safety (Edmondson & Bransby, 2022). Research in the field of leadership theory has concluded that transformational leadership promotes trust and open communication, which are beneficial in the establishment of a relationship between transformational behaviors and psychological safety (Al Marshoudi et al., 2023; Karimi et al., 2023).

H. F. Wang et al. (2021) conducted research highlighting the characteristic ability of transformational leaders to effectively communicate an engaging future vision through open communication and trust. The study revealed that nearly two thirds (61%) of the transformational leaders examined had successfully created an atmosphere of psychological safety among their team members (H. F. Wang et al., 2021). This finding was based on exhibited leadership behaviors of openness and trust (H. F. Wang et al., 2021). The results suggest that a positive shift in psychological safety is primarily due to the ability of leaders who commit to an open and transparent dialogue that supports the actions of team input and constructive feedback (H. F. Wang et al., 2021).

Additional studies on transformational leadership have identified trust as the connector between transformational leaders and employee perception of psychological safety (Alessa, 2021; Burns, 1978; Kwan, 2020). When viewed through the lens of transformational leadership, trust-building efforts extend beyond typical team-building activities (Zaman & Abbasi, 2020). Trust building efforts necessitate a consistent and reliable communication network supported by

leadership. The research by Zaman and Abbasi went further and highlighted that trust is built by leaders who follow through on their promises in an open and transparent way. J. Yin et al. (2020) reinforced the interconnection between trust, communication, and team members' psychological safety by asserting that leaders who demonstrate their trustworthiness cultivate a climate in which followers express themselves openly without fear of negative judgment.

Transformational leaders aiming to cultivate psychological safety must emphasize the elements of trust and communication in their approach (B. J. Kim et al., 2019). Research by Zaman and Abbasi (2020) revealed that regular interactions and checkups with employees is one example to support this belief. The study suggested that frequent checkups can play a vital role in enhancing a worker's perception of psychological safety and promoting open dialogue (Zaman & Abbasi, 2020). By engaging in both individual and group discussions, leaders establish pathways for open conversations in which achievements, obstacles, and worries can be voiced (B. J. Kim et al., 2019). This practice in open communication fosters transparency and creates opportunities for team members to express their thoughts in various settings (Bas & Tabancali, 2020).

Research by H. F. Wang et al. (2021) emphasized the crucial role of decision-making transparency in bolstering employees' psychological safety. Clear communication regarding the rationale behind organizational shifts and choices helps to mitigate employee silence (Kaur & Arora, 2023; She et al., 2023) and reinforces an environment in which team members feel empowered to express their views. Transformational leadership strategies, while beneficial for psychological safety, may fall short if not balanced through accountability and consistency (Bainade et al., 2023). Leaders need more than good intentions, according to Xu et al. (2022); they must show consistent alignment between their words and actions, backing up their

commitment to openness with genuine transparency and accountability. Building on this insight, Pradhan and Pradhan (2015) found that psychological safety emerges when leaders visibly live out their ethical principles and actively champion trustworthy organizational processes.

Leaders who consistently model transformational behaviors create living examples of the openness they seek to build, naturally strengthening psychological safety throughout their organizations (Caro, 2022). A key aspect of this approach involves transformational leaders' active promotion of calculated risk taking, in which setbacks are reframed as valuable learning experiences for the team (B. J. Kim et al., 2019). This strategy enables team members to glean insights from their mistakes without fear of repercussions, while simultaneously allowing leaders to model the desired behavior through their own actions (Tu et al., 2019).

Xu et al. (2022) highlighted the importance that transformational leaders place on experimentation and innovation when fostering employee psychological safety. By cultivating an innovative environment, transformational leaders create the conditions for members to feel secure in taking measured risks (Awais-E-Yazdan et al., 2023). The elements of psychological safety become clear when transformational leaders respond to setbacks using constructive input that prioritizes learning over assigning fault or blame (B. J. Kim et al., 2019).

Leaders succeed in building psychological safety when they adapt their transformational approach to match their actual workforce, consciously making space for conflicting views and breakthrough thinking (Miao et al., 2020). When leaders champion diverse perspectives, team members develop the confidence to contribute their authentic selves without holding back (Khan et al., 2020). Maximo et al. (2019) conducted research examining the interplay between psychological safety, diversity, leadership influence, and trust. Their findings indicate a strong

relationship between psychological safety and workplace inclusion and diversity (Maximo et al., 2019).

Supporting the connection between transformational leadership and psychological safety, Sobaih et al. (2022) examined the use of transformational leadership behaviors in U.S. companies. Their research demonstrated that transformational leaders who prioritize inclusivity and diversity effectively cultivate a welcoming environment that values diverse viewpoints. The study concluded that transformational leadership enhances employees' psychological safety by creating conditions in which individuals feel empowered to express their authentic selves (Sobaih et al., 2022). As evident from the research, transformational leadership behaviors lead to an increase in idea sharing and collaborative experiences, both of which are characteristics of a psychologically safe climate (Edmondson, 1999; Hunt et al., 2021; Sobaih et al., 2022).

Transformational leaders build psychological safety by focusing on what matters most. Building psychological safety includes earning employee trust, pushing creative boundaries, and welcoming different perspectives (Awais-E-Yazdan et al., 2023). Zeng et al. (2020) found that leaders who actively champion innovation and work to build genuine trust among team members significantly improve employee well-being. More importantly, when leaders consistently model openness by backing their words with actions, employees begin to share their innovative ideas freely (Zeng et al., 2020) as they no longer fear adverse reactions.

The belief that transformational leadership contributes to the fundamentals of psychological safety is further supported in the results revealed by Joo et al. (2023), who explored the role of transformational behaviors in facilitating employee empowerment. In their study, the authors focused on the components of employee empowerment, trust building, and risk taking (Joo et al., 2023), each of which is an important element found within a climate of

psychological safety. Findings from the study indicate that transformational leaders who promote risk taking and employee innovation inspire high levels of trust and confidence (Joo et al., 2023). The existence of trust and the confidence to explore contributes directly to the psychological safety of employees (S. Kim et al., 2020; Mat et al., 2019).

Connecting Transformational Leadership Behaviors & Psychological Safety Climate

The connection between transformational leadership behaviors and the development of psychological safety climate is significant in the study of organizational leadership and development (Zahari & Kaliannan, 2022). Three core elements of transformational leadership shape how psychological safety takes root: communicating a compelling vision, providing genuine support, and recognizing each person's unique needs (Kwan, 2020; Zaman & Abbasi, 2020). Understanding these relationships reveals practical ways leaders build environments in which people freely take risks and speak their minds (Cao & Zhang, 2020; Joo et al., 2023). How these critical transformational leadership behaviors enhance psychological safety and cultivate a climate of trust and innovation within the workplace are discussed as follows.

Visionary Communication & Supportive Leadership

Transformational leadership behaviors play a key role in defining the psychological safety within organizations when leaders base supportive leadership on visionary communication (Zahari & Kaliannan, 2022). Supporting this belief, Zaman and Abbasi (2020) asserted that transformational leaders provide emotional support, mentorship, and resources to their team members, showing a genuine concern for their well-being. The contributions of these leadership behaviors in creating a climate of psychological safety stem from the fact that a clear vision provides a sense of purpose and direction and provides clarification of roles and objectives (Zaman & Abbasi, 2020). Reducing uncertainty and fostering psychological safety allow

members of the team to understand the organizational objectives and their role in achieving those objectives (Armanu et al., 2023).

Supportive leadership has been linked to the influence on psychological safety through open communication and the concern for employee physical and mental health (Zaman & Abbasi, 2020). From this perspective, H. F. Wang et al. (2021) investigated transformational leadership in an organization with the objective of determining its impacts on organizational climate. Findings from the study indicate that transformational leaders are responsible for articulating a compelling vision that inspires and aligns the team toward common goals. The authors concluded that supportive leaders create a safe space in which individuals feel cared for and valued (H. F. Wang et al., 2021). These findings support the belief that leaders who engage in open communication and risk taking promote a climate of psychological safety in which fear of negative consequences is discouraged (Edmondson, 1999; H. F. Wang et al., 2021).

Individualized Consideration, Intellectual Stimulation, Empowerment, & Delegation

The contribution of transformational leaders toward a climate of psychological safety is determined by the extent to which they consider the individual needs of their subordinates, promote intellectual consideration, and empower employees through thoughtful delegation (Kwan, 2020; Pradhan & Pradhan, 2015). In their study, Cao and Zhang (2020) revealed that transformational leaders seeking to establish a positive climate within the team should recognize and cater to the individual needs, strengths, and aspirations of each team member. By acknowledging individual differences, leaders establish a commitment to the personal development of team members, which can lead to enhancements in the organizational climate (J. Yin et al., 2020). Leaders also create intellectual stimulation and thoughtful delegation of

responsibilities when development of team members and concern for their differences are prioritized (Thompson & Siciliano, 2021).

Researchers note that transformational leaders who stimulate creativity and critical thinking encourage team members to challenge ordinary views and explore new ways of thinking (J. Yin et al., 2020). Leaders who adhere to transformational behaviors can foster a culture in which divergent opinions are accepted and team members feel psychologically safe to voice their thoughts, knowing that their contributions are welcomed and respected (Cao & Zhang, 2020; L. Zhang et al., 2022). When transformational leadership behaviors are in place, it becomes easier for leaders to empower team members by delegating responsibilities and decision-making authority (Kwan, 2020).

Role Modeling, Feedback, & Conflict Resolution

Transformational leadership behaviors that are focused on role modeling, feedback, and conflict resolution are fundamental in building an environment of psychological safety within organizations (Joo et al., 2023). Because transformational leaders lead by example, their ability to display integrity and authenticity determines the extent to which their ethical behavior can stimulate a climate conducive to role modeling and constructive feedback (S. Kim et al., 2020). Constructive feedback, when coupled with a transformative mindset, establishes an environment in which mistakes are viewed as opportunities for growth (Tu et al., 2019). This approach contributes to psychological safety by reducing the fear of negative repercussions for errors.

The psychological well-being of employees may not be achievable without the deployment of conflict resolution strategies (Joo et al., 2023). Researchers suggest that transformational leaders must address conflicts constructively by promoting a collaborative approach to problem solving that can build a sense of camaraderie and psychological safety

within a team (Kroon & Reif, 2021; Zhu et al., 2019). Creating a positive team dynamic through role modeling and conflict resolution gives leaders the ability to foster a workplace in which individuals feel confident in expressing dissenting opinions and addressing conflicts without fear of retaliation (Appelbaum et al., 2020).

Research Gaps in a Public Sector & Government Context

The importance of research in the field of leadership theory and the link between leadership behaviors and psychological safety has gained significant attention and interest (Al Marshoudi et al., 2023; Hernandez et al., 2015). This increased interest has uncovered research gaps and areas that lack comprehensive studies in transformational leadership and psychological safety, especially in a public sector and government context (Backhaus & Vogel, 2022; Luo et al., 2020; Zahari & Kaliannan, 2022). One such research gap is a limited focus on the public sector surrounding supervisors' transformational leadership behaviors and employees' psychological safety climate (Al Marshoudi et al., 2023; Karimi et al., 2023). This gap presents an area in need of exploration given that the underlying characteristics of transformational leadership enable trust and open communication, which foster the establishment of a climate of psychological safety (Backhaus & Vogel, 2022; Edmondson & Bransby, 2022; Karimi et al., 2023).

As Maximo et al. (2019) observed, many studies on transformational leadership and psychological safety are generalized across various industries and organizational settings. In the public sector, there remains a dearth of research that has specifically sought to address the unique challenges and dynamics of the organizational design commonly found within the bureaucracy of government (Fernandez et al., 2010; J.-K. Kim et al., 2023). A primary concern and obstacle in government organizational research surrounds the authorized access needed to explore

government organizations and their employees (Fernandez et al., 2015). This limited access results in research constraints that hinder the ability to obtain data, which must consistently be resolved through alternative methods and scales of measure designed and approved in conjunction with the government and applicable rules and regulations (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021).

While gaining appropriate access and employing tailored instruments to assess transformational leadership and psychological safety in a public sector context is often difficult, researchers studying government organizations often rely on established survey instruments such as the U.S. Office of Personnel Management (U.S. OPM) FEVS (H.-W. Lee & Rhee, 2023; U.S. Office of Personnel Management, 2024b). The structure and validated scales of measure found within the U.S. OPM FEVS instrument serve as the preferred and main source of data collection for research in government and are used having been peer reviewed and adapted from the MLQ and PS-5 psychological safety scale (Fernandez et al., 2015; Resh et al., 2021). The FEVS provides government employees with an approved, trustworthy, and validated process to share their opinions on significant subjects involving their work climate, agency, and leadership (Fernandez et al., 2015; Orr & Leider, 2023). In return, researchers can conduct organizational research on topics related to leadership and work climate in a government context (H.-W. Lee & Rhee, 2023). Even so, researchers agree that a need exists for the continued development and validation of additional instruments that can specifically capture the unique aspects of leadership and psychological safety in government organizations (Xu et al., 2022).

Conclusion

Research consistently shows that transformational leadership actively builds psychological safety throughout organizations (Alessa, 2021; Burns, 1978; Kwan, 2020). When

leaders communicate openly, build trust, consider individual needs, spark intellectual growth, and model supportive behavior, their employees develop stronger psychological safety (B. J. Kim et al., 2019; H. F. Wang et al., 2021; Zaman & Abbasi, 2020). By championing transparency, backing calculated risks, embracing diverse perspectives, and nurturing continuous learning, leaders create spaces in which people feel secure being themselves (Hunt et al., 2021). This security empowers employees to voice new ideas and tackle problems together without worrying about backlash (Hunt et al., 2021; Tu et al., 2019).

Despite the growing body of research linking transformational leadership behaviors and psychological safety, a notable gap remains specifically focused on the public sector and government context (Backhaus & Vogel, 2022; Karimi et al., 2023). The unique challenges, dynamics, and organizational structures inherent in these settings warrant further investigation to better understand how transformational leadership behaviors can be effectively leveraged to cultivate a climate of psychological safety (J.-K. Kim et al., 2023). As researchers continue to explore this critical relationship, the development and validation of instruments tailored to assess leadership and psychological safety in government organizations will be essential to advancing the understanding and informative nature of evidence-based practices (Xu et al., 2022).

Volatile, Uncertain, Complex, & Ambiguous Environments

Public and government sector organizations often operate within political and regulatory environments that introduce uncertainty and affect operations (Rego et al., 2021). Such turbulent settings define today's government workplace, in which constant change, unclear directions, tangled systems, and unique circumstances affect both operations and employee mental health (Armanu et al., 2023; Mathende & Yousefi, 2021). Understanding how psychological safety

functions within these demanding public sector conditions becomes crucial for organizational success.

Volatility in the Geopolitical Landscape

The mere existence of political turmoil fundamentally disrupts psychological safety in government workplaces. When faced with uncertainty, employees often retreat into silence rather than risk voicing vital concerns (Dillon et al., 2023; Edmondson & Lei, 2014). Each change in political leadership, each policy reversal, each global crisis chips away at employees' confidence about their professional futures and financial stability (Zhu et al., 2019). Breaking through this uncertainty demands leaders who communicate with absolute clarity about how their organizations navigate political shifts (Ilyas et al., 2021).

Leaders who champion inclusion and cultural diversity strengthen their teams against political turbulence, protecting psychological safety during uncertain times (Iqbal et al., 2023). Strong diversity programs do more than check boxes, they build awareness, challenge hidden biases, and create workplaces in which people from all backgrounds know their perspectives matter (Semenets-Orlova et al., 2021). Organizations that communicate and enforce a zero-tolerance policy for discrimination, harassment, and bias demonstrate their commitment to maintaining a psychologically safe workplace (Mat et al., 2019).

Uncertainty in Adversarial Contexts

Adversarial contexts stemming from regulatory uncertainties, political risks, cybersecurity threats, and geopolitical instability can impact employee psychological safety (Cao & Zhang, 2020; Tu et al., 2019). Global organizations constantly navigate shifting political and regulatory landscapes in which sudden policy changes ripple through daily operations and directly impact employee stability (Rego et al., 2021). Beyond political pressures, these

organizations face digital threats, including targeted cyberattacks, state-backed hacking operations, and corporate espionage, which create constant tension about data protection and business survival (Armstrong et al., 2023; Rego et al., 2021; Zahari & Kaliannan, 2022). Each of the aspects of uncertainty that commonly surround a government organization creates a negative impact on the mental stability and psychological safety of individuals (B. J. Kim et al., 2019; Tu et al., 2019).

Complex Interdependencies

Organizations are intricate webs of interconnected systems and processes, and the interdependence between departments creates a complex network that can influence employee psychological well-being (Z. Zhang & Song, 2020). Technology integration, cross-functional collaboration, and regulatory compliance are among the interdependencies linked to the psychological climate within organizations (B. W. Lee et al., 2023). Leaders must ensure that different systems and platforms are seamlessly integrated and aligned with regulatory requirements to establish a sustainable organizational climate that fosters employee well-being (Iqbal et al., 2023; Semenets-Orlova et al., 2021). Doing so helps to foster a positive psychological climate that enhances the ability to feel safe to openly express oneself in the workplace (Kahn, 1990).

Ambiguity Around Priorities & Public Opinion

Government employees often struggle when their personal values clash with organizational directives, especially when mixed messages and competing priorities cloud the workplace (B. W. Lee et al., 2023; O'Donovan & McAuliffe, 2020). Without clear organizational direction, employees lose their sense of purpose and pull back from full engagement (B. W. Lee et al., 2023). Leadership's scattered communication worsens this

problem, leaving staff uncertain about their true roles in accomplishing the mission (O'Donovan & McAuliffe, 2020).

The problem deepens when resources and priorities remain unclear (Rego et al., 2021). Employees facing contradictory demands without clear guidance about what matters most experience mounting stress and divided loyalties (O'Donovan & McAuliffe, 2020). These challenges hit particularly hard in public organizations, in which complicated bureaucracy meets diverse stakeholder demands (B. W. Lee et al., 2023). In the end, rising anxiety and job frustration emerge and undermine both individual performance and organizational health (Rego et al., 2021).

Government Agencies Operating in VUCA Contexts

Government agencies working in VUCA environments shape workplace psychology in ways that deeply affect how employees think, perform, and cope (Baran & Woznyj, 2021). Their people face constant change, unclear paths forward, tangled systems, and unique situations that strain mental and emotional well-being (Armanu et al., 2023; Mathende & Yousefi, 2021). Success in these settings demands building psychological environments in which people learn to adapt, bounce back from setbacks, and keep growing (Lilja et al., 2022). When agencies work toward these objectives, their teams start seeing uncertainty not as a threat but as a chance to develop new capabilities (Tafvelin et al., 2023).

Visionary leadership plays a critical role in shaping the psychological climate of government agencies operating in VUCA contexts (Baran & Woznyj, 2021). Leaders who possess emotional intelligence and employ transparent communication strategies are better equipped to address the uncertainty and ambiguity that characterize these environments (Mathende & Yousefi, 2021). Leaders who point the way forward clearly frame goals within

reach and maintain open dialogue to help their teams build confidence and stay grounded despite uncertainty (Baran & Woznyj, 2021). These leadership practices create supportive environments in which individuals find strength to tackle complex challenges (Armanu et al., 2023).

Government organizations must go further, building cultures in which learning drives all things (Lilja et al., 2022; Senge, 1990). When agencies invest in expanding their employees' skills and perspectives, they create space for absolute autonomy and psychological safety (Armanu et al., 2023). Beyond helping teams adapt, this approach sparks innovation and collaboration crucial for navigating VUCA challenges (Mathende & Yousefi, 2021). Ultimately, agencies that support both psychological health and continuous growth give their people the tools to thrive amid constant change while achieving critical missions (Baran & Woznyj, 2021).

Leadership Behavior

The behavior of leaders plays a vital role in the success of government organizations operating in a VUCA environment (J. Yin et al., 2020). Effective leaders who are visionary and transformative possess skills and leadership behaviors that prioritize innovation, problem solving, and the cultivation of psychological safety (Tu et al., 2019). This type of behavior has been proven essential for shaping a positive organizational climate that supports employee well-being, creativity, and collaboration (Baran & Woznyj, 2021). Leadership behavior that encourages critical thinking, challenging of the assumptions, and initiation of novel solutions to problems is also instrumental to empower teams who adapt and thrive in the face of uncertainty (Armanu et al., 2023). When leaders develop this approach fully, organizations gain both agility in handling VUCA challenges and deeper employee commitment to speaking up and taking ownership (Baran & Woznyj, 2021; Edmondson & Lei, 2014).

Employees assume risks and communicate openly with ideas when leaders actively protect psychological safety (Edmondson & Lei, 2014; Tu et al., 2019). This protection becomes vital as teams face the increased stress and anxiety that complex, ambiguous situations create (Baran & Woznyj, 2021). By demonstrating a commitment to employee well-being and fostering a supportive and inclusive organizational climate, leaders with strong emotional intelligence and communication skills mitigate the negative impacts of a VUCA environment on employee performance (Mathende & Yousefi, 2021). The adoption of effective leadership behaviors that prioritize innovation, problem solving, and psychological safety is essential for government organizations seeking to thrive in VUCA environments (Armanu et al., 2023; J. Yin et al., 2020).

Conclusion

Leaders face their toughest test in maintaining psychological safety when organizations weather constant turbulence (Dillon et al., 2023; Edmondson & Lei, 2014). The combined weight of political instability, hostile conditions, tangled dependencies, and shifting public demands creates toxic pressure on employee well-being and organizational success (B. W. Lee et al., 2023; Rego et al., 2021). VUCA leaders must therefore grasp how these pressures affect their people and actively build defenses that protect psychological safety (Baran & Woznyj, 2021; Edmondson & Lei, 2014).

Leaders counteract VUCA pressures by strengthening team resilience and building clear communication paths that protect psychological safety (Mathende & Yousefi, 2021). Success demands fostering adaptable teams who embrace learning and see obstacles as growth opportunities rather than threats (Lilja et al., 2022). When leaders combine emotional intelligence with genuine transparency and empathy, they do more than tackle uncertainty, they build trust and set realistic expectations that help people manage stress (Baran & Woznyj, 2021).

Through deliberate efforts to value different perspectives, encourage honest dialogue, and defend psychological safety, leaders help their teams find solid footing amid VUCA complexities (Iqbal et al., 2023; Semenets-Orlova et al., 2021).

In summary, government agencies face unique psychological pressures in VUCA environments, making leadership's role in building supportive organizational climates critical (Rego et al., 2021). Adopting effective leadership behaviors that prioritize resilience building, transparent communication, and the cultivation of psychological safety allows organizations to effectively navigate the challenges found in operating within a VUCA environment (Tu et al., 2019; J. Yin et al., 2020). Employing visionary and transformational leadership behaviors shows investment in the psychological well-being of employees and fosters a climate that supports adaptability, innovation, and continuous learning (Mathende & Yousefi, 2021). Therefore, government and public sector organizations must prioritize psychological safety and positive leadership behaviors to thrive amidst the demands of the VUCA environment (Mathende & Yousefi, 2021).

Chapter Summary

Minimal research has examined whether specific leadership behaviors shape an organizational climate of psychological safety, especially in a high-demanding and volatile public sector context such as government organizations (Al Marshoudi et al., 2023; Karimi et al., 2023; J.-K. Kim et al., 2023). The knowledge gap reveals a critical area for investigation, as established through the extensive review of literature presented in Chapter 2. Thus, the focus of this study was the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.

Psychological safety emerges when people trust each other enough to take risks and speak up honestly without fearing judgment (Edmondson, 1999). Research reveals organizational gains from this foundation in that teams achieve more, learning deepens, and employees bring their full energy to work (Hunt et al., 2021). However, minimal research has examined whether specific leadership behaviors shape an organizational climate of psychological safety, particularly in a highly demanding and volatile public sector context such as government organizations (Al Marshoudi et al., 2023; Fernandez et al., 2010; Karimi et al., 2023; J.-K. Kim et al., 2023; Mathende & Yousefi, 2021).

The present research examined the relationship between transformational leadership behaviors among U.S. Department of the Navy civilian supervisors and their impact on employees' psychological safety climate. Five critical research areas formed the foundation of the literature review: transformational leadership theory, how this leadership functions in public sectors, psychological safety's role in organizations, the intersection of transformational leadership with psychological safety, and how these elements operate in the government's volatile environments. By synthesizing existing research in these areas, vital insights into leadership and psychological safety dynamics were gained that directly informed the purpose and objective of the study.

Research on transformational leadership in government settings shows how these leadership approaches directly shape the workplace climate and employee health. Trust and openness form the foundation of psychological safety, creating spaces in which people learn freely, innovate boldly, and engage deeply with their work (Karimi et al., 2023). Studies demonstrate how transformational leaders build this psychological safety to strengthen their organizational climate (J.-K. Kim et al., 2023). Building safety in the government's VUCA

environment brings unique challenges that demand skilled leadership to navigate complex realities. The evidence is clear that leaders who foster psychological safety protect their people's mental health and workplace well-being (Al Marshoudi et al., 2023; Dillon et al., 2023; Hunt et al., 2021).

In summary, the literature review built an understanding through the five core areas. This research foundation revealed key patterns in how government supervisors' transformational leadership shapes employee psychological safety. Current literature points to crucial gaps in understanding these dynamics within public sector organizations, particularly in the U.S. Department of the Navy's civilian workforce.

Subsequent chapters detail the investigation of these relationships. Chapter 3 outlines the research approach, from study design and measurement tools to participant selection and ethical considerations. Chapter 4 presents the results, and Chapter 5 connects the study findings to existing research to offer clear recommendations for future studies.

CHAPTER 3: RESEARCH METHODOLOGY

The purpose of this quantitative non-experimental correlational study was to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The population for the study was an estimated 2.3 million civilian employees within the U.S. government (Congressional Budget Office [CBO], 2024). The target population consisted of an estimated 200,248 civilian employees from within the U.S. Department of the Navy (Ott, 2022). Exploring an area and gap to inform the in-depth understanding of the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate within government provides public sector leaders with decision-making space to implement methods of fostering psychological safety.

Although prior studies have researched and demonstrated a conclusive outcome to the positive effects of transformational leadership approaches in corporate settings, including enhanced trust, engagement, and willingness to take risks (Al Marshoudi et al., 2023; Iqbal et al., 2023), scarce research has explored the dimensions of transformational leadership in relationship to the psychological safety climate in the public sector, such as that of the U.S. Department of the Navy. Because public organizations face a growing demand for innovation and adaptation, which psychological safety provides (Dillon et al., 2023; Miao et al., 2020), this research is significant as it delved into an underexplored area of psychological safety in a public sector and government context. To explore psychological safety within the public sector and government organizations, the study used archival survey data collected from the Federal Employee Viewpoint Survey (FEVS), which the U.S. Office of Personnel Management (U.S. OPM) facilitated in 2023. Based on prior research recommendations and literature supporting the

construct and validity of the FEVS (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; Resh et al., 2021), the multiscale survey and data set collected were instrumental in exploring this underserved topic of interest.

Chapter 3 includes the research methodology and design used to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The chapter provides details on the statement of the problem, study research methodology, research procedures, data analysis strategy, and ethical issues. The chapter concludes with a chapter summary.

Statement of the Problem

The problem this study addressed was that it was not known if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The foundation of the study focused on a concept and belief known as psychological safety. This belief is important within the organizational context due to its ability to foster a sense of trust that enables employees to open up and take risks (Frazier et al., 2017). Research suggests that teams perform at higher levels through engagement that is supported by leaders who promote psychological safety (Edmondson, 1999; Hunt et al., 2021). While prior research has openly suggested the benefits of psychological safety in the workplace, a gap still exists in understanding how specific leadership behaviors can shape psychological safety and organizational climate within government organizations.

Five research questions (RQs) and hypotheses guided this quantitative non-experimental correlational study into the relationship between supervisors' transformational leadership

behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. RQ1 explored the relationship between government agency leaders' transformational leadership behaviors and employees' psychological safety climate. RQ2–RQ5 examined each specific dimension of transformational leadership behaviors to investigate the strength and predictability of their relationship with employees' psychological safety climate. The following RQs and hypotheses guided the study:

- RQ1: To what extent is there a relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_01: There is not a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A1: There is a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.
- RQ2: To what extent is there a relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_02: There is not a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A2: There is a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.

- RQ3: To what extent is there a relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_03: There is not a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A3: There is a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.
- RQ4: To what extent is there a relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_04: There is not a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A4: There is a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.
- RQ5: To what extent is there a relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians?

- H_05: There is not a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.
- H_A5: There is a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.

Research Method & Design

To conduct the analysis, the research followed a quantitative survey approach, which supported the objective to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. Quantitative methodology was the most appropriate for reasons of objectivity that allow a separation of the researcher from the data (L. Cohen et al., 2018; Creswell & Creswell, 2023; Edmonds & Kennedy, 2017). The quantitative approach was also considered the most efficient and appropriate approach given the time and financial constraints placed on the completion of the Columbia International University (CIU) doctoral program in organizational leadership.

Qualitative and mixed-methods approaches, both of which were explored, were not feasible options given the objective to explore variables and their relationships within the confines of the aforementioned constraints (Merriam & Tisdell, 2019; R. K. Yin, 2017). Because the study relied on analyzing numerical data to test hypotheses, a quantitative approach was the most appropriate methodology to achieve the objectives of the research (Bowers, 2017; Christensen & Johnson, 2014). Finally, given that manipulation of the independent variables was not required or undertaken, this study was appropriately aligned with a non-experimental

quantitative methodology (McCusker & Gunaydin, 2015) using publicly available archival survey data from the 2023 FEVS, which was facilitated by the U.S. OPM.

Research Design

To support a quantitative non-experimental correlational design, the research and data analysis for the study were conducted using the validated and reliable 2023 U.S. OPM FEVS and associated data set collected through an agency-administered and agency-reported online government survey that took place from May 9 to July 14, 2023 (Resh et al., 2021; U.S. Office of Personnel Management [USOPM], 2023). The U.S. OPM FEVS is a federally mandated and annually distributed survey consisting of multiscale indices (U.S. Office of Personnel Management [USOPM], 2024a). The basis for using the FEVS was supported by prior empirical research recommendations and literature supporting the construct and validity of the FEVS, which was created and first issued to government employees in 2002 (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; Resh et al., 2021). Given that the FEVS and multiscale indices consist of 5-point Likert-type scales and numerical data, the quantitative methodology was furthermore deemed appropriate (L. Cohen et al., 2018).

As Bowers (2017) asserted, numerical data that allow for statistical analyses are most appropriate for use in a quantitative research methodology and design. The use of numerical data and a quantitative methodology by which the data are analyzed helps reduce biases and subjectivity in research (Christensen & Johnson, 2014; McCusker & Gunaydin, 2015). Because quantitative research typically involves statistical and numerical analysis of data gathered from surveys or archival data using computational methods, the selected quantitative methodology and design was suitable for this study (Edmonds & Kennedy, 2017; Salkind & Frey, 2020). In contrast, a qualitative approach was not appropriate for this study as its aim is not to investigate a

phenomenon or to develop a model, theory, or new definition of an underexplored problem (Allwood, 2012; Ghanad, 2023; R. K. Yin, 2017).

This study did not involve manipulating the independent variables, making a non-experimental quantitative methodology using a correlational design the most appropriate (Creswell & Creswell, 2023). Employing this approach ensures objectivity within the design in which the principal investigator remains separated and compartmentalized from the participants of the study (McCusker & Gunaydin, 2015). The selection of a non-experimental correlational design was appropriate for the analysis as the purpose was to determine whether a relationship existed between the dependent and independent variables and to assess the strength of the relationship (L. Cohen et al., 2018; Edmonds & Kennedy, 2017).

Based on the structure of the RQs to determine the relationship between multiple variables, the use of correlation, linear regression, and multiple regression were considered suitable statistical analyses within this research design (Christensen & Johnson, 2014). Correlation measures relationship strength and direction (Laerd Statistics, 2018; Salkind & Frey, 2020; Shantal et al., 2023). Linear regression and multiple linear regression examine predictive relationships between variables (L. Cohen et al., 2018; Ghanad, 2023; Laerd Statistics, 2015). Multiple regression goes a step further and allows for the prediction of a continuous dependent variable based on several independent variables (Field, 2018); it also assesses the overall model fit and the relative contribution of each predictor to the explained variance (Ghanad, 2023; Salkind & Frey, 2020). Covariates can also be included in the model to control for any potential effects they may have (Andrade, 2021). Finally, the use of descriptive statistics included in the study provided a means of summarization of the data (Siedlecki, 2020).

Participants

The study population was an estimated 2.3 million civilian employees within the U.S. government (CBO, 2024). The total U.S. Department of the Navy workforce in 2022 comprised an estimated 844,601 workers both in and out of uniform. The target population consisted of an estimated 200,248 civilian employees within the U.S. Department of the Navy, consistent with the reported end strength for civilian personnel in Fiscal Year 2022 (Ott, 2022).

Considering the large target population, a correspondingly large sample would bring increased precision and strength to the analysis (Christensen & Johnson, 2014; Salkind & Frey, 2020). Within such research parameters, a considerably larger sample also brings undesirable logistical implications that would, under normal circumstances of recruitment, not be deemed feasible given the constraints of time and reach allotted for the CIU doctoral program. For example, applying the representative definition of a sample size, as outlined by Cochran (2007) and Creswell and Creswell (2023), would require approximately 10% of the target population, or an estimated 20,000 participants. However, such a large sample would be unachievable given the constraints of the doctoral program and the bureaucratic requirements involved in obtaining access to federal employee raw data; thus, this study did not aim for 10% of the target population.

Attempting to collect data from such a large sample and from within the federal government would consume a considerable amount of time and would have been unfeasible if the study had not leveraged the U.S. OPM FEVS from 2023. Analysis of such a large sample size could have also required greater computational resources during the execution of the study. Given the potential issues when dealing with a large sample size, a power analysis was conducted to determine the minimum sample size necessary for the study (Edmonds & Kennedy,

2017). The power analysis used to identify the minimum sample size was conducted using the Raosoft sample size calculator (http://www.raosoft.com/samplesize.html), as recommended by Creswell and Creswell (2023) and L. Cohen et al. (2018). Parameters established for the minimum sample size were a margin of error set at 5%, a response distribution set at 50%, and a confidence interval set at 95%. The outcome was a recommendation of $n = 384$ for the study sample size (Raosoft, 2004), a manageable outcome for the minimum participants required to conduct the study.

Several steps were followed to achieve the minimum required sample size ($n = 384$) of U.S. Department of the Navy civilian employees. First, the full data set from the 2023 FEVS containing the surveys collected from the target population of U.S. government civilian employees was obtained from the U.S. OPM public website. Next, the participant sample was derived using a data cleaning and filtering process on the publicly available archival data set.

The data set sample size following the data cleaning and filtering process resulted in 9,160 U.S. Department of the Navy civilian employees, exceeding the minimum required sample size ($n = 384$) needed to conduct the statistical analyses. A brief overview of the data cleaning and filtering steps is as follows: (a) isolate U.S. Department of the Navy responses from the FEVS target population, (b) isolate U.S. Department of the Navy civilian employee responses from U.S. Department of the Navy uniformed employee responses, and (c) remove incomplete and missing responses from the FEVS data set. The full data cleaning and filtering process is documented in the research procedures section presented later in Chapter 3 and within the research audit trail (see Appendix D).

Instrument

The data set and demographics collected and analyzed for this quantitative non-experimental correlational study derived from the comprehensive FEVS instrument, which the U.S. OPM facilitated in 2023. The FEVS instrument, a federally mandated government-wide survey, is a validated multiscale instrument administered annually using 5-point Likert-type scales with choices consisting of 5 = *strongly agree*, 4 = *agree*, 3 = *neither agree nor disagree*, 2 = *disagree*, and 1 = *strongly disagree* (Fernandez et al., 2015; Orr & Leider, 2023; S. Park & Liang, 2020; Thompson & Siciliano, 2021). The FEVS measures federal employees' perceptions of organizational policies, climate, practices, and procedures, as well as interaction patterns and leadership behaviors that affect organizational performance, using 91 individual response items, five indices used for the multi-item scales of measure, and 19 demographic questions (Fernandez et al., 2015; USOPM, 2024a). The five validated and reliable indices and their scales of measure contained within the FEVS include the Employee Engagement Index (EEI), the Global Satisfaction Index, the Performance Confidence Index, the Diversity, Equity, Inclusion, Accessibility (DEIA) Index, and the Employee Experience Index.

From the FEVS indices, the EEI and DEIA Index were used to support the study to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. Selection of the EEI and DEIA Index was based on prior research recommendations and literature supporting the construct and validity of the FEVS and the indices contained therein (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; Resh et al., 2021; Trottier et al., 2008). The demographics collected within the FEVS were also used separately to provide a descriptive analysis of the data. The FEVS, its validated indices, and corresponding

data set were instrumental in exploring the underresearched topic of interest and were in alignment with both the Multifactor Leadership Questionnaire (MLQ; Avolio et al., 1999) and PS-5 (Liang et al., 2012) on which they were empirically and theoretically based (Fernandez et al., 2015; Resh et al., 2021).

Due to the focus and sensitivity of the study and required data from federal employees, the FEVS was deemed the quantitative instrument of choice. The FEVS is supported by 2 decades of empirical research and is recommended by scholars in government leadership, organizational design, and organizational climate (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; Resh et al., 2021). The FEVS is the only annual survey authorized and mandated by federal law to collect federal employees' evaluations of their climate, work environment, leadership, and organizational outcomes (Fernandez et al., 2015; Orr & Leider, 2023; Thompson & Siciliano, 2021). A detailed description of the EEI and DEIA Index and their scales of measure as used within the study are described in the following subsections.

Employee Engagement Index

The FEVS EEI, which contains 15 items on a 5-point Likert-type scale, consists of three subindices: Leaders Lead, Supervisors, and Intrinsic Work Experience (Fernandez et al., 2015; USOPM, 2024a). The EEI and its subindices are a peer-reviewed and validated scale used to measure engagement, interpersonal relationships, motivation, and influence (Emidy, 2024; H. Lee, 2021; Resh et al., 2021). The measures within the EEI provide an empirical assessment of transformational leadership and leadership behaviors (Fernandez et al., 2015; USOPM, 2024a).

Using the EEI scale of measure, which aligns with transformational leadership theory and the MLQ, provided validity and reliability of the instrument for the measurement of the construct of transformational leadership within the federal government (Avolio et al., 1999; Fernandez et

al., 2015; Resh et al., 2021; Trottier et al., 2008). Table E1 (see Appendix E) provides a visual representation of the mapping of the applicable FEVS items used to measure transformational leadership. While the MLQ was not used in this study, the alignment is empirically and theoretically linked to that of the FEVS that facilitated this study (Fernandez et al., 2015; Resh et al., 2021).

DEIA Index

The FEVS DEIA Index, which contains 13 items on a 5-point Likert-type scale, consists of four subindices: Diversity, Equity, Inclusion, and Accessibility (USOPM, 2024a). The DEIA Index and its subindices are a peer-reviewed and validated scale used to measure inclusion, use of employee talent and skills, communication, innovation, involvement, and interpersonal trust (Fernandez et al., 2015). The measures within the DEIA Index provide an empirical assessment of psychological safety and a climate of openness and inclusion (Emidy, 2024; H. Lee, 2021; Resh et al., 2021; USOPM, 2024a).

Using the subscales of measure in alignment with psychological safety and the PS-5 provided additional validity and reliability of the instrument for measurement of the construct of psychological safety climate within the federal government (Liang et al., 2012; Orr & Leider, 2023; Thompson & Siciliano, 2021). Table E2 (see Appendix E) provides a visual representation of the applicable FEVS items used to measure psychological safety. While the PS-5 was not used in this study, the alignment is empirically and theoretically linked to that of the FEVS that facilitated this study (Fernandez et al., 2015; Resh et al., 2021).

Overview of the Instrument

The FEVS, which provides employees with a way to share their opinions on a range of significant subjects, such as their work climate, agency, and leadership, served as the study's

main source of data. Documentation and use of the FEVS and its associated data have been made publicly available on the U.S. OPM website for scholarly and doctoral research in organizational leadership and development (Fernandez et al., 2015; Orr & Leider, 2023). Although the FEVS is publicly available for use, confirmation of permissions to use the FEVS instrument and data set for the study was obtained (see Appendix B). Permissions to use the FEVS instrument were included for Institutional Review Board (IRB) review to gain approval for the study prior to conducting the research.

The FEVS, which uses a stratified random sampling method divided into smaller homogeneous groups, is administered and facilitated by the U.S. OPM (Orr & Leider, 2023; USOPM, 2024a). Since its introduction in 2002, use of the FEVS for intended measures of leadership behaviors, transformational leadership, organizational climate, psychological safety, and employee engagement has been leveraged for dissertations and empirical studies, where it continues to provide acceptable justification and support for validity and reliability of the instrument and data outcomes (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; S. Park & Liang, 2020; Resh et al., 2021).

According to the U.S. Office of Personnel Management (2024a), federal leaders use the results of the FEVS to determine strategies for organizational development, workplace improvement, climate assessment, and personnel actions, and to highlight noteworthy agency successes. The outcomes of the annual FEVS provide government agencies with the ability to assess their performance against the government's overall results and concentrate on both short-term and long-term action plans that will support agency efforts in achieving their strategic objectives for managing human resources. The 2023 FEVS was a U.S. OPM-administered survey comprising multiple organizational leadership and organizational climate survey items

that was distributed throughout the U.S. government (USOPM, 2024a). The FEVS is voluntarily completed annually by federal employees, including the U.S. Department of the Navy civilian employees (Fernandez et al., 2015). The U.S. OPM FEVS is the primary and preferred quantitative instrument of choice in government organizational research due to authorization and access to government organizations and their employees (H.-W. Lee & Rhee, 2023; U.S. Office of Personnel Management [USOPM], 2024b).

The construct of the FEVS contains 91 individual 5-point Likert-type response items derived from five indices and seven subsets of items. The FEVS instrument provided the validated scales of measure this study used to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate (Fernandez et al., 2015; USOPM, 2023). The variables measured for the study include the independent variable of transformational leadership (16 items); the independent variables of the dimensions of transformational leadership, which include idealized influence (4 items), inspirational motivation (4 items), individualized consideration (4 items), and intellectual stimulation (4 items); and the dependent variable of psychological safety climate (5 items). Table E3 (see Appendix E) lists the corresponding FEVS items used from each of the study's validated multi-item scales of measure to investigate transformational leadership and psychological safety climate.

Validity of the Instrument

According to Creswell and Creswell (2023), establishing and maintaining validity of a research instrument involves the components of ensuring the instrument measures the intended objectives of measure, produces results that correlate with other results, and strives to measure objectives that are in alignment with theoretical or conceptual research designs. The U.S. OPM

specified that one of the goals for the FEVS is to collect and retain data of the highest quality in terms of reliability and validity (USOPM, 2023). This goal ensures the FEVS instrument remains a trusted source for research and contributes to the effectiveness and support for organizational development throughout the U.S. government (Resh et al., 2021).

The measures and scales the FEVS instrument provides to explore organizational policies, climate, practices, and procedures, as well as patterns and leadership behaviors that affect organizational performance, have been validated using confirmatory factor analysis, in which the results indicate both convergent and discriminant validity (Fernandez et al., 2015). Confirmatory factor analysis is used to confirm that an instrument supports the theoretical application and hypotheses in the intended discipline and field of research (Cheung et al., 2023). Convergent and discriminant validity attest to the instrument's ability to measure the concept and theories it was designed to support (Lim, 2024). In addition to empirical research that supports and validates the FEVS and its strength in gauging leadership behaviors and organizational climate within theories of leadership and organizational design (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; S. Park & Liang, 2020; Resh et al., 2021), the U.S. OPM has enacted its own protocols using a two-step process to establish validity of the FEVS and to maintain the highest accuracy and validity of the data and outcomes.

Within the U.S. OPM, the FEVS instrument and protocols administered annually are subjected to two levels of quality control that strive to guarantee the highest levels of validity and accuracy (USOPM, 2023). The first step in the quality control process is focused on maintaining the FEVS validity and the reporting outcomes using electronic quality control supported with the use of statistical analysis software. The second step in the process is to maintain the highest levels of accuracy and validity in the data and data collection using the FEVS instrument

whereby the staff at the U.S. OPM compare the FEVS input, which is statistical analysis software-produced, to the FEVS output, which consists of the FEVS data set and corresponding report (USOPM, 2023). The outcome of the quality control process is a well-maintained and valid survey instrument that has been employed by the U.S. OPM since 2002 (Emidy, 2024; Fernandez et al., 2015).

Reliability of the Instrument

When referring to the reliability of an instrument, the consistent and repeatable nature of the research instrument must be considered (L. Cohen et al., 2018). The error of the instrument should be maintained at minimum with a consistency that is acceptable to warrant reliability in research (Salkind & Frey, 2020). To assess the reliability of an instrument, the consistency can be measured using Cronbach's alpha, a value quantified within the range of 0 to 1, and most ideal at a value of 0.7 to 0.9 (Creswell & Creswell, 2023; Edmonds & Kennedy, 2017).

In prior empirical research, the FEVS scales consistently demonstrated strong internal consistency, with Cronbach's alpha values ranging from 0.713 to 0.870, exceeding the 0.7 threshold considered acceptable for reliability in quantitative research (Christensen & Johnson, 2014; Emidy, 2024; Fernandez et al., 2015; Jansen, 2022; Resh et al., 2021). To support continued use of the FEVS instrument in this study, Cronbach's alpha scores were calculated for the specific multi-item scales measuring transformational leadership (and its four dimensions) and psychological safety climate. These scores were all > 0.7, confirming the reliability of the scales used. Combined with the support of previous research, these findings confirmed that the FEVS is an appropriate and reliable instrument for assessing the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate

among U.S. Department of the Navy civilians. The data set collected from the 2023 FEVS was determined to be adequate, reliable, and appropriate for use in this study.

Research Model

A quantitative non-experimental correlational survey approach was used to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians and to inform the research model of the study. The components of the research model include a culmination of the literature review input with supporting theory, the methodological design of the study, the output and data analysis, and the knowledge the study provides to the U.S. Department of the Navy and the organizational leadership body of knowledge.

Validity & Reliability of the Study

According to Creswell and Creswell (2023), two categories of validity must be considered during the design of a quantitative study: internal and external validity. Because the study used a quantitative non-experimental correlational design and the FEVS instrument was deemed valid, threats to internal validity were deemed nonapplicable (Ghanad, 2023; Leedy & Ormrod, 2018; Mohd Salleh et al., 2023). External validity, as Degtiar and Rose (2023) explained, refers to the extent to which the study's results can be generalized to the broader population. Although the FEVS instrument used to measure the constructs of transformational leadership theory and psychological safety climate continues to see increased calls by scholars to assess and ensure validity, it has nonetheless managed to pass strict validation in both existing empirical research and by the U.S. OPM (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; Resh et al., 2021; USOPM, 2023). Therefore, because current scholarly evidence directly

supports the external validity of the FEVS, the overall validity of the study using the FEVS instrument and multiscale measures was achieved.

Threats to the reliability of data interpretation in quantitative research may often arise from testing hypotheses using unreliable instruments (Salkind & Frey, 2020). Rejecting or failing to reject null hypotheses is a contributory result in quantitative research; however, if the research instrument has failed the reliability analysis, then the validity of the results can be compromised and called into question (Creswell & Creswell, 2023; Mohd Salleh et al., 2023). To ensure reliability of a study, an analysis of internal consistency is deemed necessary to ensure that consistency in the results and measures of data collected are maintained (Christensen & Johnson, 2014; Mohd Salleh et al., 2023; Salkind & Frey, 2020). Based on prior empirical research and the Cronbach's alpha scores > 0.7 assessed for the FEVS variables and scale groupings used in this study, the reliability of the instrument is supported and provides confidence in the trustworthiness of the study's findings (L. Cohen et al., 2018; Fernandez et al., 2010).

Research Procedures

Before commencing data collection to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians, IRB approval was obtained from CIU (see Appendix C). The primary data source used for the study was the 2023 FEVS data set. The FEVS, having been used in scholarly research since its introduction in 2002, is a recommended and well-documented multiscale instrument intended for measures of leadership, climate, psychological safety, and employee engagement (Fernandez et al., 2015). The FEVS has been leveraged for use in many doctoral dissertations and empirical studies since

2002, which continue to provide support for validity and reliability of the instrument and data outcomes (Emidy, 2024; H. Lee, 2021; S. Park & Liang, 2020; Resh et al., 2021).

The FEVS is a validated survey instrument administered annually using a 5-point Likert-type scale with choices consisting of 5 = *strongly agree*, 4 = *agree*, 3 = *neither agree nor disagree*, 2 = *disagree*, and 1 = *strongly disagree* (Fernandez et al., 2015; Orr & Leider, 2023; S. Park & Liang, 2020; Thompson & Siciliano, 2021). The FEVS instrument is designed to assess employee perceptions of agency policies, climate, practices, procedures, interaction patterns, and leadership behaviors that influence organizational performance (USOPM, 2023). Within the FEVS are 91 individual response items, five indices used for the multi-item scales of measure, and 19 demographic questions (Fernandez et al., 2015; H.-W. Lee & Rhee, 2023; USOPM, 2023). Because the FEVS and multiscale indices consist of 5-point Likert-type scales and numerical data, the instrument was deemed fit for the quantitative methodology employed in the study (Bowers, 2017).

The research used the publicly available 2023 U.S. OPM FEVS data set as the main data source and leveraged the details of the instrument and data set provided within the FEVS technical report as research guidance. The FEVS technical report includes a detailed summary of the intended population of interest and the sample used in the study (USOPM, 2023). The population of interest for the study was an estimated 2.3 million civilian employees within the U.S. government (CBO, 2024). The target population for the study was U.S. Department of the Navy civilian employees, which was estimated at 200,248 authorized personnel in Fiscal Year 2022 (Ott, 2022).

Each fiscal year, the U.S. OPM prepares, administers, and collects FEVS data that are processed and then released as a publicly available data file (USOPM, 2023). Because the FEVS

data files are posted and released on the U.S. OPM website, they are considered publicly available data and therefore do not require permissions or site authorization. However, to ensure adherence to ethical principles and in keeping with CIU IRB guidelines, an email confirmation for U.S. OPM permissions to use the 2023 FEVS instrument and data was obtained (see Appendix B). The FEVS data were then retrieved from the U.S. OPM website, and the file was exported as a Microsoft Excel file, where it was filtered, cleaned, and checked for accuracy. The cleaned Microsoft Excel file was then imported into SPSS for statistical analysis.

To answer the five RQs that guided the study, the sample population for the research was civilian employees within the U.S. Department of the Navy. The study sample included permanently employed full-time and part-time U.S. Department of the Navy civilian employees who were neither political nor appointed employees (USOPM, 2023). The sample did not include any uniformed military personnel within the U.S. Department of the Navy.

Through an agency-distributed email, the U.S. OPM used a stratified sampling technique to recruit participants for the 2023 FEVS (USOPM, 2023). The sampling frame was an inclusive list of U.S. Department of the Navy civilian employees eligible for selection to complete the 2023 FEVS based on their status at the time of FEVS administration. The eligible sample frame for recruitment from the U.S. Department of the Navy was a civilian workforce of 200,248 authorized civilian personnel (Ott, 2022). Each surveyed employee was categorized as either a permanently employed full-time or part-time U.S. Department of the Navy civilian who was neither a political nor appointed employee (USOPM, 2023).

Because the U.S. OPM FEVS is federally mandated and distributed internally within the U.S. Department of the Navy-distributed email system, informed consent was obtained through the internal government delivery process that is facilitated by the U.S. OPM (H.-W. Lee & Rhee,

2023; USOPM, 2024b). In accordance with the U.S. OPM processes and procedures for administering and collecting the FEVS data, the survey is executed and distributed electronically to eligible federal employees through an email invitation to participate (USOPM, 2024b). To encourage a high response rate, the U.S. OPM sends additional follow-ups, or reminders, using organization email to all eligible participants. Instructions, purpose, link to the privacy policy (see Appendix F), and informed consent (see Appendix G) to participate in the FEVS are included in the email invitation the U.S. OPM sends to eligible federal employees. An example of the FEVS email invitation to federal employees provided within the FEVS technical report (USOPM, 2023) can be viewed in Appendix H.

The U.S. OPM conducts a rigorous cleaning procedure of the FEVS collected data set, such as removal of employees who are no longer within the federal government, prior to release of the publicly available data files (USOPM, 2023). To enhance confidence in the data obtained using the FEVS, additional procedures were conducted to execute this study as designed. Filtering, verification, and cleaning of incomplete survey responses were instituted for the study. An audit trail documented the cleaning process upon the initial download of the publicly available data set and each subsequent filtering and cleaning step (see Appendix D).

As a result of the research process that involved permissions, approval, data set retrieval, filtering, cleaning, and preparation for analysis, a total of 9,160 civilian participants from the U.S. Department of the Navy were taken from the publicly available archival data collected through the validated U.S. OPM FEVS. To determine the minimum required sample, a power analysis using Raosoft (2004) was conducted. Given that the overall sample size from the 2023 FEVS was 9,160 U.S. Department of the Navy civilian workers after filtering and cleaning of incomplete survey responses, the minimum sample size of 384 participants was met.

Data Analysis Strategy

The purpose of this quantitative non-experimental correlational study was to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The study used publicly available archival survey data collected from the FEVS, which the U.S. OPM facilitated in 2023. The FEVS instrument is designed to assess employee perceptions of agency policies, climate, practices, procedures, interaction patterns, and leadership behaviors that influence organizational performance (USOPM, 2023). The FEVS consists of 91 individual response items, five indices used for the multi-item scales of measure, and 19 demographic questions (Fernandez et al., 2015; USOPM, 2023).

Use of the FEVS was deemed feasible for the present study based on prior research recommendations and literature supporting the construct, reliability, and validity of the multiscale quantitative instrument (Emidy, 2024; Fernandez et al., 2015; H. Lee, 2021; Resh et al., 2021). The analysis to determine if and to what extent a relationship existed between transformational leadership and psychological safety climate within government was warranted based on a review of the literature and research gap (Al Marshoudi et al., 2023; Karimi et al., 2023; J.-K. Kim et al., 2023). To guide the data collection and analysis, five RQs and hypotheses were used.

To answer the five RQs, a quantitative methodology using correlational analysis, linear regression, and multiple linear regression was conducted using the 2023 FEVS indices, scales of measure, and data collected. To address RQ1, a correlational analysis and simple linear regression were performed to determine if and to what extent a relationship existed between the variables of transformational leadership and psychological safety climate. To address RQ2–RQ5,

a correlational analysis and multiple linear regression were performed to determine if and to what extent a relationship existed between the criterion variable (psychological safety climate) and predictor variables (idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation).

The analyses were chosen based on the gap in research and recommendations from existing literature (Creswell & Creswell, 2023; Dufera et al., 2023; Salkind & Frey, 2020). These analyses were selected to match the study objectives to determine variable relationships and predictive ability (Salkind & Frey, 2020). Table 1 provides a visual summary of the RQs, the independent and dependent variables, and the statistical analyses performed to address the RQs.

Table 1

Research Questions, Study Variables, & Quantitative Analysis

Research question (RQ)	Study variables	Quantitative analysis
RQ1: To what extent is there a relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians?	IV: Transformational leadership DV: Psychological safety climate	Correlational analysis, linear regression
RQ2: To what extent is there a relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians?	IV: Idealized influence, inspirational motivation, individualized consideration, intellectual stimulation DV: Psychological safety climate	Correlational analysis, multiple linear regression
RQ3: To what extent is there a relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians?		
RQ4: To what extent is there a relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians?		
RQ5: To what extent is there a relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians?		

Note. IV = independent variable. DV = dependent variable.

To gain a better understanding of the sample, descriptive statistical analysis was performed. Descriptive statistics include dispersion, central tendency, and frequency, which are measures used in quantitative analysis to summarize the data (Creswell & Creswell, 2023; Salkind & Frey, 2020; Siedlecki, 2020). SPSS version 29 was used to analyze the quantitative data collected through the FEVS multiscale instrument. The FEVS data set was prepared and cleaned by the U.S. OPM before public release and further prepared and cleaned for the intent and purpose of this research by identifying missing data within the data set (Abuhaija et al., 2023). For example, if a value was found to not be present, the entire data entry was removed from consideration and deleted. As a result, the analysis conducted in the study was performed using response entries with complete data sets to ensure consistency and enhanced accuracy of the results (Salkind & Frey, 2020).

The study employed correlation analysis, simple linear regression, and multiple linear regression using SPSS to determine relationships between transformational leadership and psychological safety climate among U.S. Department of the Navy civilian employees. Correlation coefficient measures relationship strength and direction, ranging from −1 to +1 (Laerd Statistics, 2018; Salkind & Frey, 2020; Shantal et al., 2023). Linear regression and multiple linear regression examine predictive relationships between variables (L. Cohen et al., 2018; Ghanad, 2023; Laerd Statistics, 2015).

Before determining the relationships between variables, assumption testing was conducted to ensure appropriate use of statistical procedures (Salkind & Frey, 2020). For all five RQs, two statistical tests were needed to determine relationships during data analysis. The first test was correlation statistical measures, which determined the relationship between transformational leadership behaviors and psychological safety climate. The second test was

regression analysis to determine the extent to which transformational leadership predicts psychological safety climate. According to Laerd Statistics (2018), four assumptions are to be tested for valid correlational analysis: (a) two continuous variables paired together, (b) a linear relationship between variables, (c) absence of significant outliers, and (d) bivariate normality. Although FEVS uses Likert-scale data, which are deemed ordinal, research supports analyzing such psychometric scales using parametric tests when assumptions are met (L. Cohen et al., 2018).

For all five RQs, regression analysis determined the extent to which transformational leadership and the dimensions of transformational leadership predict psychological safety climate. While simple linear regression was employed for RQ1 due to one independent variable, multiple linear regression was employed for RQ2–RQ5 as four independent variables were tested together. Beyond the four assumptions for correlation, the use of simple linear regression analysis in RQ1 required three additional assumptions: independence of residuals, homoscedasticity, and normal distribution of residuals (Laerd Statistics, 2015). The use of multiple linear regression analysis for RQ2–RQ5 required one final assumption: absence of multicollinearity. In total, eight assumptions were tested to ensure valid results (Field, 2018; Laerd Statistics, 2015; Prasetya, 2023). The assumption testing required completion of the four-correlation test first, followed by the four additional tests for regression.

While the first assumption of continuous variables paired together was verified through study design requirements, the remaining seven statistical assumptions were tested using SPSS (Laerd Statistics, 2015, 2018). The assumption of normality states that regression residuals should be normally distributed, which is evaluated using normal Q-Q plots and histograms (Salkind & Frey, 2020). Homoscedasticity requires consistent variance patterns along the

regression line, assessed through examination of standardized residual plots versus predicted values (Oentari & Asmawan, 2023). Multicollinearity between independent variables is evaluated using a variance inflation factor (VIF), with values exceeding 10 indicating potential issues (Prasetya, 2023). Linear relationships between variables are assessed through scatterplots, with visual inspection confirming linearity between dependent and independent variables (Oentari & Asmawan, 2023; Salkind & Frey, 2020). Significant outliers are examined using box plots and studentized residuals exceeding ±3 (Bates et al., 2023). Independence is verified using the Durbin–Watson statistic, with values between 1.5 and 2.5 indicating no autocorrelation (Laerd Statistics, 2015).

In the study, the following regression models were tested using SPSS:

- Psychological Safety Climate = b_o + b_1 Transformational Leadership
- Psychological Safety Climate = b_o + b_1 Idealized Influence + b_2 Inspirational Motivation + b_3 Individualized Consideration + b_4 Intellectual Stimulation

The significance of the regression models used in the study were assessed at the 5% level of significance, thus a p value ≤ 0.05 is considered significant. In contrast, if $p > 0.05$, then the model is considered not significant.

Ethical Issues

When conducting research on human participants, it is important to protect the participants and minimize their risks. Protecting participants and minimizing risks is accomplished by adhering to ethical guidelines and implementing a strategy that mitigates ethical issues (Creswell & Creswell, 2023). According to the *Belmont Report*, key ethical considerations include respect for participant autonomy, data security, and upholding the principles of beneficence and justice (Office for Human Research Protections, 2018). Following is a

discussion of ethical issues and the process by which the issues were examined and mitigated to ensure no breach of trust or ethics occurred during the study.

One ethical consideration involved informed consent. Researchers must provide participants with full details on the study's nature and ensure their voluntary involvement (Edmonds & Kennedy, 2017; Noble & Smith, 2015). Strategies to address this ethical issue include creating comprehensive consent forms that outline the study and participant rights (Edmonds & Kennedy, 2017). Allowing participants to review this information and present questions before electing to participate in a study helps to ensure meaningful consent (Creswell & Creswell, 2023). Because the U.S. OPM FEVS is a federally mandated survey instrument distributed internally within the U.S. Department of the Navy-distributed email system, informed consent was obtained through the government delivery process facilitated by the U.S. OPM (H.-W. Lee & Rhee, 2023). Therefore, the study did not require additional informed consent because the U.S. OPM had facilitated data collection and subsequently provided the data sets that were used for the study. Because the retrieved data set does not identify the participants, no additional safeguards were required to mask or conceal participant identity (USOPM, 2023, 2024a).

Maintaining confidentiality of sensitive data is another ethical concern (Edmonds & Kennedy, 2017). To address this concern, implementation of data encryption, assigned pseudonyms, and developed protocols for secure data storage can be invoked to mitigate ethical concerns (Thapa & Camtepe, 2021). Similar precautions should be taken to protect participant privacy (Creswell & Creswell, 2023). Additional strategies, such as anonymizing data, can further minimize risks of identification (L. Cohen et al., 2018). Although no personally identifiable information was contained within the U.S. OPM FEVS data set used for the study, the electronic data were still safeguarded by storing the FEVS electronic data on a computer that

was password protected. The data will be maintained for a minimum of 3 years following the conclusion of the study. Once the 3 years have elapsed, all study-related electronic data are scheduled for destruction. The electronic data will be deleted and permanently wiped from the password-protected computer.

Finally, when studying vulnerable populations, extra care must be taken to avoid coercion and exploitation (Office for Human Research Protections, 2018). If the groups studied require additional protections, the full IRB processes must be followed. In all research, the principal investigators have an ethical duty to weigh the risks and benefits of studies on vulnerable groups and populations before proceeding with the studies (Edmonds & Kennedy, 2017). In the execution of this study using the 2023 U.S. OPM FEVS, and prior to data collection for the study, IRB approval was obtained.

In summary, key ethical issues in research include informed consent, data security, privacy protection, and potential harm, especially for vulnerable groups (Creswell & Creswell, 2023). In this study, the utmost respect for human subjects and the ideals of ethical procedures were followed as outlined in the *Belmont Report* (Office for Human Research Protections, 2018). By thoughtfully considering the issues prior to the study and implementing protective strategies, the study was executed ethically. This ethics-first approach ensured the study upheld the moral duty to participants throughout the research process, to include considerations of the data and data set once the study concluded.

Chapter Summary

This chapter presented a detailed explanation of the research methodology and design employed to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S.

Department of the Navy civilians. A quantitative non-experimental correlational approach was used given the intent to determine connections between the variables of transformational leadership and psychological safety climate. The focus of the study was U.S. Department of the Navy civilian employees comprising a sample of 9,160 participants obtained from the 2023 FEVS, which was facilitated by the U.S. OPM. Use of the FEVS, an existing validated multiscale instrument with demonstrated reliability, strengthened the measurement approach and the validity and reliability of the study (Fernandez et al., 2015; Orr & Leider, 2023). The data collection procedures for the study adhered to ethical guidelines, including IRB approval before the research process commenced.

To determine the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate, correlation analysis, linear regression, and multiple linear regression were conducted using SPSS version 29. These quantitative analyses were selected to match the objectives to determine variable relationships and predictive ability (Salkind & Frey, 2020). The key assumptions of the analyses regarding continuous variables paired together, a linear relationship between variables, absence of significant outliers, and bivariate normality were conducted to test for valid correlational analysis (Laerd Statistics, 2018). To test for valid regression analysis, the key assumptions of independence of residuals, homoscedasticity, normal distribution of residuals, and absence of multicollinearity were performed (Laerd Statistics, 2018). In total, eight key assumptions were tested.

In summary, the methodology detailed in Chapter 3 provided a scientifically rigorous approach to investigate the five RQs of the study on the potential relationship between transformational leadership behaviors and psychological safety climate in a government organizational context. Data analysis procedures were selected to enable objective quantification

of the relationships and in keeping with the scientific method. The results of the analysis provided a logical basis to address the five RQs of the study and their hypotheses. The detailed findings and results of the data analysis are presented in Chapter 4. A narrative of the results, along with tables, is provided with a detailed discussion of the study findings. In Chapter 5, a further discussion of the findings is presented, with conclusions, limitations, and recommendations for future research concluding the study.

CHAPTER 4: ANALYSIS & RESULTS

The purpose of this quantitative non-experimental correlational study was to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The problem this study addressed was how transformational leadership behaviors shape an organizational climate of psychological safety in a high-demanding and volatile public sector context, which is often found within government organizations. The variables measured for the study were the independent variable of transformational leadership; the independent variables of the dimensions of transformational leadership, which included idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation; and the dependent variable of psychological safety climate.

The study used the publicly available archival data collected from the Federal Employee Viewpoint Survey (FEVS) instrument, which the U.S. Office of Personnel Management (U.S. OPM) facilitated in 2023. The FEVS instrument consists of 91 individual response items on a 5-point Likert scale, 19 demographic questions, and five indices, each with its own subindices and validated scales of measure. Two indices and scales of measure from the FEVS supported the study of transformational leadership and psychological safety climate within the U.S. Department of the Navy. The indices and scales of measure used were the Employee Engagement Index (EEI) and the Diversity, Equity, Inclusion, Accessibility (DEIA) Index, which are aligned, validated, and reliable for use in leadership behaviors and psychological measurement (Fernandez et al., 2015; Resh et al., 2021; U.S. Office of Personnel Management [USOPM], 2023).

The population for the study comprised an estimated 2.3 million civilian employees who worked in the U.S. government (Congressional Budget Office [CBO], 2024). The target population used for the analysis was an estimated 200,248 civilian employees who worked in the U.S. Department of the Navy (Ott, 2022). A sample size calculation using a power analysis supported by Raosoft (2004) determined that a minimum of 384 participants were required for the study to be effective. This number was based on parameters for a desirable margin of error set at 5%, a response distribution set at 50%, and a confidence interval set at 95%. The final sample used in the study consisted of 9,160 responses. This sample size not only exceeded the minimum required participants but also allowed for stronger transferable results to the target population under examination (L. Cohen et al., 2018).

The data analysis presented in Chapter 4 addressed the five research questions (RQs) and their associated null and alternate hypotheses to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The following RQs and hypotheses guided the study:

- RQ1: To what extent is there a relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H01: There is not a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.

  - H_A1: There is a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.

- RQ2: To what extent is there a relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians?
  - $H_0 2$: There is not a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.
  - $H_A 2$: There is a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.
- RQ3: To what extent is there a relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians?
  - $H_0 3$: There is not a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.
  - $H_A 3$: There is a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.
- RQ4: To what extent is there a relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians?

  - H_04: There is not a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.
  - H_A4: There is a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.

- RQ5: To what extent is there a relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians?
  - H_05: There is not a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.
  - H_A5: There is a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.

The remainder of Chapter 4 consists of three sections that provide a summary of the data analysis results. The first section is the descriptive data that provide a summary of the demographics and characteristics of the participant sample used for the study. The second section discusses the statistical analyses and procedures used to analyze the participant data. The third section presents the analysis of the data in a nonevaluative, unbiased, and organized manner that addresses the RQs and hypotheses.

Descriptive Data

Following is a detailed narrative of the participant demographics and descriptive statistics of the distribution and dispersion of the variables used in the study. The population of the study consisted of an estimated 2.3 million civilian employees within the U.S. government (CBO, 2024). The target population was an estimated 200,248 civilian employees from within the U.S. Department of the Navy (Ott, 2022). The minimum required sample size for effectiveness was 384 based on the Raosoft (2004) power analysis with a 95% confidence level and 5% margin of error. The study exceeded the minimum required sample size with a total of 9,160 responses obtained from the 2023 U.S. OPM FEVS data set. These 9,160 responses were a representative sample from the target population of U.S. Department of the Navy civilians.

Participant Demographics

The demographic data obtained from the 2023 FEVS data set included gender, age, race, and years of service as a government civilian employee in the U.S. Department of the Navy. Descriptive statistics for gender revealed that approximately two thirds of respondents were male and one third were female. Data collected for age were available only in categorical groups; more than 75% of participants were in the 40 or older category. Regarding race of participants, almost 75% identified as White. Participants' years of service in the government were varied, but almost half (46.4%) had 10 years or fewer in federal government. Table 2 provides a visual summary of the gender, age, race, and years of service of the participants used in the study.

Table 2

U.S. Department of the Navy Civilian Participants' Demographics

Demographic characteristic	*f*	%	Valid %	Cumulative %
Gender				
Male	6,272	68.5	68.5	68.5

Demographic characteristic	*f*	%	Valid %	Cumulative %
Female	2,888	31.5	31.5	100.0
Total	9,160	100.0	100.0	
Age group				
Under 40	1,918	20.9	20.9	20.9
40 or older	7,242	79.1	79.1	100.0
Total	9,160	100.0	100.0	
Race				
Black or African American	919	10.0	10.0	10.0
White	6,784	74.1	74.1	84.1
Asian	694	7.6	7.6	91.7
Other	763	8.3	8.3	100.0
Total	9,160	100.0	100.0	
Years of service				
10 or fewer	4,251	46.4	46.4	46.4
11–20	3,040	33.2	33.2	79.6
> 20	1,869	20.4	20.4	100.0
Total	9,160	100.0	100.0	

Descriptive Statistics

The FEVS instrument contains 91 individual response items derived from five indices and seven subsets of items. Scoring for the FEVS is based on a 5-point Likert-type scale with choices consisting of 5 = *strongly agree*, 4 = *agree*, 3 = *neither agree nor disagree*, 2 = *disagree*, and 1 = *strongly disagree* (Fernandez et al., 2015; Orr & Leider, 2023). For this study, scales from the EEI and DEIA Index within the FEVS were used to determine if and to what extent a relationship existed between the variables of transformational leadership and psychological safety climate.

Selection of the FEVS and indices was based on prior research recommendations and literature supporting the construct and validity of the instrument (Emidy, 2024; Fernandez et al.,

2015; H. Lee, 2021; Resh et al., 2021; Trottier et al., 2008). The scales of measure within the EEI provided an empirical assessment of transformational leadership (TL) and its dimensions of idealized influence (II), inspirational motivation (IM), individualized consideration (IC), and intellectual stimulation (IS) for the study (Fernandez et al., 2015; U.S. Office of Personnel Management [USOPM], 2024a). The scales of measure within the DEIA Index provided an empirical assessment of psychological safety climate (PSC) for the study (H. Lee, 2021; Resh et al., 2021; USOPM, 2024a).

Prior to conducting the data analysis using SPSS version 29, a Cronbach's alpha check for reliability was calculated on the TL, TLII, TLIM, TLIC, TLIS, and PSC scales of the FEVS instrument. The Cronbach's alpha check indicated high levels of internal consistency for all six scales. Table 3 presents Cronbach's alpha reliability coefficients on the scales/subscales used in the study.

Table 3

Cronbach's Alpha Reliability Coefficients for the TL and PSC Scales

FEVS scale	Cronbach's α	No. items
TL	0.95	16
TLII	0.86	4
TLIM	0.86	4
TLIC	0.90	4
TLIS	0.86	4
PSC	0.83	5

Note. TL = transformational leadership (overall scale). TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation. PSC = psychological safety climate.

To provide a description of the distribution and dispersion of the study variables, the mean, range, standard deviation, skew, and kurtosis of the participants' scores using the TL and PSC scales were calculated. As a result, the frequency statistics showed the participant composite mean scores were higher than the midpoint on the 5-point Likert-type scale for all six scales. This result indicated a high degree of participant experience of transformational leadership and psychological safety climate. Calculation of the skew revealed a negative skewness of the distribution for all scales, with TLIC (−1.52) and PSC (−1.09) exhibiting the most pronounced skew.

Skewness measures the extent to which a distribution of values deviates from symmetry around the mean (L. Cohen et al., 2018) and can indicate the presence of outliers that are lower or higher, or positioned to the left or right, within the distribution of values. The extent of skewness determines whether the mean scores are deemed reliable due to the influence of the left or right tail of the distribution of values (L. Cohen et al., 2018). To assist in the evaluation of skewness, the median score is used to determine appropriateness within skew distributions (Creswell & Creswell, 2023). A median score that is closely aligned with the mean score indicates the mean is a suitable representation of the data for analysis. Because the median scores were closely aligned to the mean scores within this study, the use of the mean scores for statistical analysis was deemed appropriate.

Finally, kurtosis was used in the study to measure the tailedness of the distribution of values. The results indicated that most scales approximated a mesokurtic distribution, except for TLIC (kurtosis = 2.45) and PSC (kurtosis = 1.48). The TLIC and PSC scales exhibited more peaked leptokurtic distributions. While the values of these two scales may suggest a potential for narrower distributions and thinner tails, they do not indicate an excessive presence of extreme

outliers. Table 4 contains additional descriptive statistics. Assumption testing further determined if there was a normal distribution of values and helped to select the most appropriate statistical analyses for the study.

Table 4

TL, TL Dimensions, & PSC Composite Statistics

Statistic	TL	TLII	TLIM	TLIC	TLIS	PSC
N valid	9,160	9,160	9,160	9,160	9,160	9,160
Mean	3.99	4.00	3.83	4.29	3.86	4.06
Median	4.06	4.00	4.00	4.50	4.00	4.20
Std. deviation	.81	.89	.91	.82	.91	.74
Skewness	−.91	−.94	−.75	−1.52	−.91	−1.09
Std. error of skewness	.02	.02	.02	.02	.02	.02
Kurtosis	.62	.49	.16	2.45	.54	1.48
Std. error of kurtosis	.05	.05	.05	.05	.05	.05
Range	4	4	4	4	4	4
Minimum	1	1	1	1	1	1
Maximum	5	5	5	5	5	5

Note. TL = transformational leadership (overall scale). PSC = psychological safety climate. TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation.

The descriptive data were provided to summarize the demographics of the participants and the descriptive statistics derived from the data collected for the study. Reliability was determined using a Cronbach's alpha analysis for the scales and subscales of the FEVS used in the study. Mean, range, standard deviation, skew, and kurtosis of participant scores were

calculated to provide a description of the distribution of values collected in the respondent data. The following section provides a description of the data preparation, assumption testing, and statistical data analysis procedures.

Data Analysis

This quantitative non-experimental correlational study determined the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The rejection of or failure to reject the null hypothesis is a result of the statistical analysis in quantitative research (Creswell & Creswell, 2023). In this study, each of the five RQs had a null hypothesis and alternate hypothesis.

The archival data set and demographics analyzed for this study derived from the FEVS instrument, which the U.S. OPM facilitated in 2023. A statistical analysis of the archival data set using the TL and PSC scales from within the EEI and DEIA Index of the FEVS was conducted to determine the relationship between the independent and dependent variables of the study. The recommended minimum sample size for this study with a potential 200,248 participants was 384 based on the parameters of a 5% margin of error, a 95% confidence level, and a goal of 50% response distribution, as indicated by Raosoft (2004). As a result of the data collection process, which involved U.S. OPM permissions, Institutional Review Board approval, data set retrieval, filtering, cleaning, and preparation for analysis, a total of 9,160 civilian participants from the U.S. Department of the Navy were derived from the 2023 FEVS archival data set.

At the start of the data analysis process, the demographic data were analyzed to present an overview of the participant responses used for the study and the statistical descriptive data determinations of the variables of the study. Cronbach's alpha (α) was conducted on the raw data

and was found to be within a reasonable and acceptable range of 0.7 to 0.9 on a scale of 0 to 1 (Creswell & Creswell, 2023). Statistical calculations of the reliability of the TL ($\alpha = .95$) and PSC ($\alpha = .83$) scales from the FEVS instrument were confirmed as highly reliable. To determine the appropriate statistical analyses, the data were subjected to assumption testing. The series of tests provided the basis for the selection of statistical methods used to conduct correlation and regression analysis of the data.

The data analysis process for this quantitative non-experimental correlational study aligned with the plan described in Chapter 3. The steps of the data analysis followed a logical process aligned with systematic determination of the relationships between the variables of transformational leadership and psychological safety climate. This process included the test of assumptions for parametric measures, followed by statistical analysis using correlation, simple linear regression, and multiple linear regression. The results of assumption testing guided the selection of the appropriate statistical procedures used to conduct the analysis within SPSS. For this study, the level of significance was assessed at $\alpha = .05$, where a p value of ≤ 0.05 was considered significant.

Data Preparation

The collection of data used in the study was conducted by the U.S. OPM through the agency-administered and agency-reported online government FEVS that took place from May 9 to July 14, 2023. The population for the study was an estimated 2.3 million civilian employees within the U.S. government (CBO, 2024). The target population consisted of an estimated 200,248 civilian employees from within the U.S. Department of the Navy (Ott, 2022). The raw data set from the FEVS was downloaded from the publicly available U.S. OPM archive to prepare for use in the study analysis. Following the download of the FEVS data set, the file was

exported as a Microsoft Excel file, where it was filtered, cleaned, and further checked for accuracy. The cleaning and filtering steps included (a) isolating U.S. Department of the Navy responses from the FEVS target population, (b) isolating U.S. Department of the Navy civilian employee responses from U.S. Department of the Navy uniformed employee responses, and (c) removing incomplete and missing responses from the FEVS data set. The data set sample size following the cleaning and filtering process resulted in 9,160 U.S. Department of the Navy civilian employees, which exceeded the minimum required sample size (n = 384) needed to conduct the statistical analyses (Raosoft, 2004). The cleaned Excel file was then imported into SPSS for statistical analysis.

Assumption Testing

To answer the five RQs of the study, a quantitative methodology using correlational analysis, linear regression, and multiple linear regression was implemented using the 2023 FEVS indices, scales of measure, and collected data. To address RQ1, a correlational analysis and simple linear regression was performed to determine if and to what extent a relationship existed between the variables of transformational leadership and psychological safety climate. To address RQ2–RQ5, a correlational analysis and multiple linear regression was performed to determine if and to what extent a relationship existed between the criterion variable (psychological safety climate) and the predictor variables (idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation).

Prior to determining the relationships and strength of direction between variables, assumption testing was conducted to ensure appropriate use and selection of parametric or nonparametric measures (Salkind & Frey, 2020). For all five RQs, two statistical tests were needed to determine relationships and strength of direction during the data analysis. The first test

was a correlation analysis, which determines the relationship between transformational leadership behaviors and psychological safety climate. The second test was regression analysis to determine the extent to which transformational leadership predicts psychological safety climate. Based on recommendations from Laerd Statistics (2018), four assumptions were tested for valid correlational analysis: (a) two continuous variables paired together, (b) a linear relationship between variables, (c) absence of significant outliers, and (d) bivariate normality. Although FEVS uses Likert-scale data, which are deemed ordinal, research supports analyzing such psychometric scales using parametric tests when assumptions are met (L. Cohen et al., 2018).

For all five RQs, regression analysis determined the extent to which transformational leadership and the dimensions of transformational leadership predict psychological safety climate. While simple linear regression was employed for RQ1 due to one independent variable, multiple linear regression was used for RQ2–RQ5 as four independent variables were tested together. The use of simple linear regression analysis in RQ1 required three additional assumption tests beyond the four needed for correlation, and consisted of checks for independence of residuals, homoscedasticity, and normal distribution of residuals (Laerd Statistics, 2015). The use of multiple linear regression analysis for RQ2–RQ5 added one final assumption test, for absence of multicollinearity. In total, eight assumptions were tested to ensure valid results (Field, 2018; Laerd Statistics, 2015; Prasetya, 2023). The assumption testing required completion of the four-correlation test first, followed by the four additional tests for regression.

Continuous Variables

The test of assumption for assessing continuous variables requires that both the independent and dependent variables are measured on a continuous scale (Laerd Statistics,

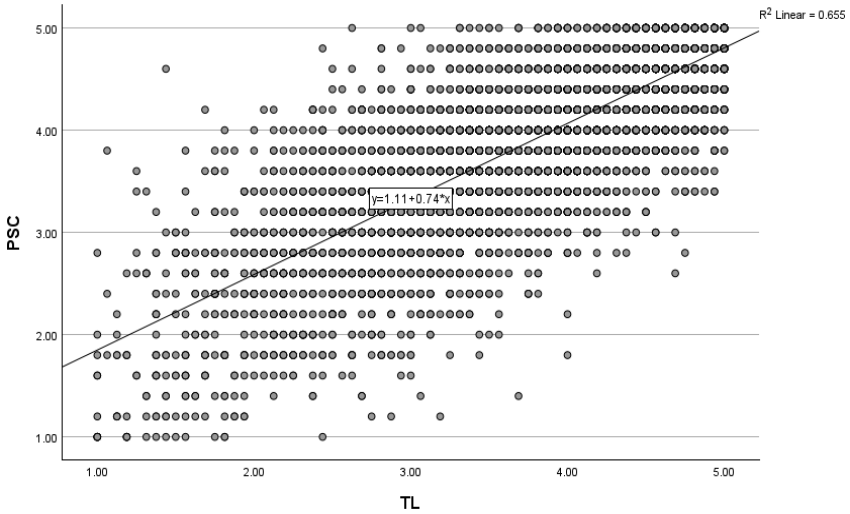
2018). In this study, the mean scores of the participants' Likert-type survey responses were measured from 1 to 5 on the TL and PSC scales. This scoring approach provided the continuous variables required for the quantification of the data. The pairing of the TL and PSC continuous variables ensured this assumption was met.

Linear Relationship Between Variables

The test of assumption for a linear relationship requires testing for the existence of a linear relationship between the variables under examination (Laerd Statistics, 2018). This test was accomplished using a scatterplot and matrix scatterplot of the studentized residuals against the predicted values to measure the proximity of the plotted spread in relationship to the line of regression. Figure 2 displays the linear relationship between the independent variable (transformational leadership) and the dependent variable (psychological safety climate). A visual inspection of the scatterplot indicated a linear relationship with a regression equation of $y = 1.11 + .74x$, demonstrating a positive slope. The coefficient of determination ($R^2 = .655$) indicated that 65.5% of the variance in psychological safety climate can be explained by transformational leadership. The findings confirmed this assumption to be valid and met for the independent variable of transformational leadership and the dependent variable of psychological safety climate.

Figure 2

Linear Scatterplot Between TL & PSC

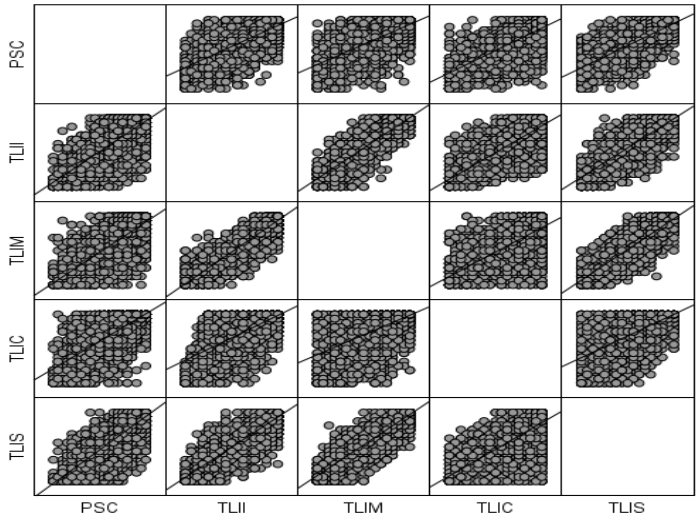


Note. TL = transformational leadership (overall scale). PSC = psychological safety climate.

Figure 3 displays a matrix scatterplot for the independent variables of TLII, TLIM, TLIC, TLIS, and the dependent variable of PSC. A visual inspection of the matrix scatterplot indicated a consistent and positive linear relationship of all variables. The matrix scatterplot also revealed strong linear relationships among the transformational leadership dimensions themselves, which is relevant to the multicollinearity analysis discussed later in this chapter. The results of the test confirmed that the assumption of linear relationship between all variables used in the study was valid and met.

Figure 3

Linear Matrix Scatterplot Between TLII, TLIM, TLIC, TLIS, & PSC



Note. TL = transformational leadership (overall scale). TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation. PSC = psychological safety climate.

Absence of Significant Outliers

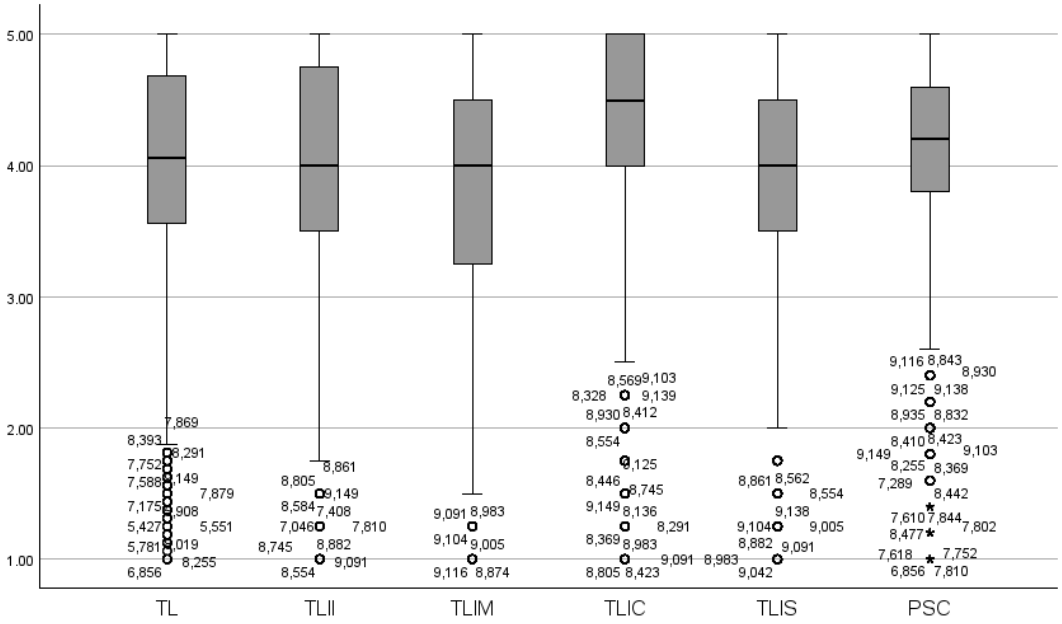
In statistical analyses, the existence of outliers requires further inspection to determine their level of significance (L. Cohen et al., 2018). Outliers that have a high significance can influence the distribution of values and the slope of the regression line. To check for significant outliers, a visual inspection was conducted on the mean score box plots (n = 9,160).

As shown in Figure 4, a visual inspection using box plots confirmed the existence of outliers across all study variables, predominantly on the lower end of the scales. Tabachnick and Fidell (2018) suggested that, in large samples, the presence of some outliers is to be expected, and their impact is often diminished by the sample size. J. Cohen et al. (2003) further noted that, in behavioral research using scale measures, outliers may represent meaningful variations in

respondent perceptions. Hair et al. (2018) emphasized the importance of considering the sample size when evaluating the impact of outliers in a multivariate analysis. Given the large sample size (n = 9,160) and the consideration that these outliers represent valid response patterns found within the FEVS data, the decision was made to retain these cases to maintain the integrity of the data set. This approach ensured the analysis reflected the full range of employee perceptions within the U.S. Department of the Navy civilian population. Based on these considerations and the statistical support from the literature (J. Cohen et al., 2003; Hair et al., 2018; Tabachnick & Fidell, 2018), while outliers were present in the data, their retention was deemed methodologically justified. Therefore, the assumption was met and satisfied for proceeding with the analysis.

Figure 4

Box Plots of TL, TLII, TLIM, TLIC, TLIS, & PSC



Note. TL = transformational leadership (overall scale). TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation. PSC = psychological safety climate.

Bivariate Normality

The assumption of bivariate normality was assessed to determine if the variables were normally distributed to conduct inferential statistical analysis (Laerd Statistics, 2018). Due to the large sample size (n = 9,160), the Kolmogorov–Smirnov test (samples of $n \geq 50$) was used instead of the Shapiro–Wilk test (samples of $n < 50$; Tabachnick & Fidell, 2018). Visual inspection of histograms and normal Q-Q plots was also conducted to assess normality, as J. Cohen et al. (2003) recommended, for large samples in which significance tests can be overly sensitive.

Results from the Kolmogorov–Smirnov test (see Table 5) indicated statistical significance ($p < .001$) for all variables, which suggested a deviation from normality. Visual inspection of histograms revealed negative skewness across all variables, with TLIC showing the strongest negative skew, followed by PSC. The Q-Q plots (see Figures 5–10) showed some deviation from the diagonal line, which was noticed particularly at the tails of the distributions.

Table 5

Kolmogorov–Smirnov Test Results for TL

Variable	Kolmogorov–Smirnov[a] statistic	*df*	Sig.
TL	.108	9160	<.001
TLII	.145	9160	<.001
TLIM	.133	9160	<.001
TLIC	.193	9160	<.001
TLIS	.145	9160	<.001
PSC	.137	9160	<.001

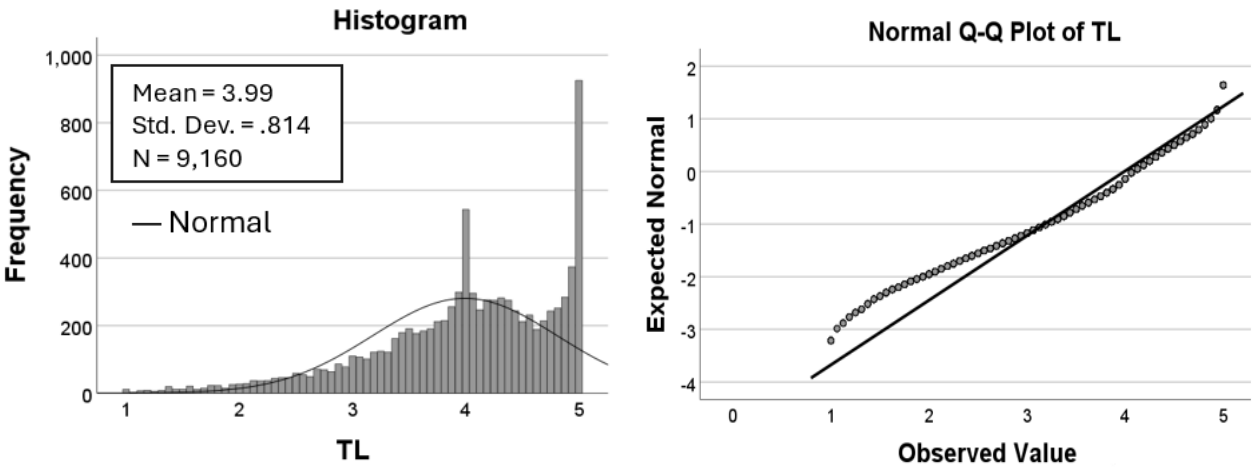
Note. TL = transformational leadership (overall scale). TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation. PSC = psychological safety climate.

For the transformational leadership variable, the histograms revealed negative skewness in the distribution of standardized residuals (see Panel A of Figure 5). The Q-Q plot showed some deviation from the diagonal line, particularly at the tails, indicating departure from perfect normality (see Panel B of Figure 5). While the results indicated deviation from normality, the large sample size (n = 9,160) and robust nature of parametric tests with samples exceeding 100 justified proceeding with the analysis (J. Cohen et al., 2003).

Figure 5

Histogram & Q-Q Plot for Transformational Leadership (TL)

A B



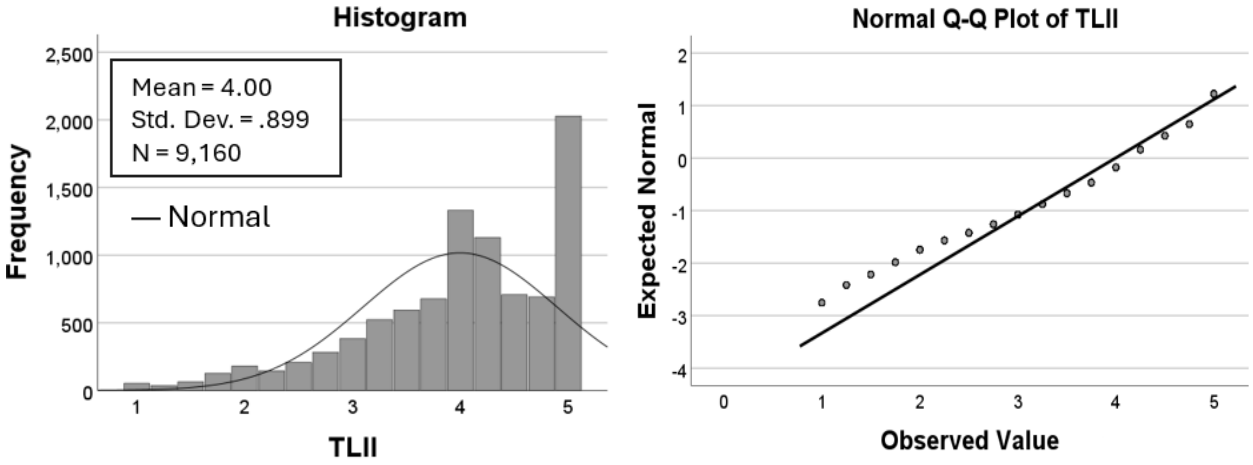
For the idealized influence dimension of transformational leadership, the histograms revealed negative skewness in the distribution of standardized residuals (see Panel A of Figure 6). The Q-Q plot showed deviation from the diagonal line, particularly at the tails, indicating

departure from perfect normality (see Panel B of Figure 6). Considering the robust sample size and the resilience of parametric procedures in large samples, the decision was made to continue with the planned analysis (J. Cohen et al., 2003).

Figure 6

Histogram & Q-Q Plot for TL Idealized Influence (TLII)

A B

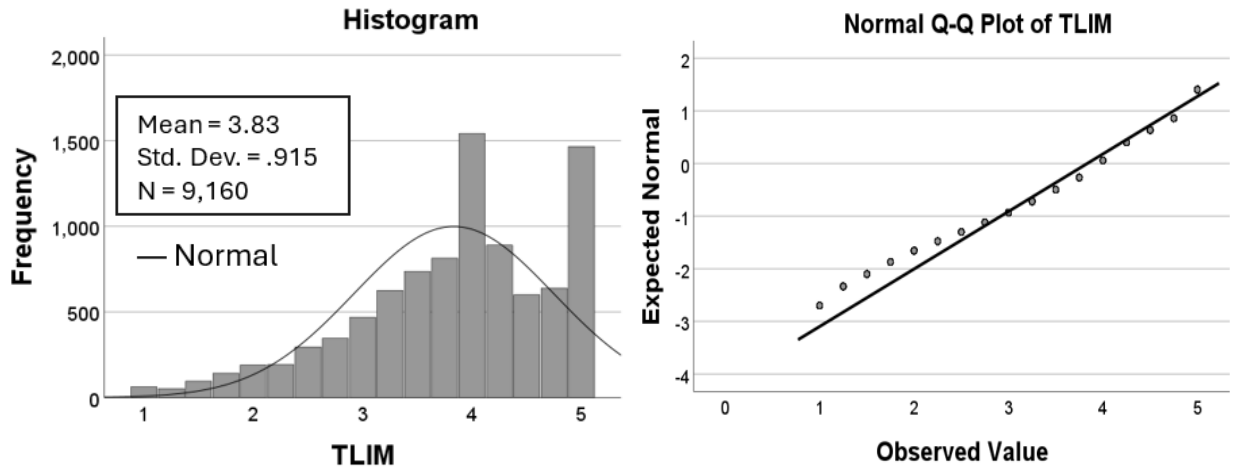


For the inspirational motivation dimension of transformational leadership, the histograms revealed negative skewness in the distribution of standardized residuals (see Panel A of Figure 7). The Q-Q plot showed deviation from the diagonal line, particularly at the tails, indicating departure from perfect normality (see Panel B of Figure 7). The robustness of parametric analyses in large samples justified proceeding without corrective adjustments (J. Cohen et al., 2003; Tabachnick & Fidell, 2018).

Figure 7

Histogram & Q-Q Plot for TL Inspirational Motivation (TLIM)

A B

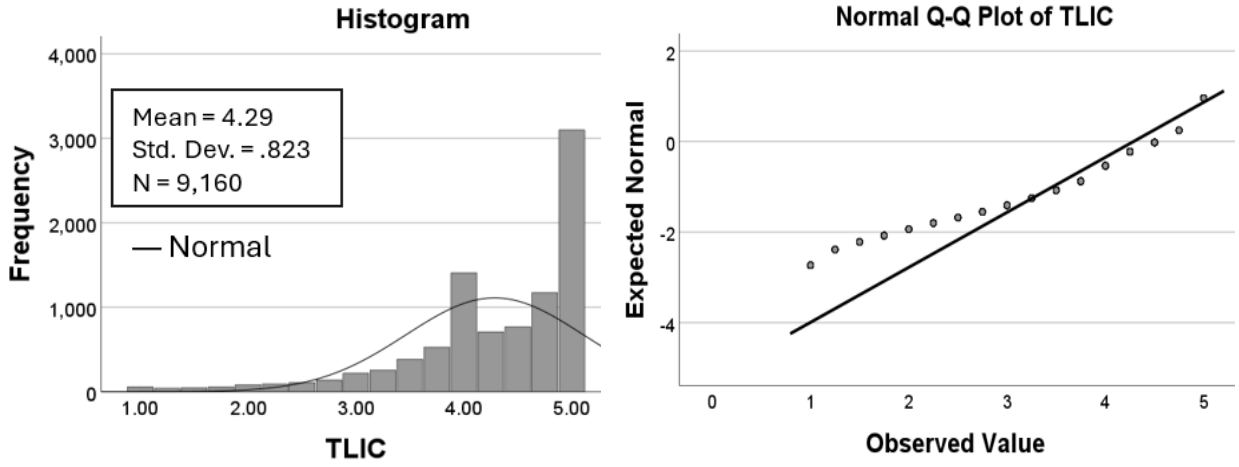


For the individualized consideration dimension of transformational leadership, the histograms revealed the strongest negative skewness among all variables in the distribution of standardized residuals (see Panel A of Figure 8). The Q-Q plot showed pronounced deviation from the diagonal line, particularly at the tails, indicating a clear departure from perfect normality (see Panel B of Figure 8). Despite the noted deviations from the line, the large sample size (n = 9,160) reduced the influence of nonnormality, ensuring the reliability of subsequent parametric analyses (J. Cohen et al., 2003).

Figure 8

Histogram & Q-Q Plot for TL Individualized Consideration (TLIC)

A B

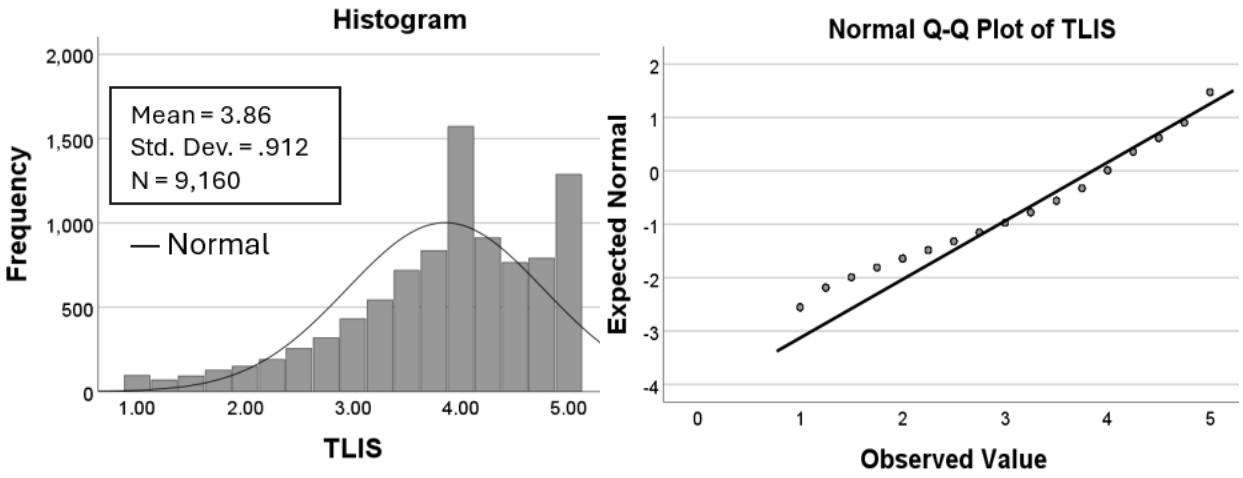


For the intellectual stimulation dimension of transformational leadership, the histograms revealed negative skewness in the distribution of standardized residuals (see Panel A of Figure 9). The Q-Q plot showed deviation from the diagonal line, particularly at the tails, indicating departure from perfect normality (see Panel B of Figure 9). While the results deviated from normality, the large sample size (n = 9,160) and robust nature of parametric tests justified proceeding with the analysis with no corrections necessary (J. Cohen et al., 2003; Tabachnick & Fidell, 2018).

Figure 9

Histogram & Q-Q Plot for TL Intellectual Stimulation (TLIS)

A B

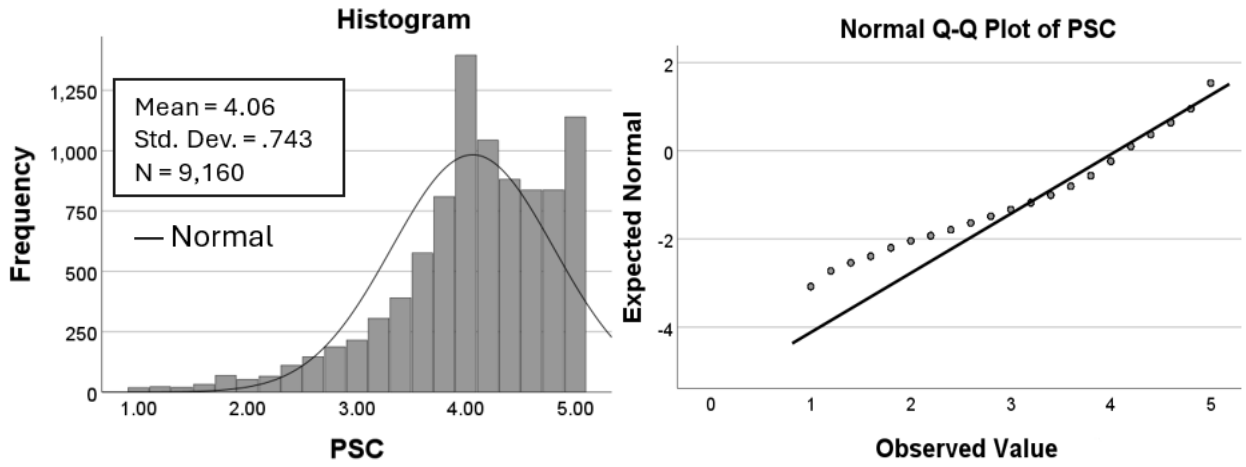


For the psychological safety climate variable, the histograms revealed substantial negative skewness in the distribution of standardized residuals, second only to TLIC in magnitude (see Panel A of Figure 10). The Q-Q plot showed deviation from the diagonal line, particularly at the tails, indicating departure from perfect normality (see Panel B of Figure 10). The robustness of parametric analyses in large data sets supported the continuation of statistical procedures without any modifications necessary (J. Cohen et al., 2003).

Figure 10

Histogram & Q-Q Plot for Psychological Safety Climate (PSC)

A B



While the overall results indicated a deviation from perfect normality, several statistical principles supported proceeding with parametric analyses. First, the central limit theorem (CLT) states that, in large samples ($n \geq 30$), the sampling distribution of means approaches normality regardless of the underlying distribution (J. Cohen et al., 2003). This study's sample size of 9,160 provided substantial protection against normality violations. Second, the parametric tests originally planned for this analysis (Pearson correlation and linear regression) have been demonstrated to be robust to normality violations due to CLT, when sample sizes exceed 100 (Tabachnick & Fidell, 2018). Third, the variables represented composite scores with high reliability coefficients (α ranging from 0.83 to 0.95), which made them appropriate for parametric analysis (Hair et al., 2018). Therefore, while the study data set was observed to have a deviation from perfect normality (assumption not met), the literature supported proceeding with parametric analyses given the statistical conditions (J. Cohen et al., 2003; Hair et al., 2018; Tabachnick & Fidell, 2018).

Independence of Residuals

The assumption of independence of residuals examines the correlation between the adjacent observations in the data set (Laerd Statistics, 2018). The use of the Durbin–Watson test detects if a correlation exists between residuals, which would violate the assumption of residuals (Laerd Statistics, 2018). On a scale of 0.0 to 4.0, a value found close to 2.0 indicates that no correlation exists between observations and confirms the independence of residuals.

As indicated by the Durbin–Watson statistical analysis, the assumption of independence of residuals was met for the study, with a value of 1.972 (see Table 6). This result suggested no significant autocorrelation in the residuals of the regression model. The findings of the Durbin–Watson statistical analysis justified that this assumption was met.

Table 6

Model Summary Regression Analysis of TL Dimensions as Predictors of PSC

Model	*R*	R^2	Adjusted R^2	*SE* of the estimate	*F*	*F* change	*df*1	*df*2	Sig. *F* change	Durbin–Watson
M1	.827	.684	.684	.418	4961.540	280.736	4	9155	<.001	1.972

Note. TL = transformational leadership (overall scale). PSC = psychological safety climate. Predictors (constant): TLII, TLIM, TLIC, TLIS and dependent variable: PSC make up M1. TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation.

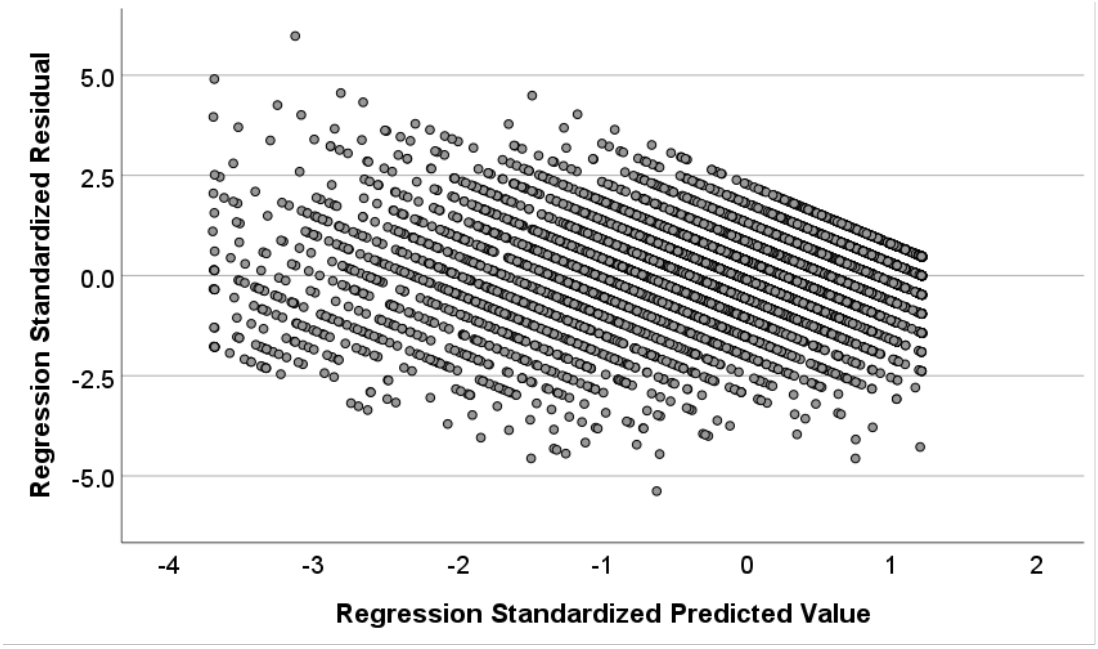
Homoscedasticity

For linear regression, the assumption of homoscedasticity ensures that the variance of residuals remains consistent across all levels of the predicted values (Laerd Statistics, 2015). The test for homoscedasticity was assessed using a visual inspection of the standardized residuals

plotted against the unstandardized predicted values and further confirmed using Levene's test for equality of variances. The visual inspection of the scatterplot revealed a funnel-like pattern in the residuals (see Figure 11) that indicated a variance increase as predicted values increased. This pattern suggested a violation of the homoscedasticity assumption and therefore, while not severe, confirmed that the existence of heteroscedasticity was true. The assumption was not met.

Figure 11

Heteroscedasticity Scatterplot



Note. Dependent variable: PSC (psychological safety climate).

To statistically verify the visual observation, the Levene's test for equality of variances was conducted (see Table 7). The results were significant ($p < .001$), confirming that the residuals did not have constant variance across the range of predicted values. Despite the violation of the assumption of homoscedasticity, the regression analysis remained viable through the application of *bootstrapping*, which provides robust estimates of standard errors and

confidence intervals that are unaffected by deviations from homoscedasticity and thereby supports the reliability and validity of the regression results (Adams & Lawrence, 2019). The results presented in the remainder of Chapter 4 indicate that, although heteroscedasticity was found to be present and the assumption was not met, findings from the regression models of the study were able to be interpreted as reliable and robust due to the use of bootstrapping.

Table 7

Levene's Test for Equality of Variances

Test of homogeneity of variances	Levene statistic	*df*1	*df*2	Sig.
Based on mean	224.214	8	9151	<.001
Based on median	161.320	8	9151	<.001
Based on median (adjusted *df*)	161.320	8	2024.465	<.001
Based on trimmed mean	192.839	8	9151	<.001

Normal Distribution of Residuals

In the test of assumptions, normality is observed when all variables are normally distributed. To validate this assumption for samples larger than 50, a graphical interpretation of the normality is preferred over the Shapiro–Wilk test of bivariate normality (Laerd Statistics, 2018). This interpretation includes the use of a P-P plot and a histogram of the dependent variable (psychological safety climate) with a superimposed normal curve (Laerd Statistics, 2015).

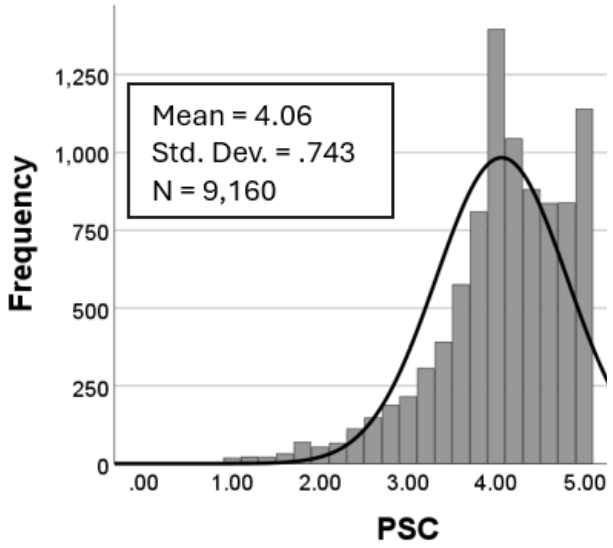
The normal distribution of residuals for the dependent variable (psychological safety climate) was assessed using a histogram and a P-P plot to test this assumption. The histogram (see Panel A of Figure 12) indicated a deviation from the normal curve, with the distribution appearing to be moderately skewed to the left and higher frequencies occurring near the upper

end of the scale. Also noticeable was a clustering of high scores, suggesting a potential ceiling effect found common in Likert-scale data (Chyung et al., 2020). The P-P plot (see Panel B of Figure 12) also confirmed that, while many points were aligned along the diagonal line, noticeable deviations were present in the tails, which indicated that the residuals deviated from normality.

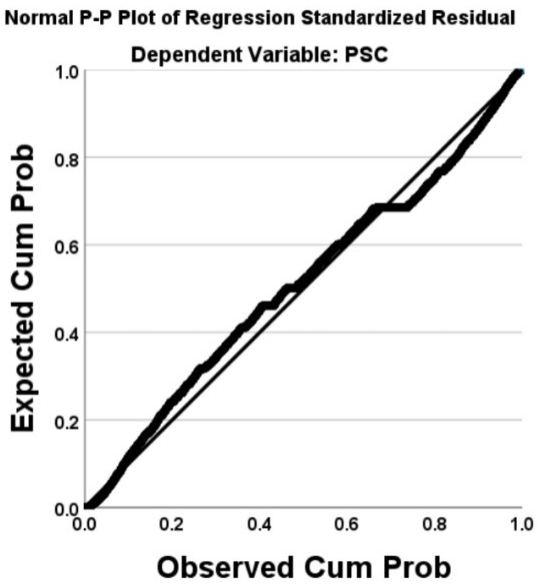
Figure 12

Histogram & P-P Plot for Psychological Safety Climate (PSC)

A



B



For the test of assumptions, the data are also required to have a skew and kurtosis within an acceptable range. To validate and accept the assumption of normal distribution, the skew and kurtosis should ideally exist at a value of zero, with an allowable range of ±2.0 (L. Cohen et al., 2018). Using a two-tailed test with a statistical significance of $\alpha = .01$, the critical boundary z-score range was +2.58 to −2.58.

As seen in Table 8, the TLIC mean scores exhibited a high skewness of −1.52 and a kurtosis of 2.45. The PSC mean scores had a skewness of −1.09 and a kurtosis of 1.48. While the results indicated that most scales approximated a mesokurtic distribution, the TLIC and PSC scales exhibited more peaked leptokurtic distributions. These findings did not indicate an excessive presence of extreme outliers but did suggest a potential for narrower distributions and thinner tails. Based on the skewness and kurtosis scores, the data indicated deviations from normality, which suggests that the residuals do not follow a normal distribution. All skew and kurtosis z scores exceeded ±2.58 and were significant.

Table 8

Skew & Kurtosis Statistics for TL, TL Dimensions, & PSC

Statistic	TL	TLII	TLIM	TLIC	TLIS	PSC
N valid	9,160	9,160	9,160	9,160	9,160	9,160
Mean	3.99	4.00	3.83	4.29	3.86	4.06
Median	4.06	4.00	4.00	4.50	4.00	4.20
Skewness	−.917	−.942	−.750	−1.520	−.910	−1.090
Std. error of skewness	.026	.026	.026	.026	.026	.026
Skewness z score	−35.27	−36.23	−28.85	−58.46	−35	−41.92
Kurtosis	.627	.494	.161	2.455	.545	1.486
Std. error of kurtosis	.051	.051	.051	.051	.051	.051
Kurtosis z score	12.29	9.69	3.16	48.14	10.69	29.14
Range	4	4	4	4	4	4
Minimum	1	1	1	1	1	1
Maximum	5	5	5	5	5	5

Note. TL = transformational leadership (overall scale). PSC = psychological safety climate. TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation.

While the findings revealed deviations from normality, the regression analysis remained reliable and robust based on the large sample size of (n = 9,160) and the fundamental principles of CLT to approximate normality of residuals (J. Cohen et al., 2003; Tabachnick & Fidell, 2018). Additionally, bootstrapping techniques were applied to support robust estimates of the standard errors and confidence intervals. The use of bootstrapping to validate the model reduced the concerns of deviations from normality. Although the assumption of normality test revealed deviations that resulted in the assumption not being met, the methodological adjustments ensured the regression results were valid and able to be interpreted.

Absence of Multicollinearity

The presence of multicollinearity is observed when two or more independent variables are found to be highly correlated, creating an issue in the determination of which independent variable contributed more to the variance of the dependent variable (Laerd Statistics, 2015). The absence of multicollinearity is determined by inspecting correlation coefficients and tolerance/VIF values. For the assumption, the tolerance/VIF values serve as more definitive indicators of multicollinearity (Adams & Lawrence, 2019). For the assumption to be accepted and met, tolerance values should be > 0.1 and VIF values should remain below 10.

The correlations for the dimensions of transformational leadership (TLII, TLIM, TLIC, TLIS) showed intercorrelations above 0.7, as expected given that these variables are dimensions of the same overarching construct of TL. Tolerance values ranged from 0.130 to 0.454 and VIF values ranged from 2.203 to 7.676 (see Table 9). Although VIF for TLIM (7.676) and TLIS (5.804) indicated moderate multicollinearity, these values remained below the acceptable VIF threshold of 10 (Adams & Lawrence, 2019; Creswell & Creswell, 2023).

Table 9

Correlation Coefficients and Collinearity for TL, TL Dimensions, & PSC

	PSC	TL	TLII	TLIM	TLIC	TLIS	Collinearity statistics	
							Tolerance	VIF
N	9,160	9,160	9,160	9,160	9,160	9,160		
Correlation								
PSC	1.000							
TL	.809*	1.000						
TLII	.736*	.952*	1.000				.146**	6.851**
TLIM	.720*	.942*	905*	1.000			.130**	7.676**
TLIC	.721*	.824*	.712*	.639*	1.000		.454**	2.203**
TLIS	.793*	.945*	.864*	.891*	.698*	1.000	.172**	5.804**

Note. TL = transformational leadership (overall scale). PSC = psychological safety climate. TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation. VIF = variance inflation factor.

* Correlation is significant at the .01 level (2-tailed). ** Dependent variable: PSC mean score.

Based on the results, multicollinearity was considered met, acceptable, and sufficiently addressed even though there were intercorrelations within TL. This pattern of intercorrelation was anticipated given the natural relationships each dimension in the TL has with the others due to the construct itself. To further mitigate any impact of the expected moderate multicollinearity found between the TL dimension variables, bootstrapping was applied in the regression analysis. This methodological approach ensured that multicollinearity did not compromise the robustness, reliability, or interpretability of the results.

Assumption Testing Results

The testing of assumptions was conducted to ensure the appropriate use and selection of parametric or nonparametric analyses (Salkind & Frey, 2020). While most assumptions were met, violations of the assumption of normality and homoscedasticity rendered the Pearson product–moment correlation unsuitable and thus necessitated the use of a nonparametric correlational analysis. Deviations from normality were evident through skewness, kurtosis values, and graphical outputs, with a clustering of high scores that suggested a potential ceiling effect found common in Likert-scale data (Chyung et al., 2020).

Levene's test for equality of variances confirmed heteroscedasticity (Laerd Statistics, 2015). Despite the violations, CLT principles supported proceeding with parametric regression analyses due to the study's large sample size (n = 9,160), where approximation of normality minimizes the effect of deviations in residuals (J. Cohen et al., 2003; Tabachnick & Fidell, 2018). To account for violations, and to enhance robustness, bootstrapping techniques were applied in the regression models to generate reliable standard errors and confidence intervals (Adams & Lawrence, 2019).

For the analysis of relationships between the study variables, where normality and homoscedasticity assumptions were violated, Spearman's rank-order correlation was selected as the nonparametric alternative to Pearson product–moment correlation (Laerd Statistics, 2018). The Spearman's correlation method does not rely on the assumptions of normality or linear relationships and therefore was deemed a suitable approach for the data set analysis. The results of the statistical analysis using Spearman correlation alongside bootstrapped findings of the simple and multiple linear regression models are provided as follows. The combined approach ensured rigor, robustness, and validity of the statistical analyses. A summary of the assumption

testing results is presented in Table 10 to illustrate the basis for the methodological decisions used in the study.

Table 10

Summary of Assumption Testing Results

Assumption	Test/method used	Result	Comments
Continuous variables	Methodology/study design	Met	TL & PSC scales measured on continuous scale; paired.
Linear relationship between variables	Scatterplot/matrix scatterplot	Met	Visual inspection showed linearity.
Absence of significant outliers	Box plots	Met	Outliers observed but did not require removal.
Bivariate normality	Kolmogorov–Smirnov test, histogram, Q-Q plot	Not met	Skewness, large sample; central limit theorem.
Independence of residuals	Durbin–Watson test	Met	Durbin–Watson = 1.972 (close to 2.0).
Homoscedasticity	Residual scatterplot & Levene's test	Not met	Funnel pattern & significant Levene's test. Bootstrapping applied to generate reliable estimates despite heteroscedasticity.
Normal distribution of residuals	Histogram, P-P plot, skew/kurtosis *z* scores	Not met	Skew/kurtosis *z* scores exceeded ±2.58. Bootstrapping mitigated impact of nonnormality, ensuring robust standard errors and confidence intervals.
Absence of multicollinearity	Correlation, collinearity, tolerance/VIF	Met	VIF for TLIM (7.676) & TLIS (5.804) < 10; tolerance > 0.1. Multicollinearity moderate but expected for TL dimensions.

Note. TL = transformational leadership (overall scale). PSC = psychological safety climate. VIF = variance inflation factor. TLIM = inspirational motivation. TLIS = intellectual stimulation.

Descriptive Statistics

At the start of the data analysis process, an examination and presentation of the demographics and descriptive statistics was performed. The demographic data included gender,

age, ethnicity, and years of service as a government civilian employee, which were obtained from the sample of the target population. Additionally, mean, range, standard deviation, skew, and kurtosis of participant scores were conducted to provide a description of the distribution of values collected within the respondent data set. Tables 2–4 demonstrated the descriptive statistics.

Inferential Statistics

The remaining results provide a review of the statistical measures and analyses used to answer the RQs of the study and to reject or fail to reject the null hypotheses. Following assumption testing and the gathering of descriptive statistics, the data analysis transitioned to a statistical analysis of data using the correlation and simple and multiple linear regression. This analysis consisted of Spearman rank-order correlation testing to compare the total means of TL and dimensions of TL to total means of PSC, as reported by civilian employees within the U.S. Department of the Navy. The process of regression testing, both simple linear and multiple linear, helped to determine whether the means of TL and dimensions of TL predicted the total means for PSC, as reported by civilian employees within the U.S. Department of the Navy. Bootstrapping was applied to the regression analysis to account for violations and to enhance robustness (Adams & Lawrence, 2019). The results of the statistical measures used to quantify the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians are discussed as follows.

Results

The data analysis was conducted in a nonevaluative, unbiased, and logical manner to address the guiding RQs and hypotheses of the study. The test of assumptions revealed that the

distribution of the data was nonparametric. This result required a shift from the parametric Pearson product–moment correlation analysis to the nonparametric Spearman rank-order correlation for data analysis (L. Cohen et al., 2018). Simple and multiple linear regressions were maintained even though assumptions had not been met. The regression approach was feasible based on the principles of CLT and the relevance of a larger sample size (n = 9,160) to approximate normality. The application of bootstrapping enhanced the methodological approach and further justified the decision to conduct linear regression with a viable confirmation of the results.

In the study, TL measured transformational leadership; TLII, TLIM, TLIC, and TLIS measured the four dimensions of transformational leadership; and PSC measured psychological safety climate. The analysis of the relationship between TL, the dimensions of TL, and PSC involved a correlation and regression analysis of the participants' mean scores using the archival data set collected from the 2023 U.S. OPM FEVS. Although none of the RQs specifically inquired about the extent to which transformational leadership or the dimensions of transformational leadership would predict psychological safety climate, a regression analysis was conducted to support each RQ. This additional information helped to better understand the significance found within the relationships between the variables used in the study.

RQ1

- RQ1: To what extent is there a relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians?

- H_01: There is not a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.
- H_A1: There is a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ1 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. The Spearman correlation analysis revealed a statistically significant positive correlation between TL and PSC ($r_s = .796$, $p < .001$). This finding resulted in the null hypothesis being rejected. The existence of a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate was accepted to answer RQ1.

While RQ1 did not specifically inquire about the predictive relationship between TL and PSC, a linear regression analysis was conducted for research and exploratory purposes. This analysis sought to model the relationship and evaluate the proportion of variance in PSC explained by the overarching construct of TL. A simple linear regression revealed a strong positive relationship between TL and PSC ($R = .809$, $p < .001$). TL accounted for 65.5% of the variability in PSC ($R^2 = .655$), which suggested a meaningful predictive relationship. The regression model, y (PSC) = 1.111 + .739 x (TL), was statistically significant ($F[1, 9158] = 17{,}408.676$, $p < .001$). The application of bootstrapping confirmed the robustness of the regression coefficients, with a 95% bias-corrected and accelerated (BCa) confidence interval for TL ranging from 0.725 to 0.754 ($p < .001$). Table 11 displays the Spearman rho correlation results, Table 12 displays the regression results, and Table 13 displays the bootstrapped

coefficients with confidence intervals. The findings highlight the strength and significance of the relationship between TL and PSC.

Table 11

Spearman Correlation Between TL & PSC

Variable	Spearman's rho	Sig. (2-tailed)	*N*
TL	.796	<.001	9,160

Note. TL = transformational leadership (overall scale). PSC = psychological safety climate.

Table 12

Regression Summary for TL Predicting PSC

Model	*R*	R^2	Adjusted R^2	*F*	*p*
TL	.809	.655	.655	17,408.676	<.001

Note. TL = transformational leadership (overall scale). PSC = psychological safety climate.

Table 13

Coefficients and Bootstrapping Results for TL

Variable	B	*SE*	β	*t*	*p*	95% BCa CI for B
Constant	1.111	.023		48.683	<.001	[1.054, 1.167]
TL	.739	.006	.809	131.942	<.001	[0.725, 0.754]

Note. TL = transformational leadership (overall scale). BCa CI = bias-corrected and accelerated confidence interval.

RQ2

- RQ2: To what extent is there a relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_02: There is not a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A2: There is a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ2 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. The Spearman correlation analysis revealed a statistically significant positive correlation between TLII and PSC ($r_s = .728$, $p < .001$). This finding resulted in the null hypothesis being rejected. The existence of a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate was accepted to answer RQ2.

While RQ2 did not specifically inquire about the predictive relationship between all four transformational leadership dimensions (TLII, TLIM, TLIC, & TLIS) and PSC, a multiple linear regression analysis was conducted for research and exploratory purposes. This analysis sought to model the relationship and evaluate the proportion of variance in PSC explained by each of the four dimensions of TL. Within the model, TLII demonstrated a small but statistically significant contribution to the prediction of PSC (B = .061, $SE = .013$, $\beta = .074$, $t = 4.792$, $p < .001$). The bootstrapped 95% BCa confidence interval for TLII ranged from 0.030 to 0.088 ($p < .001$), confirming the robustness of the results.

While the multiple regression model included all four dimensions of TL, the analysis highlighted the specific contribution of TLII in enhancing employees' PSC. Table 14 displays the Spearman rho correlation results, Table 15 displays the multiple regression results, and Table 16 displays the bootstrapped coefficients with confidence intervals for the model. The findings highlight the strength and significance of the relationship between the TL dimension of TLII and PSC.

Table 14

Spearman Correlation Between TL Dimensions & PSC

Variable	Spearman's rho	Sig. (2-tailed)	*N*
TLII	.728	<.001	9,160
TLIM	.724	<.001	9,160
TLIC	.705	<.001	9,160
TLIS	.783	<.001	9,160

Note. TL = transformational leadership (overall scale). PSC = psychological safety climate. TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation.

Table 15

Regression Summary for TL Dimensions Predicting PSC

Model	*R*	R^2	Adjusted R^2	*F*	*p*
TLII, TLIM, TLIC, TLIS	.827	.684	.684	4961.540	<.001

Note. TL = transformational leadership (overall scale). PSC = psychological safety climate. TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation.

Table 16

Coefficients and Bootstrapping Results for TL Dimensions

Variable	B	*SE*	β	*t*	*p*	95% BCa CI for B
Constant	1.008	.024		45.525	<.001	[0.946, 1.065]
TLII	.061	.013	.074	4.792	<.001	[0.030, 0.088]
TLIM	−.008	.013	−.009	−.582	.561	[−0.041, 0.028]
TLIC	.281	.008	.311	35.707	<.001	[0.258, 0.305]
TLIS	.424	.012	.520	36.786	<.001	[0.394, 0.455]

Note. TL = transformational leadership (overall scale). BCa CI = bias-corrected and accelerated confidence interval. TLII = idealized influence. TLIM = inspirational motivation. TLIC = individualized consideration. TLIS = intellectual stimulation.

RQ3

- RQ3: To what extent is there a relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_03: There is not a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A3: There is a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ3 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. The Spearman

correlation analysis revealed a statistically significant positive correlation between TLIM and PSC ($r_s = .724$, $p < .001$). This finding resulted in the null hypothesis being rejected. The existence of a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate was accepted to answer RQ3.

While RQ3 did not specifically inquire about the predictive relationship between all four transformational leadership dimensions (TLII, TLIM, TLIC, & TLIS) and PSC, a multiple linear regression analysis was conducted for research and exploratory purposes. Within the model, TLIM did not demonstrate a statistically significant contribution to the prediction of PSC (B = −.008, *SE* = .013, β = −.009, $t = -.582$, $p = .561$). The bootstrapped 95% BCa confidence interval for TLIM ranged from −.041 to 0.028 ($p = .561$) and confirmed the finding of nonsignificance.

Among the four dimensions of TL included in the multiple regression model, TLIM was the only dimension that did not demonstrate a statistically significant contribution to the prediction of PSC. The finding suggested that, while TLIM exhibited a moderate correlation with PSC, it did not independently predict PSC within the context of the regression model. The results were presented in Tables 14–16. The findings highlighted the relationship between the TL dimension of TLIM and PSC, while also indicating its lack of a statistically significant predictive contribution in the multiple regression model.

RQ4

- RQ4: To what extent is there a relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians?

- H_04: There is not a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.
- H_A4: There is a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ4 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. The Spearman correlation analysis revealed a statistically significant positive correlation between TLIC and PSC ($r_s = .705$, $p < .001$). This finding resulted in the null hypothesis being rejected. The existence of a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate was accepted to answer RQ4.

While RQ4 did not specifically inquire about the predictive relationship between all four transformational leadership dimensions (TLII, TLIM, TLIC, & TLIS) and PSC, a multiple linear regression analysis was conducted for research and exploratory purposes. Within the model, TLIC demonstrated a moderate statistically significant contribution to the prediction of PSC (B = .281, $SE = .008$, $\beta = .311$, $t = 35.707$, $p < .001$). The bootstrapped 95% BCa confidence interval for TLIC ranged from 0.258 to 0.305 ($p < .001$), confirming the robustness of the results.

Among the four dimensions of TL included in the multiple regression model, TLIC was a strong statistically significant contribution to the prediction of PSC. The finding suggested that supervisors' individualized consideration plays a meaningful role in enhancing employees' psychological safety climate. The results of the TLIC dimension and its contribution to the

prediction of PSC were presented in Tables 14–16. The findings highlight the strength and significance of the relationship between the TL dimension of TLIC and PSC.

RQ5

- RQ5: To what extent is there a relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians?
  - H_05: There is not a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.
  - H_A5: There is a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ5 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. The Spearman correlation analysis revealed a statistically significant positive correlation between TLIS and PSC ($r_s = .783$, $p < .001$). This finding resulted in the null hypothesis being rejected. The existence of a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate was accepted to answer RQ5.

While RQ5 did not specifically inquire about the predictive relationship between all four transformational leadership dimensions (TLII, TLIM, TLIC, & TLIS) and PSC, a multiple linear regression analysis was conducted for research and exploratory purposes. Within the model, TLIS demonstrated a moderate statistically significant contribution to the prediction of PSC (B =

.424, SE = .012, β = .520, t = 36.786, p < .001). The bootstrapped 95% BCa confidence interval for TLIS ranged from 0.394 to 0.455 (p < .001), confirming the robustness of the results.

Among the four dimensions of TL included in the multiple regression model, TLIS emerged as the strongest statistically significant predictor of PSC. The finding suggested that supervisors' intellectual stimulation plays a critical role in fostering employees' psychological safety climate. The results of the TLIS dimension and its contribution to the prediction of PSC were presented in Tables 14–16. The findings emphasize the significance of the relationship between the TL dimension of TLIS and PSC.

Chapter Summary

The purpose of this quantitative non-experimental correlational study was to determine if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. The variables measured for the study were the independent variable of transformational leadership, the independent variables of the dimensions of transformational leadership, and the dependent variable of psychological safety climate. Chapter 4 provided a summary of the demographics of the participant sample; the statistical analyses and procedures used to analyze the data; and an analysis of the data in a nonevaluative, unbiased, and organized manner to address the RQs of the study.

The assumption testing revealed that, while most assumptions were met, violations of the assumption of normality and homoscedasticity were not met. This finding required a shift from a parametric correlational analysis using Pearson product–moment correlation to the Spearman rank-order correlation, a nonparametric alternative for the relationship analysis. Regression analyses were conducted alongside the application of the bootstrapping technique to support the

robustness of the findings. Bootstrapping provided robust standard errors and BCa confidence intervals, which enhanced the reliability of regression analyses despite deviations from normality and homoscedasticity.

The results for RQ1 demonstrated a strong statistically significant positive relationship between TL and PSC ($r_s = .796$, $p < .001$). Simple linear regression revealed that TL explained 65.5% of the variance in PSC ($R^2 = .655$, $p < .001$). This finding indicated a meaningful predictive role of supervisors' transformational leadership behaviors on employees' psychological safety climate. For RQ2, the analysis highlighted a moderate statistically significant positive relationship between TLII and PSC ($r_s = .728$, $p < .001$). TLII was also found to have a statistically significant but small contribution to the prediction of PSC (B = .061, β = .074, $p < .001$). For RQ3, the results indicated a moderate statistically significant positive relationship between TLIM and PSC ($r_s = .724$, $p < .001$). However, the multiple regression model revealed that TLIM did not demonstrate a statistically significant contribution to the prediction of PSC (B = −.008, β = −.009, $p = .561$). The null hypotheses for RQ1, RQ2, and RQ3 were rejected.

For RQ4, a moderate statistically significant positive relationship was found between TLIC and PSC ($r_s = .705$, $p < .001$). The regression analysis revealed that TLIC demonstrated a statistically significant predictive contribution to PSC (B = .281, β = .311, $p < .001$), highlighting the role of individualized consideration in fostering psychological safety climate. Results for RQ5 revealed a strong statistically significant positive relationship between TLIS and PSC ($r_s = .783$, $p < .001$). Among the four TL dimensions, TLIS emerged as the strongest predictor of PSC (B = .424, β = .520, $p < .001$), revealing the critical role of intellectual stimulation in enhancing employees' psychological safety climate. The null hypotheses for RQ4 and RQ5 were rejected.

Based on these results, the null hypotheses for all five RQs were rejected; thus, all five alternate hypotheses failed to be rejected.

Chapter 4 provided empirical evidence of the relationships between transformational leadership, the four dimensions of transformational leadership, and employees' psychological safety climate. While transformational leadership and its four dimensions generally correlated positively with psychological safety climate, intellectual stimulation was the most statistically significant predictor in the regression model. The study's robust methodological approach, including the use of bootstrapping, ensured the reliability of the findings despite limitations posed by assumption test violations. Chapter 5 includes a summary of the study, interpretation of results, study implications, and recommendations for future research and practice.

CHAPTER 5: CONCLUSIONS & SUGGESTIONS FOR FURTHER STUDY

How leaders behave and their leadership styles have a long-lasting effect on both the culture and performance of an organization (Al Marshoudi et al., 2023). As evident in research, transformative behaviors and the transformational style of leadership provide inspirational aspects that motivate followers in ways that develop abilities from within (Bass, 1985). In government there exists a system of bureaucratic processes that are difficult to overcome (Fantus et al., 2022). This system requires a dedicate leadership approach that can navigate the hurdles and provide both openness and transparency within the workplace.

The transformational leadership style promotes the tenets of psychological safety and the ability to speak up, ask questions, and raise concerns without fear of retaliation (Edmondson, 1999). Through psychological safety, organizations thrive and voices are heard. Implementing the aspects of psychological safety allows leaders to break the silence within the organization and enable the workplace to become a safe space in which employees can speak up and express their genuine selves (Dillon et al., 2023). Building on the foundation of transformational leadership and psychological safety, leaders can develop and empower employees through safety, which is critical in a high-demanding government agency.

The focus of this study was to explore and present a better understanding of the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. While research has revealed a connection between leadership behaviors and psychological safety in high-stress environments such as health care, little research has explored the connection in a government setting (Kaur & Arora, 2023). Understanding how leadership behaviors impact employees in a

government setting is especially important given the unique challenges present and the hierarchical structure (Al Marshoudi et al., 2023; Fernandez et al., 2010; Karimi et al., 2023).

The outcomes of the study add to the body of knowledge in the field of transformational leadership and psychological safety by exploring the impact government leaders have on the workplace culture. Findings are valuable in that they provide insights into how supervisors who employ transformational leadership can shape their employees' comfort in taking interpersonal risks at work. This information is important for government leaders seeking to strengthen their organizations through genuine care and concern for psychological health. Through a better understanding of the most effective leadership behaviors, supervisors in government enable an environment in which employees feel safe in voicing both problems and possibilities. The result can be a higher level of innovation and organizational growth that rapidly induces a much-needed change within government organizations (Dillon et al., 2023; Miao et al., 2020).

To conduct the study, a quantitative non-experimental correlational methodology was employed. The study design included five research questions (RQs) and hypotheses that guided the research and data analysis necessary to successfully achieve results. To answer the five RQs, correlational analysis, linear regression, and multiple linear regression were implemented using the 2023 Federal Employee Viewpoint Survey (FEVS). The FEVS instrument and protocols provide a unique opportunity to gain access and data from federal employees, which was necessary to conduct a proper analysis of the sample population.

Chapter 5 contains a summary of the study and an interpretation of the results. The chapter begins with an overview of the study that identifies the importance of the study and how the research objective was achieved. Next, the chapter includes a discussion of the implications of the findings and conclusions from the research using the results presented in Chapter 4. The

chapter concludes with a discussion of the study implications, strengths and weaknesses, and recommendations for future research and practice.

Summary of Study

The problem this study addressed was that it was not known if and to what extent a relationship existed between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. While prior studies have demonstrated the positive effects of transformational leadership approaches in corporate settings (Al Marshoudi et al., 2023; Iqbal et al., 2023), scarce research has explored how transformational leadership relates to psychological safety climate in the public sector and government. Government organizations face increasing demands and bureaucratic constraints that sometimes limit innovation and adaptation, which psychological safety can facilitate (Dillon et al., 2023; Miao et al., 2020). Considering the largely underexplored nature of the topic within a government and public sector context, the lack of research raised notable concern. The problem and research gap supported the need for this study to determine the relationship between transformational leadership behaviors and psychological safety climate in a public sector context.

To explore the problem and purpose of the study, an analysis was built using the foundation of transformational leadership theory. Transformational leadership theory guides the exploration of how leaders influence follower attitudes, motivations, and actions (Al Marshoudi et al., 2023; Edmondson, 1999). The theory provides a foundation for researchers to determine the relationship between leadership behaviors and the openness and transparency found within a psychologically safe climate (Karimi et al., 2023). Applying transformational leadership theory to explore how leaders influence the attitudes, motivations, and actions of followers provided an examination into the extent of leadership behaviors in government. Transformational leadership

theory is vital to exploring transformational behaviors and their relationship to openness, communication, risk-taking, innovation, and transparency commonly found within a psychologically safe climate (Al Marshoudi et al., 2023; Bush, 2018; Karimi et al., 2023).

To assist in the investigation, five RQs and hypotheses guided the quantitative non-experimental correlation. RQ1 explored the relationship between government agency leaders' transformational leadership behaviors and employees' psychological safety climate. RQ2–RQ5 examined each specific dimension of transformational leadership behaviors to investigate the strength and predictability of their relationship with employees' psychological safety climate.

Using Raosoft power analysis as a guide, the study exceeded the minimum required sample size (n = 384) with a total of 9,160 responses obtained from the FEVS data set. The data analysis for the study was conducted using the 2023 U.S. Office of Personnel Management (U.S. OPM) FEVS data set. Data were collected through an agency-administered and agency-reported online government survey that took place from May 9 to July 14, 2023 (U.S. Office of Personnel Management [USOPM], 2023). The U.S. OPM FEVS is a federally mandated and annually distributed survey consisting of multiscale indices (U.S. Office of Personnel Management, 2024a). The FEVS has 91 individual response items on a 5-point Likert scale, five indices, and 19 demographic questions (Fernandez et al., 2015; H.-W. Lee & Rhee, 2023; USOPM, 2023). For this study, the FEVS demographic questions and two indices, the Employee Engagement Index and Diversity, Equity, Inclusion, Accessibility Index, were used. The survey was administered internally within the U.S. government-distributed email system by the U.S. OPM, which collected and retained informed consent from all participants.

Chapter 1 included the background of the problem, statement of the problem, and rationale supporting the need for the study. Also provided were the contributions the study would

bring to the body of knowledge. The chapter included a description of the theoretical foundation on which the study was based. In Chapter 1, the process to accomplish the study was explained and the definitions of terms applicable to the context of the study were presented. Finally, Chapter 1 concluded with the limitations and delimitations of the study.

In Chapter 2, a scholarly review of both empirical and seminal works was synthesized to present a detailed review of the literature associated with the study. This review encompassed the components of transformational leadership theory and the behaviors and characteristics as found within the literature and prior research. Chapter 2 also explored the literature surrounding transformational leadership in the public sector and highlighted one of the most influential case studies of the first prime minister of Singapore, Lee Kuan Yew, who revolutionized the government setting of Singapore using the tenets of transformational leadership theory (Tan et al., 2021). The last sections of Chapter 2 explored volatile, uncertain, complex, and ambiguous (VUCA) environments and psychological safety.

Chapter 3 included the research methodology and rationale that supported the study design. Beginning with the statement of the problem, the chapter included a description of the process used to accomplish the study by presenting the methodology and design. The data collection process and how the data were analyzed were described. Chapter 3 also revealed the RQs and associated hypotheses. The participants of the study were described, followed by an explanation of the selected instrument, the research model, and the validity and reliability of the study. Chapter 3 also included the research procedures and data analysis strategy used and concluded with a description of the ethical issues and how each was mitigated to ensure trustworthy results.

Chapter 4 presented the analysis and results from the data set collected for the study. The data were presented in a nonevaluative and unbiased format. Participant demographics and descriptive statistics were revealed. The results of the statistical analysis conducted for the study included the Spearman's rank-order correlation, linear regression, and multiple linear regression. Also provided was a discussion of the bootstrapping method used to confirm and ensure robustness of the results. To conclude the chapter, the results for each RQ were provided, including alignment of the results to each of the hypotheses.

Conclusions & Discussion

The RQs and hypotheses provided the guidance to conduct this study. A carefully constructed theoretical framework, based on transformational leadership theory, was used to employ a quantitative methodology of non-experimental correlational design. The following conclusions and discussion were based on the results of the data analysis and findings articulated in Chapter 4. The findings of the study derived from the descriptive statistics, Spearman's rank-order correlation, linear regression, multiple linear regression, and bootstrapping statistical analysis.

The purpose of the study was to determine the relationship between transformational leadership behaviors and psychological safety climate perceptions, as indicated through responses collected in the 2023 U.S. OPM FEVS. The FEVS instrument comprises 91 individual response items, 19 demographic questions, and five indices, each with its own subindex and validated scale of measure. A summary of the frequency statistics showed that all participant composite mean scores were higher than the midpoint on the 5-point Likert-type scale: transformational leadership (TL; $M = 3.99$), idealized influence (TLII; $M = 4.00$), inspirational motivation (TLIM; $M = 3.83$), individualized consideration (TLIC; $M = 4.29$), intellectual

stimulation (TLIS; $M = 3.86$), and psychological safety climate (PSC; $M = 4.06$). This finding indicates a high degree of participant experience of transformational leadership and psychological safety climate.

The RQs and hypotheses were used to conduct the study in a nonevaluative, unbiased, and logical manner. Because the test of assumptions revealed that the distribution of the data was nonparametric, a shift from the original plan to use parametric Pearson product–moment correlation to the nonparametric Spearman rank-order correlation was necessary to conduct the data analysis (L. Cohen et al., 2018). Simple and multiple linear regressions were maintained even though all assumptions had not been met. The regression approach was feasible based on the principles of the central limit theorem (CLT) and the relevance of a larger sample size (n = 9,160) to approximate normality (J. Cohen et al., 2003; Field, 2018). The application of bootstrapping, discussed in Chapter 4, enhanced the methodological approach and further justified the decision to conduct linear regression with a viable confirmation of the results.

In the study, TL measured transformational leadership; TLII, TLIM, TLIC, and TLIS measured the four dimensions of transformational leadership; and PSC measured psychological safety climate. The analysis of the relationship between TL, the dimensions of TL, and PSC involved a correlation and regression analysis of the participants' mean scores using the archival data collected from the 2023 U.S. OPM FEVS. While none of the RQs specifically inquired as to the extent to which TL or the dimensions of TL would predict the psychological safety climate, a regression analysis was conducted to support each RQ. The additional information helped to better understand the significance found within the relationship between the variables used in the study and contributed to the following conclusions.

RQ1

- RQ1: To what extent is there a relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_01: There is not a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A1: There is a statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ1 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. A simple linear regression analysis determined the proportion of variance in psychological safety climate and predicted psychological safety climate values based on the values of transformational leadership. The statistical results of the Spearman correlation analysis revealed a significant positive correlation between TL and PSC ($r_s[9160] = .796$, $p < .001$). An examination of the simple linear regression revealed that TL accounted for 65.5% of the variability in PSC ($R^2 = .655$), which suggested a meaningful predictive relationship. Table 11 displayed the Spearman rho correlation results, Table 12 the regression results, and Table 13 the bootstrapped coefficients with confidence intervals. A statistically significant relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate led to the rejection of the null hypothesis and the consideration of the alternate hypothesis to answer RQ1.

The findings of these results support Burns's (1978) theory of transformational leadership, which asserts that leader behaviors rooted in inspiration, trust building, and ethical modeling can significantly influence how followers engage with their environment. The indication of a strong positive correlation between TL and PSC closely aligns with research conducted in the health-care and corporate settings (Al Marshoudi et al., 2023; Edmondson & Lei, 2014) and extends that relevance to the public sector and government context. Unlike prior studies that focused on flat organizational hierarchies, this study confirmed that TL remains effective even in highly bureaucratic and hierarchical structures, such as the U.S. Department of the Navy. These findings are important in the adaptability of TL across diverse institutional settings and highlight the potential for transformational leaders to expand opportunities for employee voice and drive innovation across public service organizations, which are two outcomes essential for adaptability and performance in a government and high-demanding setting.

RQ2

- RQ2: To what extent is there a relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_02: There is not a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A2: There is a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ2 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. A multiple linear regression analysis determined the proportion of variance in PSC and predicted PSC values based on the values of each of the four dimensions of TL, which, for RQ2, was TLII. The statistical results of the Spearman correlation analysis revealed a significant positive correlation between TLII and PSC ($r_s[9160] = .728$, $p < .001$). Within the model, multiple regression revealed that TLII demonstrated a small but statistically significant contribution to the prediction of PSC ($\beta = .074$, $p < .001$). Table 14 displayed the Spearman rho correlation results, Table 15 the multiple regression results, and Table 16 the bootstrapped coefficients with confidence intervals for the model. The existence of a statistically significant relationship between supervisors' idealized influence and employees' psychological safety climate led to the rejection of the null hypothesis and the consideration of the alternate hypothesis to answer RQ2.

This finding supports the theoretical assumption that the dimension of idealized influence, a TL behavior characterized by integrity, ethical conduct, and leader–follower trust, plays a positive role in shaping employee perception of psychological safety (Avolio et al., 1999; Bass, 1985). Research has shown that employees are more likely to speak up and take interpersonal risks, which include sharing ideas, when their leaders consistently model ethical behavior and high standards (Pradhan & Pradhan, 2015; Rafferty & Griffin, 2004). The finding is of particular interest in government organizations, in which hierarchical systems can discourage openness, and is congruent with research by Edmondson and Lei (2014), who noted that psychological safety is fostered by leaders who inspire confidence in their decision making and exercising of fairness.

While TLII's predictive strength was modest in comparison to the other TL dimensions, the significance of its relationship with PSC reinforces the importance of leader authenticity and ethical behavior in the context of public service. In high-demanding, bureaucratic settings, such as the U.S. Department of the Navy, leaders who exhibit idealized influence may help reduce fear-based silence and reinforce organizational values that contribute to a climate consistent with respect and inclusion. The results suggest that government leadership training should prioritize value-based behaviors to strengthen the level of psychological safety across teams and the organization.

RQ3

- RQ3: To what extent is there a relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H_03: There is not a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A3: There is a statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ3 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. A multiple linear regression analysis determined the proportion of variance in PSC and predicted PSC values based on the values of each of the four dimensions of TL, which, in RQ3, was TLIM. The statistical results of the Spearman correlation analysis revealed a significant positive correlation

between TLIM and PSC ($r_s[9160] = .724$, $p < .001$). Within the model, multiple regression revealed that the dimension of TLIM did not demonstrate a statistically significant contribution to the prediction of PSC ($\beta = -.009$, $p = .561$). Table 14 displayed the Spearman rho correlation results, Table 15 the multiple regression results, and Table 16 the bootstrapped coefficients with confidence intervals for the model. The statistically significant relationship between supervisors' inspirational motivation and employees' psychological safety climate led to the rejection of the null hypothesis and the consideration of the alternate hypothesis to answer RQ3.

In the results for RQ3, significant and mixed outcomes offer important theoretical insights for researchers in the field of organizational leadership. The TL dimension of inspirational motivation, as defined within transformational leadership theory, involves articulating a compelling vision and instilling meaning and purpose among followers (Avolio et al., 1999; Bass, 1985). While TLIM has revealed a significant and positive influence in motivation and morale (J.-K. Kim et al., 2023), its lack of unique predictive value for psychological safety in this study suggests that motivational appeal alone may not be sufficient to deliver a climate of interpersonal trust and openness in a government setting.

This finding diverges slightly from existing literature in corporate and educational environments, in which inspirational motivation has been linked to stronger group cohesion and performance outcomes (Awais-E-Yazdan et al., 2023). In the context of a government setting and the U.S. Department of the Navy, where communication is often top-down and risk averse, the results suggest that behaviors that emphasize inclusion, active listening, or personal support carry more weight in building psychological safety. This finding supports the arguments by Rafferty and Griffin (2004) and J.-K. Kim et al. (2023), who asserted that the impact of TL

dimensions may vary across organizational contexts, with certain dimensions exerting a greater influence depending on underlying organizational culture and structure.

While TLIM correlated with PSC, its lack of predictive power in the presence of the other three dimensions points to a potential redundancy or overlap in leadership perception. Future research should examine TLIM in isolation or explore the interacting effects of TLIM to determine under what conditions motivational behaviors influence psychological safety the most. For government leaders, the finding suggests that, while communicating a vision is valued, its impact on psychological safety may be indirect or contingent on its alignment with relationally grounded behaviors, such as individualized consideration or ethical modeling.

RQ4

- RQ4: To what extent is there a relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - $H_0$4: There is not a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.
    - H_A4: There is a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ4 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. A multiple linear regression analysis determined the proportion of variance in PSC and predicted PSC values based on the values of each of the four dimensions of TL, which, in RQ4, was TLIC. The

statistical results of the Spearman correlation analysis revealed a significant positive correlation between TLIC and PSC ($r_s[9160] = .705$, $p < .001$). Within the model, multiple regression revealed that TLIC demonstrated a moderate statistically significant contribution to the prediction of PSC ($\beta = .311$, $p < .001$). Table 14 displayed the Spearman rho correlation results, Table 15 the multiple regression results, and Table 16 the bootstrapped coefficients with confidence intervals for the given model. The existence of a statistically significant relationship between supervisors' individualized consideration and employees' psychological safety climate led to the rejection of the null hypothesis and the consideration of the alternate hypothesis to answer RQ4.

The results of RQ4 reinforced the central role of individualized consideration within transformational leadership theory, which emphasizes the leader's attention to individual needs and personal development (Avolio et al., 1999; Bass, 1985). The positive relationship revealed between TLIC and PSC reflects the importance of leadership behaviors that proactively recognize employees as unique individuals and highlights the need to provide them with mentorship and encouragement. Psychological safety is deeply built on the foundation of interpersonal trust and respect for individual needs (Edmondson & Lei, 2014). These findings confirm prior research suggesting that supportive leadership and individualized consideration act as a critical precursor to employee openness and risk taking (Mat et al., 2019; Pradhan & Pradhan, 2015).

In the context of government and the U.S. Department of the Navy, which is a structured and often top-down organization, this finding is particularly significant. Specifically, the finding suggests that when supervisors take the time to personally connect with employees using empathy and support for their personal development, perceptions of psychological safety

increase. This connection enhances not only the ability for employees to exercise voice and innovation but may also improve retention and morale in mission-critical roles within the government. Finally, these results further support J.-K. Kim et al. (2023), who argued that relational leadership behaviors hold value in a high-pressure and bureaucratic system. The confirmation and alignment with prior research are pivotal due to the influence leaders have over employees and the implications such leadership behaviors may have in high-demanding and complex organizations.

Given the strength of TLIC as a predictor in the model that was analyzed for the study, leadership development programs in government agencies should prioritize individualized support practices that build interpersonal trust. These practices might include coaching, active listening, and personalized feedback as essential leadership behaviors within public organizations. By implementing these actions, leaders can initiate a climate in which employees feel valued and empowered to share ideas. The results of such a climate may enable employees to more willingly contribute to the continuous improvement efforts within the organization due to a feeling of value and inclusion within the process.

RQ5

- RQ5: To what extent is there a relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians?
    - H05: There is not a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.

- HA5: There is a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate among U.S. Department of the Navy civilians.

To answer RQ5 and reject or fail to reject the null hypothesis, the Spearman rank-order correlation established whether a correlation existed between the variables. A multiple linear regression analysis determined the proportion of variance in PSC and predicted PSC values based on the values of each of the four dimensions of TL, which, in RQ5, was TLIS. The statistical results of the Spearman correlation analysis revealed a significant positive correlation between TLIS and PSC ($r_s[9160] = .783$, $p < .001$). Within the constructed model, multiple regression revealed that the dimension of TLIS demonstrated a moderate statistically significant contribution to the prediction of PSC ($\beta = .520$, $p < .001$). Table 14 displayed the Spearman rho correlation results, Table 15 the multiple regression results, and Table 16 the bootstrapped coefficients with confidence intervals for the model. The existence of a statistically significant relationship between supervisors' intellectual stimulation and employees' psychological safety climate led to the rejection of the null hypothesis and consideration of the alternate hypothesis to answer RQ5.

The result supports an underlying belief within transformational leadership theory that intellectual stimulation encourages employees to challenge assumptions and engage in creative thinking (Avolio et al., 1999; Bass, 1985). In environments in which innovation and adaptability are critical, such as in a government organization, this type of leadership behavior stimulates the conditions necessary for psychological safety. The findings also align with prior research indicating that leaders who promote intellectual curiosity and value diverse perspectives enhance

employee willingness to express dissenting views without fear of negative consequences (Dóci et al., 2020; Edmondson & Lei, 2014; Mat et al., 2019).

Among the four TL dimensions explored, TLIS emerged as the strongest predictor of psychological safety in the study. This finding suggests that when government leaders actively encourage new ideas and problem-solving tactics, employees are more likely to feel safe taking interpersonal risks that contribute to an innovative mindset. Encouraging employee risk taking and idea generation is particularly important in a public sector context, in which a rigid structure and risk-aversion mentality can often discourage open expression. The results from RQ5 support previous assertions that intellectual stimulation is not only relevant in theory but also functionally impactful in shaping a workplace culture within the most complex and hierarchical organizations (J.-K. Kim et al., 2023; H. F. Wang et al., 2021).

From the findings for RQ5 there are important takeaways for government organizations and leaders to consider in both leadership training and leadership strategy. Government leadership development programs should emphasize intellectual stimulation as a core competency that opens the mind and revisits the status quo, in other words, encourages thinking outside the box. Leaders who challenge assumptions and encourage input from all team members signal the embrace of unconventional thinking, which can help cultivate an environment of learning, trust, and psychological safety (Tafvelin et al., 2023). Fostering such a climate is vital for innovation and mission readiness in government organizations in which engagement and psychological safety are prioritized.

Based on the results of the correlational analysis, the data indicated that the variable of transformational leadership contributed significantly to the variable and outcome of psychological safety climate. This finding was noticeable as both variables moved in the same

positive direction. Leaders and supervisors in the public sector and government organizations who display transformational leadership behaviors indicate a more substantial level of psychological safety climate within the workplace. The results suggest that, within the dimensions of the transformational leadership construct, behaviors can predict and enhance psychological safety climate to different levels depending on which behaviors are applied. In this study, findings revealed that idealized influence, individual consideration, and intellectual stimulation were significant predictors of the level of psychological safety within the climate of a government workplace.

From the analysis of the five RQs that guided the study, several key factors or themes should be considered. First, the overall construct of transformational leadership has a significant positive relationship with psychological safety climate; 65.5% of the variance in psychological safety climate was explained by transformational leadership, as explored within the context of this study and a government organization. Aside from unknown or unstudied confounding variables, the results are significant overall and reveal a relationship between transformational leadership and psychological safety climate in government. However, a gap still exists in fully understanding transformational leadership and its dimensions within the context of the public sector and government. Also missing is causation, which should be considered in future research of transformational leadership and psychological safety climate in a government context. Therefore, implementing more purposeful investigations that fulfill a deeper understanding of the core dimensions of transformational leadership are both warranted and required to further advance the study of transformational leadership and its impact on psychological safety climate within an organization.

Second, the fundamentals of transformational leadership and psychological safety within training and mentorship programs should be integrated to strengthen positivity in the workplace climate of government organizations. Transformational leadership itself consists of behaviors that may help navigate the turbulence inherently present within the government due to periodic turnovers and routine administrative changes. This study revealed a positive relationship between transformational leadership behaviors and psychological safety climate overall, necessitating the consideration of both variables within an organization's training and mentorship programs.

Finally, the level at which a leader becomes transformative requires a willingness to embrace openness and solicit inclusion from members within the organization. Leveraging transformational leadership behaviors that are best suited to increase psychological safety within an organization are important factors this study helped to inform through exploration of not only transformational leadership but also the dimensions of the theory and construct itself. Results from the study may inform organizations of transformative behaviors and the transformational style of leadership, which fundamentally inspire followers to innovate and think in ways that develop abilities from within (Bass, 1985).

Theoretical Implications

The design and theoretical foundation of this study was built on the theory of transformational leadership. The study explored the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. Based on the work of Burns (1978) and the four dimensions of transformational leadership, this study confirmed the relevance and applicability of transformational leadership behaviors in a public sector context. This finding is important because the public sector consists of organizations that are built on hierarchical structures,

mission-critical operations, and complex interdependencies on which citizens rely to support their day-to-day needs and overall sense of security (Fantus et al., 2022; Trottier et al., 2008).

Transformational leadership theory suggests that leaders who engage followers through vision, inspiration, intellectual means, and individualized attention contribute to higher outcomes and behaviors that are open and transparent (Avolio et al., 1999; Bass, 1985). This type of behavior allows for teams and organizations to work together toward common goals in a way that is open and supportive of decision making (G. Wang et al., 2011). The constructs of psychological safety and psychological safety climate emphasize a shared belief that interpersonal risk taking will not be met with punishment or a feeling of embarrassment (Edmondson, 1999). Findings from this study suggest that, within a government organization, a statistically significant and positive relationship exists between supervisors' transformational leadership behaviors and employees' psychological safety climate. The findings helped to address RQ1 of the study regarding the overall relationship between transformational leadership and psychological safety climate. The study also confirmed empirical evidence to support a deeper investigation into transformational leadership theory and the construct of psychological safety, to include each individual dimension of transformational leadership and its relationship with psychological safety climate. This recommendation is based on the study results and evidence that helped to answer RQ2–RQ5.

Based on the correlation results of the study, the theory of transformational leadership was concluded to be a viable model to enhance psychological safety across government and the bureaucracy associated with government organizations. This conclusion aligns with research demonstrating transformational leadership's effectiveness in increasing employee trust, openness, and positive safety behaviors (Sobaih et al., 2022; Xu et al., 2022). The statistically

significant relationship between the four dimensions of transformational leadership theory and psychological safety climate suggests that specific transformational leadership behaviors play a significant role in a work environment built on safe expression. Organizations that support transformational behaviors create an environment in which employees can ask questions freely, report concerns, and make recommendations to support safety, performance, and innovation (Edmondson & Lei, 2014; H. F. Wang et al., 2021).

In the regression analysis, the study revealed that three of the four dimensions of transformational leadership were statistically significant predictors of psychological safety climate. This finding was in addition to discovering that all four dimensions of transformational leadership maintained a significant and positive relationship with psychological safety climate. The regression results contributed to a deeper understanding in support of the dimensions of transformational leadership and their relationship with psychological safety climate as explored through RQ2–RQ5. The results of the study align with existing transformational leadership theory suggesting that leaders who model ethical behavior and show individual respect increase the level of encouragement to become innovative based on trust and psychological safety (Dóci et al., 2020; Pradhan & Pradhan, 2015).

On the other hand, the finding that the dimension of inspirational motivation did not emerge as a significant predictor suggests that further exploration is required to understand transformational leadership theory and the nuanced ways in which motivation might appeal to or distract from perceptions of psychological safety. This insight aligns with literature suggesting that transformational leadership is contextually dependent and that not all dimensions exert equal influence across different organizational settings (Rafferty & Griffin, 2004). In retrospect, this

finding may also suggest that a qualitative or more defined study to explore the individual dimensions of transformational leadership is necessary.

From a theoretical perspective, the study reinforced prior literature by providing results and empirical validation of transformational leadership theory as a guide to behaviors that could instill a greater sense of psychological safety within a government organization (J.-K. Kim et al., 2023). This validation extends the theoretical understanding of transformational leadership and the role each dimension of the theory has in shaping perceptions of psychological safety, revealing the influence a particular behavior can have on overall psychological safety climate within the workplace (J.-K. Kim et al., 2023; Mat et al., 2019). Additionally, because the study used a large number of participant responses (n = 9,160) from a validated federal survey instrument, the results contributed to the body of knowledge by providing robust quantitative evidence in a field that is saturated with qualitative and small-sample studies (Fernandez et al., 2015).

In summary, the findings of the study affirm the theory of transformational leadership and the four dimensions of the theory as a viable framework to support an inclusive and psychologically safe climate. The statistical relationship between specific leadership behaviors and psychological safety presents a good direction for future research using transformational leadership theory as a framework. Findings also highlight the need for additional research in different organizational contexts to support further understanding of transformational leadership theory and its application across various organizational contexts (Rafferty & Griffin, 2004). Future discovery and continued pursuit to expand the body of knowledge on transformational leadership will further support organizations and safety within the public sector and will bring

strength to decision making and organizational strategy that can harness the best leadership behaviors to achieve critical goals and outcomes.

Practical & Future Implications

From this study, practical and future implications can help to inform the body of knowledge surrounding transformational leadership, the dimensions of transformational leadership, and psychological safety. This study presented empirical evidence to reject the null hypothesis for all five RQs and provided a better understanding of the relationship between transformational leadership and a climate of psychological safety. The practical implications are particularly important for federal government organizations, such as the U.S. Department of the Navy, and can inform the development of leadership programs and workforce engagement built on a foundation of trust (Fernandez et al., 2010; Trottier et al., 2008). By revealing a statistically significant and positive relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate, this study supports actionable ways to cultivate a psychologically safe environment based on leadership practices.

First and foremost, the results of the study validated the institutional use of transformational leadership as a viable framework for enhancing psychological safety among government employees (Alessa, 2021; Burns, 1978; Kwan, 2020). This finding reinforced previous research that identified transformational behaviors, such as intellectual stimulation and individualized consideration, as critical drivers of open communication and trust in a bureaucratic setting (Edmondson & Lei, 2014; H. F. Wang et al., 2021). Leaders who are active in demonstrating personalized support and creativity empower their subordinates to express ideas without fear of retribution (Mat et al., 2019; Nembhard & Edmondson, 2006). The outcome is a

workplace free of fear and a climate in which psychological safety is deeply rooted within the workplace culture.

Second, the public sector is an area in which rigid hierarchies, frequent leadership turnover, and political volatility can suppress psychological safety and discourage innovation (Backhaus & Vogel, 2022; Fantus et al., 2022). This study revealed that transformational leadership behaviors can play a role in mitigating these challenges by promoting inclusion and trust in the workplace. Findings also highlight that transformational leaders have the ability to practice transparent decision making, which is conducive to openness and the ability for everyone to speak up and be heard. In a practical sense, the results of the study imply that government organizations should invest in leadership training programs that specifically develop the core competencies of the four dimensions of transformational leadership. While all four dimensions may be emphasized, particular attention should be given to intellectual stimulation and individualized consideration. Based on the study results and prior research, intellectual stimulation and individualized consideration indicate a significant predictive value in establishing a higher level of psychological safety (De Simone & Franco, 2023; Rafferty & Griffin, 2004). Organizations should take note of these findings and the alignment with prior research and incorporate these behaviors within their training and culture.

Third, organizations that strive to improve performance through employee engagement should integrate the behaviors of transformational leadership within their onboarding, mentoring, and performance evaluation programs. Doing so builds a climate in which supervisors communicate vision and display ethical behaviors that contribute to a safe space for employees to provide feedback, in alignment with study results and existing literature (Al Marshoudi et al., 2023; Bass, 1985). Leaders who consistently embody the behaviors of transformational

leadership may reduce organizational silence and encourage constructive dissent, both of which are essential for innovation and resilience during times of change (Dillon et al., 2023).

In summary, the findings of this study suggest that public sector organizations should expand their leadership development programs to include transformational leadership, the underlying dimensions of transformational leadership, and the fundamental belief of psychological safety. This suggestion not only aligns with previous research in transformational leadership but also supports a more inclusive and high-performing culture that is adaptable to the demands and complexity of change in government (De Simone & Franco, 2023; Karimi et al., 2023). As government organizations continue to face workforce challenges, investing in leadership models that promote trust and employee voice becomes increasingly critical. The results from this study provide practitioners and policymakers with data-driven insights to inform leadership selection and leadership training design. The study also serves as an informative mechanism to implement policy reform and future research aimed at building a more resilient and psychologically safe government.

Strengths & Weaknesses

An aspect found within all methods of research is the existence of strengths and weaknesses surrounding the design and execution of a study (Coker, 2022; Leedy & Ormrod, 2018). This study followed a quantitative non-experimental correlational design to examine the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. While the chosen methodology and data analyses were executed rigorously and with the best intent, limitations considered beyond the researcher's control should be openly discussed to ensure transparency and credibility in the findings (Leedy & Ormrod, 2018). Reflection in this manner also serves to

inform future researchers on areas that may be adjusted and refined as they strive to build on and contribute to the body of knowledge.

A key strength of this study was the use of a large representative archival data set collected through the 2023 U.S. OPM FEVS. The data set, which included 9,160 valid responses, exceeded the minimum recommended sample size (n = 384) required by a power analysis conducted for valid statistical inference (Raosoft, 2004). The large sample size allowed for greater generalizability within the context of U.S. Department of the Navy civilians and enhanced the reliability of findings through statistical robustness. Additionally, because the validated FEVS instrument is recognized for its psychometric reliability and use of multiple validated indices, it is considered important to the construct validity of both transformational leadership and psychological safety measures (Fernandez et al., 2015; USOPM, 2023).

Another methodological strength of the study was the selection and use of the nonparametric Spearman's rho and parametric regression analyses in response to results discovered through the assumption tests (Salkind & Frey, 2020). Although assumption violations were observed due to nonnormality, the large sample size allowed for the methodologically justified use of regression based on the CLT. Reliance on a large sample size and the fundamentals of CLT supported the belief that the sampling distribution of means approached normality regardless of the underlying distribution (J. Cohen et al., 2003). To further support the strength and robustness of the study, bootstrapping procedures were employed to enhance the reliability of regression coefficients. The result was an increase in the confidence of the accuracy of the results despite the deviations from ideal statistical assumptions.

In contrast, limitations beyond the researcher's control affected the study. First, the use of a cross-sectional design limited the ability to infer causality between the variables of

transformational leadership and psychological safety climate. A longitudinal or experimental design may have accessed the variables and their relationship with each other over a more deliberate period of time and thus been a solution to overcome this limitation (Fareed et al., 2022; Higgins et al., 2022). However, due to the requirements to complete a valid research project in support of the Columbia International University doctoral program focused on organizational leadership, a longitudinal or experimental design would have been unfeasible. Additionally, the study's reliance on self-reported data collected from government employees created the potential for response bias and social desirability, which may have influenced how participants rated their supervisors and workplace climate (Edmondson & Bransby, 2022; Frazier et al., 2017). Notably, evidence of clustering and high scores within the data suggests a ceiling effect found common in Likert-scale data (Chyung et al., 2020). This ceiling effect was also a potential indication of response bias and/or social desirability within the data.

Another weakness was the absence of descriptive statistics within the results. While the focus of the study was correlational and regression-based, descriptive statistics could have offered additional context regarding the central tendencies and variability of the data. Without these descriptive measures, interpretation remained relational rather than descriptive in scope. A further limitation was the generalizability of the findings beyond the U.S. Department of the Navy. Although the sample used in the study was large and demographically diverse, it represented only one subset of a department from within the U.S. government and Department of Defense. Therefore, the findings may not fully extend to other departments or even other agencies found inside or outside the Department of Defense.

Despite the limitations, the study achieved the goals of delivering both credible and statistically valid conclusions. Grounded in transformational leadership theory, the results were

supported by strong methodological procedures and an open discussion of the issues and how they were overcome. In summary, the study's findings provided a meaningful contribution to the continued understanding of transformational leadership and psychological safety within government organizations. While much remains to be explored, the findings of the study helped to address a notable research gap in organizational leadership and the public sector context that continues to build an understanding within the defined disciplines of transformational leadership and psychological safety climate. Findings also support future studies aimed at developing and evaluating organizations within the public sector and government context.

Recommendations for Future Research

This quantitative non-experimental correlational study provided the basis for future research using other research designs that explore the relationship between transformational leadership and psychological safety in a government or public sector context. Further exploration of transformational leadership requires a deeper look into the four dimensions of transformational leadership as posited by Burns (1978). Using the empirical evidence of a statistically significant and positive relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians, future researchers should explore which transformational leadership dimension benefits government leaders the most. While the study findings answered the five RQs and confirmed the predictive role of three transformational leadership dimensions in relationship to psychological safety climate, several areas warrant further exploration. Based on the limitations and conclusions, the following recommendations are proposed.

First, given the cross-sectional design of the study, causality between transformational leadership and psychological safety climate could not be established. Future research should

adopt a longitudinal design to assess how transformational leadership behaviors impact psychological safety climate over a specific period of time. Employing such studies would allow researchers to determine whether the observed effects found in this study apply over time in a dynamic government context that shifts routinely due to policy and administrations (Fareed et al., 2022; Higgins et al., 2022). Effectively, a longitudinal study may indicate if the effects of transformational leadership on psychological safety climate are sustained or if their influence on psychological safety climate increases or decreases over time.

The second recommendation for future research is to employ different methodologies and designs when investigating transformational leadership and the effects on psychological safety or psychological safety climate in government organizations. For this study, the methodology focused on a quantitative data analysis to determine relationships between the defined variables of transformational leadership and psychological safety climate. The study also explored the predictive ability of the dimensions of transformational leadership on psychological safety climate. Future research would benefit from a qualitative or mixed-methods approach, which could add depth to the understanding of how employees perceive and experience transformational leadership in an ever-changing VUCA government environment (Dillon et al., 2023). The use of semistructured interviews, focus groups, or ethnography may reveal nuanced insights into leader–follower dynamics and how they might relate to a feeling of psychological safety in the workplace (Barnham, 2015; Merriam & Tisdell, 2019).

The third recommendation based on study findings is to broaden the scope of the study to other federal agencies and public sector organizations. The present study and findings were limited to the U.S. Department of the Navy civilians. While beneficial, these findings may not be generalizable to other federal departments within the United States. Future studies should

replicate this research across other branches of the military or federal agencies such as the Department of Homeland Security or Department of Veterans Affairs. There may also be a benefit to expanding this research into civilian state or local government agencies, which could produce new findings given the cultural significance and locality effects on these agencies. In addition, future studies should consider breaking down analyses by demographic variables such as gender, age, tenure, and occupational role. Examining how transformational leadership and psychological safety climate are perceived across demographic groups may reveal important differences that inform leadership development strategies and targeted organizational interventions. Taking this direction would help to validate the generalizability of the relationship between transformational leadership and psychological safety climate in different public service cultures and structural hierarchies (Degtiar & Rose, 2023).

Finally, the fourth recommendation is to examine each of the four dimensions of transformational leadership as independent predictors of psychological safety or psychological safety climate. While this study revealed that intellectual stimulation and individualized consideration were significant predictors of psychological safety climate, findings also revealed that inspirational motivation was not a significant predictor. Whether this finding was a limitation due to the examination of all four dimensions at once or a limitation due to the study design and data set, exploring each dimension separately may reveal significant outcomes without due influence from the other dimensions under the transformational leadership construct. Therefore, future research should isolate and investigate each dimension of transformational leadership to understand their differential effects across various work environments and organizational contexts, and not just government. To achieve this understanding, researchers might consider experimental designs or structural equation modeling to more precisely test the

mediating and moderating roles of each dimension of transformational leadership (Cheung et al., 2023; G. Wang et al., 2011).

Chapter Summary

The purpose of this quantitative non-experimental correlational study was to examine the relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians. This chapter presented a comprehensive review and summary of the findings and discussion of the results using the five RQs and their hypotheses as a guide. The chapter also provided theoretical and practical implications that can be used to help organizations and future researchers who wish to implement the findings in both research and organizational settings. Strengths and weaknesses of the study were also discussed, and recommendations for future research were presented to further advance the study of transformational leadership and psychological safety in the context of government organizations.

Five RQs guided the study that explored transformational leadership theory and the relationship of transformational leadership behaviors on psychological safety climate within government organizations. RQ1 asked, To what extent is there a relationship between supervisors' transformational leadership behaviors and employees' psychological safety climate among U.S. Department of the Navy civilians? A strong statistically significant positive relationship was found between transformational leadership and psychological safety climate, supporting the hypothesis that supervisors' TL behaviors are meaningfully associated with employees' PSC ($r_s = .796$, $p < .001$). Simple linear regression revealed that TL explained 65.5% of the variance in PSC ($R^2 = .655$, $p < .001$), which indicates the meaningful predictive role of supervisors' TL behaviors on employees' PSC. The null hypothesis for RQ1 was rejected.

To address RQ2, the analysis revealed a moderate statistically significant positive relationship between TLII and PSC ($r_s = .728$, $p < .001$). To address RQ3, the analysis revealed a moderate statistically significant positive relationship between TLIM and PSC ($r_s = .724$, $p < .001$). To address RQ4, the analysis revealed a moderate statistically significant positive relationship between TLIC and PSC ($r_s = .705$, $p < .001$). Finally, to address RQ5, the analysis revealed a strong statistically significant positive relationship between TLIS and PSC ($r_s = .783$, $p < .001$). The null hypotheses for RQ2–RQ5 were rejected.

RQ2–RQ5 also examined whether each of the four dimensions of transformational leadership—idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation—significantly predicted PSC. To further add to an understanding of the underlying construct of transformational leadership, a regression analysis was conducted. The results of the regression confirmed that the TL dimensions of idealized influence ($\beta = .074$, $p < .001$), individualized consideration ($\beta = .311$, $p < .001$), and intellectual stimulation ($\beta = .520$, $p < .001$) were statistically significant predictors of PSC, while inspirational motivation was not ($\beta = -.009$, $p = .561$). These findings highlight the importance of implementing specific and targeted leadership behaviors that may contribute to a climate of openness and trust, which are commonly found within a climate of psychological safety (Edmondson & Lei, 2014).

The results of the study supported theoretical implications that emphasized the continued relevance of Burns's (1978) transformational leadership theory in public sector organizations. Empirical validation of transformational leadership theory's connection to psychological safety, especially within hierarchical government structures, was found to be relevant given the relationship transformational leadership has with psychological safety climate (J.-K. Kim et al., 2023). In support of practical implications, training and developing leaders in public service

environments may help to model transformational leadership behaviors that could directly support psychological safety and innovation (Edmondson & Lei, 2014; H. F. Wang et al., 2021). Specifically, leadership development programs that focus on intellectual stimulation and individualized consideration may be especially impactful, given the predictive ability noted from the results of this study.

The study's strengths included the use of a large and diverse archival data set obtained from the 2023 OPM FEVS. Combined with strong statistical power and the appropriate handling of assumption testing using both Spearman correlation and bootstrapped regression, these factors contributed to the overall rigor and credibility of the study. However, limitations were present and were therefore acknowledged to maintain credibility. These limitations included the use of a cross-sectional design and potential response bias due to self-reported data obtained from employees in the U.S. government. These factors may have also contributed to limited generalizability outside the U.S. Department of the Navy, warranting additional studies that could broaden the understanding of transformational leadership and psychological safety climate in government and the public sector. Together, the limitations informed four specific recommendations for future research: explore alternate methodologies, adopt longitudinal and experimental designs, expand the scope to other federal agencies, and isolate each of the transformational leadership dimensions as independent predictors of psychological safety climate using advanced statistical modeling techniques (Cheung et al., 2023; Fareed et al., 2022).

In summary, this study contributed to the body of knowledge in organizational leadership by empirically confirming the role of transformational leadership in fostering a psychologically safe workplace climate within a federal government context. This contribution was achieved by advancing the application of transformational leadership theory through identification of the

transformational leadership dimensions and associated leadership behaviors that most effectively promote employee trust and openness in a VUCA environment. Specifically, the findings reinforced the value of the transformational leadership dimensions of individualized consideration and intellectual stimulation in leadership development programs. These dimensions, when properly integrated, may improve team cohesion and organizational health. Finally, the research and results provided evidence-based guidance for practitioners and policymakers seeking to cultivate an inclusive and high-performing work environment that maintains resilience in the face of complexity and institutional change. By applying the validated transformational leadership framework to a large and mission-critical government organization, the study supports improved leadership behaviors that can promote employee voice, even in the most difficult of hierarchical environments. The results of this research and the findings helped to close a gap in federal government leadership research by offering a meaningful foundation to improve both the employee experience and operational effectiveness within a government organization.

Researcher Reflection

This study was both a challenging and rewarding experience that would have been unobtainable without God and His guiding wisdom. The basis of the study was informed by the perspective of a novice researcher with over three decades of service to the U.S. government. At the time of the study, this service included 23 years of active duty and nine years of civil service for the U.S. Department of the Navy. Throughout this time, service included multiple leadership positions in supervising active-duty military personnel, civilian government employees, and government contractors. These experiences provided firsthand insights into the complexity and

challenges of leading within a large and evolving government system that can often experience the effects associated with a VUCA environment.

The decision to explore transformational leadership and psychological safety derived from a belief that both constructs contribute positively to a high-demanding and complex government setting. Psychological safety was emphasized due to the critical role it plays in establishing open dialogue and an environment of trust. This sense of trust and openness is especially significant in government and modern society due to the service and care that government continues to provide to its citizens and the trustworthiness it brings to the decision-making process for mission-critical operations. The research was driven by a belief that transformational leadership behaviors have the potential to elevate not only workplace morale but also the quality and responsiveness of public service as it delivers outcomes for citizens.

Conducting this study significantly reshaped the understanding of leadership. The research process reinforced the importance of the effective use of soft skills, such as emotional intelligence and interpersonal connection, which have been deemed important within the organization. The experience of conducting the study also provided a valuable lesson in executing a quantitative analysis of real-world data. Academically, the findings affirmed that specific leadership behaviors can emphasize care and individualized support to team members throughout all aspects of the organization by creating environments in which employees feel valued and safe to contribute. From a practical stance, crucial leader behaviors that are often referred to as *soft skills* appeared to suffer from an undervalued and overlooked position within a hierarchical setting. As a result of the study findings, soft skills emerged as powerful drivers of psychological safety and organizational well-being, warranting further enactment of these skills throughout the federal government and other organizational contexts.

From a Kingdom perspective, there is a clear association of leadership with a sacred responsibility bestowed directly from God. Leadership, when grounded in humility and ethical service to others, reflects biblical values that display stewardship, justice, and compassion. It is this understanding that informed the underlying belief that psychological safety and modeling transformational leadership behaviors are not only matters of best practice within the organization but also requirements of God's calling that entails the care for others and leading with integrity. From this perspective and worldview, this study served as a professional and spiritual guide to enact practical applications within the role as an organizational leader. The study was a reminder that a safe and respectful workplace honors God and uplifts others through Christ-like compassion for those being led.

Based on the study results, organizations can apply these findings within a professional setting by sharing them with leadership teams, which may encourage a more intentional leadership development strategy that, combined with mentorship programs, can bring about real change. Reflection from the research process highlighted the importance of promoting leadership behaviors that consistently prioritize trust and ethical decision making. By transferring this academic research into actionable guidance, the study provided a positive influence in both workplace culture and leadership practices within the U.S. Department of the Navy and the federal government at large. The study also revealed potential to instill within others a desire to further the research and to course-correct in future investigations of transformational leadership and psychological safety climate using the lessons learned from the strengths and weaknesses discussed within the study.

In summary, the study demonstrated that no matter how much planning takes place, there will always be unexpected hurdles to overcome in research. The study also instilled a deeper

commitment to the mission and purpose of what it means to be a true public servant and a steward of God's creation. At a point in time when public institutions are facing scrutiny and skepticism, strengthening leadership culture within government is both timely and necessary to instill public trust. Through the promotion of transformational leadership principles that advance psychological safety, the overall aim of the study was to contribute to a more effective and inclusive government, one that is trusted by the people. Following this belief helped to inform what it truly means to faithfully serve within an effective government, characterized as "one nation under God," that excels in the care for both its employees and the citizens it supports.

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Appendix A: Collaborative Institutional Training Initiative Certificate

CITI PROGRAM

Completion Date 25-Aug-2024
Expiration Date 25-Aug-2027
Record ID 64583858

This is to certify that:

Vernon Brown

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

Social-Behavioral-Educational Researchers
(Curriculum Group)
Social-Behavioral-Educational Researchers
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Columbia International University

CITI
Collaborative Institutional Training Initiative

101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Generated on 25-Aug-2024. Verify at www.citiprogram.org/verify/?wf4bd4d36-d4e6-4f17-8bcf-39a9b660f237-64583858

Appendix B: Permissions to Use Federal Employee Viewpoint Survey Instrument & Data

RE: [PERMISSION REQUEST] OPM FEVS Data Results & Instruments

From: EVS Internet <EVS.Internet@opm.gov>
Sent: Tuesday, September 24, 2024 7:34 AM
To: Vernon Brown <[redacted]>
Subject: RE: [PERMISSION REQUEST] OPM FEVS Data Results & Instruments

Caution: This email came from outside CIU. Do not open attachments or click on links without verifying the sender.

Good Afternoon,

You are most welcome to use the Public Release Data File (PRDF) from any available year as posted on our website. The 2024 data should be available before the end of the year. You are also welcome to use the measurement scale items/indices from the U.S. Office of Personnel Management's FEVS and the collected public data files for your dissertation research.

If the Institutional Review Board needs to verify any information, please feel free to contact me.

Rosemary S. Miller, PhD
Personnel Research Psychologist (Lead)
Office of Personnel Management

Rosemary.Miller@opm.gov

From: Vernon Brown <[redacted]>
Sent: Monday, September 23, 2024 3:16 PM
To: EVS Internet <EVS.Internet@opm.gov>
Subject: [PERMISSION REQUEST] OPM FEVS Data Results & Instruments

Federal Employee Viewpoint Team,

Aloha, I am a Ph.D. student in the Organizational Leadership (OL) program at Columbia International University (CIU). I am preparing a dissertation proposal to conduct a study in transformational leadership tenants and their relationship with psychological safety climate. To do so, I would like to utilize the data from either the **2022**, **2023**, or **2024** Federal Employee Viewpoint Survey (FEVS) to assist in a dissertation study of the relationship of the variables (transformational leadership & psychological safety climate) using a quantitative methodology. I **understand the 2024 data may not be available** until late 2025 or early 2026. Is that correct? If so, then **2022** or **2023** would be the focus of my study.

That said, I am respectfully requesting your permission to use the measurement scale items/indices from the U.S. Office of Personnel Management's FEVS and the collected public data files for my dissertation research. Your permission is required to submit with my package to the Institutional Review Board (IRB).

Please let me know if I can answer any additional questions regarding the request for permission to use FEVS public data and FEVS survey instrument and indices scales.

Thank you for your time and consideration in this important endeavor.

V/r,
Vernon Brown
Ph.D. OL Student (CIU.edu)

Appendix C: Institutional Review Board Approval

Institutional Research Board
Office of Institutional Research
(803) 807-5051
roxi.snodgrass@ciu.edu

CIU IRB *Approval Notification*

To: Vernon Brown
From: Roxianne Snodgrass, IRB Chair
Subject: Protocol #557
Date: 01/01/2025

Congratulations, the protocol **The Relationship Between Supervisors' Transformational Leadership Behaviors and Employees' Psychological Safety Climate Among U.S. Department of the Navy Civilians** has been approved by the IRB Chair under the rules for expedited review on **01/01/2025**.

The approval of your protocol has no expiration date and continuing review is not required. However, when you have completed work on this protocol, please inform the IRB and submit an electronic copy of the research abstract.

Other Reporting Requirements:
Changes in Research Protocol If during the conduct of the research you desire to make changes to the research plan as submitted in this protocol, you must seek approval for those changes using IRB Form E: Modification Form.
Adverse Events: If any study participants experience any adverse effects as a result of the study, you should use IRB Form F: Incident Report Form.
If needed, these forms are available in the Documentation Section of Axiom Mentor and should be completed and uploaded to the original protocol page.

The CIU IRB is here to help you with the logistics of following Federal Regulations governing human subject research. Our goal is to support your work as the principal investigator and ensure the ethical treatment of all study participants. Your questions and/or concerns are always welcome.

Best regards,

Roxianne Snodgrass, Ph.D.
IRB Chair
roxi.snodgrass@ciu.edu

Appendix D: Research Audit Trail Document

CLEANING TRAIL DOCUMENT

ENTRY	DATE	DESCRIPTION OF ACTION
1	1/4/2025	Downloaded 2023 OPM FEVS data set.
2	1/4/2025	Copied 2023 OPM FEVS data set FEVS_2023_PRDF.csv and renamed to FEVS_2023_PRDF_NAVY_NV.csv to commence cleaning for research (Department of the Navy Only).
3	1/11/2025	Added filter function to top row of data set to isolate data set to Department of the Navy (NV) and to eliminate the incomplete survey response records.
4	1/11/2025	Started with: 625,568 records. Removed all records under "agency" that were not coded NV for Department of the Navy, which was a total of 586,367. Remaining 39,201.
5	1/12/2025	From the 39,201 NV "agency" records filtered and removed blanks from the DSUPER variable which indicate supervisor or non-supervisor position in the NV "agency." 3,200 records found and removed. Remaining total now = 36,001.
6	1/12/2025	Began the review and removal of blank entries, which indicated an incomplete survey, from all questions starting with Q1 and ending with Q91. Results of each Q are contained in document Qs-CLEANED_NUMBERS.docx. At completion of data cleaning, there remained 9,939 records for analysis.
7	1/18/2025	Began the review and removal of blank entries for DRNO (RACE) from all questions. 726 blank entries removed. At completion of data cleaning, there remained 9,213 records for analysis.
8	1/18/2025	Began the review and removal of blank entries for DAGEGRP (AGE_GROUP) from all questions. 3 blank entries removed. At completion of data cleaning, there remained 9,210 records for analysis.
9	1/18/2025	Began the review and removal of blank entries for DFEDTEN (YRS_SERVICE) from all questions. 26 blank entries removed. At completion of data cleaning, there remained 9,184 records for analysis.
10	1/18/2025	Began the review and removal of blank entries for DSEX (GENDER) from all questions. 24 blank entries removed. At completion of data cleaning, there remained 9,160 records for analysis.

Appendix E: Federal Employee Viewpoint Survey Indices Mapping

Table E1

FEVS Indices Mapping: Measuring Transformational Leadership (TL)

FEVS Scale Items	TL Theory Construct	Dimension of TL
Q51: My supervisor treats me with respect.	Leaders exhibiting Idealized Influence serve as role models, demonstrating ethical and respectful behavior that followers admire and aspire to.	Idealized Influence
Q58: My organization's senior leaders maintain high standards of honesty and integrity.	Idealized Influence involves leaders acting with high moral standards and integrity, which builds trust and respect among employees.	Idealized Influence
Q62: I have a high level of respect for my organization's senior leaders.	Followers of transformational leaders with Idealized Influence develop respect for their leaders due to their exemplary behavior.	Idealized Influence
Q65: Management makes effective changes to address challenges facing our organization.	Leaders exhibiting Idealized Influence are confident, competent, and effective in leading through challenges, inspiring confidence and trust in their followers.	Idealized Influence
Q7: I know how my work relates to the agency's goals.	Inspirational Motivation involves communicating a clear and compelling vision that aligns individual work with organizational goals, fostering motivation and engagement.	Inspirational Motivation
Q57: In my organization, senior leaders generate high levels of motivation and commitment in the workforce.	Leaders with Inspirational Motivation inspire others by creating purpose, generating enthusiasm, and instilling commitment within the workforce.	Inspirational Motivation
Q59: Managers communicate the goals of the organization.	Inspirational Motivation relies on clearly communicating organizational goals to inspire and align employees toward shared objectives.	Inspirational Motivation
Q66: Management involves employees in decisions that affect their work.	Inspirational Motivation empowers through allowing participation in decision-making, which strengthens an individual's sense of purpose and motivation.	Inspirational Motivation
Q48: Supervisors in my work unit support employee development.	Individualized Consideration involves focusing on the personal growth and development of each employee, fostering a supportive and developmental relationship.	Individualized Consideration

FEVS Scale Items	TL Theory Construct	Dimension of TL
Q49: My supervisor supports my need to balance work and other life issues.	Individualized Consideration emphasizes the leader's attention to individual employees' unique needs, including work-life balance, which fosters trust and loyalty.	Individualized Consideration
Q50: My supervisor listens to what I have to say.	Individualized Consideration requires leaders to listen attentively to employees to convey care and concern for the professional and personal needs of all.	Individualized Consideration
Q55: My supervisor provides me with constructive suggestions to improve my job performance.	Leaders who exhibit Individualized Consideration provide mentoring, encouragement, and feedback to help employees grow and improve their performance.	Individualized Consideration
Q2: I feel encouraged to come up with new and better ways of doing things.	Intellectual Stimulation involves encouraging others to think creatively and challenge the status quo to find new solutions to problems.	Intellectual Stimulation
Q27: My work unit commits resources to develop new ideas (e.g., budget, staff, time, expert support).	Intellectual Stimulation is supported when leaders allocate resources to foster innovation and experimentation.	Intellectual Stimulation
Q60: Managers promote communication among different work units (for example, about projects, goals, needed resources).	Intellectual Stimulation encourages cross-functional collaboration and knowledge sharing, which stimulates new ideas and perspectives.	Intellectual Stimulation
Q64: Management encourages innovation.	Intellectual Stimulation involves creating an environment that fosters and rewards innovation and new ways of thinking.	Intellectual Stimulation

Note. Information presented in this table is from Avolio et al. (1999) and USOPM (2024a).

Table E2

FEVS Indices Mapping: Measuring Psychological Safety (PS)

FEVS Scale Items	PS Climate Construct	Dimension of PS
Q8. I can disclose a suspected violation of any law, rule or regulation without fear of reprisal.	A key element of Psychological Safety Climate is the freedom to express concerns or report violations without fear of adverse consequences, promoting trust and openness.	Trust Open Communication
Q18. Employees in my work unit share job knowledge.	Psychological Safety Climate supports a workplace where people feel secure in contributing opinion and knowledge that can support leadership decisions.	Knowledge Sharing Risk-Taking
Q25. I can influence decisions in my work unit.	Psychological Safety Climate promotes empowerment by encouraging employees to become active in decision-making, which enhances their perception of ownership and security.	Empowerment
Q30. Employees in my work unit incorporate new ideas into their work.	An environment of Psychological Safety encourages employees to incorporate new concepts and ideas without fear of failure or reprisal, thus fostering innovation.	Innovation Risk-Taking
Q80. I am comfortable expressing opinions that are different from other employees in my work unit.	Psychological Safety Climate supports open communication where employees feel safe expressing dissenting opinions without fear of negative consequences.	Open Communication Inclusivity

Note. Information presented in this table is from Edmondson & Lei (2014), Liang et al. (2012), and USOPM (2024a).

Table E3

Items From FEVS Corresponding to Each Study Measure

Measure	Items from FEVS
Transformational Leadership (TL)	Q51. My supervisor treats me with respect. (TL Dimension: Idealized Influence)
	Q58. My organization's senior leaders maintain high standards of honesty and integrity. (TL Dimension: Idealized Influence)
	Q62. I have a high level of respect for my organization's senior leaders. (TL Dimension: Idealized Influence)
	Q65. Management makes effective changes to address challenges facing our organization. (TL Dimension: Idealized Influence)
	Q7. I know how my work relates to the agency's goals. (TL Dimension: Inspirational Motivation)
	Q57. In my organization, senior leaders generate high levels of motivation and commitment in the workforce. (TL Dimension: Inspirational Motivation)
	Q59. Managers communicate the goals of the organization. (TL Dimension: Inspirational Motivation)
	Q66. Management involves employees in decisions that affect their work. (TL Dimension: Inspirational Motivation)
	Q48. Supervisors in my work unit support employee development. (TL Dimension: Individualized Consideration)
	Q49. My supervisor supports my need to balance work and other life issues. (TL Dimension: Individualized Consideration)
	Q50. My supervisor listens to what I have to say. (TL Dimension: Individualized Consideration)
	Q55. My supervisor provides me with constructive suggestions to improve my job performance. (TL Dimension: Individualized Consideration)
	Q2. I feel encouraged to come up with new and better ways of doing things. (TL Dimension: Intellectual Stimulation)
	Q27. My work unit commits resources to develop new ideas (e.g., budget, staff, time, expert support). (TL Dimension: Intellectual Stimulation)
	Q60. Managers promote communication among different work units (for example, about projects, goals, needed resources). (TL Dimension: Intellectual Stimulation)
	Q64. Management encourages innovation. (TL Dimension: Intellectual Stimulation)
Idealized Influence (Dimension of TL)	Q51. My supervisor treats me with respect.
	Q58. My organization's senior leaders maintain high standards of honesty and integrity.
	Q62. I have a high level of respect for my organization's senior leaders.
	Q65. Management makes effective changes to address challenges facing our organization.

Measure	Items from FEVS
Inspirational Motivation (Dimension of TL)	Q7. I know how my work relates to the agency's goals.
	Q57. In my organization, senior leaders generate high levels of motivation and commitment in the workforce.
	Q59. Managers communicate the goals of the organization.
	Q66. Management involves employees in decisions that affect their work.
Individualized Consideration (Dimension of TL)	Q48. Supervisors in my work unit support employee development.
	Q49. My supervisor supports my need to balance work and other life issues.
	Q50. My supervisor listens to what I have to say.
	Q55. My supervisor provides me with constructive suggestions to improve my job performance.
Intellectual Stimulation (Dimension of TL)	Q2. I feel encouraged to come up with new and better ways of doing things.
	Q27. My work unit commits resources to develop new ideas (e.g., budget, staff, time, expert support).
	Q60. Managers promote communication among different work units (for example, about projects, goals, needed resources).
	Q64. Management encourages innovation.
Psychological Safety Climate (PSC)	Q8. I can disclose a suspected violation of any law, rule or regulation without fear of reprisal.
	Q18. Employees in my work unit share job knowledge.
	Q25. I can influence decisions in my work unit.
	Q30. Employees in my work unit incorporate new ideas into their work.
	Q80. I am comfortable expressing opinions that are different from other employees in my work unit.

Note. Information presented in this table is from Avolio et al. (1999), Edmondson & Lei (2014), Liang et al. (2012), and USOPM (2023).

Appendix F: Federal Employee Viewpoint Survey Privacy Statement

OPM.gov Main > OPM FEVS > Resources > Privacy & Accessibility

Privacy & Accessibility

Privacy Act Statement

Collection of this information is authorized by 5 U.S.C. 1101 note, 1103(a)(5), 1104, 1302, 3301, 3302, 4702, 7701 note; E.O. 13197, 66 FR 7853, 3 CFR 748 (2002); E.O. 10577, 12 FR 1259, 3 CFR, 1954-1958 Comp., p. 218.

Your responses to this survey are voluntary and there is no penalty if you choose not to respond. However, maximum participation is encouraged so that the data will be complete and representative.

- The routine uses include collecting this information to study and report attitudes and perceptions about Human Capital programs and policies that will assist in the formulation of policies which may be needed to improve the working environment. The information you provide will be analyzed and reported for the whole Federal workforce population and for certain subgroups.
- Access to completed surveys will be limited to OPM staff and contractors who are involved in collecting or preparing the information for analysis and agencies such as GAO that have specific authority to obtain agency records.
- In any public release of survey results, no data will be disclosed that could be used to identify specific individuals.
- Your agency will only receive summary reports for the whole population and for certain subgroups. Your agency will not receive data by subgroups that could be used to identify a specific individual or a person's specific response to a survey question.

Accessibility (508) Statement

OPM is committed to providing access to the OPM FEVS website to individuals with disabilities, and to conform to the standards for Section 508 of the Rehabilitation Act of 1973, as amended.

Comments on the accessibility of our website should be sent to evs@opm.gov.

https://www.opm.gov/fevs/resources/privacy-accessibility/

Appendix G: Federal Employee Viewpoint Survey Online Informed Consent

Dear Colleague:

The Office of Personnel Management Federal Employee Viewpoint Survey (FEVS) is administered to employees across the Federal Government. The FEVS is the largest government employee survey in the world and is a valuable tool used to capture your feedback on experiences with your job, supervisors, leadership, workplaces and more. The survey is an opportunity for you to share your perceptions and experiences to influence change, as well as strengthen and empower the Federal workforce.

The feedback you provide is essential for identifying meaningful change within your agency as well as guide initiatives across the Federal Government. Results form the survey provide insights on a variety of topics important to shaping current and future policies, and results are used to inform Congress and assess priority goals for the President's Management Agenda.

While participation in the FEVS is voluntary, your feedback is necessary for addressing key government challenges and opportunities. To support your participation:

- You can complete the survey during your normal working hours. It takes between 20 and 30 minutes to complete - a short time to contribute toward improving your workplace!
- Taking the survey can be considered part of your work duties and you can use official time.
- We safeguard your individual responses; they are confidential and will not be used to identify you. Survey responses need to be connected to the right people and places in the organization to ensure reports represent agencies accurately and are actionable. For this reason, the FEVS is a confidential and not an anonymous survey. Confidentiality ensures individual results reported to agencies are reported in a way so individuals cannot be identified, and responses are not linked with an individual. Agency leaderships are only provided with summary reports that combine employees' responses.
- To assist you with interpreting key terms in the survey, definitions of relevant terms are included on each page of the survey. You can also view a list of all definitions of terms used in the survey by clicking on the "definitions" link at the bottom of each page.

Your feedback is important! Thank you for sharing and contributing your time to this essential government data resource.

OPM's FEVS Team

Privacy Act Statement Accessibility Statement

Next Page

Definitions

If you have questions, please contact the Survey Support Center at [redacted]opm.gov

Appendix H: Federal Employee Viewpoint Survey Sample Invitation Email

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From: Federal Employee Viewpoint Survey-NV <EVNV@opm.gov>
Sent: Wednesday, June 7, 2023 7:57 AM
To: [redacted]
Subject: 2023 OPM Federal Employee Viewpoint Survey

The 2023 Office of Personnel Management Federal Employee Viewpoint Survey (OPM FEVS) is your opportunity to share your unique opinion about many important aspects of your workplace. This year the OPM FEVS features content focusing on topics of interest across government, such as Diversity, Equity, Inclusion and Accessibility, customer responsiveness, and resilience. Your responses to the survey will help drive improvement within your organization and be used to shape governmentwide employee and workplace policies.

The survey is voluntary, and you may use official time to complete it. The survey takes between 20 and 30 minutes to complete.

Your responses are confidential and will not be used to identify you. Agency leadership is only provided with summary reports that combine employees' responses.

To access your survey, please COPY the following link, beginning with "//", and PASTE it into your Web browser (try different web browsers if necessary). When copying the link, please make sure you copy the entire link from beginning to end:

//feedback.opm.gov/Community[redacted]

Do not forward your email. Otherwise, someone else will be your voice!

Need help?
We are committed to providing you with a voice to your leadership. If the survey format interferes with your ability to respond due to assistive technology incompatibility, if you are experiencing other difficulties accessing your survey or simply have questions about the OPM FEVS, please contact our Survey Support Center by replying to this message.

The OPM FEVS team thanks you!