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Review of Public Personnel Administration

Emergency service workers: The role of policy and management in (re)shaping wellbeing for emergency service workers

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Keywords:	Employee Attitudes, Behavior, and Motivation, Job Stress, Methodological Issues, Health Issues and Personnel, Cutback Management and Human Resource Administration
Abstract:	<p>This article examines the impact of Psychosocial Safety Climate (PSC) level and strength on the psychological distress of emergency services workers within Street Level Bureaucracies (SLBs). The reason for the research is because the nature of their work, and the organizational context, pre-disposes them to elevated levels of psychological distress, and places them at a higher risk of subsequent debilitating physical and mental diseases. The cost is borne by employees, their families, friends, SLBs, and taxpayers. Survey data was obtained from 274 emergency services workers (including police, fire, emergency and paramedic employees), nested within 43 workgroups, in Australia. Multilevel regression indicated that lower levels of PSC were associated with higher levels of job stress and psychological distress. Also, PSC strength had a partial moderating effect. The findings justify governments intervening legislatively to ensure SLBs' take responsibility for ensuring a supportive PSC to mitigate the impact of exposure to workplace trauma.</p>

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3 **Emergency service workers: The role of policy and management in (re)shaping wellbeing**
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5 **for emergency service workers**
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10 **Abstract.**

11 This article examines the impact of psychosocial safety climate (PSC) levels and strength
12 on the job stress and psychological distress of emergency services workers within street level
13 bureaucracies (SLBs). The reason for the research is because the nature of their work and
14 organizational context pre-disposes them to elevated level of psychological distress, and places
15 them at a higher risk of subsequent debilitating physical and mental diseases, which is a cost
16 borne by employees, their families, friends, SLBs, and taxpayers. Survey data was obtained from
17 274 emergency services workers (including police, and paramedics), nested within 43
18 workgroups, in Australia.
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30 Multilevel regression indicated that lower levels of PSC were associated with higher levels
31 of job stress and psychological distress. Also, PSC strength had a partial moderating effect. The
32 findings justify governments intervening legislatively to ensure SLBs' take responsibility for
33 ensuring a supportive PSC to mitigates the impact of exposure to workplace trauma.
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Emergency service workers: The role of policy and management in (re)shaping wellbeing for emergency service workers

Introduction

Emergency workers (such as police, firefighters, and paramedics) work in street level bureaucracies (SLBs) and are tasked with rescuing and supporting victims of violence (such as from domestic violence or a home invasion) or trauma (such as from a fire, car accident, cyclone, or terrorism). This means that these workers are regularly exposed to traumatic incidents, and some of them will experience acute and/or longer lasting negative impacts depending on the quality and quantity of personal and organizational support in place to promote personal coping measures (Tuckey & Scott, 2014).

According to Conservation of Resources Theory (CORT) stress is a natural human response whenever one's wellbeing is threatened (Hobfoll, 2011). Over time, continual exposure to stress without any intervention to mitigate its impact can lead to psychological distress, which is characterized by anxiety, depression, and increasing levels of emotional turmoil, as well as an inability to cope (Horwitz, 2007). Occupational psychosocial risk refers to the harm that could potentially result from poor management behaviours and/or work design characteristics within organizations, such as excessive emotional or physical job demands. Psychological distress is known to affect approximately a fifth of European and US workers, and a further fifth of the population later experiences repeat episodes (Drapeau et al., 2012). Additionally, the incidence of psychological distress is significantly higher amongst emergency services workers (Tuckey & Scott, 2014). During non-COVID times, high work intensity and harassment is the norm in SLBs (Farr-Wharton et al, 2016); however, the situation has been exacerbated during the COVID period (Jiang, 2021). Similarly, in Australia, emergency service workers are exposed to higher levels of workplace trauma, and present with higher levels of psychological distress (Beyond Blue, 2018). Thus, while the work of the emergency services is characterized by increased

1
2
3 exposure to traumatic events, there are systematic issues present within emergency services
4 organizations and SLBs more broadly, which, rather than assist employees in managing their
5 exposure to harm, can actually make the issues far, far worse. This means that workers face stress
6 from both the nature of their work as well as red tape and bureaucratic hurdles.
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12 The high incidence of psychological distress amongst emergency service workers is of
13 concern to governments, SLBs, workers, their families and friends, and taxpayers (who pay for
14 stress-related workers compensation claims) (Beyond Blue, 2018; Heyman, Dill & Douglas,
15 2018; Safe Work Australia, 2021). One way of assessing psychosocial risk is by examining
16 Psychosocial Safety Climate (PSC) (Dollard & Bakker, 2010), which predicts psychosocial risks,
17 and consequently it is considered the lynchpin between workplace stress and employee
18 wellbeing. PSC refers to the extent to which a work context is psychologically safe for
19 employees, and is measured by the extent to which employees perceive that their psychological
20 health is an organizational priority, evident by their bi-directional communication practices and
21 support-driven management behaviours (Dollard & Bakker, 2010).
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35 The importance of the PSC within organizations is more pronounced as a result of the
36 increasing number of work-related mental disorders and the subsequent costs associated with
37 stress-related workers' compensation claims in Australia (Becher and Dollard, 2016) and many
38 other countries (Dollard & Nesar, 2013 in the case of Malaysia; Dollard & Jain, 2019 in the case
39 of 31 European countries). According to Afsharian, Zadow, Dollard, Dormann & Ziaian (2018,
40 496) the level of PSC is determined by senior management deciding whether to "... prioritize
41 and value worker psychological health ...," which then embeds work conditions that either
42 exacerbate or thwart employee stress.
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53 The decision to prioritize and value workers' psychological health as argued by
54 Afsharian, et al (2018) is a management decision. However, management within SLBs are
55 conflicted between reducing the risk posed by high demand work environments on the one hand,
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4 and being under constant pressure to provide a low-cost, high efficiency operational model on
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6 the other hand, i.e., ‘doing more with less.’ The public value of ‘efficiency’ emerged as a legacy
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8 of the implementation of New Public Management (NPM) from the 1970 onwards (Bryson et al,
9
10 2014). It began with the aim of improving the market accountability of delivering public goods,
11
12 which led to actions that sought to define, measure, and performance manage achievement using
13
14 reductionist metrics (Pollitt & Bouckaert, 2017). A consequence of NPM for SLBs is that
15
16 managers prioritize cost minimization strategies in their decision-making, in turn ‘normalizing’
17
18 under-resourcing in delivering essential services, resulting in employees taking responsibility for
19
20 navigating the ‘public service gap’ in providing services to the community (Hupe & Buffat,
21
22 2014).
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26 This pressure to fill the public sector gap resulted in significant challenges for public sector
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28 workers, and a new policy framework is emerging in response. The study at hand exists against
29
30 the backdrop of changing approaches to Work, Health and Safety (WHS) legislation in Australia,
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32 which emphasises the responsibility of workplaces to mitigate psychosocial risk. Arguably, such
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34 a normative response from legislators at all levels of Government within Australia connotes a
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36 sense of public value ‘failure,’ whereupon the drive for efficiency has so comprehensively eroded
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38 equity such that laws need to be introduced to rebalance these.
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42 Australia’s efforts to legislate psychosocial risk mitigation is aligned with broader,
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44 international movements. For example, the United Nations’ third Sustainable Development Goal
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46 (SDGs#3) – is “good health and wellbeing” and the World Health Organization (WHO) (2016)
47
48 identified the importance of improving employee wellbeing at work as a way of improving health
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50 outcomes for employees. In 2021, the International Standards Organization (ISO) released a new
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52 standard entitled *ISO 45003, Occupational health and safety management– Psychological health*
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54 *and safety at work– Guidelines for managing psychosocial risks*. Australia, along with another
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56 165 countries, have adopted the standard. In particular, this new standard provides guidance for
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3 organizations about how to better manage psychological health and safety risks caused by, for
4 example “... excessive pressure, poor leadership and organizational culture”
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6 (<https://www.iso.org/news/ref2677.html>).
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10 The new approach to WHS adopted by Australia seeks to prioritize organizations’
11 responsibilities for the prevention of psychological trauma because of the rising numbers and
12 costs associated with stress-related workers compensation claims compared with other types of
13 injury (Safe Work Australia, 2021). This will affect SLBs delivering healthcare and emergency
14 services because their employees are ranked in the top four occupations for stress-related workers
15 compensation claims in Australia. The new approach to WHS will require SLBs to enhance
16 levels of PSC within organizations, so as to mitigate the psychological stress caused by excessive
17 pressure. In the context of emergency services SLBs, additional enhancement is necessary owing
18 to the higher levels of exposure to workplace trauma. In practice, managers will likely become
19 responsible for ensuring employees are adequately resourced and supported whilst undertaking
20 work-related activities.
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35 In contrast, ‘doing more with less’ has consequences, and for this reason, CORT is used
36 to explain employees’ responses to poor PSC within emergency SLBs. The research question
37 guiding this study is:
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42 *What is the impact of PSC level and strength on the job stress and psychological distress*
43 *of emergency services workers?*
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47 The research is necessary to show how poor PSCs within SLBs is linked to increased levels of
48 employee distress and subsequent psychological and physical disease. The findings provide a
49 justification for greater government involvement in developing legislation to ensure SLBs’
50 management take responsibility for ensuring a supportive PSC so as to embed support that
51 mitigates employees’ trauma. Additionally, the research addresses two gaps identified by
52 Henderson & Charbonneau, (2016) in their review of emergency services research by public
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3 administration scholars. First, this study is about different types of emergency workers, which
4
5 overcomes a gap in previous public administration research that has primarily focused
6
7 exclusively on police officers. Second, the focus of the paper includes the interplay between
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9 concepts from human resource management and organizational behavior alongside those from
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11 public administration, which is necessary to capture “the cross-cutting nature and
12
13 comprehensiveness of public administration research” (Henderson & Charbonneau, 2016, 578).
14
15 Third, Tummers (2017, 151) identified a lack of research in the public administration literature
16
17 about the “... antecedents and effects [of coping]”. His research examined the link between
18
19 coping strategies and job performance for social workers in the USA. His findings showed that
20
21 one coping mechanism used by social workers is to focus scarce resources on predominantly
22
23 highly motivated clients and this strategy was strongly supported by management and SLBs. He
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25 recommended further research examine antecedents and outcomes for other types of employees
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27 delivering public services in other countries. This article examines the impact of PSC (as an
28
29 antecedent) on emergency services’ distress whilst delivering their services to the public.
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37 **Hypotheses development**

38 **Conservation of Resources Theory (CORT)**

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41 Hobfoll’s CORT explains motivation and in turn, the link with workplace stress and
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43 negative work outcomes. COR theory is underpinned by the principle that employees undertake
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45 those tasks that increase their access to what they value, and on the other hand, demotivate them
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47 to undertake tasks that erode their wellbeing (Hobfoll, 2011). Two key principles explain this
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49 behavior. The first principle is that employees react more to a perceived loss of resources (such
50
51 as an erosion of support resources) than a resource increase. Second, individuals will invest their
52
53 time and energy in building new sources of support (by forming effective workplace
54
55 relationships with colleagues or a line manager) if they perceive that it will stem a loss of
56
57 resources or even increase them (Hobfoll et al., 2018).
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4 Four potential corollaries are possible from the CORT principles. First, the value of a
5
6 resource gain is greatest if employees perceive a potential loss of resources and those who
7
8 perceive the most resources, cope the best (Halbesleben et al., 2014). The second corollary argues
9
10 that once employees perceive a loss of resources, more losses are likely – creating a loss spiral.
11
12 In contrast, those employees who perceive a potential resource gain are likely to experience a
13
14 spiral gain. The final corollary argues that employees respond defensively, even aggressively in
15
16 response to long term resource deprivation.
17

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19 It is management's responsibility to provide adequate resourcing for employees to undertake
20
21 tasks effectively (Hobfoll et al., 2018). The WHO (2018) argues that employees are entitled to a
22
23 work context that ensures that they have psychological health, which they define as “as a state
24
25 of well-being in which every individual realises their own potential, can cope with the normal
26
27 stresses of life, can work productively and fruitfully, and is able to make a contribution to her or
28
29 his community”. In contrast, when organizations poorly resource employees, their psychosocial
30
31 risk increases in response to their PSC being compromised. The argument examined in this
32
33 article is that when a poor PSC work environment exists, it triggers an employee response based
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35 on the first CORT principle (employees react more to a perceived loss of resources than an
36
37 increase in resources) leading to increased stress and reduced wellbeing amongst them. If
38
39 conditions persist, the second corollary becomes dominant – creating a loss spiral, which could
40
41 trigger the fourth corollary – a defensive response in the form of reducing work activity. If
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43 workers do not protect themselves, it is likely they will suffer from mental exhaustion and
44
45 subsequent illness (Li et al, 2015).
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50 51 **Group-level Independent Variable: Psychosocial Safety Climate (PSC) Level**

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53 PSC represents how management decision-making affects employee stress and
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55 subsequent health outcomes. However, for SLBs, the PSC is a function of the degree to which
56
57 austerity-driven funding and management models dominate operations (Hupe & Buffat, 2014).
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3 PSCs are described as ‘poor’ when employees are expected to overwork for low rewards, because
4 these climates challenges both their sense of equity and worth and, are likely to increase their
5 stress levels. This aspect is important because poor PSC has been shown to be empirically linked
6 to circulatory diseases (which refers to those disorders of the circulatory system such as
7 myocardial infarction, stroke, angina and hypertension) and account for approximately one third
8 of all deaths annually across the globe (Gilbert-Ouimet et al., 2014).
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17 The implication of this finding is that poor management decision-making negatively impacts the
18 physical health of employees and consequently negatively affects their families, as well as
19 negatively affecting taxpayers who pay for rising health services and workers compensation
20 claims (Li et al., 2015). The enormity of its evidential negative impact on employees is now
21 emerging in research conducted across 31 European countries (Dollard & Jain, 2019). In their
22 study, stress, bullying, and harassment, as well as violence, emerged as repeated key themes
23 negatively affecting employees’ psychological and mental health. PSC has only recently begun
24 to be tested within SLBs and the initial findings suggest that new types of management models
25 are required if PSC is to improve the health and wellbeing of employees (Brunetto et al, 2021,
26 Brunetto, Farr-Wharton, Wankhade, Saccon, & Xerri, 2022). This is because SLBs remain
27 subjugated by outdated management models that are based on the old rational-technical approach
28 dominated by bureaucratic norms and practices (Crosby & Bryson, 2017). While scholars discuss
29 new management models evident in innovative public sector organizations across the globe,
30 many SLBs in many countries are managed using outdated models developed half a century ago
31 (Brunetto et al, 2021; Farr-Wharton et al, 2021). In contrast, future management models should
32 embrace a ‘Common Good’ HRM approach (Aust, Matthews & Muller-Camen, 2019) which
33 embeds four basic principles, such as that HR practices address specific SDG(s), including
34 ensuring employees’ wellbeing (WHO, 2018) and guaranteeing employees work in physically
35 and psychologically safe workplaces.
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6 Even when SLBs are prepared to change their management models, the funding model
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8 used by governments often prohibit such changes. In practice, this means that PSC is rarely on
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10 the agenda in public administration, which may explain the growing physical and mental health
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12 problems for a range of different types of public sector employees, and a broader need to legislate
13
14 changes to WHS management (Dollard and Nesar 2013; Gilbert-Ouimet et al., 2014; Li et al.,
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16 2015; Becher & Dollard, 2016; Bailey et al, 2015; Safe Work Australia, 2021). A change in the
17
18 importance of PSC would ensure that management is committed to demonstrating a duty of care
19
20 in the way they manage employees, evident by appropriate organizational policies to prevent
21
22 employee stress, and transparent organizational reporting frameworks that ensure those policies
23
24 are implemented. This approach means that psychological health and safety outcomes would be
25
26 prioritized in everyday decision-making at all levels of management within the organization.
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28 According to Jiang (2021, 124) "...psychological support should be delivered as a standard
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30 service provided for groups with high levels of work stress, such as police officers", especially
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32 because the pandemic has amplified the demands placed on emergency workers.
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38 However, the measurement of PSC may also be problematic. This is because perceptions
39
40 of PSC level may differ from one workgroup to the next, as middle managers within SLBs decide
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42 and direct their alignment with that of senior leaders. Moreover, there can be differing
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44 perspective of PSC levels from one employee to the next, within the same workgroup. For that
45
46 reason, Afsharian et al (2018) developed a concept entitled PSC strength that captures the extent
47
48 to which there is agreement within a group about the PSC. The measure also allows for
49
50 comparisons of group consistency across different departments or workgroups. The benefit for
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52 HRM practitioners is that those managing employees require validated tools to identify, measure
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54 and quantify the levels of distress across workgroups. If low PSC is identified, appropriate action
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3 such as management upskilling to learn new leadership behavior in line with changing OHS
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5 legislation can occur.
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10 **Dependent Variable: Psychological Distress**

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12 Psychological distress is a term used to indicate an individual's level of emotional
13 suffering, usually characterised by the presence of depression and anxiety. In particular,
14 psychological distress is perceived as resulting from exposure to either a single stress event or
15 multiple stressful events that have left the individual in emotional turmoil and an inability to
16 cope (Horwitz, 2007). Research by Idris et al. (2012) in a cross-cultural project that included an
17 Australian sample (comprising 126 health care workers from 16 teams) and a Malaysian sample
18 (comprising 180 workers from 31 teams), identified that poor PSC negatively predicted mental
19 health problems (i.e., exhaustion and depression), also referred to as "psychological distress."
20 Stress becomes psychological distress if organizational support structures are in deficit; hence,
21 workers are not able to process stress (Drapeau et al, 2012). Beyond Blue (2018) is an Australian
22 non-profit support organization with a mission to help those with mental health issues. In a
23 summary of a survey of over 21,000 police and emergency service workers, Beyond Blue
24 identified that:
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42 "...workplaces which provide higher levels of support and inclusiveness, regular
43 discussions about workplace experiences, and effectively manage emotional demands on
44 staff, have lower rates of probable PTSD and psychological distress. Police and
45 emergency services agencies can't remove the risk of exposure to traumatic events – it's
46 part of the job. But they can change the environments that their employees and volunteers
47 return to at the end of their shift. *Answering the call* supports the case for continued
48 change to workplace practices and culture." (2018, 14)
49

50
51 According to CORT's second corollary, if employees perceive a loss of resources, more losses
52 are likely – creating a loss spiral. This means that if workers within a workgroup perceive a lack
53 of support from management, that perception are likely to escalate over time, as stress begins to
54 manifest as high levels of psychological distress and vice versa.
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Individual-level Independent Variable: Job Stress

According to CORT (Hobfoll, 2011), stress is an innate response to the threat of one's wellbeing. The nature of emergency work is that it is inherently stressful. In particular, Purba and Demou (2019, 18) argue police officers experience high level of stress, which is caused by a combination of operational tasks including the constant threat to their physical and mental safety resulting from the expectations that they must control their emotions when dealing with (sometimes violent) criminals and victims and, responsibility for using a firearm. Such conditions are also present in paramedic contexts; and, threats of physical and mental safety are also present for fire fighters, emergency services personnel, as well as those involved in forensically processing and legally administering crimes and crime scenes. Jiang (2021) argues that such stress has been intensified during the pandemic because of greater demand for them to perform more emergency services related to isolating and quarantining specific citizens. Hence, we expect stress to be positively related to psychological distress.

Synthesising the aforementioned sections outlining proposed interactions between PSC, job stress, and psychological distress, two hypotheses are proposed. These are expressed as:

Hypothesis 1: Higher workgroup PSC level is associated with lower individual job stress and psychological distress.

Hypothesis 2: Job stress is associated with psychological distress.

Moderating Variable: PSC Strength

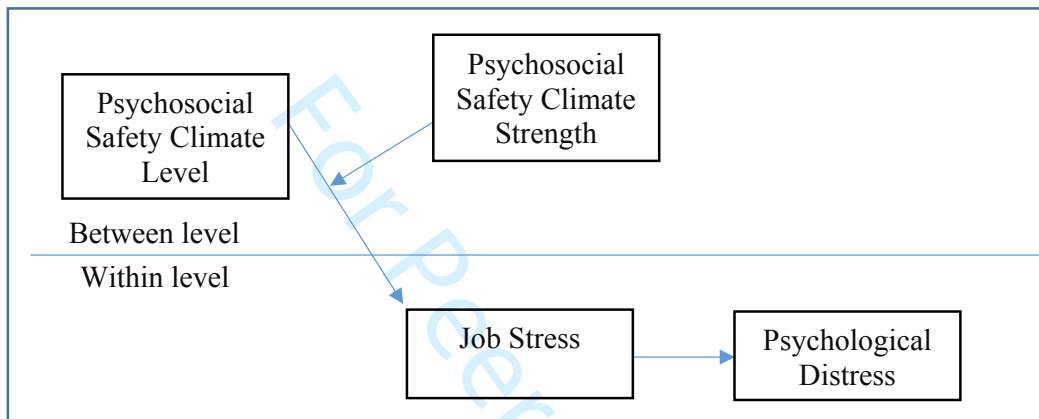
Afsharian et al. (2018) highlight that PSC strength may play an important moderating role between the PSC level of workgroups and individual level outcomes. PSC strength is complementary, as it accounts for the degree to which individuals, nested within teams, share agreement regarding the collective level of PSC. When collectively, individuals feel unsupported and that their wellbeing has not been prioritised, this is likely to increase collective experiences

of stress. Thus, we adopt the approach used by Afsharian et al (2018), and model the moderating effect of PSC strength on the pathway linking PSC strength and job stress.

Hypothesis 3: PSC strength moderates the relationship between PSC level and job stress

The model examined including the hypotheses are shown in Figure 1. The hypotheses are used to guide data collection and analysis.

Figure 1: hypothetical model



Methods

Sample:

This study examined the impact of PSC level on emergency services' stress and psychological distress, and the moderating effect of PSC strength, using a self-reported survey data from 274 emergency services workers, nested within 43 workgroups. The sample of emergency services workers covered employees from police (n=95), fire brigade (n=59), paramedics/ambulance (n=107) and emergency rescue employees (n=11), from one State jurisdiction in Australia.

The jurisdiction employed slightly more than 2500 paid emergency services workers and also 5000 volunteers. Participation in the survey process occurred through two modes. The first involved a face-to-face survey collection process with a member of the research team visiting a

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3 large number of police, fire and emergency services station in one state of Australia over a two-
4 week period, inviting employed employees to complete the survey during 2019 and 2020. This
5 approach was complemented by an online survey campaign. The total data collection yielded
6 416 surveys, however of these only 274 respondents indicated which workgroup to which they
7 responded. While identifying membership to a workgroup is a pre-requisite for determining PSC
8 strength and level metrics, a condition of the survey was that all data was voluntarily obtained.
9
10 Of the 274 respondents, n=194 worked in frontline roles, n=46 in administration roles, and n=34
11 in management roles within their respective emergency services divisions. Job role (frontline,
12 administration, and management) was used as a control variable at the individual level of
13 analysis, and division (police, fire, paramedic or emergency) was controlled for at the between
14 (workgroup) level of analysis.
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31 *Measures*

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33 A five-point Likert scale was used for all psychometric measures, with 1= strongly
34 disagree, 2 = disagree, 3 = Neither (agree nor disagree), 4 = agree, 5 = strongly agree.
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36 Psychosocial safety climate was measured using the 12-item scale developed by Hall, Dollard,
37 and Coward (2010). A sample item includes 'there is good communication here about
38 psychological safety issues which affect me.' The reliability of the scale was good, with
39 composite reliability score of .86.
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47 Job stress was measured using the 5-item scale by Griffin et al. (2010). An example item
48 is 'I am usually under a lot of pressure when I am at work.' The composite reliability was .85.
49

50 Psychological Distress was measured by Kessler et al's (2002) instrument (K10) for measuring
51 psychological distress (anxiety and depression). A sample item is 'about how often did you feel
52 tired out for no good reason?' Robust reliability was displayed with a composite reliability score
53 of .91.
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Analysis procedure

The Mplus v8.6 and SPSS v27 statistical analysis packages were used to evaluate the quality of data and undertake hypotheses testing. The distribution of all of the items fell between the acceptable threshold for skewness and kurtosis (between -2 and +2) (George and Mallery 2010). To test the likelihood of common method variance (CMV) affecting the data, a Harmon's single factor test was applied to the data. 32.95% of the variance was explained by one factor, indicating a low likelihood of common method variance effecting the data. Table 1 below highlights the composite reliability, discriminant and convergent validity indicators for the assembled scales, with all assessments presenting as appropriate (i.e. composite reliability above .9, average variance extracted (AVE) above .5, and maximum shared variance below AVE). A composite linear variable (average of all items) was assembled for the variables psychological distress, stress, and psychosocial safety climate. For 'Job Stress', the mean of items was used as the composite; and for 'Psychological Distress', the sum was used (in line with how the variable is typically treated and reported in analysis). To generate the workgroup level scores for PSC strength and level, as per the approach adopted by Afsharian et al (2018), PSC level was represented by the mean (average) result of individuals within each workgroup. In line with Afsharian et al (2018), PSC strength was measured as -1 multiplied by the standard deviation (SD) of PSC level. Workgroup sized varied from two to 55 members, with the average being 6.372 members per group.

Table 1: Instrument reliability, Convergent and Discriminant Validity

	Composite Reliability	Average Variance Extracted	Maximum Shared Variance
1. Psychological Distress	.91	.50	.31
2. Job Stress	.85	.54	.31
3. Psychosocial Safety Climate	.95	.60	.17

Mplus version 8.6 was used to undertake multilevel regression analysis. Following the confirmatory factor analysis process, a two-level correlation model was assembled, followed by a complete model with all hypothesised paths. Maximum likelihood was used as the estimation algorithm.

Results

The interclass correlation of Psychological Distress was 13.9%, indicating a small multilevel effect. The correlation analysis yielded no significant associations between the tested variables at the between level.

Displayed in table 2, the mean score for PSC Level was 3.068 (on a scale from 1-5), indicating an overall score slightly in the affirmative. This suggests that overall, this cohort of employees feels that they receive a slight level of prioritisation for their wellbeing by management. The mean for 'Job Stress' was 2.770 (out of 5), slightly below the mid-point of 3 (on the scale from 1-5); this corresponds to an overall agreement level in the 'slightly disagree' range though, verging closer to the 'neither' category (overall). This suggests that the respondents, in the main, felt that they were not encumbered by high levels of stress. The mean score for 'Psychological Distress' was 17.599 overall, corresponding to a 'moderate' classification of psychological distress as per the treatment of the variable in the Australian jurisdiction (ABS, 2012).

Table 2: Means, Standard Deviations, and Correlations

	M	SD	A	ICC	1	2	3	4
1. PSC Level	3.068	.441	.95	-		.09	-.04	-.37
2. PSC Strength	-.661	.242	-	-	-		-.01	-.22
3. Stress	2.770	.845	.85	.098	-	-		.52
4. Psychological Distress	17.599	6.201	.91	.139	-	-	.49**	

Note. ICC = intraclass correlation coefficient; PSC = psychosocial safety climate. $N = 274$ participants. $n = 43$ workgroups. Correlations above the diagonal are at the unit level, and those below the diagonal are at the individual level. * $p < .05$, ** $p < .01$.

The results of the path analysis indicated that when the variables were modelled in the hypothesised order, significant relationships were apparent. At the between (workgroup) level, psychological distress was associated with PSC level ($B = -.357, p < .01$), and also job stress ($B = 1.1, p < .001$), confirming hypothesis 1 and 2 respectively. The product variable – PSC level X PSC strength, was approaching significance ($B = -.62, p < .07$), finding partial support for moderating hypothesis. Importantly, the control variable – the department that each unit was nested within (police, fire, paramedics, or emergency rescue services), was significant. An ANOVA analysis indicated that respondents nested within units belonging to the emergency rescue services had higher levels of psychological distress overall (F score = 4.135, $p < .01$), and particularly higher than those in the policing units (mean difference = 5.4118, $p < .05$).

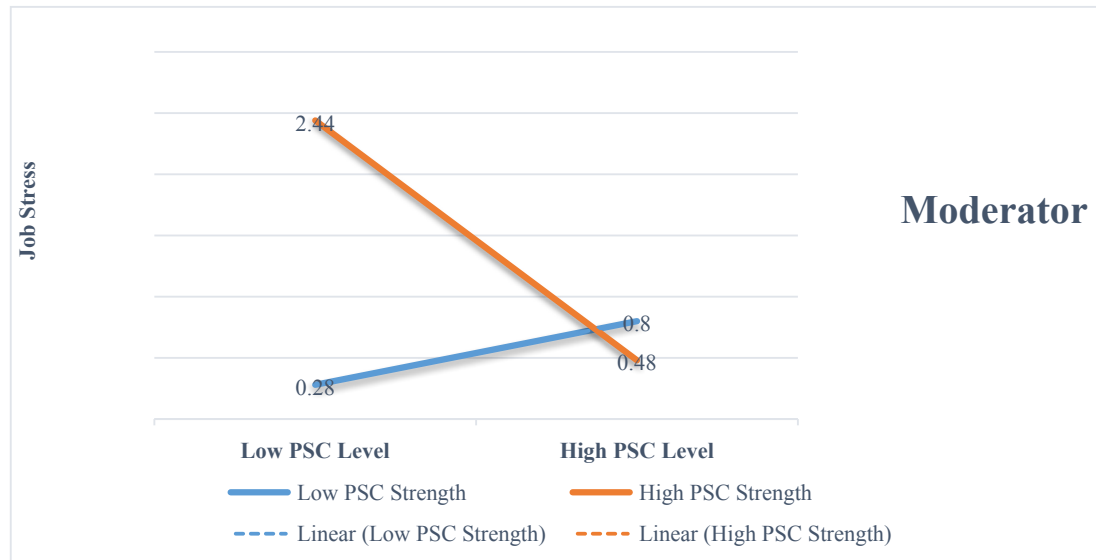
Table 2: Hierarchical Linear Modelling for Psychological Distress

Variables	Psychological Distress	
	Null	Model
Between-level effects		
Intercepts (Y_{00})	-.01 (.09)	-.01 (.05)
Job Stress		1.10 (.26)***
PSC level		-.36 (.15)*
PSC strength		.46 (.33)
PSC level X PSC strength		-.62 (.35)†
(control) Department		.20 (.09)*
Between-level (L2) variance (r)	.18 (.11)	1.59
Within-level effects		
Job Stress		.44 (.07)***
(control) Role		-.01 (.05)
Within-level (L1) variance (r)	.05 (.14)	.01 (.02)
Additional Information		
2 Log-likelihood (FIML)	-888.262	-712.453
Number of estimated parameters	9	22
Pseudo- R^2		.198

Note. L2 = workgroup level, L1 = individual level; Maximum Likelihood. $N = 274$ participants. $n = 43$ workgroups. Hierarchical linear modelling parameter estimates are B coefficients with standard errors in parentheses. All variables were standardised using z-scores. Psychological distress is grand mean centred. * $p < .05$, ** $p < .01$, *** $p < .001$.

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3 The moderation effect was plotted (See Figure 2). The results indicate that when PSC strength is
4 high, the negative relationship between PSC level and job stress is strengthened. In effect, this
5 means that work groups with a more consistent level of agreement concerning PSC strength, also
6 tend to perceive a more substantial impact from PSC level to their job stress, resulting in lower
7 stress levels. In contrast, employees in workgroups that continually perceive low PSC are more
8 likely to perceive higher stress levels. One explanation could be that while different workgroup
9 might undertake similar work, their management and subsequent experience of bureaucratic
10 processes and red tape could be substantially different. Leader-Member Exchange (LMX) theory
11 (Cropanzano & Dasborough, 2017) explains that line managers form different relationships with
12 the employees they supervise – some are given ‘insider’ status, which gives them greater access
13 to resources, support and information, and others are given an ‘outsider’ status, which limits their
14 access to resources and information. In terms of CORT, insiders are more likely to perceive
15 adequate support and resources, whereas outsiders are more likely to perceive inadequate access
16 to resources - potentially leading to increased levels of distress (Hobfoll, 2011). Insiders perform
17 better than outsiders in terms of increased productivity and higher wellbeing (Brunetto et al,
18 2015, 2022). Therefore, HRM has a role to play in upskilling and then performance-managing
19 managers to ensure they form insider relationships with all of their employees.
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Figure 2: Moderation effect



Discussion

This article used COR theory to examine the impact of PSC strength on job stress and psychological distress across workgroups within Australian SLBs delivering emergency services. As such, the research addresses a gap identified by Henderson and Charbonneau, (2016) that previous research focused almost exclusive on police officers only. This research examines the psychological distress outcomes of police officers, fire fighters, paramedics and emergency services workers and therefore provides a broader perspective than previous research. Henderson and Charbonneau, (2016, 578) called for more research that examined the interplay of concepts from different disciplines within the emergency services domain. In this research, some of the concepts examined originated from OB, with a stronger HR focus on employee outcomes. Hence the findings provide a more comprehensive insight into emergency services work as traditional management practices intersect with a newer focus on employee outcomes, in line with the new ISO standard entitled ISO 45003 for organisations to better manage psychosocial risk for employees and ensure their wellbeing (WHO, 2018). The results show that high PSC workplaces

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3 are associated with lower levels of job stress and employee psychological distress (confirming
4 H1 and H2), and there is partial support for the moderating role of PSC strength (confirming
5 H3).
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10 **Contribution to Public Administration and Human Resource Management**

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12 This article addresses an issue raised by Crosby and Bryson (2017) about the way SLBs are
13 managed. They argue that public sector managers continue to adopt the old rational-technical
14 approach dominated by bureaucratic norms and practices. Additionally, Bryson et al, (2014)
15 argue that managers continue to use 'efficiency' as the primary mode informing their
16 management decision-making, irrespective of consequences. This research has shown the impact
17 of management decision-making overly-dominated by efficiency, highlighting that this can erode
18 PSC and increase levels of stress and psychological distress. As stated, future management
19 models should embrace a 'Common Good' HRM approach (Aust, et al., 2019) which reframes
20 management decision making based on ensuring employees' wellbeing (WHO, 2018) and
21 guaranteeing employees work in safe environments, including psychologically safe workplaces.
22 (Brunetto et al, 2022).
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38 In line with Budd (2014) and the Common Good HR approach (Aust et al., 2019), the
39 results from this article call for an increased focus on equity (i.e. fair allocation of resources),
40 over efficiency, when it comes to managing employees within SLBs, and particularly those in
41 emergency services. Prioritizing equity above austerity-driven efficiency goals is required to re-
42 position 'employee wellbeing' above 'balance sheet' requirements in response to growing
43 concerns about the interplay between work conditions and the ability of employees to safely and
44 effectively deliver public services. The enshrinement of these values in WHS legislation, and
45 international standards, is a first step, and overtime will likely reduce the secondary financial and
46 social burden imposed on employees, families, taxpayers and the public which result from
47 exposure to workplace trauma and stress.
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Contribution to CORT

Using CORT (Hobfoll, 2011) provided an insightful lens for better understanding employees' motivation. According to Hobfoll et al, (2018) it is management's responsibility to provide adequate resourcing for employees to undertake tasks effectively. Additionally, the proposed changes to the WHS policy are consistent with management taking responsibility for employees' psychological safety. However, for SLBs, the funding models rests clearly with the government and its competing priorities. The argument presented in this paper is that austerity funding models unintentionally diminish PSC, and as a result cause longer term costs to accrue for the public. If a poor PSC work environment exists, it triggers a response based on the first COR principle (employees react more to a perceived loss of resources than an increase in resources) leading to increased stress and reduced wellbeing amongst employees. If conditions persist, the second corollary becomes dominant – creating a loss spiral, which could trigger the fourth corollary – a defensive response in the form of searching for other occupations or if employees stay, the outcome is likely to be high sick leave and low performance.

Contribution to PSC Theory

Whilst Dollard and Jain (2019) have identified the link between poor PSC workplaces and the physical and psychological consequences for employees within thirty one European countries, there is far less research about employees within SLBs. PSC has only recently begun to be tested within SLBs (Brunetto et al, 2021). The contribution of this paper is in identifying the importance of PSC levels and PSC strength in differentiating psychological distress consequences across emergency services workgroups. In the results, there is a distinction between those work groups that had a stronger consistency in their perceptions of PSC (i.e. stronger PSC strength) because the negative relationship linking PSC with job stress was enhanced. From a multilevel perspective, this articulation is important because when perceptions

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3 of management support, either negative or positive, are shared consistently across a group the
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5 collective impact is strengthened, whereas when there is greater diversity in views (thus lower
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7 PSC strength), the multilevel effect is dampened. This result offers a provocation for public
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9 managers, particularly those in charge of emergency services – to mitigate collective stress of
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11 employees, by embedding consistent support and resourcing across all employees. This requires
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13 a stronger HR presence, assessing and monitoring PSC strength across workplace groups. If
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15 workgroups consistently register low PSC, there is a role for HR to ensure upskilling of
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17 workgroup leaders in the type of leadership behavior likely to promote insider status amongst
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19 employees in each workgroup (Cropanzano et al., 2017). If, in contrast, ad hoc risk mitigation
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21 strategies are adopted and applied to some employees, but not others, the results will be less
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23 impactful than otherwise would be the case. In summary, SLBs have stewardship in ensuring
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25 that the negative impact of exposure to psychological harm is mitigated and managed and that
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27 this public value should be prioritized above austerity-drive efficiency.
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36 **Best Practice for SLBs**

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38 The findings confirm that in those SLBs where PSC is high, management practices are
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40 showing a duty of care towards employees' wellbeing, and consequently, they are less likely to
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42 be stressed from high levels of overwork and work harassment, in turn, confirming the work of
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44 Dollard and Nesar (2013), Li et al. (2015) and Becher and Dollard (2016). Such employees are
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46 less susceptible to developing high blood pressure (and subsequent diseases - myocardial
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48 infarction, stroke, angina and hypertension), which is responsible for a third of all deaths
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50 annually across the globe (Gilbert-Ouimet et al. 2014).
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54 At the SLB management level, the contribution of this research is that it shows that when
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56 workers perceive some focus on PSC by management, it advances employee wellbeing
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58 somewhat, and mitigates higher levels of stress, which can contribute to psychological distress.
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3 This finding is consistent with previous research comparing PSC across European countries by
4 Dollard and Jain (2019). However, austerity-based government funding models limit SLBs from
5 changing management practices despite the World Health Organization (2016) making the link
6 between poor employee wellbeing and the long-term health outcomes for workers, and the UN
7 recognising its third Sustainable Development Goal (SDGs#3) as “good health and wellbeing”.
8 In the past, SLBs have had difficulty moving away from a rational-technical approach dominated
9 by bureaucratic norms and practices, without new types of funding models, and/or a justification
10 for additional funding.
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21 From the perspective of WHS policy and government funding models, the paper
22 demonstrates the importance of congruence between policy objectives and funding. The present
23 austerity-driven government funding model means that employees, their families and taxpayers
24 are burdened with rising healthcare costs associated with increasing health problems in poor PSC
25 environments (Gilbert-Ouimet et al., 2014) and taxpayers pay for the rising number of stress-
26 related workers compensation claims (Safe Work Australia, 2021). The results from this study
27 highlight that these costs have the potential to be mitigated if PSC are prioritised and adequately
28 resourced within SLBs.
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40 A limitation is that the study was conducted on Australian emergency workers only, and
41 therefore should be replicated in other countries to ensure the findings are generalisable. Further
42 limitations of the study relate to the research design, whereupon the sample was cross-sectional,
43 and the data obtained via an organizational surveying process conducted at a single timepoint.
44 While robustness measures applied to the data were positive, such as the Harmon’s single factor
45 test for common method variance, and the instrument reliability measures, inferences regarding
46 causality cannot be drawn when data is obtained at a single timepoint. Notwithstanding, there is
47 benefit in obtaining data directly from employees in specific organizational contexts when
48 considering the external validity of a study (Walter, et al 2019); in the case of this study, the data
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3 collection strategy deployed allowed for multilevel statistical analysis, which does have benefit
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5 in more fully capturing the organisational dynamics that shape employee outcomes Eckardt, et
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15 **Conclusion**

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17 In summary, at the SLB level, we found a strong empirical link between PSC and the
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19 performance of emergency service workers, hence, it adds new knowledge about how traditional
20
21 bureaucratic management practices impact the performance of different types of SLBs. Tummers
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23 (2017, 151) called for more research about the "... antecedents and effects [of coping]" for other
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25 types of workers delivering public services across different countries. The findings from this
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27 research demonstrate the significant impact that PSC can have on employees delivering
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29 emergency services in Australia. Tummers (2017) explained that employees focus their scarce
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31 resources on those who are the most motivated. Whilst this is a strategy that individual employees
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33 can use as a coping mechanism caused by austerity, it does raise questions about the fairness of
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35 government policies and funding regimes that appear inconsistent with the future WHS policy
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37 directives (WHO, 2018) and a 'Common Good' HRM approach to employee wellbeing (Aust,
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39 et al, 2019; Brunetto, et al., 2022).
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