

**Exploring the role of Psychological safety on the relationship between
Constructive Leader Behavior and Burnout**

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Abstract

As employee burnout continues to rise in contemporary workplaces, understanding the protective role of leadership remains critical. This study examines the relationship between constructive leadership behavior (CLB) and employee burnout among office-based workers in New Zealand, with a particular focus on the role of psychological safety. Drawing on social exchange theory, the research investigates whether psychological safety functions as both a mediating mechanism and a moderating condition in the relationship between leadership and burnout. Burnout is conceptualized as a multidimensional construct comprising emotional exhaustion, depersonalization, and reduced personal accomplishment. A quantitative, cross-sectional research design was employed using survey data collected from office-based employees across New Zealand (N=213). Validated measurement instruments were used, including the Constructive Supervisor Behavior Scale (CSBS), the Psychological Safety Scale, and the Maslach Burnout Inventory (MBI). Data were analyzed using regression-based techniques to test direct, mediation, and moderation effects. The findings indicate that constructive leadership behavior is significantly associated with lower levels of emotional exhaustion and depersonalization, and higher levels of personal accomplishment. Notably, the impact of constructive leadership behavior was most pronounced on the emotional exhaustion dimension, with psychological safety explaining a substantial proportion of this relationship compared to other burnout dimensions. Mediation analysis revealed that psychological safety partially explains the relationship between constructive leadership and all three dimensions of burnout, highlighting its role as a key interpersonal mechanism. Moderation analysis, however, yielded non-significant interaction effects, suggesting that its primary influence operates through mediation. These results contribute to the literature by extending the application of constructive leadership behavior to burnout outcomes and by clarifying the role of psychological safety within a single empirical model. The study findings also provide practical implications for organizations, emphasizing the importance of fostering supportive leadership behaviors and psychologically safe work environments to mitigate burnout. Findings further suggest that organizations should move beyond technical leadership training to prioritize interpersonal competency development, particularly focusing on how supervisors can foster open dialogue, role model supportive behaviors, and proactively signal psychological safety in everyday interactions. Overall, the research findings offers a nuanced understanding of how everyday supervisory practices shape employee well-being in office-based environments.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

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1. Introduction

Burnout is not a problem of the people themselves but of the social environment in which people work. — Maslach & Leiter (2016)

Burnout has become an increasingly prominent concern in contemporary organizational life. Recognized by the World Health Organization (2019) as an occupational phenomenon, burnout reflects a chronic response to unmanaged workplace stress and is associated with emotional exhaustion, detachment from work, and reduced professional efficacy (Maslach & Leiter, 2016). In office-based and knowledge-driven environments, where cognitive demands, performance expectations, and relational coordination are central, employees are particularly vulnerable to burnout (Bakker & Demerouti, 2017; Salvagioni et al., 2017). As organizations adapt to hybrid work models, digital communication, and evolving performance pressures, understanding the organizational conditions that mitigate burnout has become both practically and theoretically important (Chamakiotis et al., 2021; Victor, 2024).

Leadership has long been identified as a critical organizational resource influencing employee well-being (Montano et al., 2016). Meta-analytic evidence suggests that constructive and ethically grounded leadership behaviors are associated with improved psychological outcomes and reduced employee strain (Arnold et al., 2015; Hoch et al., 2018). However, much of the existing literature has focused on broad leadership styles such as transformational or authentic leadership (Arnold et al., 2007; Bass & Riggio, 2006), often emphasizing performance-related outcomes rather than burnout specifically. While these models provide valuable insights, they may overlook the everyday supervisory behaviors through which leadership is enacted and experienced in routine organizational settings.

Constructive Leadership Behavior (CLB) offers a focused behavioral framework for understanding leadership in practice. Developed and validated by Mharapara et al. (2019), CLB captures follower-rated perceptions of clarifying expectations, recognizing contributions, demonstrating ethical conduct, and facilitating networking. These dimensions reflect both task-oriented and relational aspects of supervision, positioning leadership as a set of observable supervisory behaviors enacted through everyday interactions with employees. Prior research has linked CLBs to positive employee attitudes and engagement-related outcomes (Arasli et al., 2020; Mharapara et al., 2022). However, comparatively less research has examined its relationship with employee burnout, particularly within office-based contexts.

In parallel, the psychological safety (PS) construct has gained increasing attention in organizational research. It represents a critical interpersonal climate factor within teams. Empirical evidence demonstrates that psychologically safe environments are associated with improved well-being, voice behavior, and reduced emotional exhaustion (Clarke et al., 2024; Frazier et al., 2017). Leadership plays a central role in shaping this climate, as employees' perceptions of fairness, support, and consistency influence whether they feel safe to engage openly at work (Carmeli & Gittell, 2009; Newman et al., 2017).

Despite these advances, limited research has simultaneously examined how CLBs relate to burnout and the role psychological safety plays within that relationship. Existing studies often investigate leadership and well-being using direct-effect models (Hildenbrand et al., 2018; Montano et al., 2016), without fully exploring the interpersonal mechanisms that may explain how leadership influences employee stress. Furthermore, while psychological safety has been examined as a mediator in engagement and performance research (Hasan & Kashif, 2020; Maximo et al., 2019), its dual role as both an explanatory pathway and a contextual condition in burnout research remains underexplored.

Grounded in social exchange theory, which posits that workplace relationships are shaped by reciprocal exchanges of support, fairness, and trust (Cropanzano et al., 2017). CLBs represent organizational support offered by leaders, while employees reciprocate through positive attitudes and psychological states. When leaders demonstrate fairness, recognition, and ethical conduct, employees are more likely to experience psychological safety, which may ultimately reduce feelings of burnout (Newman et al., 2017). The present study investigates how perceptions of CLBs relate to employee burnout among office-based workers in New Zealand. Specifically, it examines whether psychological safety explains (mediates) or influences (moderates) this relationship. By integrating leadership behavior, interpersonal climate, and multidimensional burnout outcomes within a single framework, this research seeks to contribute to a more nuanced understanding of how everyday leader or supervisory practices shape employee well-being in contemporary organizational settings. Beyond its psychological consequences, burnout also carries substantial organizational costs through increased absenteeism, reduced productivity, and employee turnover (Salvagioni et al., 2017).

1.1 Constructive Leadership Behavior

Constructive Leadership Behavior (CLB) provides a behavioral framework for understanding how supervisors enact leadership in everyday organizational practice. Rather than focusing on abstract leadership styles or personality traits, CLB captures specific, observable behaviors as perceived by followers (Mharapara et al., 2019). This behavioral focus is particularly relevant in office-based environments, where leadership influence is often exercised through routine interactions, guidance, and interpersonal conduct rather than symbolic or charismatic acts.

The CLB framework comprises four core dimensions: Clarifying, Recognizing, Ethical Conduct, and Networking (Mharapara et al., 2019). Clarifying refers to the extent to which leaders communicate expectations, define responsibilities, and provide direction (Yukl, 2013). In structured office settings characterized by deadlines and interdependent tasks, clear guidance may reduce ambiguity and role conflict, both of which are associated with strain and emotional exhaustion (Bakker & Demerouti, 2017). However, clarity alone may not be sufficient to protect employees from burnout if relational and ethical dimensions of leadership are absent.

Recognition involves acknowledging employees' efforts and contributions (Bakker & Demerouti, 2017). It signals appreciation and value, reinforcing employees' sense of competence and belonging within the organization. Leadership research suggests that supportive and appreciative supervisory behaviors are associated with improved psychological outcomes and reduced burnout symptoms (Arnold et al., 2015; Montano et al., 2016). In office-based contexts, where performance outcomes are often intangible or collaborative, the presence or absence of recognition may meaningfully shape how employees interpret their work experience.

Ethical Conduct reflects a leader's demonstration of fairness, integrity, and consistency (Brown et al., 2005). Ethical leadership behaviors have been linked to trust development and improved well-being outcomes (Hoch et al., 2018). When employees perceive decision-making processes as transparent and fair, they may be less likely to experience cynicism or depersonalization, two key dimensions of burnout (Maslach & Leiter, 2016). Ethical conduct, therefore, represents a relational mechanism through which leadership may influence employees' emotional responses to workplace demands.

Finally, Networking refers to a leader's efforts to build connections beyond the immediate team, facilitating access to resources, information, and opportunities (Mharapara et al., 2019). While this dimension operates beyond day-to-day team interactions, it can indirectly influence employee experiences by improving access to support, reducing resource constraints, and enhancing coordination across teams. In knowledge-based work environments, such boundary-spanning behaviors help ensure that employees

receive timely information and assistance, which can reduce task-related uncertainty and prevent unnecessary workload pressures.

Although prior research has associated constructive leadership with positive employee attitudes and engagement (Arasli et al., 2020; Mharapara et al., 2022), comparatively less attention has been paid to its relationship with multidimensional burnout outcomes. Much leadership research continues to prioritize performance, innovation, or engagement (Decuyper & Schaufeli, 2019), leaving strain-related outcomes underexamined. Given that burnout reflects a chronic response to sustained work stress (Maslach & Leiter, 2016), examining how specific supervisory behaviors relate to emotional exhaustion, depersonalization, and personal accomplishment represents an important extension of the CLB framework.

Accordingly, the present study positions CLBs as the primary independent variable and investigates their relationship with employee burnout within office-based organizational settings. By focusing on follower perceptions of discrete supervisor behaviors, this approach links leadership research more closely with employees lived workplace experiences.

1.2 Burnout as a Multidimensional Outcome

Burnout is a psychological syndrome that emerges as a prolonged response to chronic interpersonal and organizational stressors at work (Maslach & Leiter, 2016). Originally conceptualized within human service professions, burnout has since been recognized as a broader occupational phenomenon affecting employees across diverse sectors, including office-based environments (Salvagioni et al., 2017; World Health Organization, 2019). Contemporary research increasingly acknowledges that burnout is not confined to frontline or emotionally intensive occupations but can develop in any setting characterized by sustained job demands and insufficient resources (Bakker & Demerouti, 2017).

The most widely accepted conceptualization of burnout comprises three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach & Jackson, 1981; Maslach & Leiter, 2016). Emotional exhaustion reflects feelings of being emotionally overextended and depleted of psychological resources. Depersonalization refers to a cynical or detached response toward one's work or colleagues. Reduced personal accomplishment captures a diminished sense of competence and achievement in one's professional role. Together, these dimensions provide a multidimensional understanding of burnout that extends beyond general stress or fatigue.

Research indicates that emotional exhaustion is often the central component of burnout and tends to precede the development of cynicism and reduced efficacy (Lee & Ashforth, 1996). In office-based environments, where work is frequently cognitively demanding and socially interactive, sustained workload pressures and performance expectations may contribute to emotional depletion over time (Bakker & de Vries, 2021). When such strain is not effectively managed, employees may distance themselves psychologically from their tasks or colleagues, reflecting the depersonalization dimension (Maslach & Leiter, 2016; Schaufeli et al., 2020). Over time, these experiences may undermine employees' sense of professional accomplishment and competence.

Importantly, burnout is not merely an individual failure of coping capacity but reflects a misalignment between employees and their work environment (Maslach & Leiter, 2016). Organizational climate, interpersonal trust, and perceptions of fairness all shape how employees experience demands and interpret stressors (Bakker & Demerouti, 2017). In this respect, leadership and team climate variables may play a central role in either exacerbating or buffering burnout risk. By conceptualizing burnout as a multidimensional outcome rather than a single strain indicator, the present study acknowledges that leadership may influence emotional exhaustion, depersonalization, and personal accomplishment in distinct ways. Examining these dimensions separately allows for a more nuanced understanding of how constructive leadership behaviors relate to employee well-being within office-based settings.

1.3 The Role of Psychological Safety

Psychological safety has emerged as a central construct in understanding how interpersonal environments influence employee behavior and well-being. Originally defined by Edmondson (1999) as a shared belief that the team is safe for interpersonal risk-taking, psychological safety reflects employees' perceptions that they can speak up, ask for help, admit mistakes, or express concerns without fear of embarrassment, punishment, or negative career consequences. Unlike general trust or job satisfaction, psychological safety specifically captures the perceived social risk associated with workplace interactions (Edmondson & Lei, 2014).

In office-based settings, where collaboration, information exchange, and coordination are integral to task completion, psychological safety is particularly significant. Employees frequently rely on colleagues and supervisors for clarification, feedback, and support with problem-solving (Arnold et al., 2015; Newman et al., 2017). When individuals feel unable to voice workload concerns or uncertainties, stressors may remain unaddressed, potentially contributing to emotional strain over time (Newman et al., 2017). Conversely, psychologically safe environments enable early discussion of challenges, foster shared problem-solving, and reduce the internalization of stress (Edmondson & Lei, 2014).

Empirical research has linked psychological safety to a range of positive organizational outcomes, including learning behavior, voice, engagement, and well-being (Clarke et al., 2024; Frazier et al., 2017). Importantly, leadership behaviors are consistently identified as antecedents of psychological safety. Leaders who demonstrate fairness, openness, and support create conditions in which employees feel respected and secure (Carmeli & Gittell, 2009). Ethical and supportive leadership styles have been associated with higher levels of psychological safety, which in turn relate to improved employee functioning (Hasan & Kashif, 2020; Maximo et al., 2019).

Within the context of burnout, psychological safety may operate in multiple ways. First, it may function as a mediating mechanism, explaining how leadership behaviors influence employee well-being. For example, constructive leadership behaviors such as recognition and ethical conduct may foster a climate in which employees feel valued and safe, thereby reducing emotional exhaustion and detachment (Edmondson & Lei, 2014; Newman et al., 2017). In this sense, psychological safety becomes the pathway through which leadership exerts its influence.

Second, psychological safety may serve as a moderator, shaping the strength of the relationship between leadership and burnout. In environments where psychological safety is already high, the protective effect of constructive leadership behaviors may be strengthened, as employees are more receptive to support and guidance (Clarke et al., 2024; Edmondson & Lei, 2014; Frazier et al., 2017). Conversely, in low-safety environments, even well-intentioned leadership behaviors may be less effective because employees remain cautious or withdrawn (Frazier et al., 2017; Newman et al., 2017).

Despite growing interest in psychological safety, much of the literature has focused on performance-related outcomes or engagement (Frazier et al., 2017; Newman et al., 2017), with comparatively less emphasis on its role in mitigating burnout among office-based employees. Moreover, studies often examine psychological safety solely as a mediator or solely as an antecedent variable, rather than testing its dual explanatory and contextual roles within the same model (Frazier et al., 2017; Hasan & Kashif, 2020; Newman et al., 2017). Consequently, it remains unclear whether psychological safety primarily functions as a mechanism through which leadership influences burnout (a mediating pathway) or as a contextual condition that shapes the strength of this relationship (a moderating effect). Addressing this distinction is essential for understanding how leadership behaviors translate into employee well-being outcomes.

By examining psychological safety as both a potential mediator and moderator in the relationship between constructive leadership behavior and burnout, the present study seeks to clarify the mechanisms through which leadership influences employee well-being. This approach allows for a more comprehensive understanding of how supervisory behaviors and interpersonal climate jointly shape burnout experiences within contemporary office environments.

1.4 Research Context

Office-based employees represent a substantial segment of the contemporary workforce, particularly within developed economies such as New Zealand, where service-oriented and knowledge-intensive industries dominate (Saunders et al., 2023). These roles typically involve sustained cognitive engagement, digital communication, coordination across teams, and performance monitoring within structured organizational hierarchies. While such environments may appear less physically demanding than frontline or manual occupations, they are often characterized by high mental workload, time pressure, and continuous interpersonal interaction (Bakker & Demerouti, 2017). In New Zealand, workplace culture is often characterized by informal communication styles and the social norm of “getting on with it,” where employees may hesitate to openly discuss stress or workplace difficulties (Haar et al., 2014; Kirk-Brown & Van Dijk, 2015). Cultural tendencies, sometimes described as Tall Poppy Syndrome, may also discourage individuals from drawing attention to personal struggles or workplace dissatisfaction (Feather, 1994; Kirkwood, 2007). As a result, psychological safety becomes particularly important, as it allows employees to raise concerns, express ideas, and seek support without fear of negative judgment.

In recent years, shifts toward hybrid and flexible work arrangements have further altered the dynamics of office-based employment (Chamakiotis et al., 2021; Victor, 2024). Although these changes provide autonomy and flexibility, they may also blur work–life boundaries, intensify expectations for constant availability, and reduce informal social support. Such conditions can contribute to emotional exhaustion and detachment if organizational resources are insufficient to buffer demands (Bakker & de Vries, 2021). As a result, understanding the psychosocial factors that protect employee well-being in office contexts has become increasingly important.

Leadership is a central organizational factor shaping how employees experience workplace demands. Office-based work typically involves regular interaction with supervisors who provide direction, evaluate performance, and coordinate task responsibilities. In these settings, everyday supervisory behaviors, such as clarifying expectations, recognizing effort, and demonstrating fairness, can influence how employees interpret workload and organizational pressure (Mharapara et al., 2019). Research consistently shows that leadership quality is associated with employee psychological health and reduced burnout risk (Montano et al., 2016). At the same time, interpersonal climate within teams plays a critical

role in determining whether employees feel able to communicate openly, admit difficulties, or seek support (Carmeli & Gittell, 2009; Clarke et al., 2024). When employees feel safe to speak up about challenges or workload concerns, strain may be addressed proactively rather than internalized (Clarke et al., 2024; Newman et al., 2017).

Within the New Zealand context, organizations increasingly emphasize employee well-being as part of broader workforce sustainability initiatives (Haar et al., 2014; New Zealand Government, 2021). However, empirical research examining how specific supervisory behaviors and interpersonal climate factors jointly relate to burnout among office-based workers remains limited. Much of the burnout literature has focused on healthcare or frontline professions (Salvagioni et al., 2017; Shanafelt et al., 2015), leaving knowledge-based organizational settings comparatively underexamined. Workplace culture in New Zealand is also characterized by relatively informal organizational hierarchies and strong expectations of self-reliance, which may discourage employees from openly discussing stress or workplace difficulties (Clarke et al., 2024). In such environments, employees may hesitate to speak up about stress or burnout, underscoring the importance of psychological safety. Leadership behaviors that promote openness and trust may therefore play a critical role in supporting employee well-being within New Zealand workplaces.

By focusing on office-based employees, the present study situates leadership and burnout research within a contemporary organizational context characterized by cognitive demands, relational coordination, and evolving work arrangements. This context provides a meaningful setting for examining how CLBs and psychological safety interact to shape employee burnout outcomes.

1.5 Research Aim and Questions

Research Aim

1. To examine the relationship between constructive leadership behavior and employee burnout outcomes (emotional exhaustion, depersonalization, and personal accomplishment) among office-based workers in New Zealand.
2. To investigate whether psychological safety mediates the relationship between constructive leadership behavior and burnout outcomes (emotional exhaustion, depersonalization, and personal accomplishment) among office-based workers in New Zealand.
3. To assess whether psychological safety moderates the relationship between constructive leadership behavior and burnout outcomes (emotional exhaustion, depersonalization, and personal accomplishment) among office-based workers in New Zealand.

Research Questions

To address the research aims, this study is guided by the following research questions:

1. How are perceptions of constructive leader behavior and burnout related amongst office-based workers in New Zealand?
2. How does psychological safety impact the relationship between constructive leadership and employee burnout?

To investigate these research questions, this study employs a quantitative, cross-sectional research design. A systematic literature review was conducted to establish the theoretical foundation for the study, followed by a survey of office-based employees in New Zealand. The collected data were analysed using regression, mediation, and moderation techniques to examine the relationships among constructive leadership behaviour, psychological safety, and burnout.

1.6 Structure of the Thesis

This thesis is organized into five chapters that collectively address the research problem and present the study's findings systematically. The opening chapter introduces the key constructs of the study, constructive leadership behavior, burnout as a multidimensional outcome, and psychological safety, and establishes the research context. It outlines the research background and highlights the growing organizational concern about burnout in modern workplaces. The chapter also identifies the research gap within the existing leadership and organizational behavior literature. Lastly, the research aims and key research questions guiding the study are presented to provide a clear direction for the investigation.

The second chapter provides a comprehensive review of the relevant literature related to the key constructs examined in this research. While previous studies have demonstrated that constructive leadership can reduce employee burnout, less is known about the mechanisms underlying this relationship. In particular, it remains unclear whether psychological safety operates as a pathway through which leadership influences burnout (a mediating mechanism) or as a contextual condition that alters the strength of this relationship (a moderating effect). Addressing this distinction is important for understanding how CLBs are linked to employee well-being outcomes. The chapter also critically evaluates existing empirical findings and identifies inconsistencies or limitations within the current body of knowledge. Based on this review, the hypotheses guiding the empirical component of the study are developed.

The third chapter outlines the methodological approach adopted to address the research questions and test the proposed hypotheses. It describes the research design, including the quantitative survey method used to collect data from office-based employees in New Zealand. The chapter further explains the sampling strategy, participant characteristics, and procedures used for data collection. In addition, the measurement instruments used to assess CLBs, psychological safety, and burnout are described. The chapter concludes by outlining the data screening procedures and statistical techniques used to ensure the reliability and validity of the analyses.

The fourth chapter presents the study's empirical findings. It begins with descriptive statistics and correlation analyses that provide an overview of the relationships between the key variables. This is followed by the results of the regression analyses conducted to examine the direct relationships between constructive leadership and the three dimensions of burnout. The chapter then reports the mediation analyses assessing the role of psychological safety in explaining these relationships. Finally, moderation analyses are presented to determine whether psychological safety alters the strength of the relationship between constructive leadership and burnout outcomes.

The fifth and final chapter discusses the findings in relation to the existing literature and the theoretical frameworks guiding the study. It interprets the results and highlights how the findings contribute to the broader understanding of leadership and employee well-being in organizational settings. The chapter also outlines the practical implications for organizational leaders and human resource practitioners seeking to reduce burnout and improve workplace well-being. In addition, the limitations of the study are acknowledged to provide transparency regarding the scope of the findings. The chapter concludes by offering recommendations for future research that may further advance knowledge in this area.

In an era where employee well-being and organizational sustainability are increasingly intertwined, understanding the leadership factors that contribute to reduced burnout has become a critical priority for organizations (Bakker & de Vries, 2021). By examining the roles of constructive leadership behavior and psychological safety among office-based employees in New Zealand, this study seeks to provide both theoretical insight and practical guidance for fostering healthier, more supportive workplaces.

2. Literature Review

Chapter 2 presents a literature review of constructive leadership, burnout, and psychological safety, as well as an examination of the relationships among these factors in the context of office-based workers.

2.1 Rationale for the Literature Review

A systematic literature review is a structured and transparent approach to identifying, evaluating, and synthesizing existing research on a specific topic (Cronin & George, 2023). This approach involves systematic search strategies, predefined inclusion and exclusion criteria, and structured synthesis of findings to ensure transparency and rigor (Page et al., 2021). Conducting a systematic literature review is an essential step in empirical research because it allows scholars to map existing knowledge, identify theoretical and methodological gaps, and establish the foundation for future investigations (Page et al., 2021). Systematic reviews are particularly valuable for examining complex relationships between workplace variables such as leadership behaviors, employee well-being, and psychological processes (Mharapara et al., 2022; Newman et al., 2017). By synthesizing findings across multiple empirical studies, researchers can identify patterns, contradictions, and emerging themes that may not be visible within individual studies (Cronin & George, 2023). This process ensures that new research builds upon established knowledge rather than duplicating existing work.

In the context of the present research, conducting a systematic literature review is necessary to understand the existing relationships between constructive leadership, psychological safety, and employee burnout. Although previous studies have examined these variables individually, the literature remains fragmented regarding how these constructs interact within office-based work environments (Bakker & Demerouti, 2017; Newman et al., 2017). Some studies have focused on the direct influence of leadership on burnout, while others have explored psychological safety as an independent predictor of employee well-being (Arnold et al., 2015; Stander & Coxen, 2019). However, relatively limited research has examined psychological safety as both a mediating and moderating mechanism within the relationship between constructive leadership and burnout (Frazier et al., 2017; Newman et al., 2017). Therefore, the literature review undertaken in this thesis aims to synthesize empirical evidence on three key relationships: the influence of constructive leadership on employee burnout, the role of leadership in fostering psychological safety, and the impact of psychological safety on employee well-being. By systematically analyzing existing research, the review identifies theoretical perspectives, methodological approaches, and empirical findings that inform the development of the study's conceptual framework and hypotheses (Grant & Booth, 2009; Mharapara et al., 2022; Page et al., 2021). These insights provide a critical foundation for the present study. Specifically, the review helps clarify how constructive leadership behaviors may function as workplace resources that reduce burnout, how psychological safety operates as an interpersonal climate influencing

employee experience, and how these constructs may interact within office-based work contexts. The findings from the review, therefore, guide the formulation of the research hypotheses and the design of the empirical methodology used in this thesis.

2.2 Constructive Leadership

Constructive leadership is increasingly recognized as a vital factor in enhancing workplace well-being and mitigating employee burnout (Arnold et al., 2015; Mharapara et al., 2022). Breevaart and Bakker (2018) defined constructive leadership as a leadership style characterized by proactive, supportive, and ethical behaviors aimed at empowering employees and promoting organizational health. Constructive leadership focuses on trust, transparency, and positive interpersonal relationships. Mharapara et al. (2019) further clarify that constructive supervisor behavior entails fostering trust, support, mutual respect, and ethical interactions with followers, all of which are critical in high-demand work environments. This style goes beyond task completion; it encourages psychological growth, reduces ambiguity, and enhances engagement (Arasli et al., 2020).

From a quantitative standpoint, the effects of constructive leadership on employee outcomes have been demonstrated. Mharapara et al. (2019) developed the Constructive Supervisor Behavior Scale (CSBS), building on earlier leadership frameworks of Yukl's (2012) taxonomy of effective leadership behaviors. It captures supervisor behaviors across four key domains: ethical conduct, networking, clarifying, and recognizing. These dimensions reflect a comprehensive view of leadership: ethical conduct relates to fairness and integrity; networking involves building positive team relationships; clarifying refers to defining expectations and responsibilities; and recognizing includes the appreciation and acknowledgment of employee contributions. Empirical studies using this scale have consistently linked constructive leadership to reduced stress, greater engagement, and decreased burnout (Arasli et al., 2020; Mharapara et al., 2019; Mharapara et al., 2022). These findings support the notion that constructive leadership functions as a workplace resource, mitigating job stress and enhancing well-being. For instance, Arnold et al. (2015) found that constructive leadership significantly predicted lower emotional exhaustion and depersonalization scores, two critical components of burnout.

Constructive leaders create environments where team members feel valued and where expectations are clarified, promoting clarity and reducing the role conflict that often contributes to stress (Arnold et al., 2015). In office-based environments where demands fluctuate rapidly, such behaviors are instrumental in reducing pressure and promoting emotional regulation (Breevaart & Bakker, 2018). Bakker and de Vries (2021) link constructive leadership to the job demands-resources (JD-R) theory, arguing that these leaders actively balance workload with resources, thereby reducing stress and promoting employee well-being.

The mechanisms by which constructive leadership reduces burnout are well established (Montano et al., 2016; Breevaart & Bakker, 2018; Hildenbrand et al., 2018). Leaders reduce workplace stressors by enhancing communication, minimizing role ambiguity, and supporting task clarity (Arasli et al., 2020). Furthermore, constructive leadership fosters employee motivation through ongoing recognition and developmental feedback (Breevaart & Bakker, 2018). Lee et al. (2022) assert that when employees perceive their leaders as developmental and appreciative, they experience heightened job satisfaction, improved resilience, and a greater sense of purpose. Similarly, Serrano-Fernández et al. (2020) found that constructive leadership cultivates employees' psychological capital (PsyCap) specifically, self-efficacy and optimism, which are critical in shielding them from emotional fatigue.

Significantly, constructive leadership also contributes to the cultivation of psychological safety. Edmondson (2018) argues that constructive leadership enables a climate in which employees feel safe to take interpersonal risks, voice concerns, and propose novel ideas without fear of humiliation or revenge. These conditions promote innovation and teamwork and protect employees against emotional exhaustion and distrust, which are core symptoms of burnout (Newman et al., 2017). Studies have shown that when leaders model open communication and ethical standards, employees are more likely to feel valued, engaged, and supported (Arnold et al., 2007; Carmeli & Gittell, 2009).

Constructive leadership also has far-reaching effects on team functioning and organizational culture. Bass and Riggio (2006) and Hildenbrand et al. (2018) argue that leadership styles emphasizing empathy, vision, and ethical behavior foster environments conducive to team learning and interpersonal trust. In contexts of rapid change, such as hybrid or remote work environments, constructive leaders can stabilize morale by providing consistent support and meaningful engagement (Gauer, 2024; Hopson, 2025). Such environments support employee resilience and strengthen psychological safety (Carmeli & Gittell, 2009; Edmondson & Lei, 2014), a central mediator and moderator explored later in this review.

To summarize, constructive leadership, defined by proactive, trust-based behaviors, is deeply embedded in the protective mechanisms against burnout (Arnold et al., 2015). It shapes employee experiences by regulating emotional demands, increasing clarity, and fostering a supportive work environment (Bakker & de Vries, 2021). Empirical evidence across sectors consistently supports its positive effects on employee engagement, satisfaction, and psychological safety (Mharapara et al., 2022; Decuyper & Schaufeli, 2019; Serrano-Fernández et al., 2020). These outcomes align closely with Social Exchange Theory (SET), which emphasizes mutual trust and reciprocal support as foundational to productive employee-leader relationships (Roh et al., 2023). Therefore, understanding the role of constructive leadership provides the first critical foundation for exploring how psychological safety interacts with burnout in office-based workers.

2.3 Burnout

Burnout is a psychological syndrome resulting from chronic workplace stress that has not been successfully managed (World Health Organization, 2019). It is widely recognized as a multidimensional construct encompassing emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach & Jackson, 1981; Maslach & Leiter, 2016; Schaufeli et al., 2020). Originally conceptualized in human service professions, burnout has become increasingly relevant across various sectors, including office-based work environments where emotional labor, prolonged screen time, unclear role boundaries, and high workloads prevail (Schaufeli et al., 2020). The Maslach Burnout Inventory (MBI) is the most validated and widely used tool for assessing burnout and its three core dimensions: emotional exhaustion, depersonalization, and personal accomplishment, across professions, including corporate and office-based contexts (Maslach & Jackson, 1981).

Burnout is not merely an individual issue but an organizational concern, as it reduces productivity, increases turnover, and lowers team functioning (Salvagioni et al., 2017). In office settings, where the pace of work is often high, and support structures may be limited, burnout manifests through fatigue, reduced empathy, cognitive inefficiency, and disengagement (Salvagioni et al., 2017). The following section examines the three core dimensions of burnout: emotional exhaustion, depersonalization, and reduced personal accomplishment, to provide a deeper understanding of burnout. This discussion also highlights how these dimensions collectively interact to shape the overall experience of burnout, setting the foundation for later sections that explore their relationship with constructive leadership and psychological safety.

2.3.1 Emotional Exhaustion

Emotional exhaustion is the core dimension of burnout and refers to feelings of being emotionally overextended and depleted of emotional and physical resources (Shanafelt et al., 2015). It often results from prolonged exposure to high job demands and limited recovery time. Emotional exhaustion is typically the first symptom to appear and serves as a foundation for the other two dimensions, making it a critical early indicator of burnout risk (Maslach & Leiter, 2016).

In office-based environments, emotional exhaustion can be triggered by persistent deadlines, high performance pressure, limited autonomy, and unclear expectations (Junça Silva et al., 2022). Employees may feel drained, find it difficult to recover after work, and eventually experience difficulty engaging with even basic tasks (Maslach & Leiter, 2016). Schaufeli et al. (2020) state that emotional exhaustion strongly correlates with decreased productivity, absenteeism, and reduced cognitive performance.

2.3.2 Depersonalization

Depersonalization, also referred to as cynicism or disengagement, is the second dimension of burnout. It is characterized by emotional detachment and a negative or indifferent attitude toward colleagues, clients, or the job itself (Kabat-Farr et al., 2022). Employees experiencing depersonalization may begin to see others as objects or problems rather than people, leading to a breakdown in interpersonal relationships at work (Schaufeli et al., 2020).

This response often acts as a defensive mechanism, helping individuals emotionally withdraw from overwhelming job demands. However, it has serious consequences for teamwork, collaboration, and psychological safety (Clarke et al., 2024). In office settings, depersonalization may manifest through sarcasm, unresponsiveness, or a reluctance to participate in collaborative tasks. According to Shanafelt et al. (2015), depersonalization strongly correlates with team dysfunction and poor leadership relationships.

2.3.3 Reduced Personal Accomplishment

Reduced personal accomplishment refers to declining feelings of competence and achievement at work (Maslach & Jackson, 1981). Employees experiencing this dimension of burnout often feel ineffective, unproductive, and disconnected from their goals (Maslach & Leiter, 2016). Over time, this can lead to losing professional identity and motivation.

In office-based roles, this may be worsened by repetitive tasks, lack of recognition, micromanagement, and unclear career development opportunities (Schaufeli et al., 2020). According to Leiter et al. (2014), reduced personal accomplishment is distinct in that it is more closely associated with an employee's psychological capital, such as self-efficacy and optimism, than with job stress alone.

Burnout is a complex, multidimensional phenomenon with severe implications for employee well-being and organizational performance. Its three dimensions, emotional exhaustion, depersonalization, and reduced personal accomplishment, interact with environmental and relational factors in office-based workplaces (Maslach & Leiter, 2016; Schaufeli et al., 2020). Constructive leadership is a critical organizational resource that mitigates all three dimensions by fostering clarity, trust, and support (Breevaart & Bakker, 2018). Psychological safety serves as both a buffer and a facilitator in this relationship, enabling employees to stay engaged, resilient, and empowered (Edmondson & Lei, 2014).

2.4 Psychological Safety

Psychological safety refers to an individual's perception that the work environment is safe for interpersonal risk-taking, such as admitting mistakes, offering ideas, or asking for help without fear of embarrassment, rejection, or retribution (Edmondson, 1999). In high-psychological safety environments, employees feel comfortable sharing concerns or proposing improvements, knowing that their input will be valued rather than criticized. Conversely, in low-psychological safety contexts, employees often remain silent about errors or challenges, fearing negative repercussions or damage to their professional reputation (Edmondson & Lei, 2014). Later, Edmondson and Lei (2014) expanded the concept, noting that psychological safety enables learning and innovation and contributes to resilience and well-being. In office-based environments, where communication, collaboration, and continuous change are the norm, psychological safety is a key mechanism for reducing stress and promoting team performance (Clarke et al., 2024).

Psychological safety is especially relevant in modern workplaces that demand high cognitive engagement, multitasking, and emotional regulation. Employees working in such environments may hesitate to raise concerns or admit fatigue if they fear negative consequences. When psychological safety is low, this silence can contribute to greater emotional exhaustion and disengagement (Hasan & Kashif, 2020). According to Newman et al. (2017), psychological safety fosters voice behavior, learning, and psychological well-being, making it a critical workplace resource. Similarly, Clarke et al. (2024) emphasize that employees report greater openness, trust, and overall well-being when leaders foster psychological safety.

The absence of psychological safety is associated with withdrawal behaviors, including silence, reduced participation, and even burnout (Edmondson & Lei, 2014; Newman et al., 2017). This aligns with Job Demands–Resources (JD-R) Theory, where psychological safety functions as a critical resource. In high-stress roles, employees who feel psychologically safe are more likely to share challenges and seek guidance, which in turn lowers their risk of emotional exhaustion and depersonalization (Hasan & Kashif, 2020).

From a broader systems perspective, psychological safety also fosters organizational learning, especially in environments of uncertainty or failure. Edmondson and Lei (2014) noted that psychologically safe environments encourage reflection, experimentation, and honest conversations about errors. In office-based settings, this not only supports innovation but also helps maintain long-term motivation and job satisfaction. When employees feel they can speak up without fear, they experience greater agency and psychological resilience, key factors in mitigating burnout (Carmeli & Gittell, 2009).

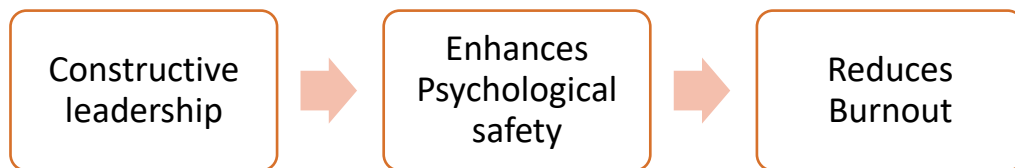
Psychological safety is a foundational condition for workplace well-being and team effectiveness. It enables interpersonal openness, diminishes the emotional burden of work, and serves as a mediating and moderating variable between leadership and burnout (Edmondson & Lei, 2014; Newman et al., 2017).

2.4.1 Psychological Safety as a Mediator

As a mediator, psychological safety explains how constructive leadership influences burnout. Leadership behaviors alone are insufficient to reduce burnout; their effect is transmitted through the degree of psychological safety they adopt (Edmondson & Lei, 2014). When leaders clarify expectations and create a respectful, inclusive environment, employees begin to perceive the workplace as psychologically safe (Arasli et al., 2020; Mharapara et al., 2019). This safety allows them to voice concerns, seek help, and engage in problem-solving without fear, reducing emotional exhaustion and depersonalization, and enhancing personal accomplishment (Clarke et al., 2024; Edmondson & Lei, 2014).

This pathway is consistent with the Job Demands–Resources (JD-R) model, where psychological safety functions as a psychological resource that mediates the impact of job stress. Studies like Hasan & Kashif (2020) provide empirical evidence that psychological safety mediates the link between supportive leadership and outcomes like work engagement and reduced burnout. Even positive leadership behaviors may fail to translate without this mediating mechanism into meaningful well-being improvements (Hasan & Kashif, 2020).

Figure 1: Psychological safety as a mediator

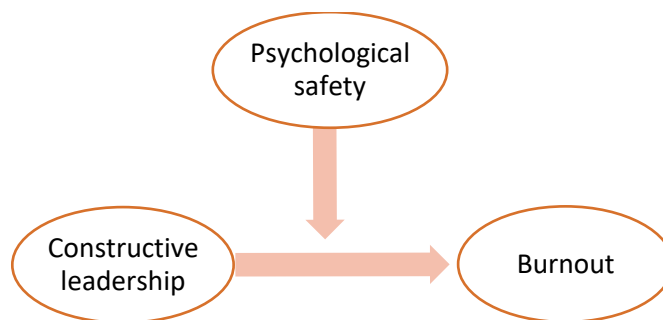


2.4.2 Psychological Safety as a Moderator

Psychological safety also acts as a moderator, meaning it interacts with constructive leadership to reduce the likelihood of burnout. This reflects a buffering effect, where high psychological safety strengthens the positive influence of constructive leadership on employee well-being (Clarke et al., 2024). The effectiveness of leadership behaviors in reducing burnout is enhanced when employees perceive a high level of psychological safety (Clarke et al., 2024). Conversely, in environments where psychological safety is lacking, leadership actions may be misinterpreted or ignored, blunting their impact (Newman et al., 2017).

For example, a leader might offer developmental feedback or encourage autonomy, but without psychological safety, employees may view such actions as risky, untrustworthy, or burdensome. Therefore, the same leadership style can produce different outcomes depending on whether employees feel it is safe to engage with that leadership (Edmondson & Lei, 2014; Hasan & Kashif, 2020). Together, these findings underscore that psychological safety not only explains how constructive leadership reduces burnout but also determines when this effect is most powerful.

Figure 2: *Psychological safety as a moderator*



2.5 Integrated Relationships Between CLB, Burnout, and PS

Constructive leadership plays a crucial role in mitigating the adverse effects of burnout by promoting fairness, recognition, and open communication, thereby reducing the psychological burden associated with modern office-based work (Stander & Coxen, 2019). Through proactive support and ethical conduct, constructive leaders balance job demands with adequate resources, promoting both individual well-being and collective efficiency (Arnold et al., 2015; Stander & Coxen, 2019). By providing emotional support, recognizing effort, and offering constructive feedback, leaders help employees regulate energy levels and recover from emotional strain (Arnold et al., 2015).

Psychological safety serves as a key mechanism within this relationship, acting as both a protective and enabling factor (Newman et al., 2017). It enables employees to seek help, share workloads, and express vulnerability without fear of judgment, which helps buffer against emotional exhaustion and disengagement (Wang et al., 2023).

Constructive leadership also mitigates depersonalization by fostering inclusion, recognizing individuality, and demonstrating empathy (Arnold et al., 2015). When leaders cultivate fairness and mutual respect, employees are more likely to sustain positive social engagement and interpersonal trust (Lee & Ashforth, 2016). Furthermore, psychologically safe environments enable employees to express difficulties and frustrations openly, thereby preventing emotional withdrawal and detachment (Clarke et al., 2024).

With respect to reduced personal accomplishment, constructive leaders enhance employees' sense of efficacy and purpose by promoting autonomy, skill development, and performance-based recognition (Mharapara et al., 2022). Leaders who acknowledge individual progress reinforce confidence and intrinsic motivation (Lee et al., 2022). Psychological safety amplifies these effects by providing a supportive context where employees feel encouraged to take initiative, experiment, and learn from mistakes, behaviors essential to resilience and job satisfaction (Serrano-Fernández et al., 2020).

Overall, constructive leadership is instrumental in cultivating psychological safety within organizations. Transparent, approachable, and ethical leaders foster an environment where employees feel comfortable expressing ideas, concerns, and uncertainties. Empirical evidence supports this relationship: Arnold et al. (2007) found that transformational leaders enhance meaningful work and well-being through relational trust, while Carmeli and Gittell (2009) demonstrated that respectful, communicative leader-member relationships improve team learning and psychological safety. Consistently, quantitative research shows that constructive leadership behaviors such as clarifying expectations, recognizing contributions, and modeling ethical integrity strongly predict psychological safety (Mharapara et al., 2019). The following section explores how constructive leadership, psychological safety, and burnout interact within a unified theoretical framework.

2.6. Integration of CLB, PS, and Burnout: A Social Exchange Theory (SET) Perspective

The relationship between constructive leadership and burnout is not simply direct; it is shaped by intermediate and contextual variables, most notably psychological safety. Constructive leadership behaviors such as clarifying expectations, showing appreciation, and modeling ethical conduct help create a psychologically safe environment that enables employees to speak up, ask for help, and engage openly (Brown et al., 2005; Carmeli & Gittell, 2009; Mharapara et al., 2019). This reduces emotional exhaustion, depersonalization, and feelings of low personal accomplishment. Psychological safety, therefore, can

function as both a mediator (explaining how leadership affects burnout) and a moderator (shaping the strength of that effect under varying conditions of safety).

The relationships among constructive leadership, psychological safety, and burnout form a dynamic feedback loop (Frazier et al., 2017). Constructive leadership serves as an antecedent to reduced burnout by fostering psychological safety. In other words, leaders who clarify expectations, recognize contributions, and model fairness create psychologically safe environments, which in turn diminish emotional exhaustion, depersonalization, and reduced personal accomplishment (Clarke et al., 2024; Edmondson & Lei, 2014). At the same time, the magnitude of this effect depends on how much psychological safety exists within the organization (moderation) (Clarke et al., 2024). These dual roles are supported by several studies across organizational settings, including office-based environments where ambiguity, cognitive overload, and emotional labor are common (Edmondson & Lei, 2014; Hasan & Kashif, 2020; Mharapara et al., 2022).

This relationship is particularly relevant for office workers, whose roles often demand high adaptability, collaboration, and emotional regulation. While constructive leadership lays the foundation for well-being, its effectiveness in reducing burnout depends on the presence of psychological safety. When employees feel psychologically safe, they can leverage leadership support to cope constructively with job demands; when safety is absent, these same demands can accelerate emotional depletion and disengagement (Clarke et al., 2024).

2.7 Theoretical Framework

Drawing from social exchange theory (SET) (Blau, 1964), this study argues that workplace relationships are governed by mutual trust, reciprocity, and perceived fairness. SET posits that when leaders invest in supportive and ethical relationships, employees feel obligated to reciprocate with loyalty, engagement, and reduced withdrawal behaviors (Cropanzano & Mitchell, 2005).

Within this framework, constructive leadership acts as a key initiator of positive exchanges. Leaders who model integrity, provide recognition, and demonstrate care signal to employees that their contributions are valued, thereby fostering psychological safety (Edmondson & Lei, 2014; Mharapara et al., 2022). This sense of safety encourages openness and mutual trust, which, in turn, decreases burnout by promoting emotional resilience and engagement (Roh et al., 2023). SET therefore provides a strong theoretical rationale for this study's model, explaining both the mediating and moderating roles of psychological safety in the relationship between constructive leadership and burnout. SET is uniquely appropriate because it highlights how interpersonal factors like psychological safety mediate and moderate the exchange between leaders and employees, ultimately influencing burnout levels (Zhou & Chen, 2021).

While SET provides a strong foundation for understanding reciprocal relationships between leaders and employees, the present study contributes empirically by examining psychological safety as both a mediating and moderating mechanism within the exchange process. In doing so, the study moves beyond traditional linear interpretations of social exchange to propose a more dynamic framework, where the quality of interpersonal climate not only explains how leadership influences employee outcomes but also shapes the conditions under which these effects are strengthened or weakened. Furthermore, by applying this integrated framework to burnout rather than more commonly examined outcomes such as engagement or performance, the study contributes to a more nuanced understanding of employee well-being in office-based contexts.

2.8 Systematic Review Approach and Objectives

To develop a comprehensive and evidence-based understanding of the relationship between constructive leadership, psychological safety, and burnout, this study employed a systematic literature review guided by PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) principles (Page et al., 2021). A systematic review approach was adopted in this study to ensure a transparent, replicable, and methodologically rigorous synthesis of existing research (Liberati et al., 2009). This approach enables the identification of empirical trends, theoretical consistencies, and research gaps across diverse workplace contexts, offering a foundation for future empirical inquiry.

The systematic review aimed to achieve three core objectives:

- (1) To examine how constructive leadership has been empirically linked to employee well-being and burnout reduction across occupational settings
- (2) To analyze the mediating and moderating roles of psychological safety within these relationships
- (3) To identify conceptual and methodological gaps that inform the development of the present study's conceptual model

This methodological approach mirrors the integrative logic of Mharapara et al. (2022), who conducted a structured literature review to contextualize well-being within the midwifery profession. Similar structured and systematic review approaches have been widely used to synthesize research in organizational and workplace well-being contexts (Cronin & George, 2023; Grant & Booth, 2009). Similarly, the current review aims to contextualize burnout and psychological well-being in office-based work environments, which are characterized by high cognitive demands, digital interdependence, and evolving psychosocial dynamics (Bakker & Demerouti, 2017; Maslach & Leiter, 2016).

By systematically synthesizing research published between 2017 and 2024, this review ensures the inclusion of contemporary findings that reflect post-pandemic work realities and the growing emphasis on constructive and ethical leadership (Clarke et al., 2024; Hildenbrand et al., 2018). The review also integrates foundational works, such as Maslach and Jackson's (1981) conceptualization of burnout and Edmondson's (1999) framework of psychological safety, to provide theoretical continuity.

The insights derived from this systematic review form the empirical and conceptual foundation for the subsequent sections of this thesis, particularly the development of the integrated model linking constructive leadership, psychological safety, and burnout. The following section outlines the search strategy, inclusion and exclusion criteria, and step-by-step PRISMA process undertaken to identify and analyze the selected studies.

2.9 PRISMA Literature Review Methodology

Systematic reviews are critical to collating and synthesizing research evidence, especially when exploring complex psychological and organizational phenomena (Grant & Booth, 2009). To ensure transparency, reproducibility, and methodological accuracy in identifying relevant literature on constructive leadership, psychological safety, and burnout among office-based workers, this study employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 framework.

PRISMA is a well-established, evidence-based reporting guideline used to structure and document systematic literature searches. Originally developed to improve the quality of health-related meta-analyses (Page et al., 2021), PRISMA has since been widely adopted across disciplines, including psychology, management, and occupational health (Cronin & George, 2023; Gusenbauer & Haddaway, 2020; Liberati et al., 2009). The framework helps researchers transparently report how literature was identified, screened, and included, ensuring that the process is systematic and replicable (Cronin & George, 2023). In this study, PRISMA was used to guide the review process of identifying, screening, and selecting empirical, peer-reviewed studies that form the foundation for the literature review and conceptual framework. Figure 3 presents the three main stages of the review process: identification, screening, and eligibility assessment.

2.9.1 Identification

The identification phase involved a comprehensive search of peer-reviewed literature conducted between January 2025 and May 2025 using digital access provided by the Auckland University of Technology (AUT) Library. This process was conducted with the guidance and technical support of an AUT research librarian, who assisted in refining the search strategy, selecting databases, and applying appropriate filters to ensure the rigor and relevance of the retrieved studies. Searches were performed across six major academic databases: ScienceDirect, Scopus, PsycINFO, ProQuest, Wiley Online Library, and AUT Google

Scholar. These databases were selected for their strong coverage of topics related to organizational psychology, occupational health, and leadership research. The search was limited to Peer-reviewed empirical studies, English-language publications, published between 2015 and 2024

A structured keyword strategy using Boolean operators was employed to locate relevant studies. The search strings were

1. “Constructive leadership” AND “office-based workers”
2. “Supportive leadership” OR “transformational leadership”
3. “Burnout” OR “workplace exhaustion” AND “corporate employees”
4. “Job burnout” OR “emotional exhaustion” OR “workplace stress”
5. “Psychological safety” AND “leadership effectiveness”
6. “Psychological safety” AND “trust in leadership” AND “workplace anxiety”

However, three seminal studies were included regardless of publication date, given their foundational role in defining key constructs:

- Maslach & Jackson (1981) - Maslach Burnout Inventory (MBI)
- Edmondson (1999) - Psychological Safety Scale
- Mharapara et al. (2019) - Constructive Supervisor Behavior Scale (CSBS)

2.9.2 Screening

The screening phase began with the removal of duplicate records, a crucial step in ensuring the accuracy and uniqueness of the dataset. Of the 853 initially identified articles, 107 duplicates were removed using EndNote’s duplicate detection function and manual verification, leaving 746 unique studies for further review.

Next, the titles and abstracts of these 746 articles were manually screened to determine their relevance to the study’s focal constructs: constructive/supportive leadership, burnout, and psychological safety. This process aimed to eliminate studies that lacked empirical focus or did not address the variables of interest.

A total of 359 studies were excluded during this phase for the following reasons:

- The topic was not aligned with the core constructs (e.g., unrelated psychological or managerial concepts)
- The article was conceptual, theoretical, or a literature review without primary data
- The sample population did not fit the study scope (e.g., students, educators, or military personnel)

Following this screening process, 387 full-text articles were retained for detailed eligibility assessment.

2.9.3 Assessment of Eligibility

The remaining 387 full-text articles were retrieved for detailed assessment against the inclusion and exclusion criteria. Each study was carefully reviewed to ensure relevance to the core constructs of this research: constructive leadership, psychological safety, and burnout, as well as alignment with the target population of office-based workers. During this step, 335 articles were excluded on the following bases: (1) Lack of primary empirical data (e.g., literature reviews, discussion papers, or conceptual frameworks based on secondary sources) (n = 210); (2) Insufficient focus on the core constructs, such as studies centered on unrelated psychological constructs. Variables like motivation or personality (n = 63). (3) Sample mismatch, where participants were drawn from populations outside the scope of this study (e.g., students, military personnel, K–12 educators, or medical staff) (n = 45). (4) Methodological limitations, including non-quantitative designs or absence of validated measurement instruments (n = 17).

After excluding these ineligible studies, a total of 52 articles were retained for final inclusion. These studies provided the empirical foundation for this systematic review, which quantitatively examined the relationships between constructive or supportive leadership, psychological safety, and burnout among office-based employees.

The included studies employed robust quantitative methods, including cross-sectional surveys, longitudinal designs, and structural equation modeling, and consistently used validated measurement tools such as:

- The Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981)
- The Psychological Safety Scale (Edmondson, 1999)
- The Constructive Supervisor Behavior Scale (CSBS) (Mharapara et al., 2019)

The final pool of 52 studies was thematically categorized into three analytical clusters:

1. Leadership → Burnout
2. Leadership → Psychological Safety
3. Psychological Safety → Burnout

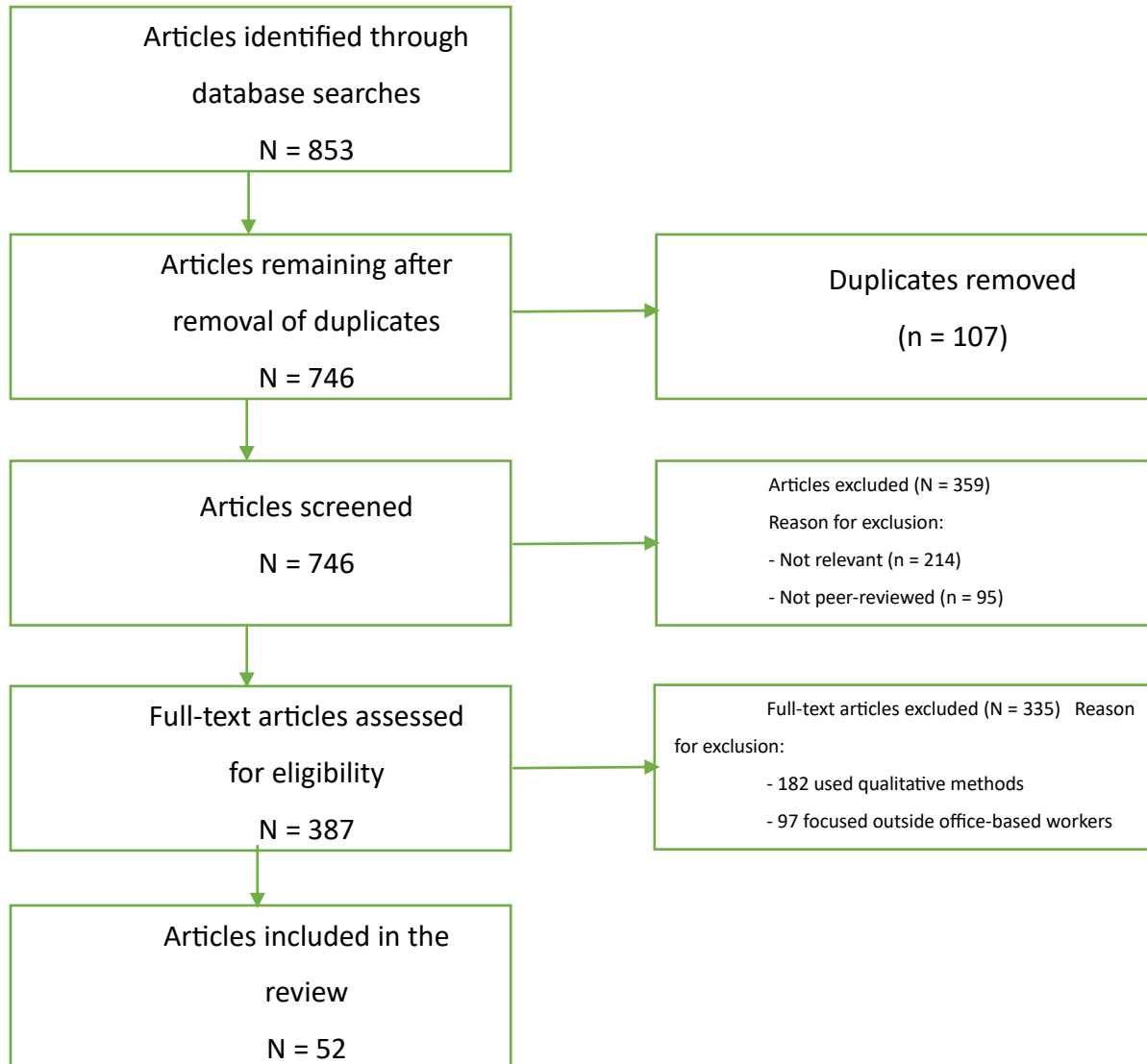
This categorization facilitated a structured synthesis of evidence, providing the empirical basis for developing the study's hypotheses and conceptual framework.

Table 1: Summary of Article Selection

Stage	Number of Articles
Records identified	853
Duplicates removed	107
Records screened	746
Records excluded	359
Full-text articles assessed	387
Full-text articles excluded	335
Final studies included	52

Beyond the numerical reduction of studies, several conceptual patterns emerged from the final set of 52 articles. First, the majority of studies examined leadership and burnout through direct-effect models, with comparatively limited attention to the underlying interpersonal mechanisms explaining these relationships. Second, psychological safety was predominantly conceptualized as a mediating variable, with relatively few studies simultaneously testing its moderating role within the same empirical framework. Third, a significant proportion of the literature focused on engagement, performance, or innovation outcomes, with burnout receiving comparatively less attention, particularly in office-based contexts. These patterns highlight a fragmentation in the literature, where leadership behaviors, psychological safety, and burnout are often examined in isolation rather than as part of an integrated model. These gaps informed the development of the present study, which integrates constructive leadership behavior, psychological safety, and multidimensional burnout within a single analytical framework.

Figure 3: Flowchart of article selection



2.10 Limitations of the Literature Search

While the PRISMA process ensured rigor, several limitations should be acknowledged:

- The search was limited to English-language studies, which may have excluded relevant non-English findings.
- Only peer-reviewed journal articles and select academic theses or dissertations closely aligned with the research topic were included. However, to maintain academic quality, grey literature, non-empirical commentary, and preprints were excluded.
- The focus on office-based workers may limit generalizability to frontline or blue-collar populations.

Nevertheless, the consistency of constructs across the final 52 studies provides a strong theoretical foundation for examining constructive leadership, psychological safety, and burnout among office-based workers.

Table 2: List of articles used

Author(s)	Year	Title	Focus Area	Methodology	Key Findings
Arasli et al.	2020	Constructive leadership and innovation	Leadership → Burnout	Mediation model	Constructive leadership enhances innovative behavior and reduces stress.
Arnold et al.	2015	Leadership styles, emotion regulation, and burnout	Leadership → Burnout	Quantitative (survey)	Constructive leadership reduces emotional exhaustion and depersonalization.
Bakker & Demerouti	2017	Job demands–resources theory: Taking stock and looking forward	Burnout	Theoretical synthesis	Summarizes empirical support for the JD-R model's relevance in burnout prevention.
Bakker & de Vries	2021	Job demands–resources theory and self-regulation: New explanations and remedies for job burnout	Burnout	Theoretical review	The JD-R model explains how job demands cause burnout, while resources support recovery.
Baquero	2023	Authentic leadership and workplace well-being	Leadership → Psychological Safety	Moderated mediation model	Psychological safety partially mediates trust and well-being outcomes.
Breevaart & Bakker	2018	Daily job demands and employee work engagement	Leadership → Burnout	Quantitative (daily diary)	Transformational leadership enhances engagement and buffers job stress.

Carmeli & Gittell	2009	High-quality relationships and psychological safety	Leadership → Psychological Safety	Quantitative	Supportive leadership fosters safety and open communication.
Chamakiotis et al.	2021	E-leadership during COVID-19	Leadership → Psychological Safety	Qualitative (interviews)	Remote leaders require trust-based behaviors to sustain safety.
Chernoglazo va	2022	Flexible work during COVID-19: A 10-day diary study on psychological safety, voice behavior, inclusion, and belonging	Psychological Safety	SEM (cross-sectional)	Flexible work settings influence voice behavior and safety perceptions during crises.
Clarke et al.	2024	Leaders improving employee well-being through psychological safety	Leadership → Psychological Safety	Survey-based	Leader behavior enhances psychological safety, boosting team collaboration.
Confente et al.	2019	Perceived value and workplace identity	Psychological Safety → Burnout	Quantitative	Psychological congruity and belonging reduce stress and withdrawal.
Crabtree et al.	2020	Leading innovative practices: Leadership in primary care	Leadership → Psychological Safety	Qualitative case analysis	+ Leadership attributes correlate with team psychological safety.
Decuyper & Schaufeli	2019	Leadership and work engagement mechanisms	Leadership → Burnout	Quantitative	Constructive leadership improves work engagement and lowers burnout risks.
Edmondson	1999	Psychological safety and learning behavior in work teams	Foundational (scale development)	Mixed methods	Developed the Psychological Safety Scale and conceptualized team learning.

Edmondson & Lei	2014	Psychological safety: The history, renaissance, and future of an interpersonal construct	Psychological Safety	Theoretical review		Traces the evolution of psychological safety as a central construct in team science.
Ellen et al.	2021	Political support and leader effectiveness	Leadership	Conceptual and empirical	and	Leader trust and political behavior affect perceptions of effectiveness.
Elsaied	2019	The impact of supportive leadership on burnout in service settings	Leadership → Burnout	Quantitative		Supportive leadership reduces emotional strain and enhances job satisfaction.
Fiscella et al.	2017	Improving care teams' functioning through team science	Leadership → Psychological Safety	Qualitative team-based	&	Leadership in team settings enhances psychological safety and coordination.
Frazier et al.	2017	Psychological safety: A meta-analytic review	Psychological Safety → Burnout	Meta-analysis		Strong evidence linking psychological safety to well-being and team learning.
Gauer	2024	Leadership in new working environments	Leadership → Burnout	Conceptual empirical case	+	Constructive leadership supports well-being in hybrid/remote settings.
Hasan & Kashif	2020	Psychological safety and well-being	Psychological Safety → Burnout	Quantitative		Psychological safety mediates the empowerment and burnout relationship.
Hildenbrand et al.	2018	Transformational leadership and burnout	Leadership → Burnout	Quantitative		Leadership increases thriving and reduces burnout in open-minded employees.

Hoch et al.	2018	Ethical and authentic leadership meta-analysis	Leadership → Burnout	Meta-analysis	Ethical leadership has unique positive effects beyond transformational style.
Hopson	2025	Leadership styles to reduce burnout in remote work	Leadership → Burnout	Doctoral Dissertation	Supportive leadership improves outcomes in remote settings.
Idris et al.	2015	Psychosocial safety climate and engagement	Psychological Safety → Burnout	Multilevel analysis	A climate of safety directly improves performance and reduces emotional distress.
Israel et al.	2024	Harm reduction and workplace trauma	Psychological Safety → Burnout	Qualitative review	Safe spaces in workplace settings buffer against burnout in trauma-informed care.
Junça Silva et al.	2022	Telework, emotional exhaustion, and workload	Burnout (Emotional Exhaustion)	Quantitative	Overload from telework leads to exhaustion, mitigated by self-leadership.
Kazemi & Rahmani	2023	Workplace anxiety in hybrid work environments	Psychological Safety → Burnout	Phenomenological analysis	Anxiety and lack of safety increase burnout in young hybrid professionals.
Kepes et al.	2022	Questionable research practices in management	Method/Meta-Level	Survey-based	Highlights need for rigorous screening of empirical data.
Khairy et al.	2023	Benevolent leadership in tourism	Leadership → Psychological Safety	SEM	Benevolence fosters psychological safety and job engagement.
Kiumgyan & Dawoud	2023	Developing psychosocial safety climate	Psychological Safety	Case study	Psychosocial safety climate development

						leads to lower stress and higher trust.
Kumari et al.	2025	Remote work and burnout in the public sector	Burnout	Quantitative		Role overload and ambiguity increase burnout; strong leadership helps mitigate.
Kyambade et al.	2024	Socially responsible leadership and job engagement	Leadership → Psychological Safety	Survey-based		Psychological safety mediates ethical leadership and job engagement.
Kyambade et al.	2024	Servant leadership and work relationships	Psychological Safety → Burnout	Moderated mediation model		Psychological safety improves relationship quality and buffers burnout.
Lee & Ashforth	2016	Meta-analysis of job burnout dimensions	Burnout	Meta-analysis		Emotional exhaustion is most strongly correlated with turnover and cynicism.
Maslach & Jackson	1981	The measurement of experienced burnout	Foundational (scale development)	Quantitative		Developed the Maslach Burnout Inventory (MBI), including three burnout factors.
Maslach & Leiter	2016	Burnout	Burnout	Conceptual article		Defines burnout dimensions and links to workplace stressors using empirical foundations.
Maximo et al.	2019	Authentic leadership and work engagement	Leadership → Psychological Safety	Quantitative		Psychological safety partially mediates the leadership and engagement link.

Mharapara et al.	2019	Assessing constructive supervisor behavior	Foundational (scale development)	Quantitative	Developed the CSBS to measure ethical conduct, clarifying, and recognition behaviors.
Mharapara et al.	2022	Comparing models of follower outcomes: Destructive and constructive leader behavior	Leadership → Psychological Safety	Quantitative	Contrasts constructive vs. destructive leadership effects on engagement and burnout.
Newman et al.	2017	Psychological safety: A systematic review	Psychological Safety → Burnout	Systematic review	Psychological safety supports resilience and buffers against burnout.
Nozari & Seyedsalehi	2024	Belonging and remote employee inclusion	Psychological Safety	Mixed methods	Psychological safety enhances digital belonging and team cohesion.
Ohoud Al Munthiri et al.	2024	Inclusive leadership and innovative behavior	Leadership → Psychological Safety	Quantitative (survey)	Inclusion fosters psychological safety and creativity.
Park et al.	2025	Authentic leadership and career success	Leadership → Psychological Safety	Survey-based SEM	Psychological safety mediates authentic leadership and employee outcomes.
Tan et al.	2025	Social exchange perspective in engagement	Leadership → Burnout	Cross-sectional survey	Benevolent leadership lowers burnout through reciprocal trust.
Tims et al.	2015	Job crafting and performance	Burnout	Longitudinal survey	Autonomy and support reduce job strain and emotional exhaustion.
Santiago-Torner et al.	2025	Ethical leadership and emotional exhaustion in virtual teams	Leadership → Burnout	Moderated mediation model	Ethical leadership reduces emotional exhaustion in virtual settings.

Schaufeli et al.	2020	Burnout Assessment Tool (BAT)	Burnout (Measurement)	Scale development	Developed BAT to assess emotional exhaustion, mental distancing, and overload.
Shanafelt et al.	2015	Burnout and work-life balance in U.S. physicians	Burnout	Quantitative (cross-sectional)	Increased workload linked to burnout; support buffers effects.
Shu Hwa Loo et al.	2024	Employee satisfaction post-COVID-19 in Malaysia	Burnout	Delphi study	Leadership support correlates with post-pandemic job satisfaction.
Victor	2024	Workplace wellbeing in post-pandemic settings	Psychological Safety → Burnout	Survey-based	Post-pandemic safety perceptions strongly affect burnout and job satisfaction.

The literature review highlighted that constructive leadership, psychological safety, and burnout have each been widely studied, but there remains a lack of integrated research examining their combined relationships within a single empirical model. In particular, limited attention has been given to the dual role of psychological safety as both a mediating and moderating mechanism linking leadership behaviors to burnout outcomes. This gap underscores the need for empirical investigation to better understand how these constructs interact within contemporary office-based work environments. Accordingly, this study examines the direct and indirect effects of constructive leadership on employee burnout through psychological safety. The following chapter outlines the research design and methodology used to empirically test these relationships.

2.11 Overview of Systematic Review Findings

The systematic review identified consistent evidence supporting relationships among constructive leadership, psychological safety, and employee well-being. Across the reviewed studies, leadership behaviours characterized by support, ethical conduct, recognition, and clear communication were generally associated with lower levels of burnout and more positive employee outcomes. Psychological safety also emerged as an important workplace resource, with many studies linking it to enhanced well-being, engagement, and interpersonal functioning. However, the review revealed that these constructs have often been examined in isolation or through simple direct-effect models. Comparatively few studies have explored how psychological safety may simultaneously explain and influence the relationship between constructive leadership and burnout. These findings informed the thematic synthesis presented in the following sections and provided the foundation for the conceptual model examined in this thesis.

3. Methodology

3.1 Research Design

This study adopts a quantitative, cross-sectional survey design to examine the relationship between constructive leadership behavior and employee burnout and to investigate the mediating and moderating roles of psychological safety within this relationship. A quantitative approach was adopted to examine whether constructive leadership predicts burnout and whether psychological safety functions as a mediator and moderator within this relationship. These research questions require the estimation of direct, indirect, and interaction effects using regression-based models, which necessitates numerical measurement of the constructs through validated psychometric scales. The cross-sectional survey design allowed data on all study variables to be collected at a single point in time from a broad working population, enabling the testing of theoretically derived relationships within the proposed conceptual model (Creswell & Creswell, 2018). Consistent with a positivist, theory-testing approach, this study conceptualizes constructive leadership, psychological safety, and burnout as observable and measurable constructs, allowing hypothesized relationships to be examined objectively using statistical models.

A cross-sectional design was employed due to its suitability for examining associational relationships and mediation and moderation models in organizational research (Spector, 2019). Cross-sectional surveys are commonly used when the research aim is to test theoretically driven hypotheses rather than establish causal directionality (Maxwell & Cole, 2007). This design is particularly appropriate for examining theoretically informed but underexamined relationships in applied organizational contexts, where the primary aim is to establish robust empirical associations rather than causal direction. This approach enables efficient data collection from a sufficiently large and diverse sample, thereby enhancing statistical power and supporting the generalizability of findings within the target population (Bryman, 2016). While longitudinal or experimental designs may provide stronger evidence for causal inference, they require extended timeframes and repeated measurement, which were beyond the scope of the present study (Field, 2020; Shadish et al., 2002).

Alternative methodological approaches, such as mixed-method designs, were considered but not adopted because the research questions are explanatory rather than exploratory. Mixed-method designs are valuable when the research aim involves theory development, in-depth exploration of experiences, or contextual interpretation of quantitative findings (Creswell & Plano Clark, 2017). In contrast, the present study seeks to test predefined hypotheses derived from social exchange theory using standardized instruments, thereby aligning the design more closely with its objectives (Creswell & Creswell, 2018; Saunders et al., 2019)

By targeting a broad sample of office-based employees across New Zealand, the study enhances the external validity of its findings within this context (Shadish et al., 2002). However, as with most cross-sectional survey research, causal inferences cannot be definitively established, and reliance on self-report data may introduce common method variance (Podsakoff et al., 2024). These limitations are acknowledged and addressed through careful interpretation of results and the application of appropriate analytical techniques.

3.1.1 Participants and Sampling Strategy

The target population for this study comprises office-based employees currently working in New Zealand, irrespective of industry or organizational sector. Focusing on office-based workers ensures relevance to structured organizational environments in which supervisory leadership behaviors are observable and where formal interpersonal interactions are likely to shape perceptions of psychological safety. Participants were eligible if they were aged 18 years or older and currently employed in an office-based role reporting to a manager or team leader.

To ensure alignment with the intended population, eligibility was assessed through an initial screening question asking whether respondents were currently employed in an office-based role in New Zealand. Respondents who did not meet this criterion were excluded from the survey. This screening procedure strengthened internal validity, which is defined as the extent to which the study accurately represents and measures the intended constructs within the specified population (Aguinis & Vandenberg, 2014). By ensuring that only eligible office-based employees in New Zealand were included, the study-maintained alignment between the research objectives and the final sample.

Participants were recruited using a convenience sampling strategy, a common and accepted approach in organizational and occupational psychology research where access to a specific working population is limited (Bryman, 2016; Spector, 2019). Although probability sampling was not feasible, using multiple recruitment channels reduced the risk of systematic sampling bias and increased the likelihood that observed relationships reflect real-world organizational conditions. Recruitment occurred primarily through online platforms, including LinkedIn, Facebook, Instagram, and Reddit, as well as targeted outreach to New Zealand-based organizations via professional and human resources networks. Similar online recruitment strategies have been widely employed in contemporary organizational research to access diverse working populations efficiently (Landers & Behrend, 2015; Moser & Korstjens, 2021). The use of multiple recruitment channels was intended to minimize platform-specific bias and increase sample diversity across organizational contexts.

A minimum target sample size of 200 participants was established to ensure adequate statistical power for regression-based mediation and moderation analyses (Barrett, 2007). Power guidelines indicate that detecting a medium effect size ($f^2 = 0.15$) in multiple regression requires approximately 77 participants to achieve 80% power at $\alpha = .05$ (Cohen, 1992). However, more recent methodological guidance emphasizes the importance of larger samples for mediation and moderation models to ensure stability of estimates and reliable detection of indirect effects (Fritz & MacKinnon, 2007; Hayes, 2018). Accordingly, a target of 200 participants was set to provide sufficient power ($> .90$) to detect small-to-medium effects while allowing for potential exclusions during data screening.

Participation in the study was voluntary and anonymous, with no identifying information collected. Respondents were informed that they could withdraw from the survey at any point without penalty. Demographic variables collected included age, gender, ethnicity, and salary, which were used to describe the sample characteristics rather than serve as control variables in the primary analyses.

Although convenience sampling limits strict statistical generalizability, the broad recruitment strategy enhances external validity, defined as the extent to which findings can be generalized to similar populations, and ecological validity, which refers to the degree to which research findings reflect real-world conditions (Brewer, 2000; Bryman, 2016). By sampling across multiple industries and organizational settings, the study aims to capture a realistic cross-section of the New Zealand office-based workforce while remaining aligned with the research objectives and ethical standards.

3.1.2 Ethical Considerations and Data Privacy

Data for this study were collected using an anonymous, self-administered online survey hosted on the Qualtrics platform. The survey was distributed via a shareable link across multiple online platforms, including social media, and was accessible on both desktop and mobile devices. The estimated completion time for the survey was approximately 7–10 minutes, depending on the participant's reading speed and engagement.

Upon accessing the survey, participants were presented with a landing page containing a Participant Information Sheet. This page provided clear information about the study's purpose, the nature of participation, the expected time commitment, and data-handling procedures. Potential respondents were informed that study participation was entirely voluntary and that they could withdraw at any time prior to submission by exiting the survey without penalty. Informed consent was obtained through an informed consent process, whereby participants provided consent by clicking “Next” to proceed beyond the information page. This approach is commonly used and considered appropriate for anonymous, minimal-risk online research involving adult participants.

Participants who were not office-based employees were excluded. Eligible respondents then completed demographic questions (including age, gender, ethnicity, and salary), followed by the main study measures assessing constructive leadership, psychological safety, and burnout. An attention check question (“Did you answer this survey honestly?” with a yes/no response option) was included to help identify potentially inattentive responses. While all key items were set as mandatory to ensure complete data, participants retained the right to discontinue the survey at any point.

Ethical principles of autonomy, confidentiality, and participant welfare were upheld throughout the study. No personally identifiable information was collected, and IP addresses were not recorded, ensuring complete anonymity. All data were collected anonymously via Qualtrics and stored securely in password-protected folders on institutional systems. Access to the data was restricted to the researcher and academic supervisor only.

The study received full ethical approval from the Auckland University of Technology Ethics Committee (AUTECH) on 28 July 2025 (Reference number: 25/200). The ethics approval process involved submitting a detailed research protocol outlining recruitment procedures, consent processes, data management plans, and risk minimisation strategies. All procedures complied with institutional ethical standards and relevant data protection regulations, including the New Zealand Privacy Act 2020. This ethically appropriate procedure ensures participant protection, data integrity, and transparency in the research process. Having outlined the overall research design and sampling strategy, the following section describes the specific measurement instruments used to assess each study variable.

3.2 Measures and Instruments

To operationalize the study variables described above, standardized, psychometrically validated instruments were used. Each measure is described below, including its structure, response format, and reliability evidence. This study uses a structured, self-report questionnaire to assess the key constructs of constructive leadership behavior, burnout, and psychological safety. Composite scores were calculated for each construct and used in subsequent statistical analyses. The following subsections describe each measure and how it is scored.

3.2.1 Constructive Leadership Behavior

Constructive leadership behavior is measured using the Constructive Supervisor Behavior Scale (CSBS) (Mharapara et al., 2019). This scale assesses employees' perceptions of their supervisor's supportive, respectful, and empowering behaviors in the workplace, which includes ethical conduct, networking, clarifying, and recognizing.

Participants respond to statements such as “My supervisor provides recognition for good performance”, “My supervisor clearly explains the job responsibilities and task assignments”, “My supervisor sets an example of ethical behavior in his/her decisions and actions” and “my supervisor Builds and maintains a wide network of contacts among peers and outsiders” using a 5-point Likert scale ranging from 1 (Not at all) to 5 (To a very great extent). Composite scores were calculated by averaging item responses, with higher scores indicating greater perceived constructive leadership.

The CSBS has consistently demonstrated high internal reliability (Cronbach's $\alpha = 0.87-0.94$) and factorial validity across multiple samples (Mharapara et al., 2022; Smith & Jones, 2021). To minimize response bias, items include reverse-coded questions where applicable, and the survey randomizes item order to reduce agreement bias.

3.2.2 Burnout

Burnout is assessed using the Maslach Burnout Inventory (MBI) (Maslach et al., 1981), the most widely used instrument for evaluating occupational burnout. The MBI conceptualizes burnout as a multidimensional construct with three subscales, Emotional Exhaustion (e.g., “I feel emotionally drained from my work”), Depersonalization (e.g., “I feel I treat some recipients as if they were impersonal objects”), and Reduced Personal Accomplishment (e.g., “I deal very effectively with the problems of my work” reverse scored)

The scale uses a 6-point Likert response format, ranging from 0 (Never) to 6 (Every day). Each subscale score was calculated separately. Higher scores on emotional exhaustion and Depersonalization, and lower scores on personal accomplishment, reflect higher levels of burnout.

The MBI demonstrates excellent psychometric properties across occupational contexts, with Cronbach's $\alpha > 0.85$ for all subscales (Maslach et al., 1981; Schaufeli & Taris, 2019). Subscales are treated independently for hypothesis testing.

3.2.3 Psychological Safety

Psychological safety was operationalized in this study using Edmondson's (1999) Psychological Safety Scale to capture employees' perceptions of interpersonal risk-taking within their immediate work environment. Specifically, the measure assessed the extent to which participants felt able to speak up, ask for help, admit mistakes, or express differing views without fear of negative consequences. In this research, psychological safety serves as the proposed mechanism through which constructive leadership may influence employee burnout outcomes.

Sample items include "It is safe to take a risk on this team" and "People on this team sometimes reject others for being different" (reverse-coded). Participants respond using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Total scores are calculated by averaging item responses, with higher values indicating greater perceived safety.

The scale has consistently demonstrated reliability in organizational studies, with Cronbach's α values typically above 0.80 (Edmondson, 1999; Newman et al., 2017). Reverse-coded items and item randomization are included to reduce response bias, and participants are reminded that there are no right or wrong answers.

3.2.4 Demographic Variables

Demographic information is collected to describe the sample population and provide contextual insight. The following variables are included:

- Age (range-based multiple choice)
- Gender (multiple choice: Male, Female, Non-binary, prefer not to say)
- Ethnicity (aligned with New Zealand's census categories)
- Annual income (range-based multiple choice)

3.3 Data Collection Process

Data were collected using an online survey administered via the Qualtrics platform. Qualtrics was selected because it allows efficient distribution, automated screening, randomization of items, and secure data capture, making it suitable for large-scale organizational research (Bernierth et al., 2021). The platform enabled the implementation of structured survey logic, ensuring that only participants meeting the predefined inclusion criteria could proceed beyond the screening stage.

Participant recruitment followed a multi-channel strategy to maximise reach across the New Zealand office-based workforce. The survey link was distributed via posts on social media platforms such as Facebook, Instagram, Reddit, and LinkedIn. These platforms are commonly used in organizational and psychological research to access working adults across diverse industries and job roles (Landers & Behrend, 2015; Porter et al., 2019; Walter et al., 2019).

Eligibility was enforced through a screening question presented at the beginning of the survey asking whether participants were currently employed in an office-based role in New Zealand. Respondents who did not meet this criterion were automatically exited from the survey, ensuring alignment between the sample and the study population.

The survey was self-administered and could be completed on both desktop and mobile devices. Average completion time was approximately 7–10 minutes. Survey content was presented in a structured sequence, beginning with demographic questions and then the main study measures. The order of the validated scales was randomised to reduce order effects and response bias. An attention-check item was embedded in the survey to support data quality assessment during data cleaning.

Data were automatically recorded in Qualtrics and exported for analysis following the close of the data collection period. Data were collected between July 2025 and December 2025. Responses were monitored during collection to track participation rates and ensure the dataset met the target sample size. Partial responses were retained only if they contained complete data for the key study variables, consistent with the predefined data screening criteria outlined in the data cleaning section. This data collection approach ensured efficient recruitment, accurate eligibility filtering, and systematic data capture, while also supporting the study's analytical requirements.

3.4 Data Cleaning and Quality Control

To ensure the integrity and reliability of the dataset, a structured data cleaning protocol was applied prior to analysis. Data screening is a standard and recommended practice in quantitative research, as it helps reduce error variance, improve measurement precision, and ensure that statistical assumptions are met before hypothesis testing (Field, 2018; Tabachnick & Fidell, 2019). All data screening decisions were applied consistently and documented to ensure transparency and replicability of the analytical process.

3.4.1 Incomplete and Invalid Responses

During the data curating phase, any partially completed surveys that did not include data for the primary variables, constructive leadership, burnout, or psychological safety, were excluded from analysis. This decision was made because missing data on these variables makes it impossible to calculate accurate scale scores and can weaken the results of regression-based analyses, particularly mediation and moderation models that require complete data across all variables (Hayes, 2018; Little & Rubin, 2019).

3.4.2 Attention Check

To ensure data quality and identify inattentive or disengaged responses, the survey included an attention-check question near the end: “Did you answer this survey honestly?” (response options: Yes or No) (Meade & Craig, 2012). Participants who selected “No” were considered to have failed the attention check and excluded from the final dataset. This approach helps verify respondent engagement and response quality without interfering with the substantive measurement of study constructs (Huang et al., 2012)

3.4.3 Response Pattern and Straight-Lining

Survey data were scanned for uniform response patterns (e.g., selecting the same response option across all scale items), which may indicate low engagement or satisficing behavior (Krosnick, 1991; Meade & Craig, 2012). Cases showing clear signs of straight-lining across unrelated items were removed from the final dataset.

3.4.4 Missing Data

All survey items were set as required within the Qualtrics platform; therefore, missing data were not expected for the primary study variables. However, in cases where minor technical issues or respondent errors resulted in missing values, cases with incomplete data on the main study variables were excluded using listwise deletion. Listwise deletion involves removing cases with missing values on variables required for a given analysis and is commonly used when the proportion of missing data is low and complete data are required for regression-based models (Field, 2018; Tabachnick & Fidell, 2019). This approach reduces the risk of biased parameter estimates in regression-based mediation and moderation analyses, which require complete data across all variables. Descriptive analyses were conducted to confirm the extent of missing data and ensure that any exclusions did not meaningfully affect the overall sample.

3.4.5 Duplicate Responses

To preserve participant anonymity, Internet Protocol (IP) tracking was not enabled. As a result, potential duplicate responses were assessed through manual screening of response patterns. Duplicate cases were identified based on highly similar or identical demographic information combined with near-identical response patterns across multiple survey items. This approach has been used in previous online survey research in which anonymity is prioritized, and technical tracking is restricted (Buchanan & Scofield, 2018; Teitcher et al., 2015). Any responses identified as probable duplicates were removed cautiously to minimize unnecessary data loss while maintaining data integrity.

3.4.6 Outlier Screening

Outlier screening was conducted to identify extreme values that could disproportionately influence statistical results (Field, 2020; Tabachnick & Fidell, 2019). Descriptive statistics were first examined, followed by visual inspection using boxplots and the calculation of z-scores for continuous variables. Values exceeding ± 3.29 standard deviations were flagged as potential outliers (Tabachnick & Fidell, 2019). Outliers were not automatically removed; instead, they were evaluated for plausibility and assessed for their impact on normality and regression assumptions. Only values deemed implausible or shown to substantially distort model estimates were excluded, consistent with recommended best practices in quantitative research (Field, 2018).

3.5 Data Analysis Strategy

The goal of the analysis is to test the study's hypotheses regarding the relationships among constructive leadership behavior (ethical conduct, networking, clarifying, and recognizing), burnout (emotional exhaustion, Depersonalization, and reduced personal accomplishment), and psychological safety as a mediator and moderator. A structured statistical plan was followed to ensure rigorous, transparent, and theory-aligned analysis.

3.5.1 Software

All statistical analyses were conducted using Jamovi (Version 2.7.16), an open-source statistical software with an integrated graphical interface based on the R statistical environment. Mediation and moderation analyses were performed using Jamovi's Mediation and Moderation (Med Mod) module, which implements procedures equivalent to those of the PROCESS macro (Hayes, 2018). Descriptive analyses, reliability testing, and assumption checks were conducted within Jamovi.

Jamovi was selected for its transparency, reproducibility, and open-source accessibility, which support rigorous, replicable data analysis consistent with current best practices in psychological and social science research (Love et al., 2019; Selker et al., 2021). The software provides an integrated graphical interface while maintaining reproducible syntax-based outputs, enhancing analytical transparency and reducing procedural error. Its Mediation and Moderation (Med Mod) and General Linear Model (GAMLj) modules enabled the implementation of regression, mediation, and moderation analyses consistent with Hayes' (2018) conditional process framework.

3.5.2 Descriptive Statistics

Descriptive statistics were calculated for all continuous study variables, including means (M), standard deviations (SD), skewness, and kurtosis. These statistics provided an overview of the distribution and central tendency of constructive leadership, psychological safety, and the three burnout dimensions.

Frequency analyses were conducted for categorical demographic variables, including gender, age, and ethnicity, to describe the characteristics of the sample (N = 213). Internal consistency reliability was assessed using Cronbach's alpha for each scale. All measures demonstrated acceptable to excellent reliability ($\alpha = .787-.955$), exceeding the recommended threshold of .70 for acceptable internal consistency (Nunnally & Bernstein, 1994). Pearson correlation coefficients were computed to examine bivariate relationships among constructive leadership, psychological safety, and burnout dimensions prior to multivariate analysis.

3.5.3 Assumption Testing

Prior to hypothesis testing, the assumptions underlying linear regression were evaluated. Normality of residuals was assessed using both visual inspection of Q-Q plots and formal statistical tests, including the Shapiro-Wilk and Kolmogorov-Smirnov tests (Field, 2020; Ghasemi & Zahediasl, 2012). Although some tests indicated statistical deviations from normality, visual inspection of Q-Q plots suggested no substantial departures that would invalidate regression analysis. Linearity and homoscedasticity were examined using scatterplots of standardized residuals against predicted values.

Multicollinearity was assessed using the Variance Inflation Factor (VIF) and tolerance statistics. All VIF values ranged from 1.10 to 1.33, and tolerance values exceeded .75, indicating no multicollinearity concerns. The independence of errors was evaluated using the Durbin-Watson statistic in the regression models. No assumption violations were considered severe enough to require model adjustment.

3.5.4 Hypothesis Testing

Regression-based analyses were conducted using the General Linear Model (GAMLj) and Mediation and Moderation (MedMod) modules in Jamovi. These diagnostic procedures align with standard regression assumptions outlined in applied statistical guidelines (Field, 2018).

Direct Effects (Hypothesis 1)

To examine whether constructive leadership predicted burnout outcomes, three separate multiple linear regression models were estimated with the following dependent variables:

- Emotional exhaustion
- Depersonalization
- Reduced personal accomplishment

Constructive leadership was entered as the primary predictor. Gender was included as a control variable in the regression models. Psychological safety was also included to evaluate its unique contribution in nested model comparisons. Model fit was assessed using R^2 , adjusted R^2 , F-statistics, and change in R^2 (ΔR^2). Standardized beta coefficients (β), 95% confidence intervals, and p-values were reported.

Mediation Analysis (Hypothesis 2)

The mediating role of psychological safety in the relationship between constructive leadership and each burnout dimension was tested using mediation analysis (equivalent to PROCESS Model 4). Mediation analysis was conducted following the regression-based approach outlined by Hayes (2018), equivalent to PROCESS Model 4.

Separate mediation models were estimated for:

- Constructive leadership → Psychological safety → Emotional exhaustion
- Constructive leadership → Psychological safety → Depersonalization
- Constructive leadership → Psychological safety → Reduced personal accomplishment

Indirect effects were estimated using bootstrapping procedures. Significance of mediation was determined based on the indirect effect ($a \times b$ path) and associated confidence intervals. Direct, indirect, and total effects were reported for each model.

Moderation Analysis (Hypothesis 3)

Moderation analyses were conducted to assess whether psychological safety moderated the relationship between constructive leadership and each burnout dimension (equivalent to PROCESS Model 1). Moderation analysis followed the regression-based interaction framework described by Hayes (2018), equivalent to PROCESS Model 1.

Interaction terms (Constructive Leadership \times Psychological Safety) were included in regression models predicting:

- Emotional exhaustion
- Depersonalization
- Reduced personal accomplishment

Significant interaction effects were probed using simple slopes analyses at -1 SD (low), mean, and $+1$ SD (high) levels of psychological safety. Interaction plots were generated to aid interpretation.

3.5.5 Summary of Analytical Approach

Collectively, these analyses enabled me to determine both the direct effects of constructive leadership on burnout and the indirect or conditional roles of psychological safety. This integrated analytical framework directly aligns with the research aim of examining whether psychological safety functions as a mediator or moderator in the relationship between constructive leadership and burnout among office-based employees in New Zealand, providing a comprehensive understanding of the underlying mechanisms linking leadership behavior to employee wellbeing outcomes.

3.5.6 Model Interpretation

The analysis revealed the direction and strength of relationships between constructive leadership, psychological safety, and the three burnout subscales. Psychological safety was examined as both a mediator and a moderator, highlighting the mechanisms by which constructive leadership influences employee burnout. The statistical models provided insight into the proportion of variance in burnout outcomes explained by the predictors, allowing assessment of the relative impact of constructive leadership and psychological safety on emotional exhaustion, depersonalization, and reduced personal accomplishment.

3.6 Conceptual Framework and Hypothesis Testing Model

This study is guided by a theory-driven conceptual model that integrates key constructs from organizational behavior and workplace psychology, including constructive leadership behavior, employee burnout, and psychological safety. The framework posits that positive, trust-based relationships in the workplace lead to mutual support and improved employee outcomes.

3.6.1 Conceptual Overview

The model assumes that employees who perceive their supervisors as constructive leaders, those who provide clear expectations, recognize performance, and demonstrate fairness, are less likely to experience burnout. Burnout is measured through its three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment, consistent with the Maslach Burnout Inventory (Maslach et al., 1981).

The study also explores whether psychological safety plays a mediating or moderating role in this relationship:

- As a mediator, psychological safety may explain how constructive leadership influences burnout, i.e., constructive leadership fosters a psychologically safe environment, which in turn protects employees from burnout.
- As a moderator, psychological safety may amplify or buffer the effects, i.e., the relationship between constructive leadership and burnout may vary depending on the level of psychological safety present.

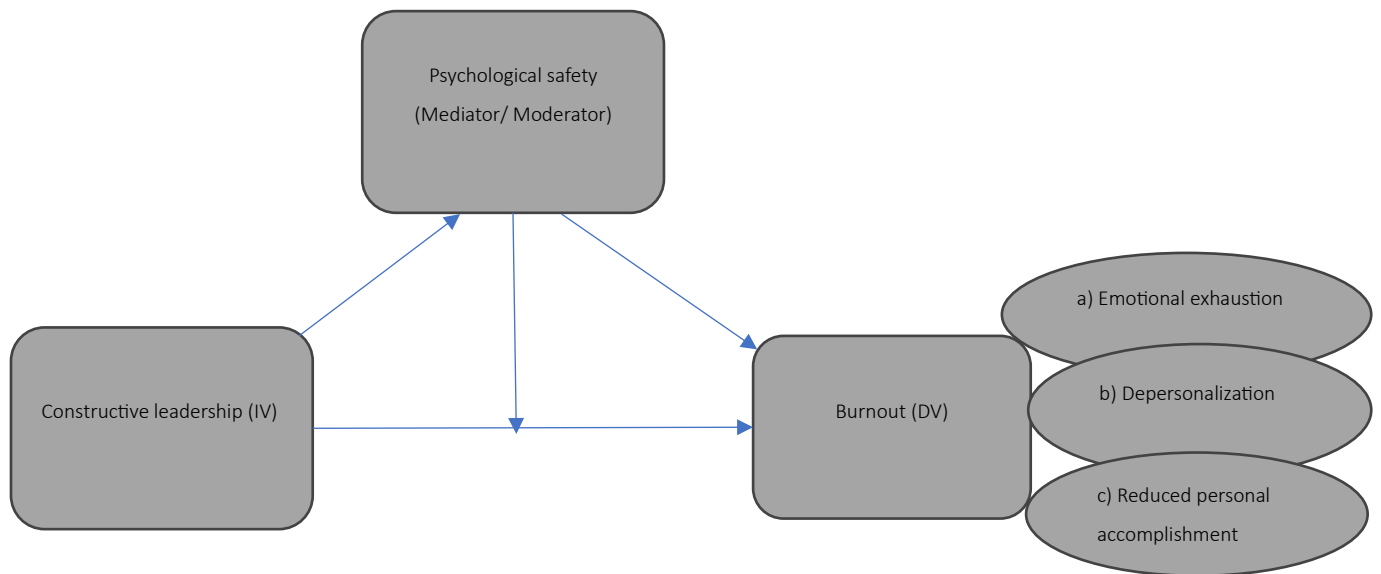
This dual testing provides a comprehensive examination of both mechanisms and boundary conditions that shape the relationship between leadership and burnout.

3.6.2 Hypothesized Model Pathways

The framework supports the following hypotheses:

- H1: Constructive leadership negatively predicts emotional exhaustion, depersonalization, and reduced personal accomplishment.
- H2: Psychological safety mediates the effect of constructive leadership on the three dimensions of burnout (emotional exhaustion, depersonalization, and personal accomplishment).
- H3: Psychological safety moderates the effect of constructive leadership on the three burnout dimensions (emotional exhaustion, depersonalization, and personal accomplishment).

Figure 4: Conceptual Framework for the Role of PS between CLB and Burnout



3.7 Chapter Summary

This chapter outlines a structured approach to investigating how constructive leadership behavior influences employee burnout and how psychological safety may function as a mediator or moderator in this relationship. Each methodological decision was made to ensure validity, reliability, and ethical integrity, while closely aligning with the study's theoretical framework and research objectives.

The quantitative, cross-sectional survey design allows for efficient data collection from a diverse sample of office-based employees in New Zealand. By employing validated measurement instruments, the CSBS, the MBI, and the Psychological Safety Scale, the study ensures high measurement fidelity and comparability with prior organizational research.

A multi-channel recruitment strategy and clear eligibility screening criteria strengthen the sample's relevance and representativeness. Ethical protections, including informed consent, anonymity, and secure data handling, have been integrated throughout the procedure in accordance with institutional standards and formal ethics approval.

The data analysis plan is aligned with the study's hypotheses, involving descriptive, correlational, and regression-based modeling to test direct, mediating, and moderating effects. By incorporating the PROCESS macro, the study can efficiently model indirect and interaction effects, producing interpretable results that address both the mechanisms and boundaries of leadership influence on burnout.

Together, these methodological elements contribute to the rigor, transparency, and reproducibility of the research. The study was designed to determine whether constructive leadership behavior is associated with lower levels of employee burnout and to examine whether psychological safety functions as a mediating and moderating mechanism within this relationship. By testing these relationships within a New Zealand office-based workforce, the research aims to clarify how leadership practices influence employee well-being and to contribute empirical evidence to the literature on leadership, psychological safety, and occupational burnout.

4. Findings

This chapter presents the findings of the quantitative analyses examining the relationships among constructive leadership behavior, psychological safety, and burnout among office-based employees in New Zealand. The analyses directly address the research questions outlined in Chapter 3 and test the hypotheses grounded in social exchange theory (SET), which posits that positive leader-employee exchanges foster reciprocal trust, mutual support, and enhanced well-being. In line with this framework, the analyses assess whether constructive leadership reduces employee burnout directly, and whether psychological safety serves as a mediating or moderating mechanism in this relationship.

All statistical analyses were conducted using Jamovi (Version 2.7.16), an open-source data analysis platform built on the R statistical platform. Detailed raw output tables and assumption check graphics for all tests are provided in Appendix D. The software's modules were used to conduct data screening, reliability assessment, descriptive analyses, correlation testing, and inferential modeling. Specifically, the Mediation and Moderation (MedMod) module was employed to test indirect (mediation) and interaction (moderation) effects aligned with the study's hypotheses. Prior to these analyses, all data were thoroughly screened for accuracy, missing values, normality, linearity, and multicollinearity to ensure that the assumptions of parametric tests were satisfied.

The chapter is organized in four major sections. The first section outlines data preparation and screening procedures, including handling missing data, outlier detection, reliability analysis, and assumption testing. The second section presents descriptive statistics and correlation analyses, providing an overview of the sample's characteristics and the relationships among the main study variables. The third and most extensive section reports the results of hypothesis testing, detailing the outcomes of regression, mediation, and moderation analyses for each hypothesis. The final section provides a summary of findings, consolidating the statistical results in both tabular and narrative form. The following section details the data preparation and screening procedures undertaken before the main analyses.

4.1 Data Screening

A total of 259 responses were initially collected from office-based employees across New Zealand through the Qualtrics platform. The dataset was manually screened for completeness and accuracy before being exported to Jamovi. Incomplete responses and cases failing attention checks were removed, reducing the sample to 215 responses. A visual inspection of descriptive statistics and graphical plots identified two extreme cases in key variables, which were subsequently excluded. The final sample consisted of 213 valid responses.

Missing data were minimal across all variables, with no variable exceeding 1.5% missing values. Little’s MCAR test indicated that the data were missing completely at random, $\chi^2(43) = 33.203$, $p = .857$. Given the low proportion of missing data and the non-significant MCAR result, listwise deletion was applied. This involves removing cases with missing values from the analysis, so that statistical models are estimated using only complete observations. This approach is appropriate when the proportion of missing data is small, and the assumption of missing completely at random (MCAR) is satisfied (Field, 2024). Following these procedures, the dataset was deemed suitable for parametric analyses.

Table 3: Summary of Sample Retention and Missing Data

Step	Total Responses	Removed	Retained	% Retained	Reason for Removal
Initial responses	259	—	—	—	Raw data exported from Qualtrics
After the removal of incomplete responses	259	44	215	82.9%	Incomplete or partially filled surveys
After visual outlier inspection	215	2	213	82.2%	Two extreme outliers removed after Q-Q plot review

4.1.1 Outlier Detection

Following the initial cleaning, outlier screening was conducted to identify extreme observations that could disproportionately influence statistical estimates. Outliers can distort regression coefficients and bias inferential results; therefore, identifying and addressing them is an important step in ensuring the robustness of quantitative analyses (Field, 2024). It was conducted using boxplots, standardized z-scores, and Q–Q plots. Cases with z-scores exceeding ± 3.29 were considered potential outliers. No additional extreme values were identified in the retained sample. The Q–Q plots for constructive leadership, psychological safety, and the three burnout dimensions indicated approximately linear distributions, with only minor deviations at the distribution tails. These deviations were not considered problematic given the sample size ($N = 213$).

After removal of the two identified extreme cases, all remaining observations fell within acceptable ranges. This step preserved data integrity while ensuring that the retained responses reflected the distribution of the target population. The results indicate that the dataset was sound and free of extreme observations that could bias subsequent regression or mediation-moderation models.

Table 4: Summary of Outlier Screening and Removal

Screening Method	Criterion	No. of Identified	Outliers Action Taken	Final Retained	Sample
Z-score	± 3.29	0	None removed	213	
Boxplots & Q-Q plots	Visual deviation	2	Removed	213	

4.1.2 Assumption Testing

Prior to hypothesis testing, assumptions for multiple regression and mediation-moderation analyses were evaluated, including normality, linearity, homoscedasticity, and multicollinearity (Field, 2020; Tabachnick & Fidell, 2019).

Normality was assessed using the Shapiro-Wilk test and Q-Q plots. Although some variables showed minor deviations from normality ($p < .05$), skewness and kurtosis values fell within ± 2 , indicating acceptable distributional properties given the sample size ($N = 213$). Next, linearity was examined through scatterplots, which showed approximately linear relationships between constructive leadership, psychological safety, and the burnout dimensions. No evidence of non-linearity was observed. In addition, homoscedasticity was assessed by visual inspection of residual plots, which showed residuals evenly distributed around the regression line, indicating equal variance across predicted values. Finally, multicollinearity diagnostics showed tolerance values ranging from 0.752 to 0.909 and Variance Inflation Factors (VIFs) between 1.100 and 1.330, well below the accepted threshold of 5 (Hair et al., 2019). These values suggest that the predictor variables were independent and did not exhibit collinearity. Overall, the assumptions for parametric analyses were satisfied.

Table 5: Assumption Testing Summary

Assumption	Test Indicator	Criterion	Result	Interpretation
Normality	Shapiro-Wilk	$p > .05$	Minor deviations ($p < .05$ but skewness $< \pm 2$)	Normality acceptable
Linearity	Scatterplots	Approximate straight-line pattern	Met	Linearity assumption met
Homoscedasticity	Residual plots	Equal spread across values	Met	Homoscedasticity assumption met
Multicollinearity	VIF < 5	1.100-1.330	Met	No multicollinearity detected

4.1.3 Scale Reliability

Internal consistency was evaluated using Cronbach's alpha (α) (Cronbach, 1943). All scales demonstrated acceptable to excellent reliability. Constructive Leadership (16 items) showed excellent reliability ($\alpha = .926$). Emotional Exhaustion (7 items) demonstrated excellent reliability ($\alpha = .955$), as did Depersonalization (5 items; $\alpha = .928$) and Personal Accomplishment (8 items; $\alpha = .936$). Psychological Safety (7 items) showed acceptable reliability ($\alpha = .787$). These coefficients indicate satisfactory internal consistency for all study measures.

Table 6: Reliability Coefficients (Cronbach's α) for All Scales

Variable	No. of Items	Cronbach's α	Interpretation
1 Constructive Leadership	16	.926	Excellent
2 Psychological Safety	7	.787	Acceptable
3 Emotional Exhaustion	7	.955	Excellent
4 Depersonalization	5	.928	Excellent
5 Personal Accomplishment	8	.936	Excellent

4.2 Descriptive Statistics and Correlation Analysis

This section presents the demographic characteristics of the sample and descriptive statistics for the main study variables. Correlations among constructive leadership, psychological safety, and the three burnout dimensions are also reported. Analyses were conducted in Jamovi (Version 2.7.16). Pearson's correlation coefficients (r) are presented as the primary estimates, with Spearman's rank correlations (ρ) examined to confirm robustness.

4.2.1 Sample Demographics

A total of 213 office-based employees in New Zealand participated in the study. Of the 213 participants, 102 identified as male (47.9%), 96 as female (45.1%), 1 selected "other" (0.5%), and 14 preferred not to disclose their gender (6.6%). This shows balanced participation by male and female employees, providing a sound basis for a gender-neutral interpretation of leadership and burnout patterns. Participants ranged across age groups: 6.6% were aged 18-24 years, 2.8% were aged 25-34 years, 11.7% were aged 35-44 years, 29.1% were aged 45-54 years, 37.1% were aged 55-64 years, and 12.7% were aged 65 years or older. The predominance of participants aged 45-64 years (66.2% combined) indicates that the sample primarily consisted of experienced professionals, who are often more likely to have sustained exposure to organizational leadership and workplace demands. Participants represented multiple ethnic backgrounds, including New Zealand European, Māori, Pacific Peoples, Asian, African, Latin American, Middle Eastern, and other ethnicities. Detailed frequencies are presented in Table 7.

Table 7: Demographic Characteristics of Participants

Variable	Category	n	%
Gender	Male	102	47.8
	Female	96	45.1
	Other	1	0.5
	Prefer not to say	14	6.6
Age group (years)	18-24	14	6.6
	25-34	6	2.8
	35-44	25	11.7
	45-54	62	29.1
	55-64	79	37.1
	65+	27	12.7
Ethnicity	New Zealand European	32	15

Non-New Zealand European	29	13.6
New Zealand Māori	22	10.3
Pacific Peoples	14	6.5
African	23	10.8
Asian	56	26.3
Latin American	16	7.5
Middle Eastern	12	5.7
other	9	4.3

N = 213

Note. Detailed demographic breakdown by ethnicity and employment category is available in Appendix D13.

4.2.2 Descriptive Statistics for Main Variables

Constructive Leadership had a mean of 4.47 (SD = 0.97), indicating relatively high perceived levels of constructive leader behavior. Psychological Safety recorded a mean of 3.92 (SD = 0.71). In contrast, the burnout dimensions of Emotional Exhaustion (M = 2.85, SD = 1.34) and Depersonalization (M = 2.21, SD = 1.26) reflected comparatively lower average levels. Personal Accomplishment demonstrated a mean of 4.36 (SD = 1.05), suggesting generally positive perceptions of professional efficacy among the respondents.

With respect to distributional properties, skewness and kurtosis values for all variables were within ± 2 . Shapiro-Wilk tests indicated minor deviations from normality ($p < .05$), which were not considered problematic given the sample size (N = 213), as parametric tests are generally strength to moderate violations of normality in larger samples. Pearson's correlations were therefore interpreted as the primary estimates. Descriptive statistics for the main study variables are presented in Table 6.

Table 8: Descriptive Statistics for Key Variables

N = 213

Variable	M	SD	Min	Max	Skewness	Kurtosis	Shapiro-Wilk p
1 Constructive Leadership	4.47	0.97	1.00	6.83	-0.735	0.168	.002
2 Psychological Safety	3.92	0.71	1.57	5.00	-0.883	1.210	< .001
3 Emotional Exhaustion	2.85	1.34	1.00	6.00	1.10	0.302	< .001
4 Depersonalization	2.21	1.26	1.00	6.00	1.08	0.297	< .001
5 Personal Accomplishment	4.36	1.05	1.00	6.00	-0.664	-0.394	< .001

Note. Slight non-normality is acceptable given the sample size (*N* = 213). Detailed Jamovi output available in Appendix D1

4.2.3 Correlation Analysis

Bivariate correlations were conducted to examine the relationships among Constructive Leadership, Psychological Safety, and the three burnout dimensions. Pearson’s correlation coefficients (*r*) are reported as the primary estimates. Spearman’s rank-order correlations (ρ) were also examined and showed an identical pattern of results. Importantly, the Spearman results mirrored the Pearson coefficients in both direction and statistical significance, confirming the stability of the observed relationships.

Table 9: Correlation Matrix

N = 213

Variables	1	2	3	4	5
1 Constructive Leadership	—				
2 Emotional Exhaustion	-0.447***	—			
3 Depersonalization	-0.384***	0.754***	—		
4 Personal Accomplishment	0.392***	-0.349***	-0.328***	—	
5 Psychological Safety	0.446***	-0.592***	-0.562***	0.443***	—

All Pearson correlations were statistically significant at $p < .001$ (two-tailed).

Constructive Leadership was negatively correlated with Emotional Exhaustion ($r = -.447, p < .001$) and Depersonalization ($r = -.384, p < .001$), and positively correlated with Personal Accomplishment ($r = .392, p < .001$). Constructive Leadership was also positively correlated with Psychological Safety ($r = .446, p < .001$). Psychological Safety was negatively associated with Emotional Exhaustion ($r = -.592, p < .001$) and Depersonalization ($r = -.562, p < .001$), and positively associated with Personal Accomplishment ($r = .443, p < .001$). Emotional Exhaustion and Depersonalization were strongly positively correlated ($r = .754, p < .001$). Both were negatively correlated with Personal Accomplishment. Spearman's correlations mirrored these results in both directions and statistical significance. Full correlation outputs are available in Appendix D2.

4.2.4 Overview of Hypothesis Testing

Hypothesis testing was conducted using Jamovi (Version 2.7.16). Prior data screening confirmed that assumptions for parametric analyses were satisfied. Hypothesis 1 (H1) was tested using multiple linear regression analyses to examine the direct relationships between Constructive Leadership and the three burnout dimensions. Hypothesis 2 (H2) was tested using mediation analyses (PROCESS Model 4 equivalent), with Psychological Safety specified as the mediator. Indirect effects were estimated using 5,000 bootstrapped samples with bias-corrected 95% confidence intervals. Hypothesis 3 (H3) was examined using moderation analyses (PROCESS Model 1 equivalent). Interaction terms were computed using mean-centred variables. Moderation effects were considered significant at $p < .05$. For all models, standardized coefficients (β), standard errors (SE), t-values, p-values, confidence intervals, R^2 , and F statistics are reported. The following sections present the results for each hypothesis.

4.3 Hypothesis 1 - Direct Relationship Between CLB and Burnout

H1 proposed that constructive leadership would be associated with burnout. Specifically, higher levels of constructive leadership were expected to predict lower emotional exhaustion and depersonalization, and higher personal accomplishment. These relationships were examined using separate multiple regression analyses while controlling for demographic variables. Table references for full model details, residual plots, and diagnostics are provided in Appendix D4, D5, and D6.

4.3.1 Constructive Leadership and Emotional Exhaustion (H1a)

The regression model predicting emotional exhaustion was statistically significant, $F(5, 207) = 27.84$, $p < .001$, explaining 40.2% of the variance ($R^2 = .402$, Adjusted $R^2 = .388$). This indicates that the predictors included in the model accounted for a substantial proportion of variability in emotional exhaustion. Constructive leadership was a significant negative predictor of emotional exhaustion ($\beta = -.231$, $t = -3.838$, $p < .001$). This coefficient indicates that for each standard deviation increase in constructive leadership, emotional exhaustion decreased by 0.231 standard deviations, controlling for other variables. The magnitude of the effect suggests a meaningful inverse association between leadership behavior and emotional strain.

Table 10: Multiple Regression Analysis Predicting EE from CL

Predictor	β	t	p	R^2	Adj. R^2
Constructive Leadership	-0.231	-3.838	<.001	.402	.388

Note. CL = Constructive Leadership; EE= Emotional Exhaustion

Constructive leadership remained a significant predictor after accounting for demographic controls, supporting H1a.

4.3.2 Constructive Leadership and Depersonalization (H1b)

The regression model predicting depersonalization was also significant, $F(5, 207) = 23.10$, $p < .001$, explaining 35.8% of the variance ($R^2 = .358$, Adjusted $R^2 = .343$). This indicates that the model explained over one-third of the variability in depersonalization. Constructive leadership significantly predicted lower depersonalization ($\beta = -.168$, $t = -2.692$, $p = .008$). Although the effect size was smaller than that observed for emotional exhaustion, the negative beta value indicates a consistent inverse relationship. This suggests that higher perceptions of constructive leadership were associated with lower levels of detachment and cynicism.

Table 11: Regression Analysis Predicting DEP from CL

Predictor	β	t	p	R^2	Adj. R^2
Constructive Leadership	-0.168	-2.692	.008	.358	.343

Note. CL = Constructive Leadership; DEP = Depersonalization

The direction and significance of the coefficient provide support for H1b.

4.3.3 Constructive Leadership and Personal Accomplishment (H1c)

The regression model for personal accomplishment was statistically significant, $F(5, 207) = 13.58$, $p < .001$, explaining 24.7% of the variance ($R^2 = .247$, Adjusted $R^2 = .229$). While lower than the previous models, this still represents a meaningful proportion of explained variance. Constructive leadership was a significant positive predictor of personal accomplishment ($\beta = .238$, $t = 3.529$, $p < .001$). This indicates that higher levels of constructive leadership were associated with stronger feelings of competence and achievement. Notably, the standardized coefficient for personal accomplishment was slightly larger in magnitude than that for depersonalization.

Table 12: Regression Analysis Predicting PA from CL

Predictor	β	t	p	R^2	Adj. R^2
Constructive Leadership	0.238	3.529	< .001	.247	.229

Note. CL = Constructive Leadership; PA= Personal Accomplishment

This confirms the positive and statistically significant association, supporting H1c.

4.3.4 Summary of Hypothesis 1

Across all three models, constructive leadership significantly predicted burnout dimensions in the expected directions. Higher constructive leadership was associated with lower emotional exhaustion ($\beta = -.231$, $p < .001$), lower depersonalization ($\beta = -.168$, $p = .008$), and higher personal accomplishment ($\beta = .238$, $p < .001$). The proportion of explained variance was highest for emotional exhaustion (40.2%), followed by depersonalization (35.8%) and personal accomplishment (24.7%). This pattern indicates that constructive leadership showed the strongest association with emotional exhaustion among the three burnout components.

Table 13: Summary of H1 Regression Results

Sub-Hypothesis	Dependent Variable	β	p	Supported?
H1a	Emotional Exhaustion	-0.231	< .001	Supported
H1b	Depersonalization	-0.168	.008	Supported
H1c	Personal Accomplishment	0.238	< .001	Supported

Overall, the results provide consistent empirical support for Hypothesis 1. While Hypothesis 1 established significant direct relationships between constructive leadership and burnout, these analyses do not clarify the mechanism through which leadership influences employee outcomes. To further examine this relationship, Hypothesis 2 tests whether psychological safety functions as a mediating variable linking constructive leadership to burnout dimensions.

4.4 Hypothesis 2 - Mediation Analysis

Hypothesis 2 proposed that psychological safety mediates the relationship between constructive leadership and burnout dimensions. Three separate mediation models were tested using Jamovi's MedMod module (PROCESS Model 4 equivalent). Indirect effects were evaluated using 5,000 bootstrapped samples with bias-corrected 95% confidence intervals (CIs). Mediation was considered significant when the CI for the indirect effect did not include zero.

4.4.1 Psychological Safety Mediating the Relationship Between CLB and EE (H2a)

The first mediation model examined whether psychological safety explained the relationship between constructive leadership and emotional exhaustion.

Path Relationships

Constructive leadership was a strong and significant predictor of psychological safety: a path (CL → PS): $B = 0.346$, $SE = 0.0477$, $p < .001$. This indicates that for every one-unit increase in perceived constructive leadership, psychological safety increased by 0.346 units, suggesting that supportive and ethical leadership behaviors meaningfully enhance employees' sense of interpersonal safety. Psychological safety was, in turn, significantly negatively associated with emotional exhaustion: b path (PS → EE): $B = -1.273$, $SE = 0.1551$, $p < .001$

This means that a one-unit increase in psychological safety corresponded to a 1.273-unit decrease in emotional exhaustion. This is a substantial effect, demonstrating that employees who feel safe to express themselves and take interpersonal risks experience considerably lower emotional depletion.

Direct, Indirect, and Total Effects

The total effect of constructive leadership on emotional exhaustion was: c path (Total Effect): $B = -0.902$, $SE = 0.1238$, $p < .001$. After including psychological safety in the model, the direct effect remained significant: c' path (Direct Effect): $B = -0.461$, $SE = 0.1205$, $p < .001$. The indirect effect through psychological safety was: $a \times b$ (Indirect Effect): $B = -0.441$, $SE = 0.0810$, $p < .001$. Because both the indirect and direct effects were statistically significant, this indicates partial mediation. Importantly, the

indirect pathway accounted for approximately 48.9% of the total effect (0.441 / 0.902), meaning nearly half of the leadership effect on emotional exhaustion operates through psychological safety.

Table 14: Mediation Analysis of PS between CL and EE

Effect	β	SE	Z	p
Indirect (a x b)	-0.441	0.0810	-5.44	< .001
Direct (c')	-0.461	0.1205	-3.83	< .001
Total (c)	-0.902	0.1238	-7.29	< .001

Note. CL = Constructive Leadership; PS = Psychological Safety; EE = Emotional Exhaustion

These findings suggest that constructive leadership affects emotional exhaustion both directly and indirectly by cultivating psychologically safe environments. In line with SET (Blau, 1964), employees reciprocate supportive leadership behaviors with greater emotional stability and lower stress.

4.4.2 Psychological Safety Mediating the Relationship Between CLB and DEP (H2b)

The second mediation model assessed whether psychological safety mediated the relationship between constructive leadership and depersonalization. Constructive leadership significantly predicted psychological safety: a path: $B = 0.346$, $SE = 0.0477$, $p < .001$. Psychological safety significantly predicted depersonalization: b path (PS \rightarrow DEP): $B = -1.171$, $SE = 0.1498$, $p < .001$. This indicates that employees who perceive higher psychological safety report substantially lower levels of detachment and cynicism. The total effect of constructive leadership on depersonalization was: c path: $B = -0.718$, $SE = 0.1182$, $p < .001$. The direct effect after including the mediator remained significant: c' path: $B = -0.313$, $SE = 0.1164$, $p = .007$. The indirect effect was: $a \times b$: $B = -0.406$, $SE = 0.0762$, $p < .001$. Because the indirect effect was significant and the direct effect remained significant, this again reflects partial mediation. The indirect pathway accounted for approximately 56.5% of the total effect (0.406 / 0.718), suggesting that more than half of the relationship between leadership and depersonalization operates through psychological safety

Table 15: Mediation Analysis of PS between CL and DEP

Effect	β	SE	Z	p
Indirect (a x b)	-0.406	0.0762	-5.32	< .001
Direct (c')	-0.313	0.1164	-2.69	.007
Total (c)	-0.718	0.1182	-6.08	< .001

Note. CL = Constructive Leadership; PS = Psychological Safety; DEP = Depersonalization

These findings indicate that constructive leadership reduces emotional distancing largely by fostering trust and openness within teams. Employees who feel psychologically safe are less likely to withdraw or develop cynical attitudes toward their work.

4.4.3 Psychological Safety Mediating the Relationship Between CLB and PA (H2c)

The final mediation model examined whether psychological safety mediated the relationship between constructive leadership and personal accomplishment. Constructive leadership again significantly predicted psychological safety: a path: $B = 0.346$, $SE = 0.0477$, $p < .001$. Psychological safety significantly predicted personal accomplishment: b path (PS \rightarrow PA): $B = 0.765$, $SE = 0.1520$, $p < .001$. This positive coefficient indicates that employees who experience greater psychological safety feel more competent, effective, and professionally fulfilled. The total effect of constructive leadership on personal accomplishment was: c path: $B = 0.696$, $SE = 0.1119$, $p < .001$. The direct effect remained significant: c' path: $B = 0.431$, $SE = 0.1182$, $p < .001$. The indirect effect was: $a \times b$: $B = 0.265$, $SE = 0.0641$, $p < .001$. As both indirect and direct effects were significant, partial mediation was again observed. Approximately 38.1% of the total effect ($0.265 / 0.696$) was explained through psychological safety.

Table 16: Mediation Analysis of PS between CL and PA

Effect	β	SE	Z	p
Indirect (a x b)	0.265	0.0641	4.14	< .001
Direct (c')	0.431	0.1182	3.65	< .001
Total (c)	0.696	0.1119	6.22	< .001

Note. CL = Constructive Leadership; PS = Psychological Safety; PA = Personal Accomplishment

These findings demonstrate that constructive leadership enhances employees' sense of accomplishment both directly and indirectly by strengthening psychological safety.

4.4.4 Summary of Hypothesis 2

Across all three models, psychological safety significantly mediated the relationship between constructive leadership and burnout dimensions. In each case, the indirect effect was statistically significant, and the direct effect remained significant, indicating consistent partial mediation. Table 17 summarizes the mediation outcomes for all sub-hypotheses.

Table 17: Summary of Mediation Results

Sub-Hypothesis	DV	Indirect Effect (B)	Mediation Type	Supported?
H2a	Emotional Exhaustion	-0.441	Partial	Supported
H2b	Depersonalization	-0.406	Partial	Supported
H2c	Personal Accomplishment	0.265	Partial	Supported

The analysis demonstrates that psychological safety serves as a key explanatory mechanism through which constructive leadership influences employee well-being. Consistent with SET, leaders who foster fairness, openness, and respect cultivate environments of trust, which employees reciprocate through lower emotional strain, reduced cynicism, and enhanced professional fulfilment.

Although psychological safety was shown to function as a significant mediating mechanism, it remains unclear whether it also alters the strength of the relationship between constructive leadership and burnout. Hypothesis 3, therefore, examines whether psychological safety acts as a moderator, buffering, or amplifying the impact of constructive leadership on burnout outcomes.

4.5 Hypothesis 3 - Moderation Analysis

Hypothesis 3 proposed that psychological safety moderates the relationship between constructive leadership and burnout dimensions. Specifically, it was expected that the effect of constructive leadership on burnout would vary depending on levels of psychological safety.

Moderation analyses were conducted using Jamovi's MedMod module (PROCESS Model 1 equivalent). Variables were mean-centred prior to computing the interaction term (Constructive Leadership \times Psychological Safety) to reduce multicollinearity (Hayes, 2018). Statistical significance was evaluated at $\alpha = .05$.

4.5.1 Psychological Safety Moderating the Relationship Between CLB and EE (H3a)

The moderation model predicting emotional exhaustion was statistically significant, $F(3, 209) = 49.99, p < .001$, explaining 41.8% of the variance ($R^2 = .418, \text{Adjusted } R^2 = .409$). Constructive leadership significantly predicted emotional exhaustion ($\beta = -.149, p = .022$), and psychological safety was also a significant negative predictor ($\beta = -.457, p < .001$). Importantly, the interaction term was statistically significant:

$$\beta = .137,$$

$$B = 0.492,$$

$$t = 3.038,$$

$$p = .003.$$

Table 18: Moderation Analysis of PS between CL and EE

	Predictor	B	β	SE	t	p	R ²	Adj. R ²
1	Constructive Leadership	-0.301	-0.149	0.130	-2.314	.022		
2	Psychological Safety	-1.188	-0.457	0.156	-7.630	< .001		
3	Interaction (CL \times PS)	0.492	0.137	0.162	3.038	.003	.418	.409

Note. CL = Constructive Leadership; PS = Psychological Safety; EE= Emotional Exhaustion

The significant interaction indicates that the relationship between constructive leadership and emotional exhaustion varies across levels of psychological safety.

Simple Slopes Analysis

At low psychological safety (-1 SD), constructive leadership strongly predicted lower emotional exhaustion: $\beta = -.287, p < .001$. At mean psychological safety: $\beta = -.149, p = .022$. At high psychological safety (+1 SD): $\beta = -.012, p = .898$. This pattern indicates that constructive leadership has the strongest protective effect when psychological safety is low. As psychological safety increases, the effect of leadership on exhaustion weakens and becomes non-significant at high levels of safety. This suggests a buffering interaction, where high psychological safety reduces the dependence on constructive leadership to prevent emotional exhaustion.

4.5.2 Psychological Safety Moderating the Relationship Between CLB and DEP (H3b)

The moderation model for depersonalization was statistically significant, $F(3, 209) = 38.70, p < .001$, explaining 35.7% of the variance ($R^2 = .357$, Adjusted $R^2 = .348$). Constructive leadership did not significantly predict depersonalization when the interaction was included ($\beta = -.099, p = .146$), whereas psychological safety remained a strong negative predictor ($\beta = -.459, p < .001$). The interaction term was statistically significant:

$$\beta = .119,$$

$$B = 0.394,$$

$$t = 2.498,$$

$$p = .013.$$

Table 19: Moderation Analysis of PS between CL and DEP

	Predictor	B	β	SE	t	p	R ²	Adj. R ²
1	Constructive Leadership	-0.185	-0.099	0.127	-1.458	.146		
2	Psychological Safety	-1.103	-0.459	0.151	-7.287	< .001		
3	Interaction (CL × PS)	0.394	0.119	0.158	2.498	.013	.357	.348

Note. CL = Constructive Leadership; PS = Psychological Safety; DEP = Depersonalization

The significant interaction indicates that the association between constructive leadership and depersonalization depends on levels of psychological safety.

Simple Slopes Analysis

At low psychological safety (-1 SD): $\beta = -.217, p < .001$

At mean psychological safety: $\beta = -.099, p = .146$

At high psychological safety (+1 SD): $\beta = .020, p = .838$

These findings show that constructive leadership significantly reduces depersonalization when psychological safety is low, but this effect diminishes and becomes non-significant at moderate and high levels of psychological safety. The interaction suggests that psychological safety compensates for lower levels of constructive leadership in reducing detachment.

4.5.3 Psychological Safety Moderating the Relationship Between CLB and PA (H3c)

The moderation model for personal accomplishment was statistically significant, $F(3, 209) = 22.45$, $p < .001$, explaining 24.4% of the variance ($R^2 = .244$, Adjusted $R^2 = .233$). Constructive leadership ($\beta = .241$, $p = .001$) and psychological safety ($\beta = .334$, $p < .001$) both significantly predicted higher personal accomplishment. However, the interaction term was not statistically significant, $\beta = -.003$, $p = .960$.

Table 20: Moderation Analysis of PS between CL and PA

Predictor	B	β	SE	t	p	R ²	Adj. R ²
1 Constructive Leadership	0.428	0.241	0.130	3.284	.001		
2 Psychological Safety	0.764	0.334	0.156	4.895	< .001		
3 Interaction (CL × PS)	-0.008	-0.003	0.162	-0.050	.960	.244	.233

Note. CL = Constructive Leadership; PS = Psychological Safety; PA = Personal Accomplishment

The near-zero interaction coefficient indicates that the effect of constructive leadership on personal accomplishment remains stable across different levels of psychological safety. Thus, no moderating effect was observed for this burnout dimension.

4.5.4 Summary of Hypothesis 3 Results

Across the three moderation models:

- Emotional Exhaustion: $\beta = .137$, $p = .003$ → Moderation supported
- Depersonalization: $\beta = .119$, $p = .013$ → Moderation supported
- Personal Accomplishment: $\beta = -.003$, $p = .960$ → Not supported

Table 21: Summary of Moderation Results for Psychological Safety

Sub-Hypothesis	DV	Interaction β	p	Moderation Effect	Supported?
H3a	Emotional Exhaustion	0.137	.003	Significant	Supported
H3b	Depersonalization	0.119	.013	Significant	Supported
H3c	Personal Accomplishment	-0.003	.960	Non-significant	Not Supported

The results indicate that psychological safety moderates the relationship between constructive leadership and two burnout dimensions: emotional exhaustion and depersonalization. In both cases, constructive leadership had a stronger protective effect when psychological safety was low, whereas the effect weakened at higher levels of psychological safety. No moderation effect was observed for personal accomplishment. Therefore, Hypothesis 3 was partially supported.

4.6 Summary of Hypothesis Testing

This section summarizes the key results from the three hypotheses tested in this study. The analyses collectively examined how constructive leadership and psychological safety influence employee burnout among office-based workers in New Zealand. Results from the regression, mediation, and moderation models presented earlier in this chapter are synthesized below to provide a coherent overview of the statistical findings and their theoretical implications.

4.6.1 Hypothesis 1 (H1): Direct Relationships

The first hypothesis proposed that constructive leadership is negatively related to burnout dimensions (emotional exhaustion and depersonalization) and positively related to personal accomplishment. Results from the multiple regression analyses provided strong empirical support for this hypothesis. Constructive leadership significantly predicted:

- Lower emotional exhaustion ($\beta = -0.231, p < .001$)
- Lower depersonalization ($\beta = -0.168, p = .008$)
- Higher personal accomplishment ($\beta = 0.238, p < .001$)

These findings indicate that employees who perceive their leaders as constructive, demonstrating fairness, ethical guidance, clarity, and interpersonal support, experience fewer symptoms of burnout and greater professional fulfilment.

4.6.2 Hypothesis 2 (H2): Mediation

The second hypothesis examined whether psychological safety mediates the relationship between constructive leadership and burnout dimensions. Mediation analyses confirmed significant indirect effects across all three burnout outcomes.

For emotional exhaustion, the indirect effect was $B = -0.441$, $SE = 0.0810$, $p < .001$, indicating partial mediation. For depersonalization, the indirect effect was $B = -0.406$, $SE = 0.0762$, $p < .001$, also reflecting partial mediation. For personal accomplishment, the indirect effect was $B = 0.265$, $SE = 0.0641$, $p < .001$, again demonstrating partial mediation. In all three models, the direct effects (c' paths) remained statistically significant after including psychological safety, confirming partial rather than full mediation.

These results demonstrate that constructive leadership reduces burnout not only directly but also indirectly by strengthening psychological safety. Leaders who cultivate environments of openness and interpersonal trust enable employees to feel secure in expressing ideas and concerns, which in turn reduces emotional exhaustion and depersonalization while enhancing personal accomplishment.

Consistent with Social Exchange Theory, this pattern reflects a relational exchange process: when leaders invest in fairness and support, employees reciprocate with emotional stability, engagement, and professional efficacy.

4.6.3 Hypothesis 3 (H3): Moderation

The third hypothesis tested whether psychological safety moderates the relationship between constructive leadership and burnout. Contrary to the earlier draft, your verified Jamovi output shows significant moderation effects for two burnout dimensions.

The interaction results were as follows: Emotional exhaustion ($\beta = 0.137$, $p = .003$), Depersonalization ($\beta = 0.119$, $p = .013$), and Personal accomplishment ($\beta = -0.003$, $p = .960$). These findings indicate that psychological safety significantly moderates the relationship between constructive leadership and both emotional exhaustion and depersonalization, but not personal accomplishment.

Specifically, the positive interaction coefficients suggest that the strength of the negative relationship between constructive leadership and burnout varies depending on levels of psychological safety. In practical terms, leadership effects on emotional strain and detachment are influenced by the broader climate of interpersonal safety. However, for personal accomplishment, psychological safety functions independently rather than as a conditional enhancer. From a Social Exchange Theory perspective, these findings suggest that leadership operates both directly and contextually. While constructive leadership

has stable main effects, its influence on certain burnout dimensions is shaped by the surrounding relational climate.

4.6.4 Overall Summary of Hypothesis Testing

The results across Hypotheses 1, 2, and 3 provide a comprehensive understanding of how constructive leadership and psychological safety interact to influence burnout outcomes. The analyses demonstrate consistent direct effects of constructive leadership, significant mediating effects of psychological safety across all burnout dimensions, and conditional moderation effects for emotional exhaustion and depersonalization. Table 22 presents a consolidated overview of hypothesis outcomes.

Table 22: Summary of Hypothesis Testing Results

Hypothesis	Description	Statistical Test	Key Effect (β)	Supported?
H1a	CL → Emotional Exhaustion	Regression	-0.231***	Supported
H1b	CL → Depersonalization	Regression	-0.168**	Supported
H1c	CL → Personal Accomplishment	Regression	0.238***	Supported
H2a	PS mediates CL → EE	Mediation	-0.441***	Supported
H2b	PS mediates CL → DEP	Mediation	-0.406***	Supported
H2c	PS mediates CL → PA	Mediation	0.265***	Supported
H3a	PS moderates CL → EE	Moderation	0.137**	Supported
H3b	PS moderates CL → DEP	Moderation	0.119*	Supported
H3c	PS moderates CL → PA	Moderation	-0.003	Not Supported

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

Note. CL = Constructive Leadership; PS = Psychological Safety; EE = Emotional Exhaustion; DEP= Depersonalization

Variance Explained Across Burnout Dimensions

A comparison of explained variance across models reveals that leadership and psychological safety accounted for a larger proportion of variance in emotional exhaustion ($R^2 \approx .418$ in the moderation model) and depersonalization ($R^2 \approx .357$) than in personal accomplishment ($R^2 \approx .244$). This suggests that leadership behaviors and safety climate exert their strongest influence on employees' emotional energy and

detachment, which are more sensitive to daily interpersonal exchanges. In contrast, personal accomplishment appears influenced by a broader array of factors beyond leadership alone, including job design, career progression, and intrinsic motivation. These differences reinforce the multidimensional nature of burnout and justify analysing its components separately.

4.7 Concluding Summary

Overall, the findings provide strong evidence that constructive leadership plays a central role in reducing employee burnout. This influence operates through:

1. Direct effects on all three burnout dimensions,
2. Indirect effects through psychological safety (partial mediation),
3. Conditional effects for emotional exhaustion and depersonalization (moderation).

Together, these results confirm that leadership effectiveness is both relational and contextual. Constructive leadership fosters trust-based exchanges that directly enhance well-being, while psychological safety serves both as a mediating mechanism and, in high pressure environments, a contextual amplifier of leadership effects.

The following chapter (Chapter 5) interprets these findings in greater depth, linking them to existing theory and empirical research, and outlining their implications for leadership development and organizational well-being.

5. Discussion

Building on the statistical analyses presented in Chapter 4, this chapter moves beyond reporting results to discuss their conceptual meaning, practical significance, and contribution to existing research, as well as study strengths and limitations, and directions for future research.

Overall, the findings indicate that constructive leadership is significantly associated with lower levels of emotional exhaustion and depersonalization and with greater levels of personal accomplishment. Furthermore, psychological safety functioned as a meaningful explanatory mechanism through which leadership relates to burnout outcomes. In addition, psychological safety significantly moderated the relationships between constructive leadership and the strain-related dimensions of burnout (emotional exhaustion and depersonalization), but not personal accomplishment. This suggests that psychological safety operates both as a mediating pathway and as a contextual condition influencing when leadership is most impactful.

In this study, I first examined whether constructive leadership directly predicts burnout among office-based employees in New Zealand. The results indicate that constructive leadership significantly influenced all three dimensions of burnout. Specifically, higher levels of leadership were associated with lower levels of emotional exhaustion and depersonalization and with higher levels of personal accomplishment among office-based employees. These findings suggest that leadership behaviors characterized by networking, ethical conduct, clarifying, and recognition are meaningfully linked to employee well-being.

The model explained 40.2% of the variance in emotional exhaustion, indicating that constructive leadership, along with the control variables, accounts for a substantial proportion of employees' emotional strain. In interpreting this finding, it appears that constructive leadership behaviors can help reduce employees' perceptions of emotional strain by fostering more supportive, structured work environments. Leaders who communicate expectations clearly, recognize contributions, and demonstrate ethical conduct may reduce uncertainty and interpersonal stress, thereby helping employees maintain emotional energy at work (Arnold et al., 2015; Mharapara et al., 2019).

Constructive leadership also accounted for 35.8% of the variance in depersonalization, although the magnitude of this relationship was weaker compared to emotional exhaustion. This suggests that while leadership plays an important role in reducing emotional detachment, depersonalization may be influenced by additional organizational or contextual factors. Constructive leadership behaviors may help mitigate cynical attitudes and interpersonal withdrawal by promoting respect, trust, and positive leader–employee interactions (Lee & Ashforth, 1996; Montano et al., 2016).

The model explained 24.7% of the variance in personal accomplishment. Constructive leadership demonstrated a positive and statistically significant relationship. Interestingly, the beta coefficient for personal accomplishment was slightly stronger than that observed for emotional exhaustion, even though the overall explained variance was lower. This pattern suggests that leadership behavior that emphasizes recognition, clarity, and ethical guidance may strengthen employees' sense of capability and professional value. When employees feel supported and acknowledged by their leaders, they may be more likely to experience confidence in their abilities and perceive their work as meaningful and effective (Arnold et al., 2007; Bakker & de Vries, 2021).

A comparison across the three burnout dimensions reveals an important distinction. The effects on emotional exhaustion and personal accomplishment were similar in magnitude and stronger than the effect on depersonalization. This pattern suggests that constructive leadership primarily influences employees' emotional energy and sense of professional efficacy, whereas its effect on cynical detachment is somewhat less pronounced. It appears that exhaustion and accomplishment are more immediately responsive to leader behaviors, whereas depersonalization may reflect more complex or longer-term processes (Maslach & Leiter, 2016). Overall, these findings suggest that constructive leadership functions both as a protective factor against strain (reducing exhaustion and depersonalization) and as a promotive factor enhancing positive self-evaluation (increasing personal accomplishment) (Arnold et al., 2015; Montano et al., 2016). Rather than affecting only one aspect of burnout, leadership behaviors demonstrated consistent associations across all three dimensions. This provides a strong empirical foundation for examining the relational mechanisms explored in the subsequent sections.

The second objective of this study was to examine whether psychological safety explains how constructive leadership influences employee burnout. The mediation analyses provide strong evidence that psychological safety functions as a significant explanatory mechanism across all three burnout dimensions. In each model, the indirect effect of constructive leadership on burnout through psychological safety was statistically significant, and the direct effect remained significant after the mediator was included. This pattern indicates consistent partial mediation.

5.1 Mediation of Emotional Exhaustion

For emotional exhaustion, psychological safety accounted for a substantial portion of the relationship between constructive leadership and emotional strain. The indirect effect shows nearly half of the total effect (approximately 49%). This suggests that a large part of leadership's influence on emotional exhaustion operates through the creation of a psychologically safe work environment.

In practical terms, constructive leadership appears to reduce emotional exhaustion not only through direct leader behaviors but also by fostering a climate in which employees feel safe to speak up, admit mistakes, and express concerns without fear of negative consequences (Clarke et al., 2024; Edmondson & Lei, 2014). When employees experience this interpersonal safety, they are less likely to internalize stress or feel emotionally depleted (Bakker & Demerouti, 2017; Frazier et al., 2017). Importantly, the direct effect after accounting for psychological safety indicates that the leadership influences emotional exhaustion both relationally (through safety) and independently, consistent with research suggesting that supportive leadership behaviors directly reduce strain while also shaping the interpersonal climate in which employees work (Bakker & Demerouti, 2017; Montano et al., 2016). Psychological safety, therefore, explains a major pathway, but not the entire mechanism.

5.2 Mediation of Depersonalization

A similar pattern emerged for depersonalization. The indirect effect accounted for approximately 57% of the total relationship. This suggests that the reduction in detachment and cynicism associated with constructive leadership is largely explained by employees' perceptions of psychological safety.

Depersonalization reflects emotional distancing and interpersonal withdrawal. The findings indicate that when leaders behave constructively, they cultivate environments characterized by openness and trust. This relational climate reduces the likelihood that employees will withdraw psychologically from their work or develop cynical attitudes. In other words, employees who feel safe within their teams appear less inclined to disengage, even when experiencing work demands. Again, the direct effect remained significant, confirming partial rather than full mediation. Constructive leadership, therefore, reduces depersonalization both directly and indirectly through safety perceptions (Bakker & Demerouti, 2017; Montano et al., 2016)

5.3 Mediation of Personal Accomplishment

Psychological safety also mediated the relationship between constructive leadership and personal accomplishment. The indirect effect accounted for approximately 38% of the total effect. Although this proportion is smaller compared to the strain-related dimensions, it remains substantial. This finding suggests that constructive leadership enhances employees' sense of competence by strengthening psychological safety. When employees feel safe to share ideas, seek feedback, and take interpersonal risks, they may experience greater learning, collaboration, and confidence in their abilities (Frazier et al., 2017). These conditions likely contribute to stronger perceptions of professional efficacy. However, the majority of the effect on personal accomplishment remained direct. This indicates that leadership behavior directly fosters employees' sense of achievement, beyond its influence on safety climate. Across all three burnout

dimensions, psychological safety emerged as a consistent mediating mechanism. The strongest mediating effects were observed for depersonalization and emotional exhaustion, suggesting that safety perceptions are critical for reducing burnout-related strain.

The third objective of this study was to examine whether psychological safety moderates the relationship between constructive leadership and burnout. In other words, this study investigated whether the strength of the relationship between leadership and burnout depends on employees' levels of psychological safety. The findings revealed a differentiated pattern. Psychological safety significantly moderated the relationships between constructive leadership and emotional exhaustion and depersonalization. However, no significant effect was found for personal accomplishment. Importantly, these results suggest that psychological safety does not uniformly strengthen leadership effects across all burnout dimensions. Instead, its moderating influence appears specific to strain-related outcomes.

5.4 Moderation of Emotional Exhaustion

For emotional exhaustion, the interaction term was significant, indicating that the relationship between constructive leadership and emotional exhaustion varies by employees' psychological safety. Simple effects analysis showed that constructive leadership had the strongest negative association with emotional exhaustion when psychological safety was low. The relationship was weaker at average levels and became non-significant at high levels of psychological safety.

This pattern suggests that constructive leadership plays a particularly critical protective role when psychological safety is lacking. When employees do not naturally feel safe in their environment, leadership behaviors appear to compensate by reducing emotional exhaustion. However, when psychological safety is already high, the incremental benefit of constructive leadership in reducing exhaustion diminishes. In practical terms, this indicates that leadership behaviors are most impactful in more vulnerable relational climates. In psychologically secure environments, emotional strain may already be buffered, making additional leadership influence less pronounced (Edmondson & Lei, 2014; Newman et al., 2017).

5.5 Moderation of Depersonalization

A similar interaction pattern emerged for depersonalization. The effect was statistically significant, and the simple effects showed that constructive leadership significantly reduced depersonalization when psychological safety was low. At average and high levels of safety, the relationship was not statistically significant.

This suggests that leadership behaviors are especially important in contexts where employees feel less secure in their interpersonal relationships (Edmondson & Lei, 2014). When psychological safety is low, constructive leadership appears to mitigate tendencies toward cynicism and detachment. However, when safety is already established, employees may be less prone to depersonalization regardless of leadership behaviors. Taken together, the moderation findings for emotional exhaustion and depersonalization indicate a compensatory effect, whereby supportive leadership behaviors become particularly influential in environments where relational resources such as psychological safety are limited (Bakker & Demerouti, 2017). Constructive leadership is most influential in reducing burnout when psychological safety is insufficient.

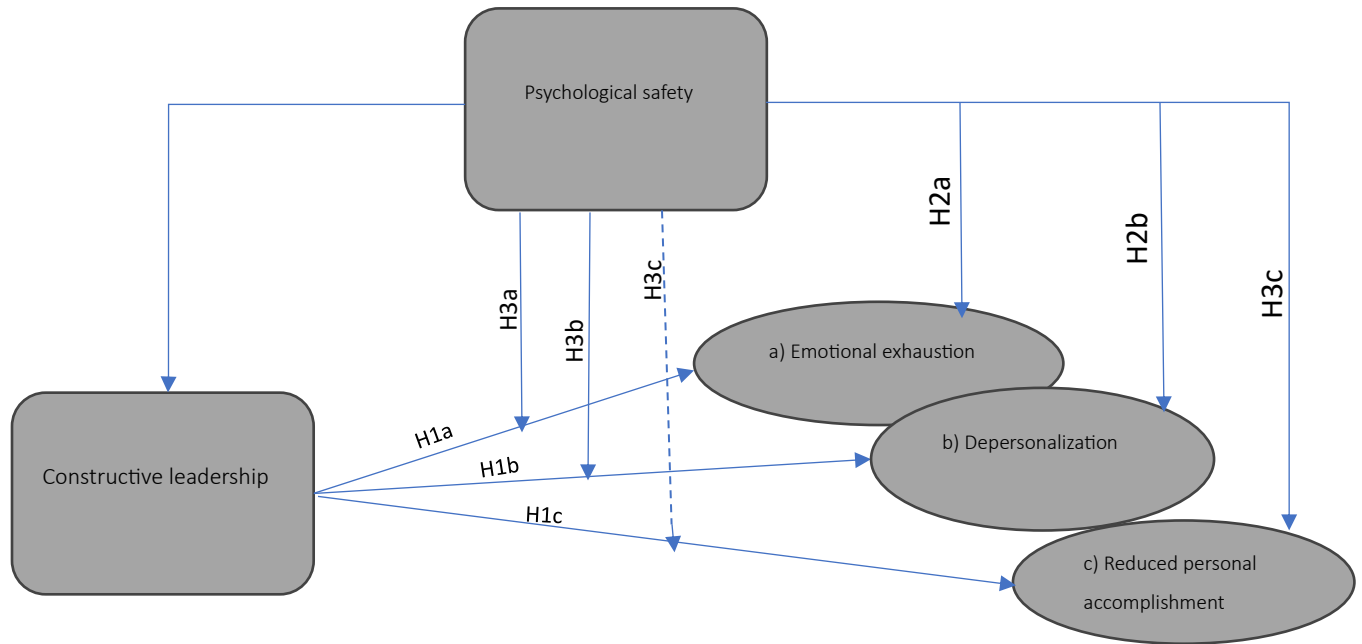
5.6 Moderation of Personal Accomplishment

In contrast, psychological safety did not moderate the relationship between constructive leadership and personal accomplishment. The interaction term was non-significant, and the simple slopes remained significant across low, mean, and high levels of psychological safety.

This finding suggests that constructive leadership consistently enhances employees' sense of personal accomplishment regardless of safety levels (Montano et al., 2016). Unlike emotional strain, which appears context-dependent, perceptions of professional efficacy may be more directly shaped by leaders' behaviors. This leadership style directly fosters employees' sense of competence, independent of whether they feel interpersonally safe. Personal accomplishment, therefore, appears to be influenced by leadership stably and uniformly rather than conditionally.

Importantly, the absence of moderation should not be interpreted as a weakness. Instead, it suggests that the positive influence of constructive leadership on personal accomplishment is robust across different psychological safety conditions (Arnold et al., 2007; Montano et al., 2016). The pattern indicates that leadership becomes especially critical in environments with low psychological safety, where alternative relational resources are limited (Bakker & Demerouti, 2017; Newman et al., 2017). In such contexts, constructive behaviors may compensate for relational deficits and protect employees from emotional exhaustion and depersonalization. However, when psychological safety is already high, leadership effects on strain are less pronounced, possibly because employees already possess a relational buffer against stress.

Figure 5: Revised Framework for the Role of PS between CLB and EE, DEP, PA



- H1a CL → Emotional Exhaustion
- H1b CL → Depersonalization
- H1c CL → Personal Accomplishment
- H2a PS mediates CL → EE
- H2b PS mediates CL → DEP
- H2c PS mediates CL → PA
- H3a PS moderates CL → EE
- H3b PS moderates CL → DEP
- H3c PS moderates CL → PA

5.7 Theoretical Implications

In this study, I sought to clarify how and under what conditions constructive leadership influences burnout. By examining direct effects, mediation, and moderation simultaneously, the findings contribute to leadership and well-being research in several important ways. The relatively similar magnitude of the effects on emotional exhaustion and personal accomplishment suggests that leadership influences both the depletion and growth dimensions of burnout. This supports the idea that leadership behaviors function not only as stress-reduction mechanisms but also as enhancers of professional efficacy.

From a theoretical standpoint, these findings provide empirical support for SET. Within organizational settings, leadership behaviors such as recognition, ethical conduct, and supportive guidance may be interpreted by employees as beneficial social exchanges. In response, employees may reciprocate by investing more in their work, engaging more, and coping more effectively with job demands. The observed relationships between constructive leadership and lower burnout, therefore, provide empirical evidence consistent with SET's proposition that supportive exchanges between leaders and employees contribute to positive employee outcomes.

However, the findings extend SET by demonstrating that the exchange process is not purely direct but operates through relational perceptions, particularly psychological safety. The present findings indicate that leadership behaviors influence burnout, in part, through employees' perceptions of interpersonal safety in the work environment. In other words, constructive leadership appears to shape employees' experiences of psychological safety, which, in turn, influences their emotional well-being. This suggests that the exchange process may be more complex than a direct reciprocal response and instead involves intermediate relational mechanisms.

The mediation analyses provide the strongest theoretical contribution. Psychological safety significantly mediated the relationship between constructive leadership and all three burnout dimensions. The indirect effect was substantial for emotional exhaustion and depersonalization, accounting for nearly half or more of the total effect in these models. This suggests that leadership reduces emotional strain primarily by shaping the interpersonal climate in which employees operate. In other words, constructive leadership appears to influence burnout not only through what leaders do, but through the relational environment they create. Traditional interpretations of SET generally conceptualize the exchange process as a relatively direct reciprocal relationship, in which positive treatment from leaders leads employees to respond with favourable attitudes or behaviors (Cropanzano et al., 2017). Within leadership research, this process is often examined through constructs such as trust, obligation, or leader-member exchange quality (Cropanzano et al., 2017; Decuyper & Schaufeli, 2019; Hoch et al., 2018).

However, the role of psychological safety as an intermediate mechanism within these exchange processes has received comparatively less attention in the SET literature (Cropanzano et al., 2017; Newman et al., 2017). By demonstrating that psychological safety mediates the relationship between constructive leadership and burnout, the present findings suggest that social exchange processes may operate through employees' perceptions of interpersonal risk and openness within the work environment. In this sense, the results do not contradict SET but rather extend it by highlighting psychological safety as an additional relational pathway through which leadership behaviors influence employee well-being.

For personal accomplishment, psychological safety also functioned as a mediator, though the proportion mediated was smaller compared to the strain-related dimensions. This pattern suggests that safety perceptions are particularly critical for reducing the negative aspects of burnout, whereas perceptions of competence may depend more directly on leader behaviors. The consistent pattern of partial mediation across all three outcomes contributes theoretically by clarifying that psychological safety is a central mechanism linking leadership to employee well-being. Rather than viewing leadership effects as purely behavioral or structural, this study supports a relational perspective in which perceptions of interpersonal risk and trust are central explanatory variables.

The moderation findings further refine this theoretical understanding. Psychological safety significantly moderated the relationship between constructive leadership and both emotional exhaustion and depersonalization, but not personal accomplishment. Importantly, the interaction pattern indicated that constructive leadership was most strongly associated with reduced burnout when psychological safety was low. At high levels of safety, the relationship weakened or became non-significant for the strain-related dimensions.

This finding suggests a compensatory dynamic. When employees do not naturally experience a psychologically safe environment, constructive leadership becomes especially critical in mitigating emotional exhaustion and depersonalization. However, when psychological safety is already high, leadership's incremental protective effect diminishes. Prior research suggests that psychologically safe environments function as important job resources that buffer employees against workplace stressors and reduce burnout risk (Bakker & Demerouti, 2017; Newman et al., 2017). Theoretically, this suggests that psychological safety can serve as a contextual buffer, reducing reliance on leadership as the primary protective mechanism, as employees may already possess interpersonal and organizational resources to cope with work demands (Edmondson & Lei, 2014; Salvagioni et al., 2017).

The absence of moderation for personal accomplishment is equally informative. Unlike strain outcomes, the positive effect of constructive leadership on professional efficacy remained stable across safety levels. This suggests that perceptions of competence and achievement are directly shaped by leader behavior and are less dependent on contextual relational conditions. Theoretically, this differentiates between depletion-based and growth-based burnout components, indicating that they may operate through distinct psychological processes.

Taken together, the findings position psychological safety as both a mechanism (mediator) and a boundary condition (moderator) within the leadership–burnout relationship. This dual role advances theoretical understanding by integrating relational climate perspectives with exchange-based leadership models (Frazier et al., 2017; Newman et al., 2017). Rather than conceptualizing leadership effects as linear and uniform, this study demonstrates that they are relationally embedded and context-sensitive, supporting broader perspectives in leadership and organizational behavior research that emphasize the importance of interpersonal climate in shaping employee well-being (Bakker & Demerouti, 2017; Edmondson & Lei, 2014; Montano et al., 2016).

Overall, this research contributes to leadership theory by demonstrating that constructive leadership operates through interpersonal trust mechanisms and is conditionally more influential in less secure environments. By distinguishing between emotional strain and professional efficacy outcomes, the study also highlights that burnout is not a singular construct but a multidimensional phenomenon shaped by different relational processes.

5.8 Practical Implications

The findings of this study offer several practical implications for organizations seeking to reduce burnout and enhance employee well-being. By demonstrating that constructive leadership significantly predicts lower emotional exhaustion and depersonalization and higher personal accomplishment, this research highlights leadership behavior as a meaningful organizational lever.

First, the results suggest that leadership development initiatives should prioritize constructive leadership behaviors, particularly those that promote fairness, ethical conduct, clarity, and interpersonal respect. The direct effects observed in this study indicate that these behaviors are associated with meaningful reductions in emotional strain and increases in professional efficacy. Previous research has similarly demonstrated that supportive and ethical leadership behaviors are strongly associated with improved employee well-being and reduced burnout (Arnold et al., 2015; Breevaart & Bakker, 2018; Hildenbrand et al., 2018; Montano et al., 2016). This implies that leadership training programs should move beyond technical management skills and focus more explicitly on relational competence and ethical

consistency (Hoch et al., 2018; Montano et al., 2016). Second, the mediation findings demonstrate that psychological safety is a key mechanism through which leadership influences burnout. A substantial proportion of the relationship between constructive leadership and emotional exhaustion and depersonalization operated through psychological safety. Prior research has shown that psychologically safe environments enable employees to communicate openly, admit mistakes, and seek support without fear of negative consequences, thereby reducing stress and improving well-being (Edmondson, 1999; Edmondson & Lei, 2014; Newman et al., 2017). Practically, this means that organizations should not only train leaders to behave constructively but also equip them with skills to actively cultivate psychologically safe environments (Frazier et al., 2017).

Leaders can foster psychological safety by encouraging open communication, responding constructively to mistakes, inviting team members' input, and demonstrating respect during disagreements. These behaviors may help reduce employees' fear of negative consequences, thereby lowering emotional strain. In practice, organizations might integrate psychological safety indicators into leadership performance evaluations or employee engagement surveys to monitor relational climate alongside productivity metrics (Edmondson, 1999; Edmondson & Lei, 2014). The moderation findings from this study further refine these implications. Constructive leadership was most strongly associated with reduced emotional exhaustion and depersonalization when psychological safety was low. This suggests that leadership behaviors may be particularly critical in less secure relational environments, where employees may otherwise lack the interpersonal resources needed to manage work-related stress (Bakker & Demerouti, 2017; Newman et al., 2017). For organizations experiencing high levels of employee strain or disengagement, investing in leadership capability may therefore yield especially strong returns.

Conversely, in teams where psychological safety is already high, the additional protective effect of leadership on strain appears weaker. This does not diminish the importance of leadership but suggests that organizations should adopt a context-sensitive approach. Previous research has highlighted that psychologically safe environments are characterised by shared norms of trust, openness, and mutual respect (Edmondson & Lei, 2014; Newman et al., 2017). In high-safety environments, efforts may focus on sustaining these norms and reinforcing positive team dynamics. In contrast, in lower-safety environments, leadership interventions may serve as a corrective mechanism to rebuild trust and encourage open communication.

Interestingly, the absence of moderation for personal accomplishment indicates that constructive leadership consistently enhances employees' sense of professional efficacy, regardless of safety levels. This finding aligns with previous research demonstrating that leadership behaviors such as recognition, clear guidance, and constructive feedback strengthen employees' confidence in their abilities and perceptions of

effectiveness at work (Arnold et al., 2007; Montano et al., 2016). From a practical perspective, this reinforces the importance of leader recognition practices, constructive feedback, and transparent expectations in performance management systems.

At a broader organizational level, these findings support previous research suggesting that burnout prevention strategies should extend beyond individual-level stress management and address the broader organizational context in which employees work. Studies have shown that leadership behaviors, job resources, and workplace climate are central determinants of employee well-being and burnout prevention (Bakker & Demerouti, 2017; Montano et al., 2016; Salvagioni et al., 2017). Organizations aiming to address burnout may therefore benefit from a dual approach: strengthening leadership capability while simultaneously building psychologically safe team environments.

Finally, the results underscore that employee well-being is not only an individual responsibility but also a leadership and organizational responsibility. Previous studies have demonstrated that leadership behaviors can influence both the strain-related aspects of burnout and employees' perceptions of professional effectiveness (Arnold et al., 2015; Montano et al., 2016). The findings of the present study reinforce these arguments by showing that constructive leadership is associated with reduced burnout symptoms and enhanced personal accomplishment. This suggests that organizations can actively shape employee well-being through leadership development rather than treating burnout as an unavoidable consequence of demanding work environments.

Overall, the practical message emerging from this study aligns with and extends existing research emphasizing the importance of supportive leadership and psychologically safe work environments. Previous studies have shown that leadership behaviors and psychological safety serve as key organizational resources that influence employee well-being, engagement, and performance (Bakker & Demerouti, 2017; Edmondson & Lei, 2014; Newman et al., 2017). By intentionally cultivating these relational conditions, organizations may reduce emotional exhaustion and depersonalization while enhancing employees' sense of competence and achievement.

5.9 Limitations

While this study provides meaningful insights into the relationship between constructive leadership, psychological safety, and burnout, several limitations should be acknowledged. First, the cross-sectional design limits the ability to draw definitive causal conclusions (Antonakis et al., 2010; Aguinis & Vandenberg, 2014). Although the analyses demonstrated significant direct, mediating, and moderating relationships, the data were collected at a single point in time. As a result, it cannot be conclusively determined whether constructive leadership reduces burnout over time or whether employees experiencing

lower burnout are more likely to perceive leadership positively. To partially address this limitation, this study applied theoretically grounded hypotheses, validated measurement scales, and rigorous statistical techniques (e.g., mediation and moderation analyses), which strengthen confidence in the observed relationships despite the non-causal design. Nevertheless, longitudinal or experimental designs would allow for stronger causal inference and clearer temporal sequencing of variables.

Second, the study relied exclusively on self-report data. Although validated instruments were used and reliability levels were strong across scales, self-report measures may introduce common method variance (Podsakoff et al., 2024). Employees' perceptions of leadership, psychological safety, and burnout were assessed using a single survey instrument, which may inflate associations among variables. While procedural remedies such as attention checks and response screening were implemented, future research could strengthen methodological rigor by incorporating multi-source data, such as supervisor ratings or objective performance indicators (Aguinis & Vandenberg, 2014; Bernerth et al., 2021; Podsakoff et al., 2024).

Third, the sample consisted of office-based employees in New Zealand, which may limit the generalizability of the findings to other occupational or cultural contexts (Newman et al., 2017; Saunders et al., 2023). Leadership behaviors and psychological safety may function differently in frontline, industrial, or high-risk environments. Additionally, cultural norms may influence how employees interpret leader behavior and interpersonal risk (Edmondson & Lei, 2014). Replication across diverse industries and countries would enhance external validity.

Despite these limitations, the study offers a coherent, theoretically grounded explanation of how constructive leadership relates to employee burnout via psychological safety. The limitations identified here provide opportunities for refinement and extension rather than undermining the validity of the current findings.

5.10 Future Research Directions

Building on the findings and limitations of this study, several avenues for future research have emerged. First, future studies should adopt longitudinal or experimental designs to clarify the direction of causality (Antonakis et al., 2010; Aguinis & Vandenberg, 2014). While this research identified significant direct, mediating, and moderating relationships, longitudinal research would allow scholars to examine how constructive leadership influences burnout over time. For example, repeated-measure designs could investigate whether improvements in leadership behavior led to gradual increases in psychological safety and corresponding reductions in emotional exhaustion. Experimental or intervention-based studies could

further test whether leadership development programs produce measurable improvements in employee well-being (Bakker & de Vries, 2021).

Second, future research could incorporate multi-source or multi-level data. Collecting leadership ratings from both employees and supervisors, or combining survey responses with objective organizational indicators (e.g., absenteeism or turnover), would reduce reliance on single-source data (Podsakoff et al., 2024). Additionally, multilevel modeling could examine whether psychological safety operates not only at the individual level but also at the team or organizational level. Since psychological safety is often conceptualized as a shared team perception, examining cross-level effects would extend understanding of how leadership influences collective well-being (Edmondson, 1999; Frazier et al., 2017).

Third, future studies could explore additional mediating and moderating variables to refine the theoretical model. While this study identified psychological safety as both a mediator and moderator, other relational constructs, such as trust in leadership, perceived organizational support, or leader–member exchange quality, may also play explanatory roles (Montano et al., 2016; Newman et al., 2017). Examining parallel or sequential mediation models could clarify whether psychological safety operates independently or as part of a broader relational process.

Fourth, the differentiated findings across burnout dimensions suggest that emotional exhaustion, depersonalization, and personal accomplishment may be shaped by distinct psychological processes. Future research could investigate whether job demands, workload intensity, or role ambiguity interact differently with each burnout dimension. For example, strain-related components (exhaustion and depersonalization) may be more sensitive to contextual stressors, whereas personal accomplishment may depend more strongly on motivational and recognition-based mechanisms (Bakker & Demerouti, 2017; Maslach & Leiter, 2016).

Finally, future research may explore the long-term organizational implications of constructive leadership and psychological safety beyond burnout. For example, examining outcomes such as employee engagement, innovation, performance, or retention could provide a more comprehensive understanding of the strategic value of relational leadership practices (Bakker & Demerouti, 2017; Montano et al., 2016; Newman et al., 2017). Overall, this study opens multiple pathways for extending leadership and well-being research. By integrating direct, mediating, and moderating perspectives, future research can continue refining how constructive leadership operates within complex organizational environments and how relational climates shape employee outcomes.

5.11 Conclusion

This study examined how constructive leadership influences employee burnout and the role of psychological safety in this relationship. Specifically, I investigated whether constructive leadership directly predicts burnout and whether psychological safety serves as both a mediating and a moderating mechanism in this relationship. The findings demonstrate that constructive leadership is significantly associated with lower emotional exhaustion and depersonalization and with higher personal accomplishment. These results indicate that leadership behaviors are meaningfully linked to employee well-being (Montano et al., 2016). Importantly, constructive leadership was not only associated with reduced strain but also with enhanced professional efficacy, highlighting its dual protective and promotive function.

Beyond direct effects, this study demonstrated that psychological safety plays a central explanatory role. It partially mediated the relationship between constructive leadership and all three burnout dimensions, indicating that leadership influences employee well-being largely through shaping perceptions of interpersonal trust and safety (Edmondson & Lei, 2014; Newman et al., 2017). This reinforces the idea that leadership effectiveness is deeply embedded in relational processes rather than solely behavioral actions. The moderation findings further refined this understanding. Constructive leadership was most strongly associated with reduced emotional exhaustion and depersonalization when psychological safety was low, suggesting a compensatory dynamic. In less secure environments, leadership behaviors appear particularly critical in mitigating burnout. In contrast, the relationship between constructive leadership and personal accomplishment remained stable across safety levels, indicating that competence-related outcomes may be more directly influenced by leadership behaviors themselves.

Taken together, the findings contribute to leadership and well-being research by demonstrating that psychological safety operates both as a mechanism that explains how leadership influences burnout and as a contextual condition that shapes when leadership is most impactful. This dual role provides a more nuanced understanding of the leadership–burnout relationship and underscores the importance of relational climate in organizational settings (Bakker & Demerouti, 2017). From a practical perspective, the results suggest that organizations seeking to address burnout should prioritize leadership development and the cultivation of psychologically safe environments. Burnout is not solely an individual-level phenomenon but is meaningfully shaped by relational and organizational conditions.

In conclusion, this study highlights that constructive leadership and psychological safety are critical organizational resources. By fostering ethical, supportive, and relationally grounded leadership practices, organizations may reduce employee strain while enhancing professional fulfilment. These findings reinforce the central role of relational leadership in promoting sustainable employee well-being in contemporary workplaces.

Appendix

Appendix A: Ethics approval

Re Ethics Application: **25/200 Exploring the role of psychological safety on the relationship between Constructive leader behavior and Burnout in office-based workers.**

Thank you for your responses to AUTEK's conditions.

Your ethics application has been approved for three years until 28 July 2028.

Standard Conditions of Approval

The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEK.

All public facing documents must have the AUTEK approval number and be of a high standard of spelling and grammar. Dates on the Information Sheet(s) and Consent Form(s) must be consistent.

Any amendments to the project must be approved by AUTEK prior to being implemented.

A progress report is due annually on the anniversary of the approval date.

A final report is due at the expiration of the approval period, or, upon completion of project.

Any serious or adverse events must be reported to AUTEK, this includes unforeseen issues that might affect continued ethical acceptability of the project.

AUTEK grants ethical approval only. You are responsible for obtaining management permission for access from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

The application number and title need to be referenced on all correspondence related to this project.

All forms are available online <http://www.aut.ac.nz/research/researchethics>

For any enquiries, please contact the Secretariat at ethics@aut.ac.nz

(This is a computer-generated letter for which no signature is required)

The AUTEK Secretariat

Auckland University of Technology Ethics Committee

Appendix B: Participant information sheet and consent mechanism

B1: Embedded Participant Information

Exploring the Role of Psychological Safety on the Relationship Between Constructive Leader Behavior and Burnout in Office-Based Workers

Kia ora and welcome

You are invited to participate in a research study conducted by Abhilash Dinesh, a postgraduate student at the Auckland University of Technology, New Zealand, under the supervision of Dr. Tago Mharapara, Senior Lecturer in the Department of Management (AUT). The study is being carried out as a requirement for a Master of Business degree.

Purpose of this research

Burnout is an increasing concern in today's fast-paced corporate landscape. But what role does leadership play, and can a psychologically safe work environment help alleviate it? Constructive leadership, characterized by positive, proactive behavior that promotes trust, collaboration, and employee well-being, has been shown to significantly shape employees' workplace experiences. Psychological safety, defined as a shared belief that individuals can take interpersonal risks without fear of negative consequences, may help explain how leadership affects burnout. Evidence suggests that when employees perceive high levels of psychological safety, they report lower stress and greater job satisfaction.

This study aims to investigate these relationships, offering insights that may assist organizations in creating healthier, more supportive work environments. You are being invited to take part in this research because you are currently employed in an office-based role in New Zealand. If you have received this information sheet, it is likely because you encountered a recruitment advertisement online or were informed about the study through a professional or social connection.

Eligibility to Participate

You are invited to take part if you:

Are 18 years or older

Are currently working in an office-based role

Live and work in New Zealand

If you are employed outside of New Zealand or do not work in an office-based setting, you will not be eligible for this study.

What Participation Involves

You will complete a one-time online survey hosted on Qualtrics.

The survey will take approximately 7–10 minutes.

You will be asked questions about:

Leadership behavior in your workplace

Psychological safety at work

Feelings of work-related burnout

Basic demographic information

You can complete the survey at any time and place that suits you.

Voluntary Participation and Consent

Participation is entirely voluntary.

You may exit the survey at any time before submitting, and no data will be recorded.

Because this survey is anonymous, once submitted, your responses cannot be withdrawn.

By submitting the completed questionnaire, you are giving your informed consent to participate in this research.

Benefits

By participating in this study, individuals may gain a deeper understanding of how leadership behaviors influence well-being and job satisfaction. The insights gathered could inform the development of workplace policies and leadership strategies that support healthier, more positive work environments. For me, as the researcher, this study provides an opportunity to deepen my understanding of workplace psychology and leadership dynamics while applying and refining the research skills I have developed throughout my postgraduate studies. More broadly, this research may offer valuable insights to organizations and policymakers in New Zealand, highlighting the impact of leadership styles and workplace culture on employee outcomes. Ultimately, by addressing key challenges in the modern workplace, this research aims to contribute to healthier and more sustainable work environments across various industries.

Costs

The only cost is your time, as completing this online survey will take approximately 7 to 10 minutes. There are no additional costs.

Results of this study will be

Published in a Master's thesis (publicly available via the AUT Library)

Possibly published in peer-reviewed academic journals

At the end of the survey, you will be given the option to enter your email address in a separate, optional field if you wish to receive a summary of the research findings. This email address will be collected independently from the survey responses to maintain anonymity. Once the research is completed and the findings are finalized, a plain-language summary will be emailed directly to those who opted in.

Discomforts and risks

There are no significant risks associated with participating in this study. However, some questions relate to workplace burnout, which may be a sensitive topic for some participants. If you feel uncomfortable at any point, you are free to skip any question or stop the survey entirely. Since the survey is anonymous, no personally identifiable information will be collected, ensuring your privacy and confidentiality.

If participating in this study raises any concerns about your well-being, you are encouraged to seek support from a trusted colleague, manager, employee assistance program (EAP), or AUT-provided resources.

AUT Student Counseling and Mental Health is able to offer three free sessions of confidential counseling support for adult participants in an AUT research project. These sessions are only available for issues that have arisen directly as a result of participation in the research and are not for other general counseling needs. To access these services, you will need to:

- drop into our centre at WB203 City Campus, email counseling@aut.ac.nz or call (09) 921 9292.
- Let the receptionist know that you are a research participant and provide the title of my research, my name, and my contact details, as given in this information sheet.

You can find out more information about AUT counselors and counseling on

<https://www.aut.ac.nz/student-life/student-support/counseling-and-mental-health>

There may be more appropriate support/counseling options for your participants, given the community that they come from. The support should be at no cost to the participant. Please provide details for the participant. What are the costs of participation, and will they be reimbursed?

Opportunity to consider this invitation

You will have two months to consider this invitation and decide whether you would like to participate. Participation is entirely voluntary, and you may take your time to review the information before making a decision. If you choose to take part, you can complete the survey at any point within this period.

The information you provide will be stored securely on AUT's OneDrive, accessible only to the researcher and their supervisor. The data will be kept for six years and then permanently deleted. No identifying information will be collected, and your responses will remain completely anonymous.

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Tago L. Mharapara, tago.mharapara@aut.ac.nz. Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Who do I contact for further information about this research?

Please keep this Information Sheet for your future reference. You are also able to contact the researcher and the project supervisor as follows:

Researcher Contact Details:

Abhilash Plasserin Dinesh, vnd8406@autuni.ac.nz

Project Supervisor Contact Details:

Dr Tago L. Mharapara, tago.mharapara@aut.ac.nz

B2: Consent Mechanism

I have read the above information, and I understand that submission of the survey will be taken as consent to participate in the research. To proceed, click next.

Appendix C: Survey Instrument

C1: Screening and Work-related questions

1. Are you an office-based employee in New Zealand?
 - Yes
 - No
2. What is your average working hours per week?
 - Less than 20
 - 20 to 30
 - 30 to 40
 - More than 40

3. Approximately how much income do you earn annually?
 - Less than \$20,000
 - \$20,000 to \$34,999
 - \$35,000 to \$49,000
 - \$50,000 to \$74,999
 - \$75,000 to \$99,999
 - More than \$100,000
 - Prefer not to say
4. How many years are you working in this current job?
 - Less than 1
 - 1 to 3 years
 - 4 to 6 years
 - 7 to 10 years
 - More than 10 years

C2: Demographic questions

1. What is your gender?
 - Male
 - Female
 - Other: Please specify
 - Prefer not to say
2. What is your age (Number only)?
 - 18-24
 - 25-34
 - 35-44
 - 45-54
 - 55-64
 - 65 years or older
 - Prefer not to say

3. Which ethnic group do you most closely identify with?
- New Zealand European (e.g., Kiwi/Pakeha)
 - Non-New Zealand European (e.g., British/Irish/German)
 - New Zealand Māori
 - Pacific Peoples (e.g., Tongan/Samoan/Fijian)
 - African (e.g., South African/Kenyan)
 - Asian (e.g., Indian/Chinese/Filipino)
 - Latin American (e.g., Mexican/Brazilian)
 - Middle Eastern (e.g., Turkish/Jordanian)
 - Other: Please specify
 - Prefer not to say

C3: Constructive supervisor behavior scale (CSBS)

The following 4-item scale was adapted from Mharapara et al. (2019) to measure constructive leadership behavior. Participants responded on a 5-point Likert scale (1 = Not at all to 5 = To a very great extent).

Clarifying:

- Clearly explains the job responsibilities and task assignments to members
- Explains what results are expected for a task or assignment
- Explains the rules, policies, and standard procedures that must be followed
- Sets specific performance goals and deadlines for important aspects of the work

Recognizing

- Provides recognition for good performance by the team or work unit
- Provides recognition for member achievements or important contributions
- Praises effective performance by members of the work unit
- Recommends high-performing members for appropriate rewards

Ethical conduct

- Sets an example of ethical behavior in his/her decisions and actions
- Insists on doing what is fair and ethical even when it is not easy
- Opposes the use of unethical practices to improve performance
- Communicates clear ethical standards and guidelines for members

Networking

- Builds and maintains a wide network of contacts among peers and outsiders
- Attends social and professional events to meet people with useful information
- Joins social networks that include outsiders with useful information
- Develops cooperative relationships with people who can provide resources and assistance

C4: Psychological Safety

Psychological safety was measured using the 7-item scale developed by **Edmondson (1999)**. This scale is the "gold standard" for measuring a team member's perception of the consequences of taking interpersonal risks. Participants responded on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

- If you make a mistake on this team, it is often held against you.
- Members of this team are able to bring up problems and tough issues.
- People on these teams sometimes reject others for being different.
- It is safe to take a risk on this team.
- It is difficult to ask other members of this team for help.
- No one on this team would deliberately act in a way that undermines my efforts.
- Working with members of this team, my unique skills and talents are valued and utilized.

C5: Burnout

Burnout was measured using the Maslach Burnout Inventory (Maslach & Jackson, 1981). The scale measures three distinct dimensions. Participants responded on a 7-point frequency scale (0 = Never to 6 = Every day).

Emotional exhaustion

- I feel emotionally drained from my work
- I feel used up at the end of the workday
- I feel fatigued when I get up in the morning and have to face another day on the job.
- Working with people all day is really a strain for me
- I feel burned out from my work
- I feel frustrated by my job
- I feel I'm working too hard on my job, working with people directly puts too much stress on me
- I feel like I'm at the end of my rope

Depersonalization

- I feel I treat some recipients as if they were impersonal ‘objects’
- I’ve become more callous toward people since I took this job
- I worry that this job is hardening me emotionally
- I don’t really care what happens to some recipients
- I feel recipients blame me for some of their problems

Personal Accomplishment

- I can easily understand how my recipients feel about things
- I deal very effectively with the problems of my recipients
- I feel I’m positively influencing other people’s lives through my work
- I feel very energetic
- I can easily create a relaxed atmosphere with my recipients
- I feel exhilarated after working closely with my recipients
- I have accomplished many worthwhile things in this job

C6: Supplementary Survey Item

1. In the past month, how would you describe your overall work-related stress level?
 - Very low
 - Low
 - Moderate
 - High
 - Very high
2. Did you answer this survey honestly and carefully?
 - Yes
 - No

C7: Request for research findings

To maintain the anonymity of the primary data, email addresses were collected via a separate link, ensuring no connection between contact details and survey responses.

- Thank you for completing the main survey. If you would like to receive a plain-language summary of the research findings once the study is complete, you can provide your email address below. Please enter your email ID below

Appendix D: Research outputs

D1: Descriptive statistics

Descriptives

	Gender	CSBS_Mean	EE_mean	Dep_Mean	Peracc_mean
N	1	102	102	102	102
	2	96	96	96	96
	3	1	1	1	1
	4	14	14	14	14
Missing	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0
Mean	1	3.68	3.00	2.73	4.95
	2	3.79	2.40	2.15	5.11
	3	3.38	1.86	1.20	4.38
	4	3.32	3.63	3.51	4.24
Median	1	3.81	2.43	2.20	5.25
	2	3.88	2.00	2.00	5.25
	3	3.38	1.86	1.20	4.38
	4	3.56	3.86	2.90	5.00
Standard deviation	1	0.713	1.53	1.49	1.31
	2	0.669	1.22	0.965	1.23
	3	NaN	NaN	NaN	NaN

Descriptives

	Gender	CSBS_Mean	EE_mean	Dep_Mean	Peracc_mean
Minimum	4	1.05	1.87	1.80	1.36
	1	1.63	1.00	1.00	1.88
	2	1.56	1.00	1.00	1.00
	3	3.38	1.86	1.20	4.38
Maximum	4	1.63	1.00	1.00	2.13
	1	4.94	7.00	7.00	7.00
	2	5.00	6.00	5.40	6.75
	3	3.38	1.86	1.20	4.38
Skewness	4	4.69	6.00	6.60	6.00
	1	-0.735	1.10	1.08	-0.664
	2	-0.883	1.43	1.52	-1.21
	3	NaN	NaN	NaN	NaN
Std. error skewness	4	-0.325	-0.123	0.395	-0.537
	1	0.239	0.239	0.239	0.239
	2	0.246	0.246	0.246	0.246
	3	0.00	0.00	0.00	0.00
Kurtosis	4	0.597	0.597	0.597	0.597
	1	0.168	0.302	0.297	-0.394
	2	1.21	1.37	2.62	1.56
	3	NaN	NaN	NaN	NaN
	4	-1.43	-1.82	-1.25	-1.40

Descriptives

	Gender	CSBS_Mean	EE_mean	Dep_Mean	Peracc_mean
Std. error kurtosis	1	0.474	0.474	0.474	0.474
	2	0.488	0.488	0.488	0.488
	3	0.00	0.00	0.00	0.00
	4	1.15	1.15	1.15	1.15
Shapiro-Wilk W	1	0.956	0.876	0.879	0.942
	2	0.952	0.836	0.862	0.905
	3	NaN	NaN	NaN	NaN
	4	0.913	0.880	0.928	0.860
Shapiro-Wilk p	1	.002	<.001	<.001	<.001
	2	.002	<.001	<.001	<.001
	3	NaN	NaN	NaN	NaN
	4	.177	.059	.281	.030

D2: Correlation matrix

Table D1 presents the Pearson and Spearman correlation coefficients among the key study variables included in the analysis.

Correlation Matrix

		CSBS_Mea	EE_mea	Dep_Mea	Peracc_mea	Psafety_mea
		n	n	n	n	n
CSBS_Mean	Pearson's r	—				
	df	—				
	p-value	—				

Correlation Matrix

		CSBS_Mea	EE_mea	Dep_Mea	Peracc_mea	Psafety_mea
		n	n	n	n	n
	Spearman's rho	—				
	df	—				
	p-value	—				
EE_mean	Pearson's r	-0.447	—			
	df	211	—			
	p-value	<.001	—			
	Spearman's rho	-0.450	—			
	df	211	—			
	p-value	<.001	—			
Dep_Mean	Pearson's r	-0.384	0.754	—		
	df	211	211	—		
	p-value	<.001	<.001	—		
	Spearman's rho	-0.350	0.665	—		
	df	211	211	—		
	p-value	<.001	<.001	—		
Peracc_mean	Pearson's r	0.392	-0.349	-0.328	—	
	df	211	211	211	—	
	p-value	<.001	<.001	<.001	—	

Correlation Matrix

		CSBS_Mea	EE_mea	Dep_Mea	Peracc_mea	Psafety_mea
		n	n	n	n	n
	Spearman's rho	0.440	-0.476	-0.426	—	
	df	211	211	211	—	
	p-value	<.001	<.001	<.001	—	
Psafety_mea	Pearson's r	0.446	-0.592	-0.562	0.443	—
n	df	211	211	211	211	—
	p-value	<.001	<.001	<.001	<.001	—
	Spearman's rho	0.318	-0.476	-0.470	0.445	—
	df	211	211	211	211	—
	p-value	<.001	<.001	<.001	<.001	—

D3: Reliability analysis

Constructive Supervisor behavior Scale(CSBS)

Scale Reliability Statistics

Cronbach's α	
scale	0.926

Emotional exhaustion

Scale Reliability Statistics

Cronbach's α	
scale	0.955

Depersonalization

Scale Reliability Statistics

Cronbach's α	
scale	0.928

Personal Accomplishment

Scale Reliability Statistics

Cronbach's α	
scale	0.936

Psychological Safety

Scale Reliability Statistics

Cronbach's α	
scale	0.787

D4: Multiple regression analysis- Emotional Exhaustion

General Linear Model

Model Info

Info		
Model Type	Linear Model	OLS Model for continuous y
Model	lm	EE_mean ~ 1 + CSBS_Mean + Gender + Psafety_mean
Distribution	Gaussian	Normal distribution of residuals
Omnibus Tests	F	
Sample size	213	
Converged	yes	
Y transform	none	
C.I. method	Wald	
Comparison	Nested model	EE_mean ~ 1 + Psafety_mean
Comparison	Tested terms	~ CSBS_Mean + Gender

Note. All covariates are centered to the mean

Model Results

Model Fit

Model	R ²	Adj. R ²	df	df (res)	F	p
Full	0.402	0.388	5	207	27.84	<.001
Nested	0.350	0.347	1	211	113.73	<.001
ΔR^2	0.052	0.041	4	207	4.49	.002

ANOVA Omnibus tests

	SS	df	F	p	η^2p
Model	182.245	5	27.843	<.001	0.402
CSBS_Mean	19.281	1	14.729	<.001	0.066
Gender	4.555	3	1.160	.326	0.017
Psafety_mean	73.747	1	56.335	<.001	0.214
Residuals	270.983	207			
Total	453.229	212			

Parameter Estimates (Coefficients)

Names	Effect	Estimate	SE	95% Confidence Intervals		β	df	t	p
				Lower	Upper				
(Intercept)	(Intercept)	2.540	0.29	1.95	3.13	-	20	8.48	<.001
			9	0	0	0.15	7	2	1
						6			
CSBS_Mean	CSBS_Mean	-0.466	0.12	-	-	-	20	-	<.001
			2	0.70	0.22	0.23	7	3.83	1
				6	7	1		8	
Gender 1	2 - 1	-0.263	0.16	-	0.06	-	20	-	.115
			6	0.59	4	0.18	7	1.58	
				1		0		4	

Parameter Estimates (Coefficients)

Names	Effect	Estimate	SE	95% Confidence Intervals		β	df	t	p
				Lower	Upper				
Gender	3 - 1	-1.161	1.15	-	1.10	-	20	-	.314
2			1	3.43	7	0.79	7	1.00	
				0		4		9	
Gender	4 - 1	0.019	0.33	-	0.67	0.01	20	0.05	.955
3			1	0.63	1	3	7	7	
				4					
Psafety	Psafety_	-1.210	0.16	-	-	-	20	-	<.00
_mean	mean		1	1.52	0.89	0.46	7	7.50	1
				8	3	6		6	

Assumption Checks

Test for Normality of residuals

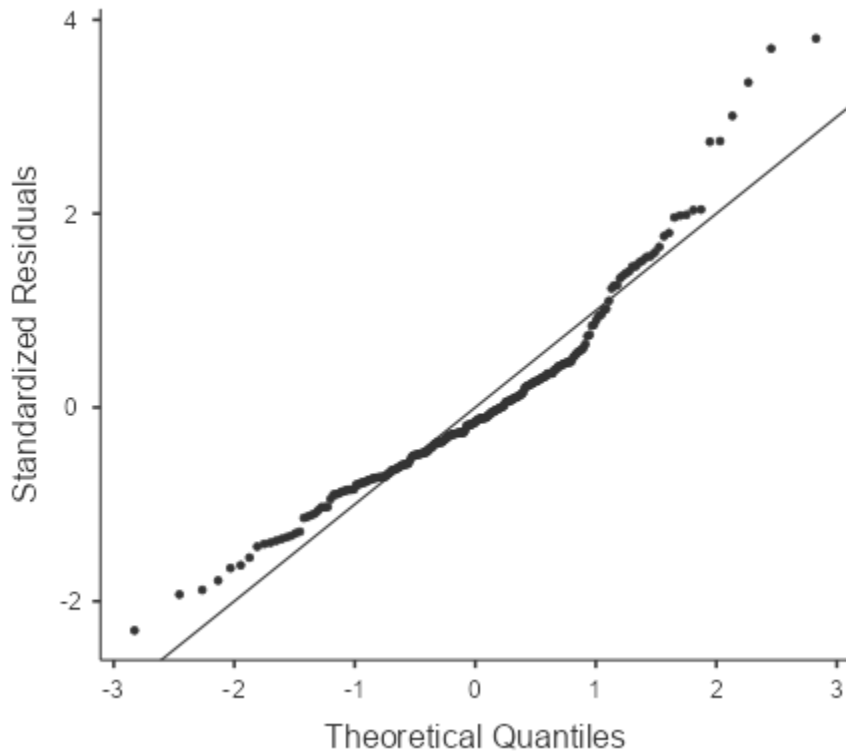
Test	Statistics	p
Kolmogorov-Smirnov	0.108	.014
Shapiro-Wilk	0.937	<.001

Note. ties should not be present for the one-sample Kolmogorov-Smirnov test

Collinearity statistics

Term	VIF	Tolerance
CSBS_Mean	1.25	0.797
Gender	1.10	0.910
Psafety_mean	1.33	0.750

Q-Q Plot



D5: Multiple regression analysis- Depersonalization

General Linear Model

Model Info

Info		
Model Type	Linear Model	OLS Model for continuous y
Model	lm	Dep_Mean ~ 1 + CSBS_Mean + Psafety_mean + Gender
Distribution	Gaussian	Normal distribution of residuals
Omnibus Tests	F	
Sample size	213	
Converged	yes	
Y transform	none	
C.I. method	Wald	
Comparison	Nested model	Dep_Mean ~ 1 + Psafety_mean
Comparison	Tested terms	~ CSBS_Mean + Gender

Note. All covariates are centered to the mean

Model Results

Model Fit

Model	R ²	Adj. R ²	df	df (res)	F	p
Full	0.358	0.343	5	207	23.10	<.001
Nested	0.316	0.312	1	211	97.26	<.001
ΔR^2	0.043	0.030	4	207	3.43	.010

ANOVA Omnibus tests

	SS	df	F	p	η^2p
Model	139.028	5	23.096	<.001	0.358
CSBS_Mean	8.727	1	7.249	.008	0.034
Psafety_mean	58.859	1	48.890	<.001	0.191
Gender	7.836	3	2.170	.093	0.030
Residuals	249.211	207			
Total	388.239	212			

Parameter Estimates (Coefficients)

Names	Effect	Estimate	SE	95% Confidence Intervals		β	df	t	p
				Lower	Upper				
(Intercept)	(Intercept)	2.25	0.28	1.68	2.81	-	20	7.84	<.00
		3	7	6	9	0.19	7	4	1
						4			
CSBS_Mean	CSBS_Mean	-	0.11	-	-	-	20	-	.008
		0.31	7	0.54	0.08	0.16	7	2.69	
		4		3	4	8		2	
Psafety_mean	Psafety_mean	-	0.15	-	-	-	20	-	<.00
		1.08	5	1.38	0.77	0.45	7	6.99	1
		1		6	6	0		2	

Parameter Estimates (Coefficients)

Names	Effect	Estimate	SE	95% Confidence Intervals		β	df	t	p
				Lower	Upper				
Gender1	2 - 1	-	0.15	-	0.02	-	20	-	.070
		0.29	9	0.60	4	0.21	7	1.82	
		0		5		5		1	
Gender2	3 - 1	-	1.10	-	0.66	-	20	-	.171
		1.51	4	3.69	1	1.11	7	1.37	
		5		0		9		3	
Gender3	4 - 1	0.27	0.31	-	0.89	0.20	20	0.86	.390
		4	7	0.35	9	2	7	2	
								2	

Assumption Checks

Test for Normality of residuals

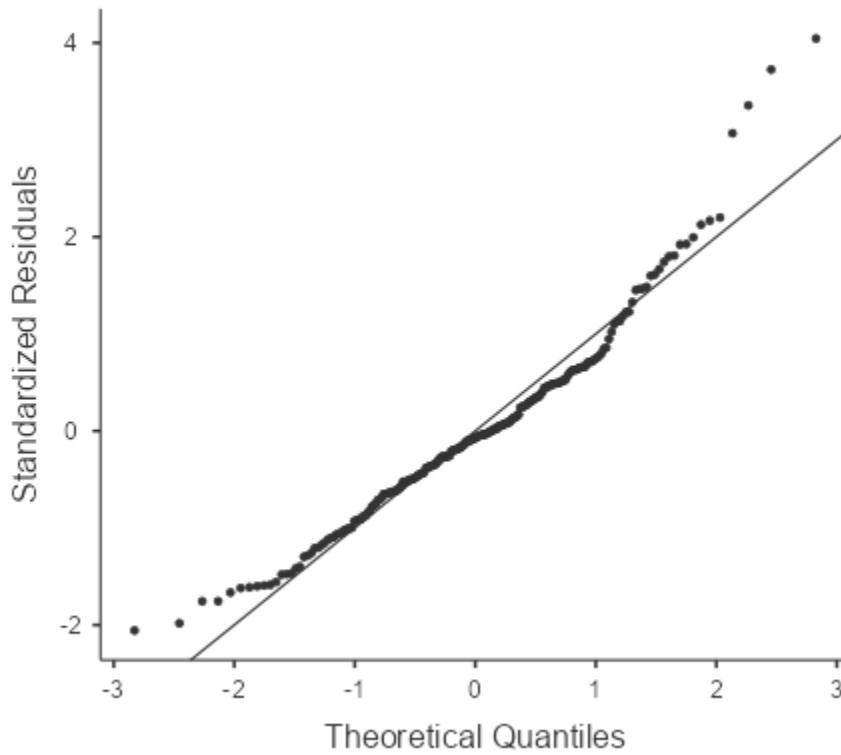
Test	Statistics	p
Kolmogorov-Smirnov	0.0780	.150
Shapiro-Wilk	0.9538	<.001

Note. ties should not be present for the one-sample Kolmogorov-Smirnov test

Collinearity statistics

Term	VIF	Tolerance
CSBS_Mean	1.25	0.797
Psafety_mean	1.33	0.750
Gender	1.10	0.910

Q-Q Plot



D6: Multiple regression analysis- Personal Accomplishment

General Linear Model

Model Info

Info		
Model Type	Linear Model	OLS Model for continuous y
Model	lm	Peracc_mean ~ 1 + Gender + CSBS_Mean + Psafety_mean
Distribution	Gaussian	Normal distribution of residuals
Omnibus Tests	F	
Sample size	213	
Converged	yes	
Y transform	none	
C.I. method	Wald	
Comparison	Nested model	Peracc_mean ~ 1 + Psafety_mean
Comparison	Tested terms	~ Gender + CSBS_Mean

Note. All covariates are centered to the mean

Model Results

Model Fit

Model	R ²	Adj. R ²	df	df (res)	F	p
Full	0.247	0.229	5	207	13.58	<.001
Nested	0.196	0.193	1	211	51.58	<.001
ΔR^2	0.051	0.036	4	207	3.48	.009

ANOVA Omnibus tests

	SS	df	F	p	η^2p
Model	86.535	5	13.583	<.001	0.247
Gender	1.169	3	0.306	.821	0.004
CSBS_Mean	15.865	1	12.451	<.001	0.057
Psafety_mean	28.881	1	22.666	<.001	0.099
Residuals	263.759	207			
Total	350.294	212			

Parameter Estimates (Coefficients)

Names	Effect	Estimate	SE	95% Confidence Intervals		β	df	t	p
				Lower	Upper				
(Intercept)	(Intercept)	4.80	0.29	4.22	5.38	-	20	16.2	<.00
		4	5	2	7	0.12	7	61	1
Gender1	2 - 1	-	0.16	-	0.26	-	20	-	.713
		0.06	4	0.38	3	0.04	7	0.36	
Gender2	3 - 1	-	1.13	-	1.71	-	20	-	.648
		0.52	5	2.75	8	0.40	7	0.45	
		0		8		4		8	

Parameter Estimates (Coefficients)

Names	Effect	Estimate	SE	95% Confidence Intervals		β	df	t	p
				Lower	Upper				
Gender3	4 - 1	-	0.32	-	0.37	-	20	-	.403
		0.27	7	0.91	0	0.21	7	0.83	
		4		7		3		8	
CSBS_Mean	CSBS_Mean	0.42	0.12	0.18	0.65	0.23	20	3.52	<.001
		3	0	7	9	8	7	9	1
Psafety_mean	Psafety_mean	0.75	0.15	0.44	1.07	0.33	20	4.76	<.001
		7	9	4	1	2	7	1	1

Assumption Checks

Test for Normality of residuals

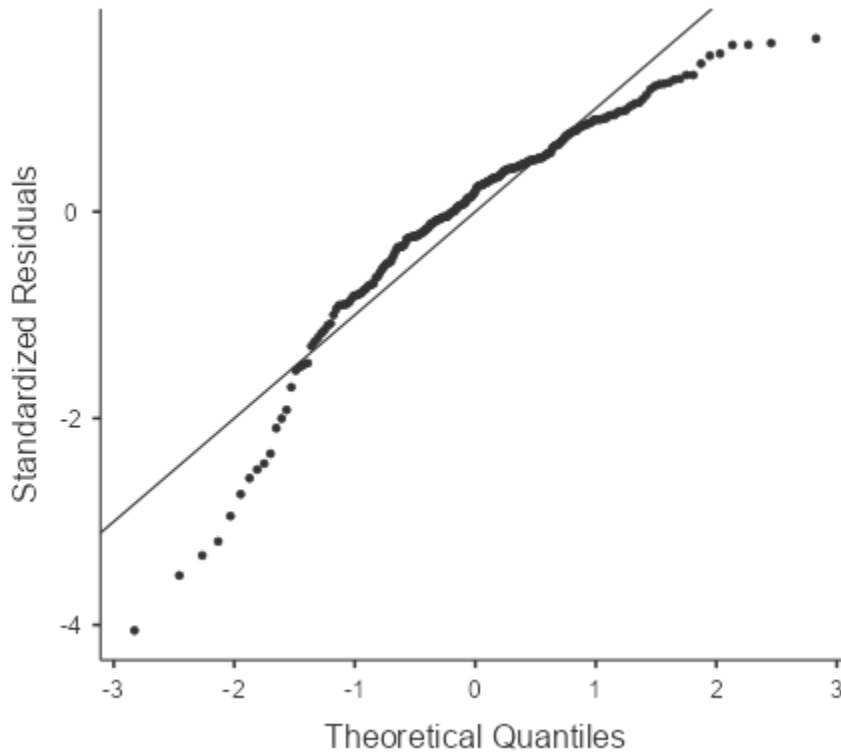
Test	Statistics	p
Kolmogorov-Smirnov	0.114	.008
Shapiro-Wilk	0.912	<.001

Note. ties should not be present for the one-sample Kolmogorov-Smirnov test

Collinearity statistics

Term	VIF	Tolerance
Gender	1.10	0.910
CSBS_Mean	1.25	0.797
Psafety_mean	1.33	0.750

Q-Q Plot



D7: Mediation Analysis- Emotional Exhaustion

Mediation Estimates

Effect	Label	Estimate	SE	Z	p
Indirect	$a \times b$	-0.441	0.0810	-5.44	<.001

Mediation Estimates

Effect	Label	Estimate	SE	Z	p
Direct	c	-0.461	0.1205	-3.83	<.001
Total	c + a × b	-0.902	0.1238	-7.29	<.001

Path Estimates

		Label	Estimate	SE	Z	p	
CSBS_Mean	→	Psafety_mean	a	0.346	0.0477	7.27	<.001
Psafety_mean	→	EE_mean	b	-1.273	0.1551	-8.21	<.001
CSBS_Mean	→	EE_mean	c	-0.461	0.1205	-3.83	<.001

D8: Mediation Analysis- Depersonalization

Mediation Estimates

Effect	Label	Estimate	SE	Z	p
Indirect	a × b	-0.406	0.0762	-5.32	<.001
Direct	c	-0.313	0.1164	-2.69	.007
Total	c + a × b	-0.718	0.1182	-6.08	<.001

Path Estimates

		Label	Estimate	SE	Z	p	
CSBS_Mean	→	Psafety_mean	a	0.346	0.0477	7.27	<.001

Path Estimates

			Label	Estimate	SE	Z	p
Psafety_mean	→	Dep_Mean	b	-1.171	0.1498	-7.82	<.001
CSBS_Mean	→	Dep_Mean	c	-0.313	0.1164	-2.69	.007

D9: Mediation Analysis- Personal Accomplishment

Mediation Estimates

Effect	Label	Estimate	SE	Z	p
Indirect	$a \times b$	0.265	0.0641	4.14	<.001
Direct	c	0.431	0.1182	3.65	<.001
Total	$c + a \times b$	0.696	0.1119	6.22	<.001

Path Estimates

			Label	Estimate	SE	Z	p
CSBS_Mean	→	Psafety_mean	a	0.346	0.0477	7.27	<.001
Psafety_mean	→	Peracc_mean	b	0.765	0.1520	5.03	<.001
CSBS_Mean	→	Peracc_mean	c	0.431	0.1182	3.65	<.001

D10: Moderation Analysis- Emotional Exhaustion

General Linear Model

Model Info

Info		
Model Type	Linear Model	OLS Model for continuous y
Model	lm	EE_mean ~ 1 + CSBS_Mean + Psafety_mean + CSBS_Mean:Psafety_mean
Distribution	Gaussian	Normal distribution of residuals
Omnibus Tests	F	
Sample size	213	
Converged	yes	
Y transform	none	
C.I. method	Wald	

Note. All covariates are centered to the mean

Model Results

Model Fit

R ²	Adj. R ²	df	df (res)	F	p
0.418	0.409	3	209	50.0	<.001

ANOVA Omnibus tests

	SS	df	F	p	η^2p
Model	189.344	3	49.988	<.001	0.418
CSBS_Mean	6.761	1	5.355	.022	0.025
Psafety_mean	73.513	1	58.223	<.001	0.218
CSBS_Mean * Psafety_mean	11.654	1	9.230	.003	0.042
Residuals	263.884	209			
Total	453.229	212			

Parameter Estimates (Coefficients)

Names	Estimate	SE	95% Confidence Intervals		β	df	t	p
			Lower	Upper				
(Intercept)	2.680	0.082	2.517	2.842	- 0.061	209	32.526	<.001
CSBS_Mean	-0.301	0.130	- 0.558	- 0.045	- 0.149	209	-2.314	.022
Psafety_mean	-1.188	0.156	- 1.495	- 0.881	- 0.457	209	-7.630	<.001
CSBS_Mean * Psafety_mean	0.492	0.162	0.173	0.812	0.137	209	3.038	.003

Simple Effects

ANOVA for Simple Effects of CSBS_Mean

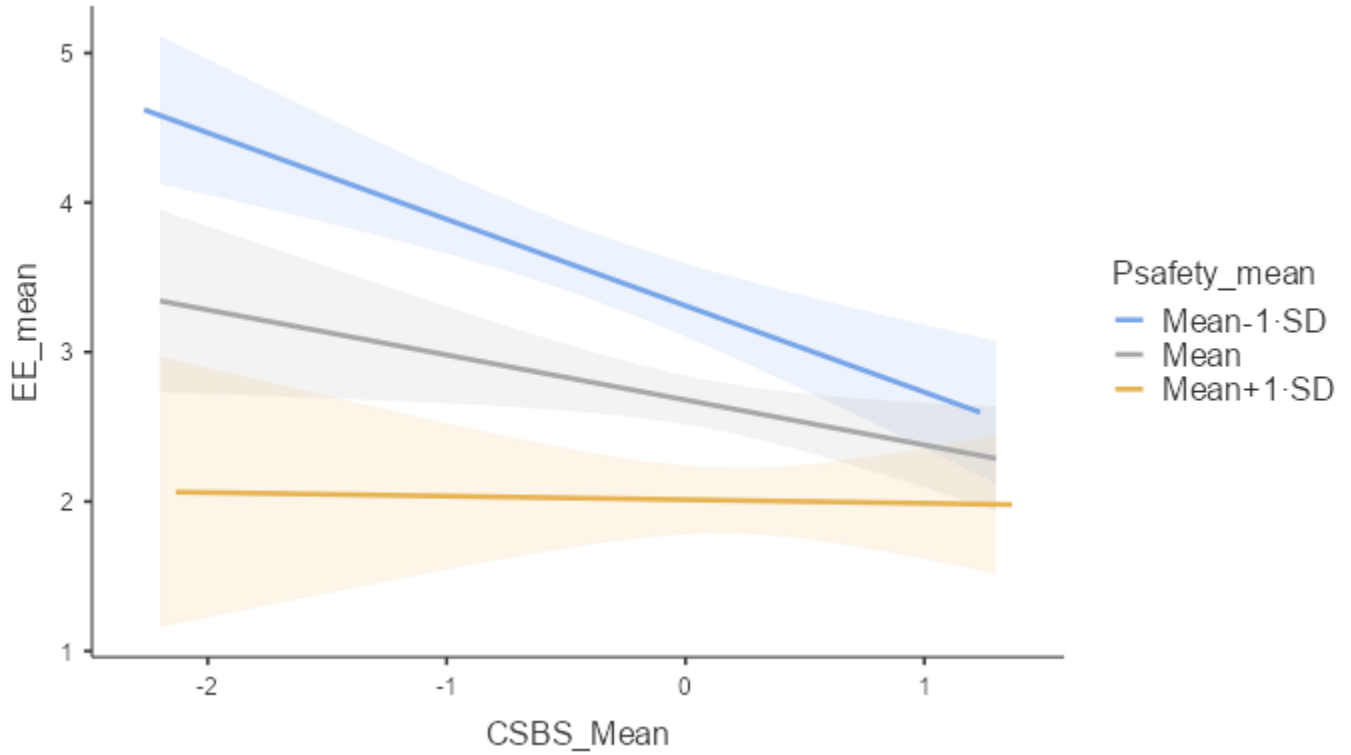
Moderator					
Psafety_mean	F	Num df	Den df	p	η^2p
Mean-1·SD	21.3670	1	209	<.001	0.093
Mean	5.3550	1	209	.022	0.025
Mean+1·SD	0.0170	1	209	.898	0.000

Parameter Estimates for simple effects of CSBS_Mean

Moderator		95% Confidence Intervals							
Psafety_mean	Effect	Estimate	SE	Lower	Upper	β	df	t	p
Mean-1·SD	CSBS_Mean	-	0.12	-	-	-	20	-	<.00
		0.578	5	0.825	0.332	0.287	9	4.622	1
Mean	CSBS_Mean	-	0.13	-	-	-	20	-	.022
		0.301	0	0.558	0.045	0.149	9	2.314	
Mean+1·SD	CSBS_Mean	-	0.18	-	0.34	-	20	-	.898
		0.024	7	0.392	0.044	0.012	9	0.129	

Results Plots

Plot: EE_mean ~ CSBS_Mean * Psafety_mean



D11: Moderation Analysis- Depersonalization

General Linear Model

Model Info

Info		
Model Type	Linear Model	OLS Model for continuous y
Model	lm	Dep_Mean ~ 1 + CSBS_Mean + Psafety_mean + CSBS_Mean:Psafety_mean
Distribution	Gaussian	Normal distribution of residuals

Model Info

Info	
Omnibus Tests	F
Sample size	213
Converged	yes
Y transform	none
C.I. method	Wald

Note. All covariates are centered to the mean

Model Results

Model Fit

R ²	Adj. R ²	df	df (res)	F	p
0.357	0.348	3	209	38.7	<.001

ANOVA Omnibus tests

	SS	df	F	p	η^2p
Model	138.645	3	38.699	<.001	0.357
CSBS_Mean	2.538	1	2.125	.146	0.010
Psafety_mean	63.418	1	53.104	<.001	0.203
CSBS_Mean * Psafety_mean	7.453	1	6.241	.013	0.029

ANOVA Omnibus tests

	SS	df	F	p	η^2p
Residuals	249.594	209			
Total	388.239	212			

Parameter Estimates (Coefficients)

Names	Estimate	SE	95% Confidence Intervals		β	df	t	p
			Lower	Upper				
(Intercept)	2.444	0.080	2.286	2.602	- 0.053	209	30.508	<.001
CSBS_Mean	-0.185	0.127	- 0.434	0.065	- 0.099	209	-1.458	.146
Psafety_mean	-1.103	0.151	- 1.402	- 0.805	- 0.459	209	-7.287	<.001
CSBS_Mean	0.394	0.158	0.083	0.704	0.119	209	2.498	.013
* Psafety_mean								

Simple Effects

ANOVA for Simple Effects of CSBS_Mean

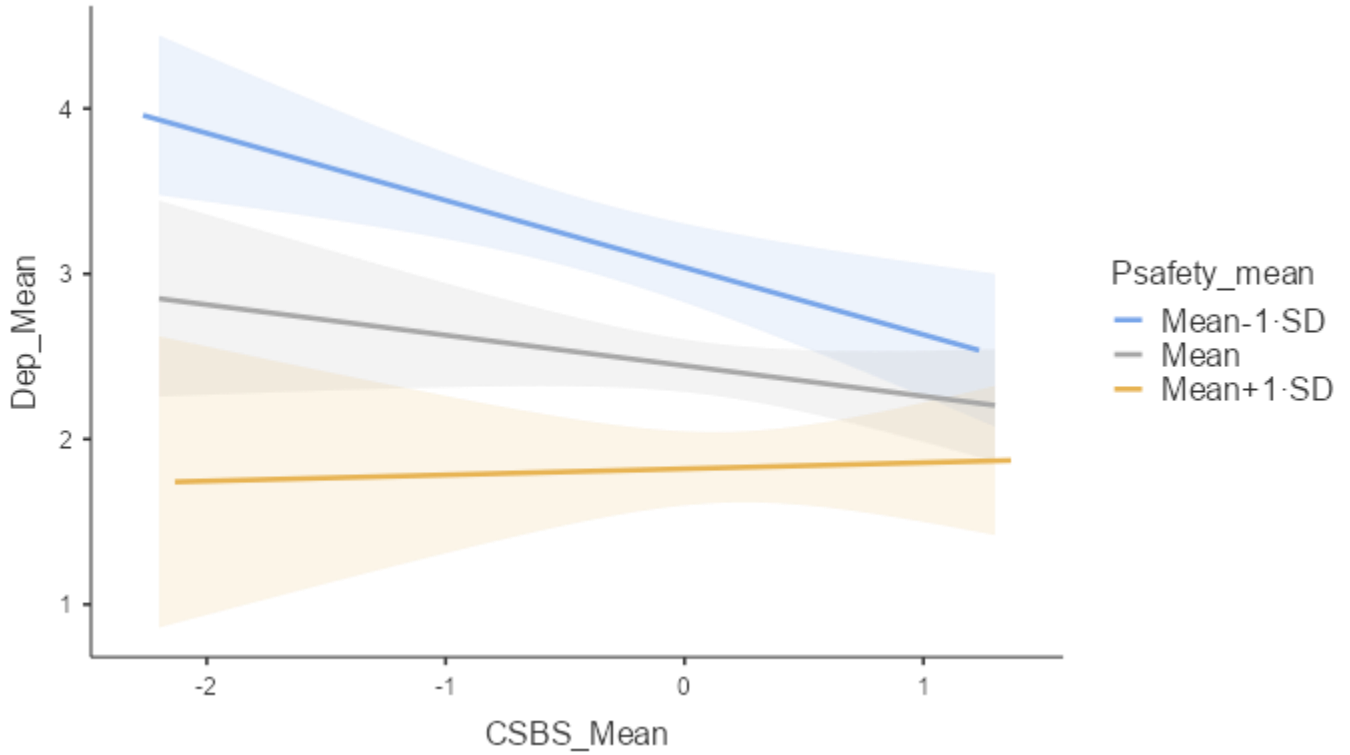
Moderator					
Psafety_mean	F	Num df	Den df	p	η^2p
Mean-1·SD	11.1420	1	209	<.001	0.051
Mean	2.1250	1	209	.146	0.010
Mean+1·SD	0.0420	1	209	.838	0.000

Parameter Estimates for simple effects of CSBS_Mean

Moderator		95% Confidence Intervals							
Psafety_mean	Effect	Estimate	SE	Lower	Upper	β	df	t	p
Mean-1·SD	CSBS_Mean	-	0.12	-	-	-	20	-	<.001
		0.40	2	0.64	0.16	0.21	9	3.33	1
Mean	CSBS_Mean	-	0.12	-	0.06	-	20	-	.146
		0.18	7	0.43	5	0.09	9	1.45	
Mean+1·SD	CSBS_Mean	0.03	0.18	-	0.39	0.02	20	0.20	.838
		7	2	0.32	5	0	9	4	

Results Plots

Plot: Dep_Mean ~ CSBS_Mean * Psafety_mean



D12: Moderation Analysis- Personal Accomplishment

General Linear Model

Model Info

Info		
Model Type	Linear Model	OLS Model for continuous y
Model	lm	Peracc_mean ~ 1 + CSBS_Mean + Psafety_mean + CSBS_Mean:Psafety_mean
Distribution	Gaussian	Normal distribution of residuals
Omnibus Tests	F	

Model Info

Info	
Sample size	213
Converged	yes
Y transform	none
C.I. method	Wald

Note. All covariates are centered to the mean

Model Results

Model Fit

R ²	Adj. R ²	df	df (res)	F	p
0.244	0.233	3	209	22.4	<.001

ANOVA Omnibus tests

	SS	df	F	p	η ² p
Model	85.369	3	22.449	<.001	0.244
CSBS_Mean	13.672	1	10.786	.001	0.049
Psafety_mean	30.372	1	23.960	<.001	0.103
CSBS_Mean * Psafety_mean	0.003	1	0.002	.960	0.000
Residuals	264.925	209			
Total	350.294	212			

Parameter Estimates (Coefficients)

Names	Estimate	SE	95% Confidence Intervals		β	df	t	p
			Lower	Upper				
(Intercept)	4.972	0.083	4.809	5.134	0.001	209	60.229	<.001
CSBS_Mean	0.428	0.130	0.171	0.685	0.241	209	3.284	.001
Psafety_mean	0.764	0.156	0.456	1.071	0.334	209	4.895	<.001
CSBS_Mean	-0.008	0.162	-	0.312	-	209	-0.050	.960
*			0.328		0.003			
Psafety_mean								

Simple Effects

ANOVA for Simple Effects of CSBS_Mean

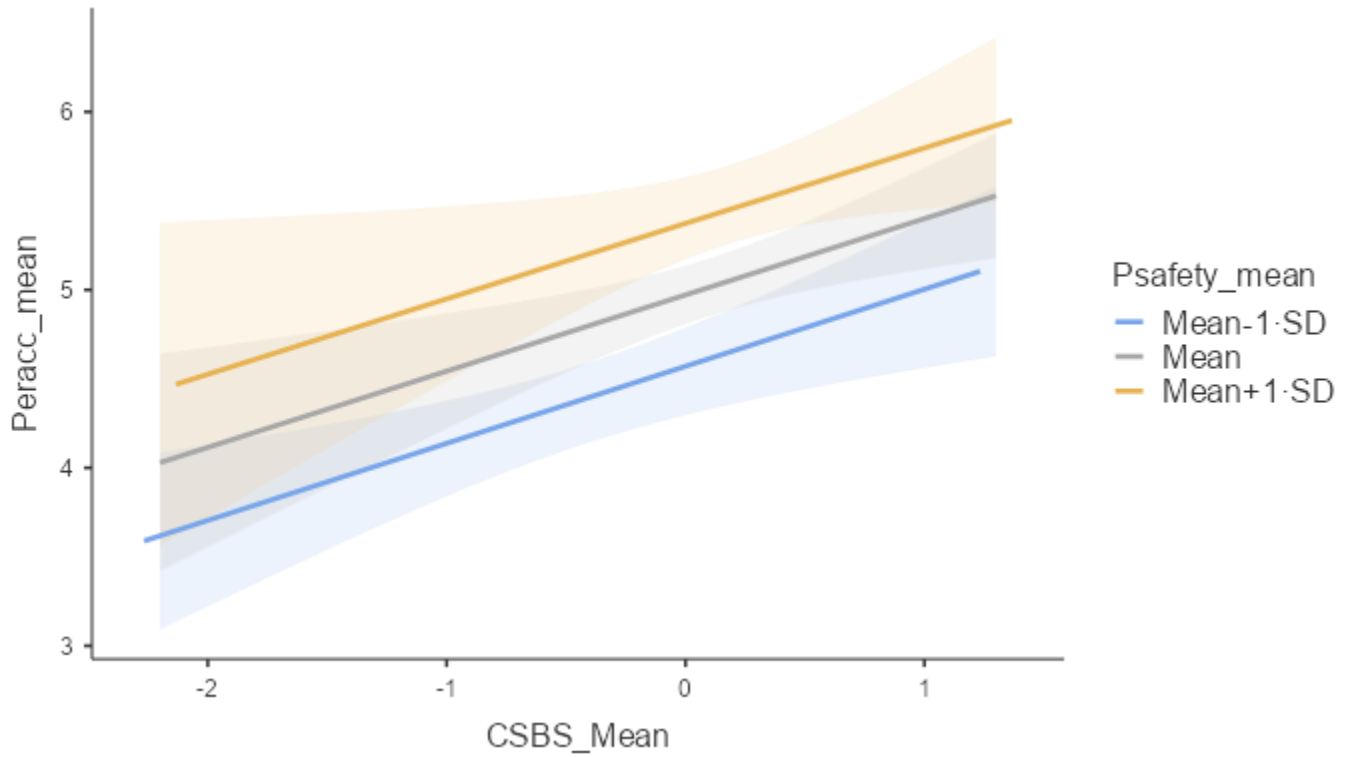
Moderator	F	Num df	Den df	p	η^2p
Psafety_mean					
Mean-1·SD	11.92	1	209	<.001	0.054
Mean	10.79	1	209	.001	0.049
Mean+1·SD	5.13	1	209	.025	0.024

Parameter Estimates for simple effects of CSBS_Mean

Moderator				95% Confidence Intervals					
Psafety_m ean	Effect	Estima te	SE	Lower	Upper	β	df	t	p
Mean- 1·SD	CSBS_Me an	0.43 3	0.12 5	0.18 6	0.68 0	0.24 4	20 9	3.45 3	<.00 1
Mean	CSBS_Me an	0.42 8	0.13 0	0.17 1	0.68 5	0.24 1	20 9	3.28 4	.001
Mean+1·S D	CSBS_Me an	0.42 4	0.18 7	0.05 5	0.79 3	0.23 9	20 9	2.26 5	.025

Results Plots

Plot: $\text{Peracc_mean} \sim \text{CSBS_Mean} * \text{Psafety_mean}$



D13: Demographic characteristics of Participants

Descriptives

Descriptives

Ethnic group	
N	213

Frequencies

Frequencies of Ethnic group

Ethnic group	Counts	% of Total	Cumulative %
9	9	4.2%	4.2%
8	12	5.6%	9.9%
7	16	7.5%	17.4%
6	56	26.3%	43.7%
5	23	10.8%	54.5%
4	14	6.6%	61.0%
3	22	10.3%	71.4%
2	29	13.6%	85.0%
1	32	15.0%	100.0%

Note: Ethnic group coded as follows

1-New Zealand European (e.g., Kiwi/Pakeha)

2-Non-New Zealand European (e.g., British/Irish/German)

3-New Zealand Māori

4-Pacific Peoples (e.g., Tongan/Samoan/Fijian)

5-African (e.g., South African/Kenyan)

6-Asian (e.g., Indian/Chinese/Filipino)

7-Latin American (e.g. Mexican/Brazilian)

8-Middle Eastern (e.g., Turkish/Jordanian)

9-Prefer not to say

Descriptives

Descriptives

Age	
N	213

Frequencies

Frequencies of Age

Age	Counts	% of Total	Cumulative %
6	14	6.6%	6.6%
5	6	2.8%	9.4%
4	25	11.7%	21.1%
3	62	29.1%	50.2%
2	79	37.1%	87.3%
1	27	12.7%	100.0%

Note: Age categories coded as follows

1-18-24

2-25-34

3-35-44

4-45-54

5-55-64

6-65 years or older

Descriptives

Descriptives

Gender	
N	213

Frequencies

Frequencies of Gender

Gender	Counts	% of Total	Cumulative %
1	102	47.9%	47.9%
2	96	45.1%	93.0%
3	1	0.5%	93.4%
4	14	6.6%	100.0%

1-Male

2-Female

3-Other: Please specify

4-Prefer not to say

Appendix E: Glossary

Constructive Leadership Behaviour (CLB)

A set of observable supervisory behaviors, including clarifying expectations, recognizing contributions, demonstrating ethical conduct, and facilitating networking, as perceived by employees.

Burnout

A psychological syndrome resulting from chronic workplace stress, characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment.

Emotional Exhaustion (EE)

A state of feeling emotionally overextended and depleted of psychological resources due to prolonged work-related stress.

Depersonalization (DEP)

A dimension of burnout involving emotional detachment and a cynical or negative attitude toward work or colleagues.

Personal Accomplishment (PA)

A sense of competence and achievement in one's work; reduced levels indicate a component of burnout.

Psychological Safety (PS)

The shared belief that the work environment is safe for interpersonal risk-taking, such as speaking up or admitting mistakes without fear of negative consequences.

Mediation

A statistical process through which an independent variable influences a dependent variable indirectly through a third variable.

Moderation

A statistical interaction where the strength or direction of the relationship between two variables depends on a third variable.

Social Exchange Theory (SET)

A theoretical framework suggesting that workplace relationships are based on reciprocal exchanges of support, trust, and fairness between individuals.

Cross-sectional Study

A research design in which data are collected from participants at a single point in time.

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