Article

Stress, Teamwork, and Wellbeing Policies: A Synergistic Approach to Reducing Burnout in Public Sector Organizations

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Abstract: This study investigates the moderating effects of teamwork and employee wellbeing policies on the relationship between workplace stress and burnout within the Australian Public Service (APS). Using data from a large-scale cross-sectional survey conducted in 2022, we examine how both strong team support and organizational wellbeing policies buffer the negative impacts of increased work stress on burnout likelihood. The findings indicate that high levels of both teamwork and wellbeing significantly reduce the likelihood of burnout in high-stress environments. Conversely, the absence of either or both factors tends to relatively exacerbate burnout risk. In addition, employee age is found to negatively correlate with burnout, while role seniority is associated with higher burnout likelihood. Gender differences suggest female employees report slightly higher burnout rates. The results provide valuable insights into organizational strategies for reducing burnout likelihood. In a practical sense they highlight the importance of fostering supportive team environments while also implementing comprehensive wellbeing initiatives in high-stress work environments.

Keywords: burnout; stress; teamwork; wellbeing

1. Introduction

A growing body of empirical research highlights that occupational health has become even more relevant following the COVID-19 pandemic (Gabriel and Aguinis 2022). Burnout has become one of the most significant psychosocial occupational hazards in today's society, generating substantial costs for both individuals and organizations (Edú-Valsania et al. 2022). Initially, burnout was considered specific to professionals working in caregiving roles. However, evidence has since shown that this syndrome can develop among all types of professions, occupational groups, and sectors (Demerouti et al. 2021).

Burnout has been a significant focus of research over the past 50 years, resulting in a comprehensive understanding of its prevalence, conceptualization, predictors, and outcomes (Demerouti et al. 2021). Despite this progress, burnout remains a relevant and pressing issue due to ongoing environmental stressors and challenges faced by employees and organizations. Although thousands of burnout studies have been published each year, many use suboptimal designs, are overly focused on the psychometric properties of burnout instruments, and are more descriptive than explanatory (Bakker and de Vries 2021). These publications mainly consist of reviews and meta-analyses rather than empirical studies with elaborate research designs, behavioral indicators, and repeated measures (Demerouti et al. 2021).

By understanding different organizational factors associated with burnout, organizations and individuals can better address the causes and symptoms, creating healthier work environments and improving overall wellbeing (Kloutsiniotis et al. 2022), particularly in the public sector.

2. Literature Review and Framework

In order to enhance the performance of public sector organizations, where resources are often limited, it is important to understand the dynamics of employee behavior and wellbeing (Pagán-Castaño et al. 2020). Employees are one of the most important factors in delivering public sector services effectively (Mostafa et al. 2015). Thus, employee burnout, characterized by chronic workplace stress and emotional exhaustion, poses significant risks to employee wellbeing and organizational effectiveness (Kloutsiniotis et al. 2022).

This study utilized databases such as Google Scholar, Scopus, and ProQuest to conduct a literature review that examines existing literature on the contextual factors influencing employees' levels of burnout, particularly focusing on stress, teamwork, and wellbeing as key factors.

2.1. Burnout

Burnout is generally conceptualized as a chronic stress syndrome characterized by chronic exhaustion, negative attitudes toward work, and reduced professional efficacy (Maslach et al. 2001). When individuals burn out from their jobs, they lose interest in making a positive contribution (Bakker and de Vries 2021). Burnout is primarily caused by chronic work-related stress, characterized by overwhelming emotional exhaustion, negative feelings toward work, and a diminished sense of personal accomplishment (Maslach and Leiter 2016). Initially studied in medical and psychiatric professions, burnout has increasingly affected professionals across various industries and occupations (Gabriel and Aguinis 2022). Additionally, studies have found significant variations in burnout prevalence across geographical locations (Hamdan et al. 2023; Zheng et al. 2023).

Research over the past decade has shown that burnout often results from high job demands (Demerouti et al. 2001) and a complex interplay of factors (Weißmüller et al. 2024). Contributors include workload, role ambiguity, role conflict, role stress, stressful events, and work pressure (Alarcon 2011). A lack of support and problems with work–life balance have also found to increase levels of burnout (Mamorobela et al. 2023). Other factors like unrealistic expectations early in one's career, job dissatisfaction mid-career, and excessive attachment to work later in one's career can also play a role (Jesus et al. 2023). Notably, in the context of the COVID-19 pandemic, additional stressors like fear of infection, increased workload due to pandemic-related tasks, and problems with child support were identified as contributing factors (Kho et al. 2023).

Job resources, which include physical, psychological, social, or organizational aspects that aid in achieving work goals and fostering personal growth, also play a crucial role in burnout (Bakker and Demerouti 2017). The absence of resources like social support, autonomy, and skill variety diminishes work's meaning and inhibits the fulfillment of psychological needs. Although there is a general consensus that the combination of high job demands and low job resources is a significant explanation for burnout (Lesener et al. 2019), a more detailed and integrated understanding of the organizational and psychological processes leading to burnout is needed.

Antecedents of burnout are aspects that promote, trigger, and/or sustain burnout syndrome in individuals (Demerouti et al. 2021). These can be classified into two broad categories: (1) organizational factors, such as workload and emotional demands, and (2) individual factors, such as personality traits and coping strategies (Edú-Valsania et al. 2022). It is important to note that burnout is primarily a consequence of certain working conditions, not an individual's personality traits (Laschinger et al. 2012). Therefore, the triggers of burnout are mainly related to work factors, including job content, structure, and relationships with customers, supervisors, and colleagues (Van Bogaert et al. 2010).

One of the most dominant organizational factors associated with burnout is the lack of perceived social support (Moriano et al. 2021). A lack of social support from co-workers or supervisors, as well as internal conflicts, are significant burnout triggers (Ahola et al. 2010). Conversely, social support acts as a buffer against burnout (Toker and Biron 2012). Work overload, emotional and physical demands, and work–home interference did not increase

burnout levels when employees experienced job autonomy, received feedback, had social support, or maintained a high-quality relationship with their supervisor (Lin et al. 2024).

The consequences of burnout extend far beyond individual emotional wellbeing. They impact team and organizational performance by reducing creativity, innovation, and overall performance (Bakker et al. 2014). In the workplace, it can lead to increased conflicts and reduced productivity among teams (González-Morales et al. 2012). Even more concerning is the evidence suggesting that burnout can spread among colleagues (Bakker et al. 2007). Burnout also increases workplace errors, accidents, absenteeism, and turnover (Han et al. 2019). Additionally, individuals experiencing burnout are more likely to leave their jobs (Lin et al. 2024).

The significance of burnout is emphasized not only by its prevalence but also by its profound impact on the individual's physical and mental health (Demerouti et al. 2021). In terms of physical health, individuals experiencing burnout are significantly more susceptible to coronary heart disease, chronic health issues, and acute stress symptoms (Toker and Biron 2012). They also exhibit higher rates of depression and other mental health disorders (Idris et al. 2012). Studies have shown that individuals with high levels of burnout have higher rates of hospital admissions for cardiovascular problems and are at greater risk for mental health problems (Ahola et al. 2014). In a longitudinal study by Kim et al. (2011) involving social workers surveyed annually over three years, those with higher initial levels of burnout later reported more physical health complaints, such as sleep disturbances, headaches, and gastrointestinal infections.

Moreover, burnout affects not only the individual's work life but also their personal life and family members. At home, burned-out employees often struggle to maintain boundaries between work and personal life, leading to heightened tension, withdrawal from family, and strained social relationships (Pluut et al. 2018). These findings emphasize the importance of understanding the factors surrounding job burnout and proposing preventative solutions accordingly.

2.2. Stress

In Human Resource Management (HRM) and Organizational Psychology literature, the impact of stress at work has been extensively explored (Kloutsiniotis et al. 2022). Job stress is defined as a situation where job-related factors interact with the worker, leading to changes in their psychological and/or physiological condition that deviate from normal functioning (Ghafoor and Haar 2022). In today's complex and uncertain competitive environments, numerous work stressors are prevalent (Wang et al. 2021). Stress occurs when external work demands exceed an individual's resources, creating a sense of imbalance that can adversely affect behaviors, attitudes, emotions, and physical health (Bedford et al. 2022). Stress represents an individual's response to work environment conditions perceived as threatening (Gill et al. 2006), representing a significant occupational hazard linked to health issues and burnout (Harms et al. 2017). Job stress may arise from repetitive work activities, work pressure, bureaucracy, or role conflicts (Lepine et al. 2005). Additionally, major life events like a divorce or a family member's illness can disrupt the individual's ability to effectively manage work responsibilities, undermining work performance (Bakker et al. 2023).

Recent studies have noted that environmental changes are commonplace in organizational settings, often inducing stress among employees and fostering interpersonal conflicts that disrupt workflow (Yunita and Saputra 2019). Consequently, stressed employees may experience depression and struggle to maintain focus on their tasks, resulting in decreased overall performance (Bregenzer and Jimenez 2021). Employees experiencing high levels of stress often exhibit lower job commitment and satisfaction (Saleem and Gopinath 2015), which can detract from their focus on important work tasks and diminish overall performance (Kuzey 2018). Work-related stress diminishes employees' self-efficacy, reducing their sense of control over their work environment (Mo et al. 2021). This diminished self-efficacy can impede communication effectiveness and strain relationships with colleagues

and managers, further hindering collaborative performance (Saleem et al. 2021). Stressed employees often perceive their workplace as lacking adequate social support, leading to diminished trust and further impairing collaborative performance (Wickham et al. 2014).

The literature on job stress consistently demonstrates its detrimental effects (Ghafoor and Haar 2022). Although burnout stems from persistent work-related stress, it is important to recognize that stress management alone cannot address the fundamental causes of burnout (Gabriel and Aguinis 2022). Therefore, more research on factors impacting burnout and job stress is crucial.

2.3. Teamwork

A team is a group of individuals who come together to achieve common goals and deliver outstanding services (Askari et al. 2020). Research on teamwork has gained significant importance in recent decades (Planas-Lladó et al. 2021). Teamwork in organizations is defined as "a distinguishable set of two or more people who interact dynamically, interdependently, and adaptively toward a common and valued goal/objective/mission" (Baker and Salas 1992). Teamwork refers to operating collaboratively with others to achieve an objective. It is often a missing link in many organizations (Flores-Szwagrzak and Treibich 2020). Numerous studies have demonstrated the positive effects of teamwork interventions on enhancing team effectiveness across various contexts, such as healthcare, military, aviation, and academic settings (McEwan et al. 2017). Many social theorists consider an organization's ability to foster coexistence and teamwork as a key factor in achieving high productivity (Diamantidis and Chatzoglou 2019).

Within teams, members' behaviors can be categorized into taskwork and teamwork processes (Aaron et al. 2014). Marks et al. (2005) differentiates between the two by stating that "taskwork represents what teams are doing, whereas teamwork describes how they are doing it with each other". Examples of teamwork (as opposed to taskwork) include the seamless communication between a surgeon, nurse, and anesthesiologist, rather than their individual technical skills. Research indicates that teamwork is positively related to important team effectiveness variables, such as team performance, group cohesion, collective efficacy, and member satisfaction (McEwan et al. 2017).

Despite being an understudied topic in public administration (Ali et al. 2021), teamwork is crucial as it provides an alternative to bureaucratic hierarchy for addressing complex public sector goals (van der Hoek et al. 2018). Besides aiding in goal achievement, teamwork helps public organizations respond to political pressure to demonstrate continuous efficiency (Vashdi et al. 2013). By bringing organizational members together to pursue common goals, the "cooperative interdependence" required for teamwork minimizes categorical distinctions between ingroup and outgroup members, thereby reducing exclusionary behavior (Brewer and Miller 1984) that may add to employee stress and burnout. Additionally, teamwork enhances individual members' ability to contribute to workgroups, which is a key aspect of inclusion (Chung et al. 2020). Inclusion is also seen as organizational conditions that facilitate cross-boundary problem-solving and collaborative work arrangements (Nishii 2013). Such inclusion not only yields beneficial outcomes for the organization but also contributes to the perceived social support of employees (Edú-Valsania et al. 2022). Examining how teamwork influences perceived social support is an important factor in understanding the stress-burnout relationship.

2.4. Wellbeing

Wellbeing encompasses individuals' valued experiences, enhancing their effectiveness in work and other activities (Bandura 1986). According to Diener (2009), wellbeing is a subjective term that encompasses happiness, fulfillment of wishes, satisfaction, abilities, and task accomplishments. Work-related wellbeing is defined as the overall quality of an employee's experience and functioning at work (Guest 2017). Hundreds of empirical studies have explored the relationship between job stressors and health and wellbeing (Sonnentag 2018). Several meta-analyses have encompassed a wide range of health and

wellbeing outcomes both psychological and physical (Park et al. 2019). Evidence indicates that employee health and wellbeing are crucial factors for organizational success and performance (Bakker et al. 2023). Collectively, the meta-analytical evidence clearly shows that individuals exposed to higher levels of job stressors report poorer health and wellbeing compared to those not experiencing such high levels of stressors (Puterman et al. 2017). Organizations that foster widespread wellbeing among employees gain a wide array of benefits, from enhanced human longevity and physical health to improved social behaviors and increased productivity and organizational effectiveness (De Neve et al. 2013). Numerous studies have shown that employee wellbeing contributes to various individual and organizational outcomes, including enhanced organizational performance, productivity, customer satisfaction, employee engagement, and organizational citizenship behavior (Mousa et al. 2020).

Over the years, organizational scholars have broadened the scope of job stress and wellbeing research by exploring not only how individuals respond to job stressors but also the recovery processes, such as unwinding and recuperation, that can mitigate the negative effects of these stressors (Sonnentag et al. 2017). However, with the nature of continuously evolving work, the boundaries between work and personal life are becoming more distorted (Haun et al. 2018). The widespread use of mobile devices and job-related technologies has led to individuals remaining constantly connected to their work, even during home and leisure time (Ferguson et al. 2016). This "constant connectivity" poses a significant threat to recovery processes. Research shows that using work-related communication technologies at home reduces psychological detachment from work at both individual (Park et al. 2011) and daily levels (Van Laethem et al. 2018). Even being on standby for work responsibilities, without actively working, can hinder psychological detachment from work (Dettmers 2017). Consequently, understanding the factors that contribute to wellbeing is becoming increasingly focal due to the rapid change in work dynamics.

3. Methodology

3.1. Research Problems

Public sector organizations play a crucial role in delivering essential services to the community, and the effectiveness of these services largely depends on the engagement and wellbeing of public sector employees (Borst et al. 2020). One of the most significant aspects that influences employee behavior and impacts organizational effectiveness is employee burnout (Sciepura and Linos 2024). Burnout, which is distinguished by emotional exhaustion, a sense of detachment, and a lowered perception of personal accomplishment, poses a significant risk to employee wellbeing and organizational effectiveness (Kim 2018).

Despite the extensive research on employee burnout, several gaps remain. First, there is a lack of comprehensive studies that explore the effects of multiple contextual factors such as stress, teamwork, and wellbeing on burnout in the public sector (Knies et al. 2024). Second, research on the combined effects of teamwork and wellbeing on burnout is sparse, particularly in the context of public sector employees who may face unique stressors such as political pressures, limited resources, and high public accountability (Rajesh et al. 2023).

Subsequentially, this study aims to address these gaps in the literature by assessing the contextual factors influencing employees' levels of burnout in the public sector. By exploring the interaction between stress, teamwork, and wellbeing, this research will provide valuable insights for public sector organizations seeking to mitigate burnout and foster a positive work environment, ultimately improving organizational outcomes.

3.2. Hypotheses Development

The focus of this study is to assess how teamwork and wellbeing policies influence the relationship between work stress and employee burnout. This study also examines the impact of employee age, seniority, and organizational size on the relationship between work stress and employee burnout.

It is evident that teamwork serves as an influential factor shaping employees' different responses to stress (Savelsbergh et al. 2012). The perceived social support from the team through teamwork may act as a buffer against burnout (Toker and Biron 2012). Teamwork has been conceptualized widely in research with significant overlap comprising multiple observable and measurable behaviors (Bradley and Aguinis 2023). Various studies have demonstrated the effectiveness of self and peer assessment in the context of teamwork measures (Planas-Lladó et al. 2021).

With regard to employee wellbeing, it is evident that happier and healthier employees enhance their effort, performance, and productivity (Huang et al. 2019). Similarly, studies have shown that employee wellbeing positively influences work-related attitudes and behaviors, such as increasing organizational citizenship behavior, improving job performance, reducing work–family conflict, and decreasing absenteeism (Magnier-Watanabe et al. 2017). Numerous studies have shown that a positive work environment enhances employees' efforts, helps them gain necessary knowledge and skills, and improves their psychological state, aiding in mitigating the impact of stress and burnout (Lee et al. 2021).

While the existing literature has explored many scopes of employee burnout, few studies have assessed the moderating effects of existing contextual factors such as teamwork and employee wellbeing on employee burnout resulting from stress, especially in the public sector. To address these theoretical gaps, our main hypothesis to be assessed is the impact of high teamwork (and) high wellbeing on the relationship between stress and employee burnout in which the primary drivers of the outcome (high teamwork and high wellbeing) influence the dependent variable or outcome of this study (burnout) (Figure 1). Our second hypothesis will involve the impact of teamwork (or) wellbeing on the relationship between stress and burnout in which the second primary drivers of outcome (low teamwork or low wellbeing) influence the dependent variable or outcome of this study (burnout). Our third hypothesis will involve the impact of teamwork (and) wellbeing on the relationship between stress and burnout in which the third primary drivers of outcome (low teamwork (and) low wellbeing) influence the dependent variable or outcome of this study (burnout).
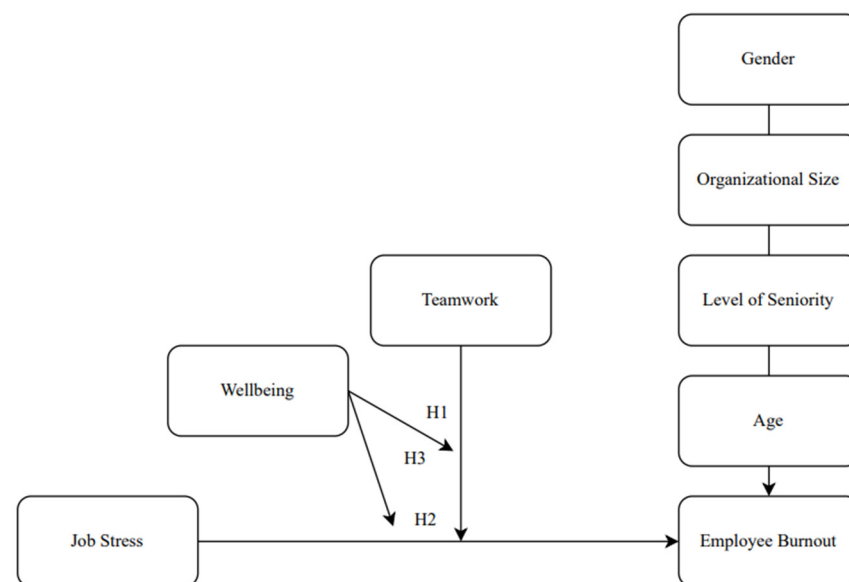
Figure 1. Interaction Effects of Teamwork and Wellbeing on the Stress-Burnout Relationship.

H1. *High teamwork (and) high wellbeing have a strong and significant "buffering" effect on the impact of high stress on the DV (burnout response).*

H2. *Either high teamwork (or) high wellbeing, in isolation, tend to reduce the negative impact on the effects of increasing stress on the DV (burnout response).*

H3. *Concurrent low teamwork (and) low wellbeing tends to significantly increase the negative impact of high stress on the DV (burnout response).*

The synergistic approach in this study refers to the combined influence of teamwork and employee wellbeing on mitigating burnout in high-stress environments. By examining teamwork and wellbeing together, the study explores how these two factors interact to create a stronger buffering effect against burnout than either factor would have alone. This synergy implies that the presence of both teamwork and wellbeing can more effectively buffer the adverse effects of stress on employees, thereby reducing burnout likelihood.

3.3. Research Tools

To analyze the relationships between the variables of interest, a series of statistical tests were conducted using SPSS software. Descriptive statistics were first used to summarize the demographic characteristics of the sample which included organizational size, age, gender distribution, and level of seniority. This provided a foundation for understanding the population under study. To explore the relationships between key variables, bivariate correlations were conducted. Multiple regression analysis was performed to test both the main effects and interaction effects of various predictors on the dependent variable measured. The regression models also included control variables to ensure that the effects of the predictors on the study's dependent variables were not confounded by these factors. Common method bias was checked using Harman's single factor approach.

3.4. Field and Organization of Research

This study falls primarily within the field of Organizational Behavior, with a particular focus on occupational health and wellbeing in the public sector. The study explores key issues in Occupational Health Psychology by examining workplace stress and burnout. Additionally, the study aligns with Human Resource Management (HRM) by investigating how wellbeing perceptions contribute to employee satisfaction and productivity. Given its setting in the Australian Public Service, the research also touches on Public Sector Management, offering insights into managing stress and wellbeing challenges unique to government organizations.

Data used in this research was obtained from the Australian Public Service (APS) Employee Census, an annual survey conducted amongst all employees within the Australian Public Service, comprising individuals employed in the public sector by the federal or Commonwealth Government of Australia. The administration of the Census is managed by the Australian Public Service Commission (APSC), the primary entity responsible for personnel matters within the APS. This Census serves as a crucial repository of data on employment attitudes, which yields the evidential basis for the commission's annual report presented to the Australian Parliament. These datasets are available on the relevant Australian government data portal for researchers' access.

4. Data and Empirical Analysis

This study employed secondary data obtained from the Australian Public Service (APS) Employee Census. The decision to use secondary data from the APS Employee Census was driven by several factors. First, the census is a large-scale, high-quality dataset that includes responses from employees across all levels of the Australian Public Service, thus ensuring a broad representation of the population under study. These data offer a more diverse and accurate representation than could have been achieved through primary data collection within the scope and resources of this study. Additionally, the census data are collected and managed by the Australian Public Service Commission, ensuring high reliability and validity. The APS Employee Census is administered with informed consent from all respondents through the Participant Information Sheet, and ethical clearance has already been obtained by the organization for the collection and use of these data.

The dependent variable for the study is the question "I feel burned out by my work". The scale used is 1 Strongly Disagree to 5 Strongly Agree. The mean response is 2.962 (which is just below 3—Neutral), with an SD of 0.82.

Four control variables were included in the model: agency size, employee age, employee level of seniority, and gender. The great majority of respondents worked in agencies with more than 1000 employees (87%). Around 59% of the respondents were female. The most common age group was between 40 and 54 (41.5%), followed by under 40 (38.9%) and then over 55 (15.9%). In terms of employee seniority, Trainee, Graduate, or APS was the most common grade (65.1%), followed by Managerial Level (32.4%) and then Executive Level (2.5%).

In terms of the key explanatory variables of interest, stress is a single item measure derived from the question "How often do you find your work stressful?". This is scaled 1 for Never to 5 for Always. In addition, there are two derived factor scores as primary and secondary moderators—namely:

Team, which is derived from four questions, "the people in my workgroup cooperate to get the job done", "my workgroup can readily adapt to new priorities and tasks", "my workgroup has the appropriate skills, capabilities and knowledge to perform well" and "the people in my workgroup use time and resources efficiently". The Cronbach alpha for this combined measure is 0.87.

Wellbeing, which is derived from three questions, "I am satisfied with the policies/practices in place to help me manage my health and wellbeing", "my agency does a good job of communicating what it can offer me in terms of health and wellbeing", and "my agency does a good job of promoting health and wellbeing". The Cronbach alpha for this combined measure is 0.86.

Table 1 shows the demographic characteristics of the sample in terms of agency size, gender, age, and level.

Table 1. Demographic Characteristics of the Sample (N = 120,662).

Agency Size	Frequency	Percentage
Small (Less than 250 employees)	4740	3.928
Medium (251 to 1000 employees)	10,363	8.588
Large (1001 or more employees)	105,559	87.483
Gender		
Man or male	45,128	37.400
Woman or female	71,201	59.009
Missing/Other	4333	3.591
Age		
Age < 40	46,947	38.908
40–54	50,020	41.455
Age > 55	19,134	15.858
Missing	4544	3.766
Level		
Trainee, Graduate, or APS	78,543	65.093
Managerial Level	39,119	32.420
Executive Level	2983	2.472

In Table 2, the correlations between the key variables are presented. There was a strong positive correlation between team and wellbeing (r = 0.373, $p < 0.001$), suggesting employees tended to rate team culture and organizational wellbeing policies equivalently. Stress reflected a negative correlation with team (r = −0.219, $p < 0.001$) and wellbeing (r = −0.320, $p < 0.001$). This indicates that higher stress levels are associated with lower team cohesion and perceived wellbeing. Age and agency both had weak correlations with other variables (r < 0.1), suggesting only limited impact on other factors. Level was weakly correlated with Stress (r = 0.092, $p < 0.001$), indicating moderately higher stress at higher organizational levels.

Table 2. Bivariate Correlations.

Pearson's Correlations							
Variable		**Agency**	**Age**	**Level**	**Stress**	**Team**	**Wellbeing**
1. Agency	Pearson's r	—					
	p-value	—					
2. Age	Pearson's r	0.011	—				
	p-value	<0.001	—				
3. Level	Pearson's r	−0.065	0.088	—			
	p-value	<0.001	<0.001	—			
4. Stress	Pearson's r	0.006	0.018	0.092	—		
	p-value	0.039	<0.001	<0.001	—		
5. Team	Pearson's r	−0.012	−0.072	0.019	−0.219	—	
	p-value	<0.001	<0.001	<0.001	<0.001	—	
6. Wellbeing	Pearson's r	−0.009	−0.008	0.034	−0.320	0.373	—
	p-value	0.002	0.007	<0.001	<0.001	<0.001	—

The results presented in Table 3 provide insights into the factors influencing employee burnout in the Australian Public Service. Of the control variables, both age (β = −0.071, $p < 0.001$) and level (β = 0.008, $p < 0.05$) are significant predictors of burnout, albeit with different directionalities. According to our model, as employees age, they are generally less likely to report burnout. However, as employees increase in seniority, the opposite is true.

Table 3. Regression Model.

| Dependent Variable Is "I Feel Burned Out by My Work".								
							Collinearity Statistics	
Model		**Unstandardized**	**Standard Error**	**Standardized [a]**	**t**	**p**	**Tolerance**	**VIF**
H_0	(Intercept)	2.962	0.003		933.461	<0.001		
H_1	(Intercept)	0.492	0.018		26.856	<0.001		
	Agency	0.008	0.005	0.003	1.593	0.111	0.997	1.003
	Age	−0.071	0.003	−0.048	−22.639	<0.001	0.992	1.008
	Level	0.008	0.004	0.004	1.998	0.046	0.980	1.020
	Stress	0.816	0.003	0.629	271.702	<0.001	0.905	1.105
	Team	−0.106	0.010	−0.099	−10.948	<0.001	0.232	4.303
	Wellbeing	−0.122	0.009	−0.114	−13.106	<0.001	0.240	4.164
	Gender (Male)	0.038	0.005		8.315	<0.001	0.995	1.005
	Gender (Female)	0.069	0.018		3.872	<0.001		
	Stress * Team	−0.001	0.003	−0.004	−0.405	0.686	0.222	4.495
	Stress * Wellbeing	−0.010	0.003	−0.031	−3.563	<0.001	0.238	4.204
	Team * Wellbeing	0.031	0.007	0.038	4.704	<0.001	0.262	3.820
	Stress * Team * Wellbeing	−0.015	0.002	−0.072	−8.417	<0.001	0.246	4.070

[a] Standardized coefficients can only be computed for continuous predictors.

Gender differences are also evident. Female employees, other things being equal, are more likely to report a sense of burnout than males. This finding warrants further research. Stress is strongly positively associated with burnout (β = 0.629, $p < 0.001$). This confirms prior research into the area of stress and burnout among employees. Relevant for this study, both team and wellbeing both negatively predict burnout (β = −0.099 and β = −0.114, respectively, $p < 0.001$). This suggests the strong and significant direct buffering effect of these organizational contextual factors in the mitigation of burnout likelihood.

There are significant two-way interactions (Stress * Wellbeing) (β = −0.010, $p < 0.001$) and Team * Wellbeing) (β = −0.010, $p < 0.001$), illustrated in Figures 2 and 3. Stress * Wellbeing shows a convergence pattern as stress increases. This suggests that as stress

increases, stronger wellbeing policies significantly reduce the negative impacts of higher stress on burnout likelihood.
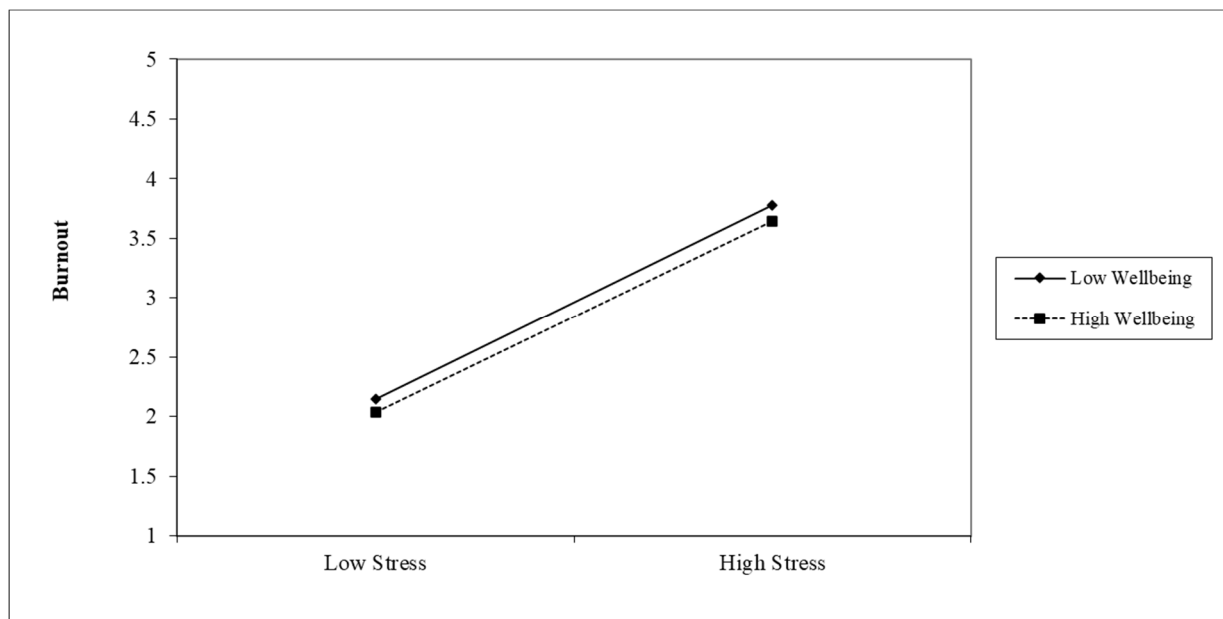
Figure 2. Interaction of Stress and Wellbeing on Burnout.
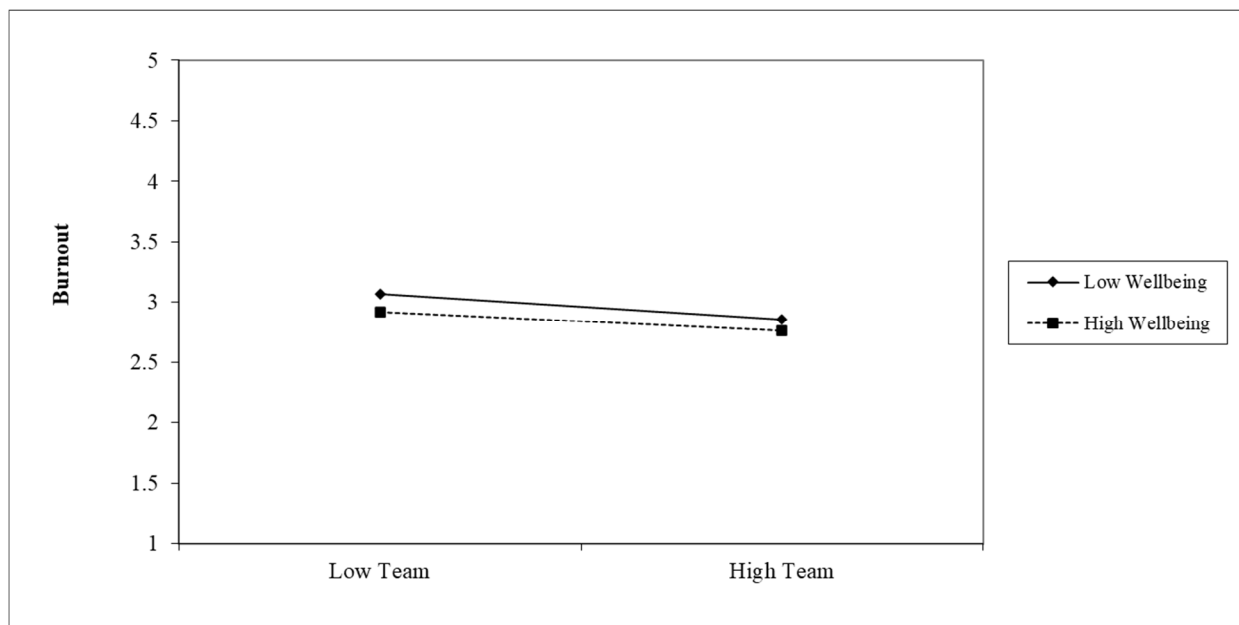
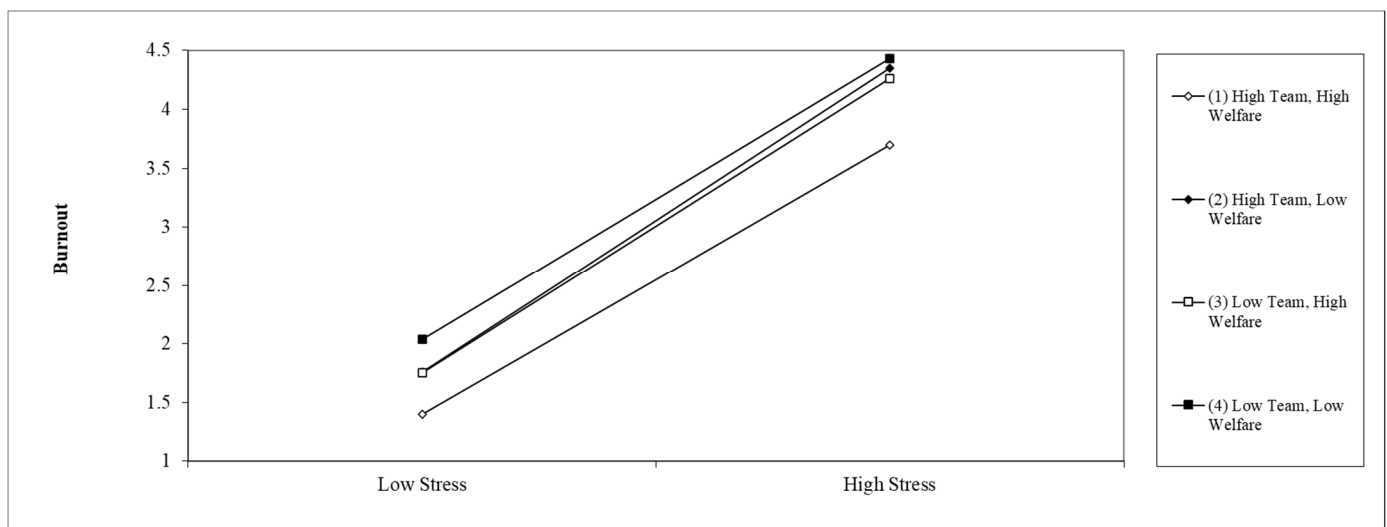**Figure 3.** Interaction of Team and Wellbeing on Burnout.

Conversely, for the interaction of team and wellbeing, we see a general pattern of burnout likelihood increasing as team decreases. However, high wellbeing partially compensates for this, with the interaction effects increasing as team declines. This suggests that wellbeing policies partially compensate for, or buffer, low team status quo within organizational settings.

It is important to interpret these interactions in the context of the fully specified model, which includes the three-way interaction of stress, team, and wellbeing. The three-way interaction (Stress * Team * Wellbeing) suggests that the significant two-way interactions noted in the model vary across levels of the third factor. This finding implies that the

impact of stress on burnout is influenced by both team and wellbeing, but not in a simple additive manner.

The negative coefficient of the three-way interaction (β = −0.072, *p* < 0.001) indicates that the combined effect of high team support (Team) and strong wellbeing policies (Wellbeing) are particularly effective in reducing the impact of stress on burnout.

Figure 4 provides an intuitive illustration of these effects. It is notable that the highest level of Burnout occurs when stress is a Mean + 1 SD (High Stress) and team and wellbeing are at low levels (Mean—1 SD). In this scenario the model estimates a burnout response of approximately 4.5 on a 5-point Likert scale—approximately midway between Agree and Strongly Agree. Conversely, when stress is low (Mean—1 SD) and both team and wellbeing are high (Mean + 1 SD) the model point estimate for burnout is approximately 1.4 on a 5-point Likert scale (between Strongly Disagree and Disagree).

Figure 4. Three Way Interaction of Stress, Team, and Wellbeing on Burnout.

However, the evident convergence pattern of the burnout point estimates for the high team/low wellbeing and low team/high wellbeing scenarios as stress levels move from high to low indicates a key finding. At high levels of stress (Mean + 1 SD), the presence of either high team/low wellbeing and low team/high wellbeing provides a point estimate for burnout at approximately the same level as low team/low wellbeing. This finding suggests that where stress is high, a coordinated and calibrated organizational response that provides both wellbeing assistance and team support is necessary to partially mitigate the impact of high stress on burnout likelihood.

At the other end of the spectrum, where stress is low, either high team/low wellbeing and low team/high wellbeing are shown to be beneficial is reducing the already low level of burnout likelihood. We note that the model point estimate in these scenarios converges at around 1.7 on a 5-point Likert scale from 2.1 where low team/low wellbeing coincide with high stress. This suggests that in isolation, either team or wellbeing provides a valuable buffering effect on burnout risk in situations of low to medium stress, but a concerted effort to provide both forms of support is necessary in scenarios of high employee stress.

5. Discussion

The study explores key factors influencing employee burnout in the public sector, which includes stress, teamwork, and wellbeing policies as primary explanatory variables. In order to help contextualize the relationship of organizational and individual factors on burnout, especially given the diversity in the sample's demographics, four control variables—agency size, employee age, level of seniority, and gender—revealed important insights. Agency size and gender were found to be significant predictors of burnout, with

women being more likely to experience burnout than male employees (59% of the sample was female). This finding is consistent with prior research suggesting that women report higher levels of work-related stress and burnout, potentially due to a conflict of professional and personal responsibilities (O'Neill and Salas 2019; Leiter et al. 2014). Additionally, age was found to be negatively associated with burnout. This suggests that older employees are less likely to experience burnout due to a potential increase in resilience or coping mechanisms, which have developed over time (Schaufeli et al. 2009a). As for level of seniority, results indicate that level of seniority was positively associated with burnout, this suggests that potential increase in demands, responsibilities, and expectations of higher positions may result in higher levels of stress (Maslach and Leiter 2016).

Stress was strongly positively correlated with burnout; this confirms that as stress levels rise, burnout also increases. This finding aligns with the well-documented relationship between work stress and burnout in organizational research (Crawford et al. 2010). That being said, the negative correlations of team and wellbeing with burnout indicates that a supportive work environment can buffer the effects of stress. Employees are less likely to experience burnout when they report high levels of team cohesion and satisfaction with wellbeing policies. This finding is consistent with the job demands-resources (JD-R) theory, which suggests that mitigating the impact of job stressors can be achieved through organizational resources such as team support and wellbeing policies (Bakker and Demerouti 2017).

The strong positive correlation between team and wellbeing further indicates that employees who rate their team positively also tend to evaluate organizational wellbeing favorably. This finding is consistent with research suggesting that an overall supportive organizational climate contributes to both effective teamwork and employee wellbeing (West et al. 2014). Additionally, the negative correlations of stress with team and wellbeing indicates that lower perceptions of team cohesion and dissatisfaction with wellbeing policies are associated with higher stress level.

The interaction effects presented in the model provide further understanding on how different organizational factors may interact to influence burnout. The significant two-way interactions between stress and wellbeing, and between stress and team, indicate that these factors do not act independently but rather interact in complex ways to influence burnout. For instance, the positive impact of high team support or strong wellbeing policies on burnout may be limited when high stress levels are present.

The negative three-way interaction between stress, team, and wellbeing indicates that the combined effect of high team support and strong wellbeing policies is required in reducing the impact of higher levels of stress on burnout. This finding aligns with research suggesting that in order to mitigate the negative effects of work-related stress, coordinated support from both team and organizational resources must be achieved (Hobfoll et al. 2018). Contrarily, team support or wellbeing policies alone are only sufficient to buffer against burnout in cases with lower levels of stress.

5.1. Theoretical Implications

This study holds several significant theoretical implications for understanding the dynamics of burnout in the public sector, particularly involving employee stress, teamwork, wellbeing, and the role of workplace resources. Findings of this study contribute to the Job Demands–Resources (JD-R) theory, which suggests that employee wellbeing is influenced by a balance between job demands (stressors) and job resources (support systems like team cohesion and wellbeing policies). Job stressors exhaust the energy of employees which ultimately leads to burnout, while job resources (such as team support and wellbeing policies) can be utilized to mitigate the negative impact of these job demands (Bakker and Demerouti 2017). The strong positive correlation between stress and burnout in this study reinforces the main principle of JD-R theory, which argues that negative outcomes such as burnout will occur if job demands are not buffered by adequate resources.

Additionally, the negative correlations between burnout and both teamwork and wellbeing policies also provide further support to the JD-R model, further confirming the

impact of workplace resources acting as buffers against job stressors (Schaufeli et al. 2009b). Findings of this study also highlight that the interaction effects between stress, teamwork, and wellbeing are not merely additive but interact in complex ways to influence burnout (Bakker and Demerouti 2017). The three-way interaction (Stress * Team * Wellbeing) of this study suggests that high levels of both team and wellbeing support are particularly effective in reducing burnout in high-stress environments. This adds depth to the JD-R framework by emphasizing the importance of a coordinated approach to resource allocation when addressing high job demands (Hakanen and Roodt 2010).

Furthermore, the three-way interaction between stress, teamwork, and wellbeing policies suggests that utilizing a combination of these resources is more effective in mitigating effects of stress on burnout than utilizing either resource in isolation. This finding aligns with the Conservation of Resources (COR) theory which suggests that stress occurs when job resources are threatened, lost, or insufficient to meet job demands (Hobfoll 1989). Thus, it is important to optimize utilizing these resources to achieve maximized benefits. Findings of this study demonstrate that resources can interact synergistically to enhance their protective value, particularly in the face of high job demands and stressors (Hobfoll et al. 2018). When both team support and wellbeing are present, employees are better equipped to cope with stress, leading to lower levels of burnout. This emphasizes the importance of a holistic approach toward the management of job resources, as a single resource may not be sufficient to buffer the effects of job stressors. The negative correlation between stress and both teamwork and wellbeing policies indicates that when these organizational resources are singled out or lacking, employees perceive greater levels of stress, leading to higher levels of burnout.

This study also contributes to gender-related theories on stress and burnout, where research has shown that women are more likely to experience burnout due to the combined pressures of work and home responsibilities (Maslach and Leiter 2016). Findings of this study indicate that female employees report higher levels of burnout compared to male employees which supports previous research on gender differences in workplace stress and burnout (Leiter et al. 2014). This also raises important questions about the relevance of organizational resources in addressing specific needs of female employees. For instance, women may benefit more from wellbeing policies that offer flexible working arrangements and support a work–life balance, which are key factors in reducing burnout among women (Nagy and Nagy 2020). This emphasizes the need to include gender differences as a moderating variable in future theoretical models of employee burnout and to recognize that men and women may require different types of resources to effectively mitigate burnout (Griffin 2016).

The significant negative correlation between teamwork and burnout emphasizes the crucial role of social environment in reducing the negative effects of job stress in the workplace (West et al. 2014). Previous research on the JD-R and COR frameworks had more of an individual-focused approach towards resources such as job control or personal development opportunities (Bakker et al. 2004). However, findings of this study indicate that collective or team-based resources, such as teamwork and shared adaptability, are equally important in buffering against burnout. As a result, organizations should consider group-based interventions in addition to traditional individual-level resources to mitigate the effects of burnout. Multi-level approaches with regard to resource allocation and management should be considered when addressing employee burnout (Hobfoll et al. 2018).

5.2. Practical Implications

Findings of this study hold several practical implications for organizations, leadership practices, and human resource management within the public sector. Key practical implications include addressing job stress through workplace interventions. The strong positive relationship between stress and burnout indicates that higher levels of job stress significantly increase the likelihood of burnout. From a practical perspective, organizations should prioritize interventions aimed at reducing job stress as a critical component of

their burnout prevention strategies. This can be achieved through the implementation of different stress management programs, which can include mindfulness training, workload management, and employee assistance programs. Mindfulness training has been shown to reduce stress and improve emotional regulation, which can lower burnout levels (Good et al. 2016). Managing employees' workloads and ensuring that workloads align with their capabilities through workload restructuring is essential in reducing perceptions of excessive job demands, which is a major source of stress for employees (Sonnentag and Frese 2012). Reducing stress through providing clear expectations, deadlines, and support can also improve employee wellbeing (Spector and Jex 1998).

Findings of this study indicate that the significant negative correlation between teamwork and burnout suggests that employees who perceive high levels of team support are less likely to experience burnout. This is consistent with existing research that emphasizes the role of social support in buffering against stress and reducing burnout (Halbesleben 2006). Organizations can therefore take practical steps to foster teamwork, collaboration, and a supportive work environment as a means of mitigating burnout. This can be achieved through team-building activities, fostering open communication, and encouraging collaborative work practices.

Another key implication involves the importance of wellbeing policies. Findings of this study indicate that the strong and significant direct buffering effect of wellbeing in the mitigation of burnout likelihood serves as a critical factor in reducing burnout (Salanova et al. 2012). Organizations need to invest in comprehensive wellbeing programs that address both physical and mental health. This can be achieved through offering services such as health screenings, mental health counseling, stress management workshops, and flexible work arrangements (Parks and Steelman 2008).

The findings of this study with regard to age and seniority suggest that interventions should be tailored to the specific needs of different employee demographics. While older employees appear to be more resilient to burnout, those in higher positions may require targeted support to manage the increased stress that comes with seniority. Programs aimed at developing resilience and stress management skills among managerial staff could help mitigate this risk (Maslach and Leiter 2016). Organizations should consider gender differences when implementing policies, such as offering greater flexibility or support for employees balancing work and caregiving responsibilities (Kossek and Distelberg 2009).

5.3. Limitations and Directions for Research

While our research expands empirical knowledge regarding how effective teamwork and employee wellbeing buffer the effect of work stress on employee burnout, several important limitations should be considered. First, our reliance on secondary data limits the use of validated scales for the variables of interest. However, secondary data provided access to a large and diverse dataset that could not have been achieved otherwise. Thus, the nature of the dataset offers both advantages and disadvantages. Secondly, the study is based entirely on cross-sectional, self-reported survey data. Such data are more susceptible to common method bias, which cannot be controlled ex-ante. Additionally, the cross-sectional design limits our ability to infer causal relationships between variables. To better understand the causal relationships and dynamics over time, future research should adopt longitudinal designs. Longitudinal studies can help identify how the impact of effective teamwork and employee wellbeing on buffering work stress evolves over time and affects burnout. Additionally, future studies should extend the research to include private sector organizations and those outside specific geographic regions to enhance the generalizability of the findings. Future research should employ more elaborated and validated measures for variables such as effective teamwork, employee wellbeing, work stress, and burnout. Developing and utilizing refined measurement instruments will improve the accuracy and reliability of the findings. Examining different organizational contexts can provide a more comprehensive understanding of how teamwork and wellbeing buffer the effects of work stress on burnout across various settings. Furthermore, integrating qualitative methods

such as interviews and focus groups can provide better insight into the mechanisms driving the observed relationships. Qualitative research can capture the detailed experiences and perceptions of employees, offering a deeper understanding of how effective teamwork and employee wellbeing interact with work stress and burnout.

Addressing these limitations and pursuing these future research directions will help develop a more robust and comprehensive understanding of how effective teamwork and employee wellbeing buffer the effects of work stress on employee burnout, leading to improved organizational practices and enhanced employee performance.

6. Conclusions

In conclusion, this study provides significant insights into the dynamics of burnout within the public sector, emphasizing the role of teamwork and wellbeing in mitigating stress-induced burnout. The findings support and extend existing literature by demonstrating that teamwork and wellbeing can effectively buffer the effects of stressors on burnout, particularly when utilized together. For public sector institutions, these insights suggest that fostering supportive team environments and implementing targeted wellbeing programs can be highly beneficial for employee morale and productivity. By addressing burnout through both effective teamwork and wellbeing policies, public organizations can create a more sustainable work environment that not only enhances employee health but also promotes a more efficient and engaged workforce.

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