

# The impact of leadership on the psychosocial safety climate of organizations: A scoping review

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## ABSTRACT

Growing evidence suggests that work-related psychological injuries are a concern worldwide. While previous efforts to address psychological injuries mainly focused on the individual level of analysis, the psychosocial safety climate (PSC) theory emphasizes the analysis and prevention of psychological injuries at the organizational level. While there is abundant evidence of the impact of leadership on other climate constructs, scant attention has been paid to the impact of leadership on PSC.

This study is a scoping review of the extant literature to determine the state of the discipline in relation to the impact of leadership on the psychosocial safety climate of organizations.

Three databases were searched, supplemented by a pearling exercise and Google Scholar searches, which yielded 14 studies that met the selection criteria. Our study shows that while much work has been done about the behavior of managers and organizational infrastructure to yield high levels of PSC, there is a dearth of studies on the impact of specific leadership styles on the PSC of organizations. We recommend further studies of leadership, especially the impact of post-heroic leadership styles, on the psychosocial safety climate of workplaces.

**Keywords:** psychosocial safety climate, leadership, management, psychological hazards, scoping review, workplace psychological injuries

## Introduction

Globally there is growing evidence that psychological injuries are significant contributors to the burden of disease.<sup>1</sup> This injury type is also becoming more prevalent in the workplace and is predicted to be one of the major trends in occupational injuries.<sup>2</sup> This increasing trend has led to clarion calls from scholars to address this insidious phenomenon in the workplace.<sup>3</sup> While

many jurisdictions now address physical and psychological safety in the workplace, the evidence suggests that safety authorities are yet to have the same success with psychological injuries as they have had with physical injuries.<sup>4</sup>

The prevalence of psychological injuries in the workplace also appears to be a universal problem, and finding solutions to this problem is therefore of interest to all.<sup>5</sup> One of the challenges that

practitioners and scholars however experience is that the true extent of psychological injuries in workplaces is not always known. While workplace safety regulators record psychological injuries, these statistics do not provide an accurate account of the epidemiology of psychological injuries as they are retrospective and only capture psychological hazards where official claims have been made. Access to workplaces is also often restricted, frustrating research into this phenomenon.<sup>6</sup> Owing to these shortcomings, studying psychological injuries at the individual level is likely not to provide a true representation of the problem.

In this review, we study psychological injuries through the psychosocial safety climate (PSC) theory. PSC is a climate construct that refers to an organization's priority for protecting workers' psychological health. This priority is reflected through enacted policies, procedures, and practices so that when workers view these collectively, they form an opinion of the organization's psychosocial safety climate.<sup>7</sup> This theory further posits that work conditions and worker health and engagement can be predicted when the psychosocial safety climate of an organization is known.<sup>6,7</sup> The level of PSC in an organization is said to indicate the extent to which management prioritizes psychological hazards in the workplace, so in an organization with a high PSC, management prioritizes psychological health more than in an organization with a low PSC.<sup>6</sup> The predictive nature of this construct allows it to serve as a lead indicator for psychological hazards as it predicts the likelihood of psychological injuries occurring in the workplace.<sup>8</sup> While many other climate constructs exist, psychosocial safety climate was tested and found to be distinctly different from other climate constructs, including safety climate, team psychological climate, and perceived organizational support and team climate.<sup>9,10</sup> The literature thus shows that psychosocial safety climate, as a newly introduced construct, is a valid construct for predicting psychological injuries.

As senior managers are the purveyors of policies, procedures and practices that determine the PSC

of organizations, we posit that leadership directly impacts PSC. While there have been reviews on the impact of leadership on psychological safety (the individual-level construct), no such reviews have been done to scope the literature on the impact of leadership on psychosocial safety climate (the organization-level construct).

It is our view that a scoping review of the impact of leadership on the organization-level construct (PSC) is warranted as such a review will contribute to the field as it will set out what is known and identify the gaps in the literature. The purpose of this review is therefore to scope the extant literature to determine the antecedents of leadership for the promotion of a positive psychosocial safety climate in workplaces and in so doing advance the understanding of the field.

## **Methods**

This scoping review follows the model proposed by Arksey and O'Malley (2005), with the exclusion of the optional 'consultation with stakeholders' step.<sup>11</sup> Searches were conducted in Scopus, Web of Science, Emerald Insight, and Google Scholar. This was followed by a pearling exercise to identify possible sources in the reference lists of the selected articles. Search terms used included psychosocial safety climate, PSC, leader\*, manage\*, with the Boolean operator AND and OR with truncation. A schematical representation of the search strategy is provided in Appendix A. The initial search yielded 107 results. After removing duplicate articles, titles and abstracts were reviewed, and 14 papers met the selection criteria.

## **Selection Criteria**

A scoping review does not require the reviewer to consider the quality of selected papers and therefore allows for a much wider search to describe the breadth of the field.<sup>11</sup> Papers written in English and published after 2010, the year in which PSC was introduced into the literature, were included. As this literature review solely focuses on leadership's impact on the organizational-level construct, only studies that addressed PSC were included.

## **Results**

The initial search yielded 107 results. After

removing duplicate articles, titles and abstracts were reviewed, and 14 papers met the selection criteria (see Table 1). We conducted a thematic analysis on the 14 papers in the data set and through the process of manual coding, identified four themes covered in the literature.<sup>12</sup> Our first theme is management support. Papers under this theme primarily focus on the behavior that leaders should display to bring about a positive psychosocial safety climate. Our second theme focuses on the hard and soft systems that should be in place for the promotion of PSC. We refer to this theme as infrastructure for PSC. Our third theme was the impact of PSC on managerial quality, and the final theme was that of leadership. While it may appear as if this theme is similar to our first theme, we believe leadership transcends management, and papers on this theme elucidate leadership styles that impact PSC.

Of the studies conducted, most occurred in the North Americas.<sup>13-17</sup> Three studies were conducted in Australia, with a further three in Europe.<sup>18-23</sup> While the aforementioned studies were conducted in high-income countries, two studies were conducted in an upper-middle-income country (Malaysia) and a lower-middle-income country (Vietnam).<sup>25,26</sup> The final paper by Dormann et al. (2019) can be described as an opinion piece.<sup>27</sup> Research conducted using quantitative methods dominates the dataset, with eight papers employing cross-sectional or longitudinal studies. Five papers presented research findings based on qualitative data or mixed-methods studies.<sup>14,15,17,19,22</sup>

### **Management Support**

Management support has been studied the most in relation to PSC, with 57% (8/14) of the studies in the dataset reflecting this theme. PSC is determined by policies and procedures, and can therefore be described as what organizations say they do for the prevention of psychological stress.<sup>24</sup> PSC support is related to work engagement, through the mediating effect of management support. In other words, the PSC said to be applicable in a workplace brings about work engagement, but only if management offers demonstrated support for employees'

psychological health.<sup>26</sup> While Yulita and colleagues' (2017) study was conducted in a cohort of Malaysian teachers, similar findings were made in an Australian study among ambulance staff across two states where it was found that PSC contributes to better mental health outcomes in workers.<sup>19</sup> In this study the behavior of managers, referred to as manager PSC, accounted for a higher variance in the mental health of workers (13%, for both well-being and common mental health disorders). This finding is in support of the finding of Yulita et al. (2017) of enacted PSC on the psychological health of workers. Interestingly Petrie et al. (2018) also studied observed management support and found that this construct did not have the same effect as manager PSC on mental health.<sup>19</sup> Observed manager support only resulted in a 10% variance in well-being and a 7% variance in symptoms of common mental disorders. These findings confirm the importance of manager support as a modifiable factor influencing employee mental health.

The difference between what organizations say they do (enacted PSC) and what is observed, observed management support, as noted by Petrie et al. (2018) can be problematic and was highlighted by Zinsser and Zinsser (2016).<sup>14</sup> They found that although management support for psychological hazards was demonstrated, workers' perceptions of management support differed from management support captured in the PSC-12, the validated scale for the measurement of PSC.<sup>28</sup> In this study, workers equated management support with the visibility of managers (p. 60).<sup>14</sup> This seems to support the finding of Petrie et al. (2018) that observed management support has a lesser effect on workers' mental health than manager PSC.<sup>19</sup> The work of Nguyen et al. (2017), however, seems to refute this.<sup>25</sup> These authors studied workers' perceptions of management support, known as Perceived Organizational Support (POS), and how it impacts the PSC of an organization. In this study, the impact of PSC and POS is studied on perceptions of bullying, employee well-being, and engagement. Nguyen et al. (2017) hypothesized that the overarching beliefs of support for mental

health in the workplace will influence perceptions of bullying, employee well-being and engagement.<sup>25</sup> This study appears to be the first study among a heterogeneous group of public sector workers and does not focus on one segment of the workforce only, as was the case with Zinsser and Zinsser (2016), Petrie et al. (2018), and Yulita et al. (2017).<sup>14,19,26</sup> The study of Nguyen et al. (2017) is, therefore, more generalizable.<sup>25</sup> Whether the results of this study would be applicable in a Western context remains to be seen, as it was conducted in Vietnam, where relationships in the workplace might be characterized by a high power distance culture and where acceptance of the hierarchy is more prevalent than in Western settings.<sup>25</sup> Geisler et al. (2019) went further and studied the impact of PSC on the retention of workers in a cohort of social workers.<sup>22</sup> While previous studies focused on the link between PSC and engagement, Geisler et al. (2019) demonstrated that support from superiors and the social community at work was positively related to social workers' organizational commitment, compared with work engagement and job satisfaction. In other words, high levels of PSC improved the retention rate of the social workers in this study.<sup>22</sup>

While much of the emphasis of PSC is on workers, St-Hilaire and Gilbert (2019) also studied the effect of PSC, but in this study, the focus was on the mental health of managers.<sup>15</sup> They argue that managers' mental health problems frustrated their ability to implement preventative interventions for subordinates' mental health. Since managers are the conduits of PSC, that is, they are part of the mechanism to facilitate the organization's espoused PSC, this is a very interesting finding as it suggests that an organization's PSC should be such that it prevents psychological hazards among managers first, before it can prevent psychological hazards among workers. St-Hilaire and Gilbert's (2019) study makes a valuable contribution as they argue for a more systemic and collective view of workplace mental health, one in which managers' mental health is included. By doing so, the mental health of all, workers and managers, will be improved.<sup>15</sup>

While the focus of the aforementioned studies was on the mental health of workers, Mansour and Tremblay's (2018) work saw a shift in the impact of PSC on constructs external to the workplace, namely, work-family conflict and family-work conflict.<sup>16</sup> These authors measured two dimensions of work-family conflict, namely a time-based measure and a strain-based measure. To clarify: a time conflict occurs when the time spent on one role makes it difficult to fulfill the requirements of another role, while a strain-based conflict exists when the strain of functioning in one role makes it difficult to operate in another role. Mansour and Tremblay (2018) examined the specific contributions of PSC through family-supportive supervisor behavior (FSSB) to reduce both work-family conflict (WFC) and family-work conflict (FWC).<sup>16</sup> In this regard they examined whether the relationship between family-supportive supervisor behavior (FSSB) and work-family conflict (WFC) is weaker in organizations where the level of PSC is high, as opposed to those where the level of PSC is low. The findings of this study indicated that PSC is negatively and directly associated with work-family conflict time (WFC time), family-work conflict time (FWC time), work-family conflict strain (WFC strain), and family-work conflict strain (FWC strain). In other words, in an organization with low levels of PSC, the time spent on work activities makes it difficult for workers to fulfill their family commitments. Also, in organizations with low PSC, the strain that workers endure makes it difficult to function effectively in their respective family roles.

The theme of management support was further explored by McLinton et al. (2018) in what these authors called high-risk and low-risk PSC environments.<sup>20</sup> They found that in teams with low-risk PSC, managers ensure workers feel valued and supported. In doing so, these managers are good role models for safety. In teams with high-risk PSC, workers view managers as not making their staff feel valued, providing support when requested, or exhibiting good role modeling (pp. 241-242).<sup>20</sup> Further elements that this study identified are the 'conflicting pressures'

that workers experience in high-risk PSC environments. As this research was conducted in a healthcare setting, this factor appears to be very industry-specific and therefore goes beyond the four factors identified in the PSC-12.<sup>28</sup> McLinton et al. (2018) found that in low-risk PSC teams, workloads are spread to not cause psychological harm.<sup>20</sup> In these teams, managers also create policies and procedures that are realistically achievable. In high-risk PSC teams, on the other hand, workers are forced to choose between workloads and working unsafely.

### **Infrastructure to Support PSC**

When the literature is studied, the importance of organizational and environmental factors, and how they relate to psychosocial factors in the workplace, becomes evident. This theme focuses on the systems that should be in place to ensure positive PSC. In the dataset, Einarsen et al. (2019), for instance, studied the impact of human resources practices, perceived financial resources and organizational size on what they call 'ethical infrastructure against workplace bullying' (p. 673).<sup>21</sup> The construct of 'ethical infrastructure' in relation to workplace bullying appears very closely related to the psychosocial safety climate. For instance, they described ethical infrastructure against workplace bullying as referring to formal and informal systems in organizations that prevent organization members from committing acts of bullying. While formal ethical structures for the prevention of bullying consist of policy documents and compliance programs, informal systems are the subtle messages about the organization's values and behavior in relation to bullying. In this study, Einarsen et al. (2019) found that high-quality human resources practices, as operationalized by policies, procedures, and training, affected an ethical infrastructure against workplace bullying. That is, owing to the high-quality human resources practices, workers perceived the organization as having the infrastructure to protect them against bullying. Interestingly, the study also found that financial resources and organization size did not predict an ethical infrastructure against workplace bullying.<sup>21</sup>

Martin et al. (2018) also addressed the theme of infrastructure for positive PSC. In their qualitative study with managers who manage staff with mental health issues, they noted some aspects that demonstrate the lack of a good infrastructure for high PSC.<sup>18</sup> Managers noted that they often 'felt out of their depth', that they had limited knowledge and understanding of mental health issues, and that these challenges were exacerbated by a lack of organizational support and insufficient guidance about the appropriate actions to take (p. 452).<sup>18</sup> One of the tenets of high PSC is that psychological health is given the same attention as production goals.<sup>7</sup> The study by Martin et al. (2018) noted that 37.5% of participants found it challenging to balance the needs of employees with mental health issues with the commercial needs of the organization (p. 454).<sup>18</sup> This paper is the first to indicate that while managers are required to 'act appropriately' once psychological hazards are brought to their attention, the reality is that managers may need support in doing this.<sup>18</sup>

While the previous studies mentioned some elements of an infrastructure needed for high levels of PSC, the study of Teo et al. (2020) went beyond just one element of infrastructure for PSC and studied the impact of high-performance work systems (HPWS) on bullying in the workplace.<sup>17</sup> HPWS are integrated systems of HR practices that include selective staffing, self-managed teams, decentralized decision-making, extensive training, flexible job assignments, open communication, and performance-contingent compensation. The integration of these HR systems leads to knowledge resources that ultimately lead to increased financial performance.<sup>29</sup> Of particular interest is that the study of Teo et al. (2020) was the first to examine PSC as a moderator, finding PSC moderated the impact of HPWS on workplace bullying.<sup>17</sup> These authors found that the positive impact of HPWS practices was moderated by high levels of PSC. In other words, in a workplace characterized by high-performance work practices, the presence of a safe psychosocial work climate reduced exposure to workplace bullying and increased effective commitment.<sup>17</sup>

### **PSC's Impact on Management Quality**

Whereas previous studies have focused on describing the impact of leadership behavior on employees' psychological health, Biron et al. (2018) aimed to identify the effect of PSC on managerial quality, with the psychosocial mechanisms in the managers' work environment explaining this association.<sup>13</sup> While at first glance St-Hilaire and Gilbert's (2019) study on the impact of PSC on the mental health of managers may seem to fall into this category, their study primarily focuses on managers as a subset of workers and does not address the quality of managers' practice.<sup>15</sup> Biron et al. (2018) is therefore the only study in the dataset that explores the relationship between PSC and the quality of managerial practice. Biron et al's (2018) work is all the more noteworthy for the following reason. Previous authors have already shown that espoused PSC and enacted PSC are important for employee psychological health and work engagement.<sup>14,19,26</sup> Biron et al. (2018), however, had a different direction from the previously mentioned studies. Their research found that PSC is temporally before managerial quality. They found that the relationship between PSC at T1 and managerial quality at T2 were stronger than the relationship between managerial quality at T1 and PSC at T2.<sup>13</sup> PSC thus has a strong influence on the quality of management in an organization. While their finding is interesting, they comment that management quality is also called leadership quality (p. 229).<sup>13</sup> The reader is therefore left to conclude that this finding is also applicable to leadership. We dispute this view and believe that management and leadership are two dissimilar constructs and findings applicable to management cannot simply be transferred to leadership without giving due consideration to the difference between the two constructs.<sup>30</sup>

### **Leadership**

Dollard and Jain (2019) were the first to address the link between a specific leadership style and PSC.<sup>23</sup> In their work, these authors elucidated the relationship between ethical leadership and PSC and concluded that ethical leadership is required for effective occupational safety and health

management, particularly as it relates to PSC. An interesting feature of Dollard and Jain's (2019) study is that they did not use any of the ethical leadership questionnaires to measure ethical leadership.<sup>31</sup> Instead, they used data from the Corruption Perception Index for 31 European countries and contrasted this with leadership for PSC, work conditions, and worker health and well-being. Dollard and Jain (2019) found that corruption had a 17% effect on PSC. In other words, countries with high levels of corruption have a lower level of PSC. An interesting observation in this study is Dollard and Jain's (2019) inference that ethical leadership is the leadership model that should prevent corrupt public values from impacting worker health.<sup>23</sup> This is not an unreasonable conclusion, as the basis of ethical leadership is the ethical behavior that leaders are required to have, including characteristics like honesty, trustworthiness, fair and principled decision-making, and care for people and the broader society.<sup>32, 33</sup> Similarly, it could also be argued that authentic leadership could be the leadership model that would prevent corrupt social values from entering the workplace, as this leadership style also draws on, and promotes an ethical climate.<sup>34</sup> Dollard and Jain's (2019) study only infers that ethical leadership could have a positive association with PSC, as the study did not measure the dyadic relationship between leaders and followers.<sup>23</sup>

In the selected studies, Dormann et al. (2019) also comments on leadership and its impact on PSC.<sup>27</sup> Of importance is Dormann et al's. (2019) assertion that scholars still do not know what leadership style is likely to build PSC (p. 442).<sup>27</sup> In the development of climate theories such as safety climate, researchers analyzed different leadership styles to determine the leadership style most likely to promote a certain organizational climate. It is therefore very interesting to note that Dormann et al. (2019) proposes a different development path for determining the relationship between leadership and PSC.<sup>27</sup> They argue that it would be possible to identify a construct empirically, which they call Leadership for Psychological Safety (LPS), and that this would provide a better

explanation for the emergence of PSC. While we do not challenge that LPS is possible to be identified, we are of the view that discarding the

testing of contemporary leadership styles in relation to PSC is premature and should be investigated by researchers.

**Table 1:** Articles forming part of this review

	Authors	Publication	Focus of Study	Study Design	Variables Studied	Findings
1	Biron et al <sup>13</sup>	<i>International Journal of Workplace Health Management</i>	Impact of PSC on managerial quality.	Intervention study, followed by longitudinal study (N=192)	Managerial quality is affected by managers' own psychosocial work factors and is in turn affected by the organizational PSC.	Job control was found to be a significant mediator of the relationship between PSC and managerial quality. PSC is positively related to managerial quality. Job control partially mediated the effect of PSC on managerial quality.
2	Zinsser and Zinsser <sup>14</sup>	<i>Research in Human Development</i>	Explores the extent to which PSC exists in a preschool context.	Focus-group interviews.	Explores the extent to which PSC applies to preschool contexts.	Examples of management practices and policies and procedures that reflect a degree of valuing of teacher well-being and psychological safety are presented. The study also highlighted that participants' understanding of management support differed from that contained in the PSC-12.
3	St-Hilaire and Gilbert <sup>15</sup>	<i>Organizational Dynamics</i>	The mental health of managers with an emphasis on what leaders should know to manage the mental health of managers.	Interviews.	Emphasizes what leaders should know to help with the mental health of managers.	Mental health support for managers who are required to implement leadership policies is lacking. Argues for a more systemic and collective view of workplace mental health, one in which managers' mental health is included. By doing so, the mental health of all, workers and managers, will be improved.
4	Mansour and Tremblay <sup>16</sup>	<i>Personnel Review</i>	Tests the direct and indirect effects of manager PSC on work-family conflict.	Cross-sectional. (N=562)	Direct and indirect effects of PSC on WFC/FWC-time and WFC/FWC-strain via family-supportive supervisor behavior (FSSB).	When senior managers value employees' psychosocial safety, consider it a priority, act quickly to correct problems affecting employees' psychological well-being and put in place a good system of communication at all levels, a favorable effect on the work environment is created. Therefore, managers and supervisors should show more support to workers' family issues and encourage workers to talk about their difficulties at work or/and at home. This support can make workers more resourceful and therefore more capable of successfully balancing work and family.
5	Teo et al <sup>17</sup>	<i>International Journal of Hospitality Management</i>	Adoption of high-performance work systems (HPWS) to eliminate workplace bullying.	Longitudinal (N=467 and N=203)	The role of HPWS is examined in enhancing the commitment of employees.	High-performance work systems play a key role, together with psychosocial safety climate (PSC) and perceived organizational support (POS), in preventing employee exposure to workplace bullying in the hospitality sector.
6	Martin et al <sup>18</sup>	<i>International Journal of Workplace Health Management</i>	Challenges faced by managers who are required to manage employees with mental health issues.	Semi-structured interviews.	Engagement of employees. For PSC to be high, policies should include support for managers.	Understanding managers' experience is critical to the successful implementation of human resources policies regarding employee health and well-being. Implementation of human resources policies for mental health should consider support for managers as part of the implementation strategy.
7	Petrie et al <sup>19</sup>	<i>PLoS ONE</i>	Manager support in determining the mental health of ambulance personnel.	Cross-sectional (N=1622)	Items to determine manager behavior were developed by the authors.	MB accounted for a 10% variance in well-being and a 7% variance in symptoms of common mental health disorders, while manager psychosocial safety climate accounted for a larger proportion (13%) of both employee mental health outcomes. Findings confirm the importance of manager support as a potentially modifiable factor influencing employee mental health.

	Authors	Publication	Focus of Study	Study Design	Variables Studied	Findings
8	McLinton et al <sup>20</sup>	<i>Safety Science</i>	How PSC theory manifests in healthcare, by studying the factors that shape PSC in healthcare.	Mixed methods (N=27)	Leadership style and manager support.	Findings suggest that PSC theory might at a broad level apply to a wide range of industries, such as through key themes like 'Communication' and 'Group Expectations'. Concerning leadership, improving the frontline-to-management disconnect is highlighted as a source for PSC improvement.
9	Einarsen et al <sup>21</sup>	<i>Personnel Review</i>	Organization size, financial resources and high-quality human resources management practices on workplace bullying.	Cross-sectional, (N=429)	How the mentioned variables predict the existence of a well-developed ethical infrastructure against workplace bullying.	High-quality human resources management created an ethical infrastructure for the prevention of bullying. Organizational size and financial resources did not predict an ethical infrastructure for the prevention of bullying.
10	Geisler et al <sup>22</sup>	<i>Human Services Organizations: Management, &amp; Governance</i>	Impact of PSC, job demands, job resources and assessment for quality of work related to work engagement.	Cross-sectional. (N=831)	How (PSC), job demands, job resources and assessments for quality of work related to social workers' work engagement, job satisfaction, and organizational commitment.	To improve the understanding of factors contributing to the retention of social workers by investigating the relationship between specific work environmental factors and positive work attitudes. Quality of work was strongly related to job demand, job resources and assessment for quality of work. PSC was found to be related to social workers' job satisfaction.
11	Dollard and Jain <sup>23</sup>	<i>Psychosocial Safety Climate: A New Work Stress Theory</i> (edited book)	Compared the corruption perception index of 31 European countries against PSC and employee wellness.	Interviews	Corruption and PSC.	Corruption of public values undermines leadership for psychosocial safety climate and suggests that ethical leadership is required to improve PSC.
12	Nguyen et al <sup>25</sup>	<i>Public Management Review</i>	Existence of PSC in the public sector.	Cross-sectional N=274	To study PSC and its impact on the public sector.	The impact of PSC and perceived organizational support (POS) is studied on perceptions of bullying, employee engagement and well-being. Overarching beliefs of support for mental health in the workplace influence perceptions of bullying, employee well-being and engagement.
13	Yulita et al <sup>26</sup>	<i>Safety Science</i>	Explores organizational level PSC (also known as espoused PSC) and enacted PSC (operationalized as management support) and their relationship with worker psychological health and motivation.	Diary questionnaires	The climate created by PSC brings about an environment where managers provide support. Management support also mediates engagement.	Organizational PSC was positively related to daily enacted managerial support. For work engagement, espoused PSC was related to work engagement through enacted managerial support. For emotional exhaustion, enacted managerial support moderated the negative relationship between espoused PSC and daily emotional exhaustion. The beneficial effects of espoused PSC were evident when high levels aligned with high levels of enacted managerial support. PSC acts as a safety signal. When high-espoused PSC is coupled with repeated, unequivocal and stable managerial support, employees feel safe in protecting themselves from emotional exhaustion in their environment
14	Dormann et al <sup>27</sup>	<i>Psychosocial Safety Climate: A New Work Stress Theory</i> (edited book)	PSC Review	Summary of chapters in an edited book	Provides a summary of all chapters in the edited book and an opinion on the direction of the study of leadership in relation to PSC.	Suggests a new leadership construct, Leadership for Psychological Safety (LPS) that would better facilitate PSC in organizations.

## Discussion

This scoping review set out to determine what is already known in terms of management and leadership concerning PSC. While some authors treat management and leadership as interchangeable constructs, we are of the view that these are separate constructs.<sup>30</sup> It was interesting to note that the search yielded more articles related to the impact of management practices on PSC than articles related to the impact of leadership on PSC, demonstrating that this is an under-researched topic.

Concerning management, the review has identified the support that managers should provide to workers as critical for the establishment of PSC. The PSC that is stated by an organization is related to engagement, but only if managers offer demonstrated support to workers. Similarly, management support was found to account for a higher variance in the mental health of workers. We would argue that management support can be demonstrated under various leadership styles. Transformational leadership, for instance, identifies organizational needs and employee safety needs. This leadership style stimulates and satisfies the higher needs of workers to achieve organizational goals.<sup>35</sup> This leadership style was found to contribute to the establishment of a safety culture. Since PSC originated from the safety culture study field, we are of the view that it would be prudent to explore the impact of this leadership style on this construct.<sup>7</sup>

One study found that managers' mental health thwarts their ability to implement mental health interventions. Support for managers' mental health is therefore of utmost importance as managers are often responsible for the implementation of PSC interventions. A smaller proportion of the selected studies, 21% (3/14), related to the theme of infrastructure to support PSC. In this regard, high-quality human resource practices were found to engender an ethical infrastructure for the prevention of bullying. The size and financial resources of an organization were not found to contribute to the PSC of an organization. The lack of infrastructure was also highlighted concerning managers' providing

support to staff with mental health issues. In this regard, infrastructural issues hindering managers from providing support to staff include the lack of information to deal with mental health issues adequately and the lack of organizational support. One paper has gone beyond single elements of infrastructure and has studied the impact of high-performance work systems (HPWS) on bullying. Within an environment of HPWS, PSC was found to reduce the impact of bullying. While this result is promising, especially given the fact that many organizations strive to implement some form of HPWS, this study was limited to the hospitality industry in the USA.<sup>17</sup> As psychological injuries in the workplace appears to be a universal problem, the literature will therefore benefit from more empirical studies to further test the association of HPWS with psychological hazards, like bullying and burnout.<sup>5</sup>

An interesting observation in the selected studies was the fact that researchers have also studied the impact of PSC on managerial quality and found that PSC improved managerial quality. In our view, the authors of this study, however, erroneously concluded that this is also true for leadership.<sup>13</sup> Earlier in this review we noted the difference between management and leadership, and would therefore argue that further research is needed to determine the impact of PSC on leadership. Of the studies that solely focused on leadership's impact on PSC, the dataset only contains one empirical study and one opinion piece that relate to leadership and PSC. Dollard and Jain (2019), in a study of 31 European countries, found that corruption had a significant effect on PSC.<sup>23</sup> This they established by studying the link between the corruption levels in European countries and the PSC at an organizational level in these countries. Their study found that PSC played a significant role in preventing the corruption of public values from infiltrating organizations.<sup>23</sup> Dollard and Jain (2019) thus concluded that ethical leadership is likely to be the leadership model that will prevent corruption from infiltrating organizations. This study did not specifically test ethical leadership at the organizational level and one could argue that

other leadership styles, like authentic leadership, also have an ethical foundation and could therefore contribute to higher levels of PSC. The empirical testing of different leadership models, therefore, seems to be a natural progression in the testing of a psychosocial safety climate.

Lastly, Dormann et al. (2019) acknowledge the lacunae in relation to studies that investigate the impact of leadership on PSC. These authors, however, go further and claim that notions of transformational leadership may not contribute to PSC, and suggest that a different leadership style, leadership for psychological safety (LPS), could be identified empirically and that this leadership style is likely to contribute to PSC.<sup>27</sup> While we do not disagree with this assertion, we believe that, as with the development of safety climate, various contemporary leadership styles should be explored concerning PSC to advance the field.

### Limitations

The limited number of papers included in the data set was surprising, especially when compared with leadership studies conducted on psychological safety, at the individual level of analysis. By limiting the date range to publications from 2010 it is possible that sources that are aligned with the idea of PSC, but do not use that particular term, might have been missed. Searching all databases is not possible, and we acknowledge that by limiting our search it is likely that some literature may have been omitted. To mitigate this, a purling exercise was conducted and we could not identify other sources. While the results were surprising, as only 14 papers satisfied the selection criteria, it is noted that all papers in the dataset were peer-reviewed. It could therefore be argued that papers in the dataset are of high quality, as they exclude grey literature not subjected to reviewer scrutiny.<sup>36</sup>

We also acknowledge the debate among scholars about conceptualizing organizational climate as an individual-level construct (psychological safety), or a group-level construct (which includes PSC). For organizational-level constructs to be measured, respondents' scores need to be

aggregated to form the group-level construct. With the aggregation of respondents' scores, there is an opportunity for variability that exists within groups not to be reflected in the overall score attributed to the organizational climate construct.<sup>37</sup> Recent developments in the literature however provide support for studying organizational climate at the group level.<sup>38</sup>

### Conclusion

The literature has shown that PSC holds promise for the promotion of psychological health in organizations. As PSC is promoted by the leadership of organizations, the impact of leadership on this construct is therefore an area of research that requires further study. This review has shown that there are few research papers on leadership, with most of the work conducted in management support and some on the infrastructure required to promote PSC. Concerning leadership, however, there appears to be a dearth of information on the dyadic relationship between followers and leaders in relation to PSC. Before the final review of this paper, one article on the impact of leadership and PSC was published: 'How Psychosocial Safety Climate (PSC) Gets Stronger Over Time: A First Look At Leadership And Climate Strength'. As the title suggests, this study is the first to give insights into how one of the contemporary leadership styles (transformational leadership) impacts PSC. In this work, the authors introduce a new construct, PSC leadership, into the literature, and through a longitudinal study conclude that transformational leadership has a smaller impact on PSC.<sup>39</sup>

Questions relating to other contemporary leadership styles and their impact on PSC remain unanswered. Our view is therefore that further investigation of the different leadership theories, in relation to PSC, will benefit the development of the field. This review can potentially serve as an impetus for further studies to test the dyadic relationship between leaders and followers to explain how leadership impacts the psychosocial safety climate in organizations.

## References

1. Harnois G, Gabriel P. *Mental health and work: impact, issues and good practice*. Geneva: World Health Organization, 2000. Available from: [WHO MSD MPS 00.2.pdf](#) (Last Accessed: 05/12/2022)
2. Magnavita N, Chirico F. New and emerging risk factors in occupational health. *Applied Sciences* 2020, 10, 8906. Available from: <https://doi.org/10.3390/app10248906>
3. Horner H. Leadership theory: past, present and future. *Team Performance Management* 1997, 3(4): 270-87. Available from: <https://doi.org/10.1108/13527599710195402>
4. Wyatt M, Lane T. *Return to work: a comparison of psychological and physical injury claims: analysis of the Return to Work Survey results*. Canberra: Safe Work Australia, 2017. Available from: <https://www.safeworkaustralia.gov.au/system/files/documents/1711/return-to-work-a-comparison-of-psychological-and-physical-injury-claims.pdf> (Last Accessed on 05/12/2022)
5. Paterson C, Leduc C, Maxwell M, Aust B, Amann BL, Cerga-Pashoja A, et al. Evidence for implementation of interventions to promote mental health in the workplace: a systematic scoping review protocol. *Systematic Reviews* 2021, 10, 41. Available from: <https://doi.org/10.1186/s13643-020-01570-9>
6. Dollard M, Bailey T, McLinton S, Richards P, McTernan W, Taylor A, et al. *The Australian workplace barometer: report on psychosocial safety climate and worker health in Australia*. Canberra: Safe Work Australia, 2012. Available from: <https://www.safeworkaustralia.gov.au/system/files/documents/1702/the-australian-workplace-barometer-report.pdf> (Last Accessed: 05/12/2022)
7. Dollard MF, Bakker AB. Psychosocial safety climate as a precursor to conducive work environments, psychological health problems, and employee engagement. *Journal of Occupational and Organizational Psychology* 2010, 83(3): 579-99. Available from: <https://doi.org/10.1348/096317909X470690>
8. Law R, Dollard MF, Tuckey MR, Dormann C. Psychosocial safety climate as a lead indicator of workplace bullying and harassment, job resources, psychological health and employee engagement. *Accident Analysis and Prevention* 2011, 43(5): 1782-93. Available from: <http://doi.org/10.1016/j.aap.2011.04.010>
9. Idris MA, Dollard MF, Coward J, Dormann C. Psychosocial safety climate: conceptual distinctiveness and effect on job demands and worker psychological health. *Safety Science* 2012, 50(1): 19-28. Available from: <http://doi.org/10.1016/j.ssci.2011.06.005>
10. Lee MCC, Idris MA. Psychosocial safety climate versus team climate: the distinctiveness between the two organizational climate constructs. *Personnel Review* 2017, 46(5): 998-1003. Available from: <https://doi.org/10.1108/PR-01-2016-0003>
11. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology* 2005, 8(1): 19-32. Available from: <https://doi.org/10.1080/1364557032000119616>
12. Bryman A. *Social research methods* (3rd ed.). Oxford: Oxford University Press, 2008.
13. Biron C, Parent-Lamarche A, Ivers H, Baril-Gingras G. Do as you say: the effects of psychosocial safety climate on managerial quality in an organizational health intervention. *International Journal of Workplace Health Management* 2018, 11(4): 228-44. Available from: <https://doi.org/10.1108/IJWHM-01-2018-0009>
14. Zinsser KM, Zinsser A. Two case studies of preschool psychosocial safety climates. *Research in Human Development* 2016, 13(1): 49-64. Available from: <https://doi.org/10.1080/15427609.2016.1141278>
15. St-Hilaire F, Gilbert MH. What do leaders need to know about managers' mental health? *Organizational Dynamics* 2019, 48(3): 85-92. Available from: <https://doi.org/10.1016/j.orgdyn.2018.11.002>
16. Mansour S, Tremblay DG. Psychosocial safety climate as resource passageways to alleviate work-family conflict: a study in the health sector in Quebec. *Personnel Review* 2018, 47(2): 474-93. Available from: <https://doi.org/10.1108/PR-10-2016-0281>

17. Teo STT, Bentley T, Nguyen D. Psychosocial work environment, work engagement, and employee commitment: a moderated, mediation model. *International Journal of Hospitality Management* 2020, 88,102415. Available from: <https://doi.org/10.1016/j.ijhm.2019.102415>
18. Martin A, Woods M, Dawkins S. How managers experience situations involving employee mental ill-health. *International Journal of Workplace Health Management* 2018, 11(6): 442-63. Available from: <https://doi.org/10.1108/IJWHM-09-2017-0069>
19. Petrie K, Gayed A, Bryan BT, Deady M, Madan I, Savic A, et al. The importance of manager support for the mental health and well-being of ambulance personnel. *PLoS ONE* 2018, 13(5), e0197802. Available from: <http://doi.org/10.1371/journal.pone.0197802>
20. McLinton SS, Dollard MF, Tuckey MR. New perspectives on psychosocial safety climate in healthcare: a mixed methods approach. *Safety Science* 2018, 109: 236-45. Available from: <https://doi.org/10.1016/j.ssci.2018.06.005>
21. Einarsen K, Salin D, Einarsen SV, Skogstad A, Mykletun RJ. Antecedents of ethical infrastructures against workplace bullying: the role of organizational size, perceived financial resources and level of high-quality HRM practices. *Personnel Review* 2019, 48(3): 672-90. Available from: <https://doi.org/10.1108/PR-10-2017-0303>
22. Geisler M, Berthelsen H, Muhonen T. Retaining social workers: the role of quality of work and psychosocial safety climate for work engagement, job satisfaction, and organizational commitment. *Human Service Organizations: Management, Leadership & Governance* 2019, 43(1): 1-15. Available from: <https://doi.org/10.1080/23303131.2019.1569574>
23. Dollard MF, Jain A. A corruption of public values at work; psychosocial safety climate, work conditions, and worker health across 31 European countries. In Dollard, M, Dormann, C and Idris, MA (eds). *Psychosocial safety climate: a new work stress theory* (pp. 77-106). Cham: Springer, 2019. Available from: [Psychosocial Safety Climate: A New Work Stress Theory | SpringerLink](https://doi.org/10.1007/978-94-007-5279-3_4)
24. Idris MA, Dollard MF. Psychosocial safety climate, work conditions, and emotions in the workplace: a Malaysian population-based work stress study. *International Journal of Stress Management* 2011, 18(4): 324-47. Available from: <http://doi.org/10.1037/a0024849>
25. Nguyen DTN, Teo STT, Grover SL, Nguyen NP. Psychological safety climate and workplace bullying in Vietnam's public sector. *Public Management Review* 2017, 19(10): 1415-36. Available from: <https://doi.org/10.1080/14719037.2016.1272712>
26. Yulita, Dollard MF, Idris MA. Climate congruence: how espoused psychosocial safety climate and enacted management support affects emotional exhaustion and work engagement. *Safety Science* 2017, 96: 132-42. Available from: <https://doi.org/10.1016/j.ssci.2017.03.023>
27. Dormann C, Dollard MF, Idris MA. PSC: current status and implications for future research. In Dollard, M, Dormann, C and Idris, MA (eds). *Psychosocial safety climate: a new work stress theory* (pp. 431-49). Cham: Springer, 2019. Available from: [Psychosocial Safety Climate: A New Work Stress Theory | SpringerLink](https://doi.org/10.1007/978-94-007-5279-3_13)
28. Hall GB, Dollard MF, Coward J. Psychosocial safety climate: development of the PSC-12. *International Journal of Stress Management* 2010, 17(4): 353-83. Available from: Available from: <https://doi.org/10.1037/a0021320>
29. Evans WR, Davis WD. High-performance work systems and organizational performance: the mediating role of internal social structure. *Journal of Management* 2005, 31(5): 758-75. Available from: <http://doi.org/10.1177/0149206305279370>
30. Kotterman J. Leadership versus management: what's the difference? *The Journal for Quality and Participation* 2006, 29(2): 13-17. Available from: [Leadership Versus Management: What's the Difference? - ProQuest](https://doi.org/10.1080/10439862.2006.10555444)
31. Yukl G, Mahsud R, Hasssan S and Prussia GE. An improved measure of ethical leadership. *Journal of Leadership & Organizational Studies* 2013, 20(1): 38-48. Available from: <https://doi.org/10.1177/1548051811429352>

32. Brown ME, Treviño LK. Ethical leadership: a review and future directions. *The Leadership Quarterly* 2006, 17(6): 595-616. Available from: <https://doi.org/10.1016/j.leaqua.2006.10.004>
33. Treviño LK, Brown M, Hartman, LP. A qualitative investigation of perceived executive ethical leadership: perceptions from inside and outside the executive suite. *Human Relations* 2003, 56(1), 5-37. Available from: <https://doi.org/10.1177/0018726703056001448>
34. Walumbwa FO, Avolio BJ, Gardner WL, Wernsing TS, Peterson, SJ. Authentic leadership: development and validation of a theory-based measure. *Journal of Management* 2008, 34(1): 89-126. Available from: <https://doi.org/10.1177/0149206307308913>
35. Hoffmeister K, Gibbons AM, Johnson SK, Cigularov KP, Chen PY, Rosecrance JC. The differential effects of transformational leadership facets on employee safety. *Safety Science* 2014, 62: 68-78. Available from: <https://doi.org/10.1016/j.ssci.2013.07.004>
36. Conn VS, Valentine JC, Cooper HM, Rantz MJ. Grey literature in meta-analyses. *Nursing Research* 2003, 52(4): 256-61. Available from: [Grey Literature in Meta-Analyses : Nursing Research \(lww.com\)](https://doi.org/10.1016/j.nursres.2003.04.004)
37. Kessler SR. Are the costs worth the benefits? Shared perception and the aggregation of organizational climate ratings. *Journal of Organizational Behavior* 2019, 40(9-10): 1046-54. Available from: <https://doi.org/10.1002/job.2415>
38. Luria G. Climate as a group level phenomenon: theoretical assumptions and methodological considerations. *Journal of Organizational Behavior* 2019, 40(9-10): 1055-66. Available from: <https://doi.org/10.1002/job.2417>
39. Loh MY, Dollard MF, McLinton SS, Tuckey MR. How Psychosocial Safety Climate (PSC) Gets Stronger Over Time: A First Look At Leadership And Climate Strength. *Journal of Occupational Health Psychology* 2021, 26(6): 522-536. Available from: <https://doi.org/10.1037/ocp0000308>

**Appendix A:**

**Schematical representation of the search**

