The Healthy Work Project – He Hauora Te Taonga

Evaluating a Psychosocial Safety Climate Intervention for Reducing Work-Related Psychosocial Risk in Small and Medium-Sized Enterprises

Final Report - August 2023

Associate Professor David Tappin[1], Dr Kate Blackwood[1], Professor Tim Bentley[2], Dr Zoe Port[1], Dr Kate Bone[1], Dr Natalia D'Souza[3], Associate Professor Dianne Gardner[4], Liz Ashby[1], Professor Maureen Dollard[5], Professor Stavroula Leka[6], Professor Aditya Jain[7], Professor Matt Roskruge[8], Associate Professor Sunia Foliaki[9], Dr Barry McDonald[10]

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Affiliations

[1] School of Management, Massey University, Auckland, New Zealand

[2] Centre for Work and Wellbeing, School of Business and Law, Edith Cowan University, Joondalup, Australia

[3] Habilis, Auckland, New Zealand

[4] School of Psychology, Massey University, Palmerston North, New Zealand

[5] PSC Global Observatory, Centre for Workplace Excellence, University of South Australia, Australia

[6] Centre for Organisational Health and Wellbeing, Lancaster University, United Kingdom and Cork University Business School, Ireland

[7] Nottingham University Business School, Jubilee Campus, Nottingham, United Kingdom

[8] Massey Business School, Massey University, Auckland, New Zealand

[9] Research Centre for Hauora and Health, Massey University, Wellington, New Zealand

[10] School of Mathematics and Computational Sciences, Massey University, Auckland, New Zealand

Executive Summary

Work-related psychosocial hazards, and the risks they can create for mental and physical health, are important and increasingly prominent issues in New Zealand workplaces. Psychosocial risks refer to aspects of the design and management of work, and its social and organisational contexts, that have the potential to affect peoples' psychological or physical health[1]. Despite a requirement in law for organisations to manage work-related risks to protect the mental as well as physical health of workers, many organisations continue to focus more on physical risks, often at the expense of psychosocial risks.

This study, funded by the Health Research Council of New Zealand and WorkSafe New Zealand, evaluated the application of Psychosocial Safety Climate (PSC) as an intervention to address psychosocial risks in small and medium enterprises (SMEs). PSC relates to the value that an organisation places on psychosocial health and wellbeing and is reflected in management commitment to, and prioritisation of, psychosocial health and wellbeing; organisational communication on issues pertaining to psychosocial health and wellbeing; and the input of all staff into fostering and maintaining a work environment supportive of psychosocial health and wellbeing. The focus of the study was SMEs with 6 to 99 workers. SMEs often find it challenging to meet health and safety obligations; and SME workers can be vulnerable to health and safety risks generally due to limited internal health and safety expertise and resourcing. The three industry sectors involved in the study were Early Childhood Education, Fast-moving Consumer Goods, and Mental Health and Addiction services.

The study adopted a matched case-control design, whereby twelve case organisations (four from each sector) implemented the PSC intervention over 13-18 months between March 2021 and November 2022. A further twelve control organisations participated for benchmarking purposes only. The PSC Intervention involved preparing the case organisations through a series of steps including communication about the intervention, Steering Group formation, PSC training, and conducting a needs assessment through surveys and workshops. These steps led to the development and implementation of a tailored Action Plan by each case organisation consisting of PSC-focused initiatives. The study applied a participatory approach whereby case organisations had autonomy over aspects of the intervention design and PSC initiatives to ensure the intervention aligned with existing processes and operations. Twenty organisations completed the study (ten case organisations and ten control organisations).

Evaluation of the PSC Intervention's effectiveness to improve PSC levels and reduce psychosocial risks was carried out via three surveys comprising measures of PSC, psychosocial risks, wellbeing and related outcome factors. The surveys, involving workers from all case and control organisations, were conducted pre-intervention, at midpoint, and post-intervention. Interviews and discussions occurred regularly with case organisation Steering Groups throughout the intervention to capture data on the barriers to and facilitators of the PSC Intervention process and its outcomes. Quarterly interviews also occurred with control organisation contacts. The survey data were subjected to quantitative analysis, while the process evaluation data were subjected to realist analysis, from which Context-Mechanism-Outcome (CMOs) configurations were identified.

[1] Cox, T., Griffiths, A., & Rial-Gonzalez, E. (2000). *Research on Work-Related Stress | Safety and health at work EU-OSHA*.

The study found that PSC was positively related to wellbeing and negatively related to psychosocial risk. However, the hypothesis that PSC scores will increase across time for case organisations relative to control organisations was not supported. The hypothesis that psychosocial risks will decrease for case organisations relative to control organisations was partially supported. These results are consistent with many case-control evaluation studies, with inconsistent or insignificant results often being attributed to external variables. A significant external variable influencing the results of this study was the Covid-19 pandemic, creating significant disruptions for all participating organisations, and causing delays with intervention progress and Action Plan implementation for many case organisations.

Despite this, the results of the process evaluation revealed promising insights for the effectiveness of the PSC Intervention when certain intervention features and conditions are present. Four key CMOs were found to be fundamental to the intervention process:

1) strong senior management engagement;

2) a proactive and passionate intervention champion and Steering Group;

3) effective communication of the intervention process and the initiatives being implemented;

4) high engagement and participation from workers throughout the intervention.

A further two CMOs were required to achieve positive intervention outcomes:

5) a clear Action Plan appropriately tailored to addressing worker concerns; and

6) effective implementation of the Action Plan.

A range of conditions were found to affect whether these features were likely to be present, with the two most prevalent conditions being: a) organisation and worker capacity to engage in the intervention, and b) mental models (i.e. attitudes and motivations) towards the intervention.

Further analysis of survey and process evaluation data at the organisation level indicated that in organisations where all CMOs featured strongly, PSC was more likely to improve over the intervention period. Where one or more CMOs were deficient, the intervention was less effective. Additionally, many case organisations reported positive changes to their understanding and management of psychosocial risks and worker wellbeing, which could result in stronger effectiveness results being realised beyond the study period.

Action Plans from the case organisations were highly tailored to addressing worker concerns and therefore varied considerably between organisations. The initiatives also varied in their level of PSC alignment. Examples of closely aligned initiatives included creating forums and opportunities for staff to communicate about wellbeing and to offer solutions, introducing wellbeing-related policy and incentives, and aligning the organisation's vision and values to reflect the organisation's prioritisation of wellbeing. Other initiatives focused on addressing psychosocial risks, while others were aimed at strengthening individual resilience and personal wellness. Organisational understanding of psychosocial risks and wellbeing determined the level and complexity of initiatives they chose to adopt.

Important considerations in intervention effectiveness included organisational ownership of the Action Plans, having the confidence and ability to drive the initiatives, and incorporating workers suggestions into the action planning process.

The PSC Intervention was shaped by a range of features unique to SMEs. Wellbeing prioritisation was predominantly informal and implicit in organisational culture and senior management actions, as opposed to articulated through policy. The visibility of senior management in the SME context and the impact of their actions on PSC caused PSC to be volatile and sensitive to the movements of key staff. Many organisations either did not have internal HR or OHS capacity, or such capacity was limited. Additionally, if this capacity was limited, so was the organisation's ability to carry out changes at the work systems level. As a result, initiatives were often focused on helping people to cope rather than addressing causes of risk, although staff suggestions were also a driver of this.
However, the more intimate and informal nature of SMEs facilitated more frequent and ad hoc communication about the intervention, greater agility regarding Action Plan approval and modifications, and increased opportunities for senior management engagement.

Overall, the study demonstrated that SMEs are able to engage with PSC as an approach to prioritising worker wellbeing and mentally healthy work, and that such an approach is likely to be effective in managing psychosocial risks when key conditions and features are present. However, SMEs are likely to require support and guidance in developing and implementing the PSC intervention, particularly when working within the constraints of limited internal knowledge and capacity.

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This research project was funded by the Health Research Council and WorkSafe New Zealand, and we thank them for supporting research that contributes to better understanding what enables mentally healthy work in New Zealand.

E hara taku toa i te toa takitahi,

he toa takitini

My strength is not as an individual,

but as a collective

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1.0 Introduction

1.1 Problem Statement and Study Rationale

Work-related psychosocial hazards, and the risks they can create for mental and physical health, are important and increasingly prominent in New Zealand workplaces. In New Zealand, organisations are required by the Health and Safety at Work Act (2015) to manage work-related risks to protect the mental and physical health of workers. Mental health is also a concern for WorkSafe New Zealand. The focus of many organisations, however, remains on physical risks, with psychosocial risks less understood and potentially more difficult and complex to manage (Lovelock, 2019).

Internationally, the understanding of psychosocial risks and their management is increasing. The World Health Organisation (WHO) and International Labour Office (ILO) have recognised the workplace as a priority area for health promotion, suggesting that action to improve mental health at work is critical (WHO & ILO, 2022). More broadly, health and safety are now considered as a basic human right and included in the ILO Declaration on Fundamental Principles of Rights at Work (ILO, 2022), providing further support for actions to improve mental health at work. Comprehensive WHO guidelines seek to facilitate national-level and workplace-level actions to improve the implementation of evidence-based interventions for mental health at work (WHO, 2022). They also suggest the need for governments and policy makers to provide more support to lower-resourced employers such as small and medium sized enterprises (SMEs) (WHO & ILO, 2022).

Against this backdrop, this report presents the findings of a study which explored and evaluated the application of Psychosocial Safety Climate (PSC) (Dollard & Bakker, 2010) as an intervention to address psychosocial risk, in the Small and Medium Enterprise (SME) context. PSC relates to the value that an organisation places on psychosocial health and wellbeing and is reflected in an organisation's commitment to and prioritisation of psychosocial health; communication around issues pertaining to psychosocial health; and the extent to which workers have input into fostering and maintaining a work environment supportive of psychosocial health and wellbeing. PSC is further explored in Section 1.2.3. The study, funded by the Health Research Council of New Zealand and WorkSafe New Zealand, commenced in February 2020 and was completed in June 2023.

In Section 1 we provide a brief account of key literature which informed the study and offered a basis for using PSC as an intervention for SMEs, and we describe the aims and objectives. Details of the methods and results are outlined in sections 2 and 3 respectively, followed by a discussion and consideration of the value in using a PSC approach as a psychosocial risk intervention for SMEs (Section 4). Finally, we offer conclusions and recommendations in Section 5. Definitions of the terms used throughout the report are listed in a glossary (page 132).

1.2 Workplace Determinants of Wellbeing

In the past few years, there has been a growing emphasis on worker wellbeing by employers and regulatory agencies, with wellbeing now prioritised as a fundamental health and safety concern by many New Zealand organisations (WorkSafe New Zealand, 2016). Although there is widespread acknowledgement of the impact of work design and management on the wellbeing of workers, the prevailing approach to managing wellbeing in New Zealand is through initiatives that target individual resilience (Leading Safety / The Business Leaders' Health and Safety Forum, 2022). Although this approach may address some of the immediate concerns by increasing workers' ability to cope and adapt to work pressures, coping resources are finite and therefore are likely to be ineffective long-term. It is, therefore, imperative that organisations find ways to address wellbeing through effective primary intervention, particularly work design and management (i.e., by fostering mentally healthy work). A primary prevention approach is also encouraged by WorkSafe New Zealand and aligns with an organisation's obligations under the Health and Safety at Work Act (2015).

A plethora of terms relate to wellbeing in the context of work, including: wellbeing, wellness, mentally healthy work, psychosocial or psychological health and/or safety, and total worker health. For consistency, this report uses the terms 'mentally healthy work' to refer to "work where risks to people's mental health are eliminated or minimised, and their mental wellbeing is prioritised" (WorkSafe New Zealand, 2020), and worker wellbeing (or 'wellbeing' where the work context is self-evident) to refer to "fulfilment of the physical, mental, social and cognitive needs and expectations of a worker related to their work" (ISO 45003). These terms are described in more detail in the following three sections, working backwards from wellbeing.

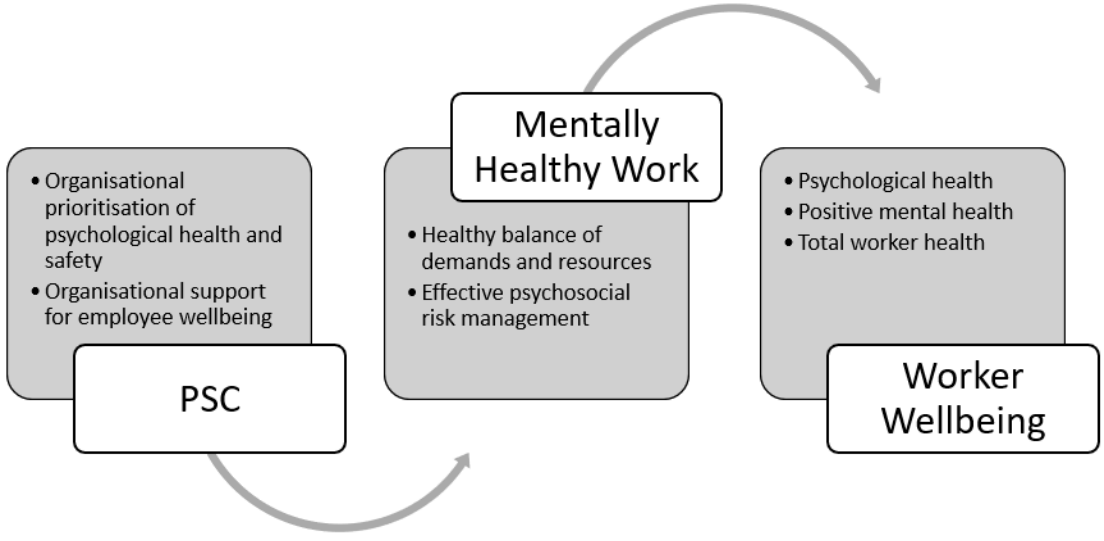


Figure 1: The relationship between PSC, Mentally Healthy Work, and Worker Wellbeing

1.2.1 Worker Wellbeing

There is no one definition of worker wellbeing, and many terms are used interchangeably to describe the same or similar phenomena. One widely used conception is to describe wellbeing using the philosophies of hedonism and eudaimonism, where hedonic wellbeing concerns an individual's level of happiness (i.e. feeling good), and eudemonic wellbeing concerns the achievement of self-actualisation (i.e. feeling fulfilled) (Keeman et al., 2017; Pilgrim, 2017). Generally, wellbeing is considered to be a subjective and a multi-dimensional concept (Juniper, 2011), with many derivations arising in different social and cultural contexts. The World Health Organization defines wellbeing as "a positive state experienced by individuals and societies. Similar to health, it is a resource for daily life and is determined by social, economic and environmental conditions" (WHO, 2021, p.10).

Research by WorkSafe New Zealand (2022) found that New Zealand workers view wellbeing as a broad multi-faceted concept. Indeed, worker perceptions of wellbeing in New Zealand appear to align well with Sir Mason Durie's Te Whare Tapa Whā model (Durie, 1998). This model describes wellbeing as constituting four dimensions: taha wairua (spiritual wellbeing); taha tinana (physical wellbeing); taha hinengaro (mental and emotional wellbeing); and taha whānau (family and social wellbeing). The model depicts these four dimensions as the four walls of a wharenui (meeting house), whereby all four walls are required to be present and balanced to achieve wellbeing. While designed specifically to encompass Māori wellbeing, this model has been recognised as an appropriate representation of wellbeing for all New Zealanders. It has been adopted by the Mental Health Foundation, WorkSafe New Zealand, and many other government agencies and organisations and was adopted as an outcome in this study.

1.2.2 Mentally Healthy Work

Typically, an adult spends around one quarter of their life at work (Keeman et al., 2017) and, as such, work can have a significant influence on an individual's overall wellbeing. While traditionally, wellbeing at work has generally been considered and treated as an issue that can be managed through individual health promotion activities, a large body of research now provides evidence for the impact that work can have on wellbeing. Aspects of work that have the potential to positively or negatively affect wellbeing are referred to as psychosocial factors, and can include aspects of work design, the organisation and management of work, and the social or environmental context of work (Cox et al., 2000). Some of the common psychosocial factors are listed in Table 1. This wide range of factors, along with the dynamic nature of work, means that they can present quite differently in the workplace. The risks that negative psychosocial factors pose further increases with duration of exposure to them, and with exposure to a greater number of risks (Blackwood et al., 2022). These complexities are among the main reasons why psychosocial risks are difficult to manage.

When well suited to the work and workplace the same factors can also have a positive impact, helping to foster uplifting and enjoyable work and creating mentally healthy work and wellbeing. For example, where workloads are appropriate to the hours worked by staff and their skill level, work can be meaningful and rewarding. Likewise, where healthy interpersonal relationships exist, work can help to meet basic human social needs.

Table 1: Potential negative and positive psychosocial factors (adapted from Leka et al., 2017).

Dimensions	Negative psychosocial factors	Positive psychosocial factors
Organisational culture & function	Poor psychosocial safety climate, poor communication, low levels of support for problem solving and personal development, lack of definition of, or agreement on, organisational objectives	Good psychosocial safety climate, clear organisational objectives, appropriate support for problem solving and personal development, good communication processes
Job content	Lack of variety or short work cycles, fragmented or meaningless work, under use of skills, high uncertainty, continuous exposure to people through work	Meaningful work, appropriate use of skills, work retaining employee interest and engagement, appropriate support
Workload & work pace	Work overload or under load, machine pacing, high levels of time pressure, continually subject to deadlines	Appropriate level of workload, appropriate work pace, sensible and achievable deadlines
Work schedule	Shift working (especially irregular), night shifts, inflexible work schedules, long or unsociable hours	Sensible shifts and reasonable working hours to maintain work-life balance, flexible working practices
Control	Low participation in decision making, lack of control over workload, pacing, shift working	Participation in decision making, control at work
Environment & equipment	Inadequate equipment availability, suitability or maintenance; poor environmental conditions such as lack of space, poor lighting, excessive noise	Good physical working conditions according to good practice guidance
Interpersonal relationships at work	Social or physical isolation, poor relationships with superiors, interpersonal conflict, lack of social support, harassment, violence	Good relationships at work, teamwork, social support, appropriate policies and procedures to deal with conflicts
Role in organisation	Role ambiguity, role conflict, responsibility for people	Clear roles and responsibilities, appropriate support to meet objectives
Career development	Career stagnation and uncertainty, under promotion or over promotion, poor pay, job insecurity, low social value to work	Appropriate career prospects & development matching skills & performance, effort reward balance, valuable/meaningful work, job security
Home-work interface	Conflicting demands of work and home, low support at home, dual career problems	Work-life balance, supportive organisational policies and practices to achieve 'life balance'

Much of the research exploring the effects of psychosocial factors on worker wellbeing focuses on the intermediary channel of work stress. One commonly adopted psychological theory of work stress that accounts for interactions between individuals and their work environment is the Job Demands-Resources (JDR) model (Demerouti et al., 2001; Figure 2). The JDR model posits that stress is the result of an imbalance between job demands (i.e. negative psychosocial factors, or psychosocial hazards) and job resources (i.e. positive psychosocial factors). The authors of the JDR model refer to job demands as "physical, social or organisational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs (e.g. exhaustion)" (Demerouti

et al., 2001, p. 501). Job resources, on the other hand, are "health protecting factors" which may also be physical, psychological, social or organisational aspects of a job and can: positively influence the ability to achieve work goals; reduce job demands and the resulting health impacts; or stimulate personal growth and development (Demerouti et al., 2001). Stress occurs where work demands exceed available resources and individuals are, therefore, unable to cope with work demands. A lack of job resources not only creates stress and exhaustion, but can also have a negative effect on job motivation and engagement, which in turn can negatively affect productivity.

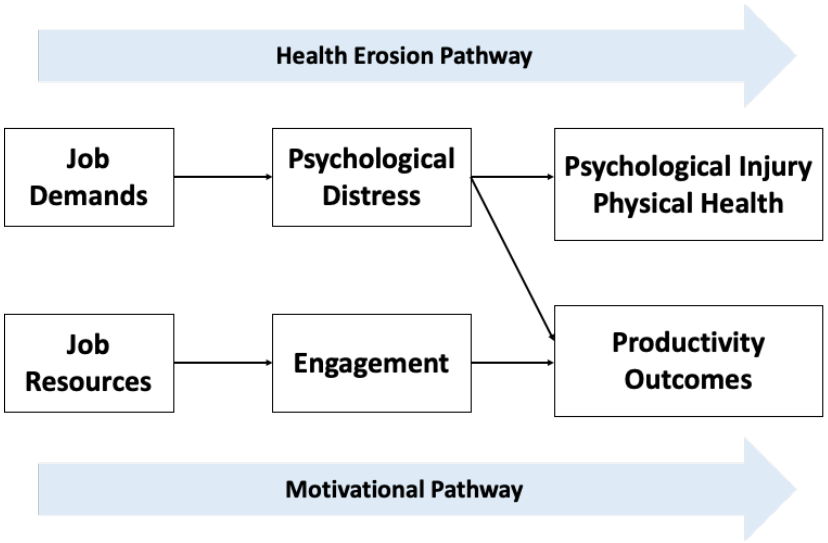


Figure 2: Job Demands-Resources (JDR) model (adapted from Demerouti et al., 2001)

In the past few years initiatives to better understand psychosocial risks and their management have emerged in New Zealand. The New Zealand Psychosocial Survey (NZPS), conducted over six months in 2021, identified demands at work as the most common psychosocial risk among the 3612 respondents, with higher workload demands identified than for workers in other countries where comparison data were available (WorkSafe New Zealand, 2022). The protective factors – i.e. those supporting the mental wellbeing of New Zealand workers – included security over their working conditions, feeling part of the team or community at work, and understanding their role at work. Over a third of respondents (35%) reported exposure to at least one offensive behaviour in the last 12 months. The study indicated that workers' exposure to psychosocial risk varied by sector. For example, healthcare and social assistance (HCSA) workers were more likely than those in other sectors to report exposure to negative behaviours of bullying and threats of violence (WorkSafe New Zealand, 2022).

The New Zealand Workplace Barometer (NZWB), the first national-level psychosocial risk surveillance scheme in New Zealand, was designed to identify workplace psychosocial hazards and their associated risks. The survey, which was undertaken annually between 2018 and 2021, included aspects of the design and management of work, and indicators of mental health, stress-related and some physical conditions. The results highlighted the extent and nature of psychosocial hazards and their outcomes among New Zealand workers over recent years (2018-2021) and have consistently identified the vulnerability of workers to psychosocial workplace problems such as job stress and work-family conflict (Forsyth et al., 2022).

1.2.3 Psychosocial Safety Climate

Beyond job and work design factors, the organisational context also plays a role in employee wellbeing. Psychosocial Safety Climate (PSC) reflects the extent to which an organisation values the wellbeing of workers and is defined as "policies, practices and procedures for the protection of worker psychological health and safety" (Dollard & Bakker, 2010, p. 579). It comprises four domains: 1) ***management priority*** of health and wellbeing above productivity; 2) ***management commitment*** to addressing workers' health and wellbeing concerns; 3) ***organisational participation*** in the protection of worker health and wellbeing at all levels; and 4) ***organisational communication*** regarding health and wellbeing issues.

Organisations with a high concern for PSC foster an environment where wellbeing is prioritised and where management are committed to addressing concerns when they are raised, where staff are encouraged and feel safe to raise issues that affect their wellbeing and have input into how they are addressed. In this way, management and workers are aware of psychosocial risks and are able to address them when they arise and before they cause ongoing harm. A growing body of international research evidence points to PSC as the preeminent antecedent for work-related psychosocial health. Indeed, there is strong and growing evidence for the positive impact of high PSC not only on the psychological health and wellbeing of workers (Bailey et al., 2020, 2015a; Dollard et al., 2012; Dollard & Bakker, 2010; Law et al., 2011), but also on psychosocial risk factors themselves, suggesting that improving PSC is potentially a highly effective approach to psychosocial risk management.

As psychosocial risks are not constant and affect people differently, organisations with a strong PSC foster an environment where staff and managers are educated about psychosocial risks and their effects, where staff are encouraged to raise concerns about psychosocial risks and have input into how they are addressed, and where management have the tools to effectively identify and address risks. This comprehensive approach is likely to prove more effective than approaches that reactively target single risk areas and have short-lived impacts. A growing body of international research shows that organisations that adopt such an approach to psychosocial risk management benefit from better staff wellbeing and positive organisational outcomes such as high job satisfaction and commitment, and lower absenteeism and intentions to leave (Becher & Dollard, 2016; Zadow et al., 2019). While the research evidence suggests that PSC has high potential as a sound preventative approach for psychosocial risk management, few studies have sought to explore how PSC could be applied as an intervention, specifically within SMEs.

PSC theory posits that high PSC positively influences health outcomes because it determines the work conditions (job demands and resources) that cause worker stress, therefore making it an antecedent to the JDR model, or the "cause of the causes" (Dollard & Bakker, 2010) of work stress. Low levels of PSC have been found to contribute negatively[2] to the development of work demands, such as workplace harassment and violence (Bailey et al., 2015a; Bond et al., 2010), emotional demands and role conflict (Idris et al., 2011), workload and work pressure (Ansah et al., 2018; Dollard et al., 2012), work-family conflict, and job insecurity (Bronkhorst, 2015).

[2] High levels of demands expected when PSC is low

On the other hand, higher PSC has been found to predict the presence of job resources (Loh et al., 2018), including social support (Havermans et al., 2017; Dollard et al., 2012) and job control (Hall et al., 2013; Rickard et al., 2012). PSC also moderates the relationship between job demands and resources and psychosocial health outcomes (Dollard et al., 2017; Dollard & Bakker, 2010; Loh et al., 2018; Yulita et al., 2020). These relationships are shown in Figure 3.

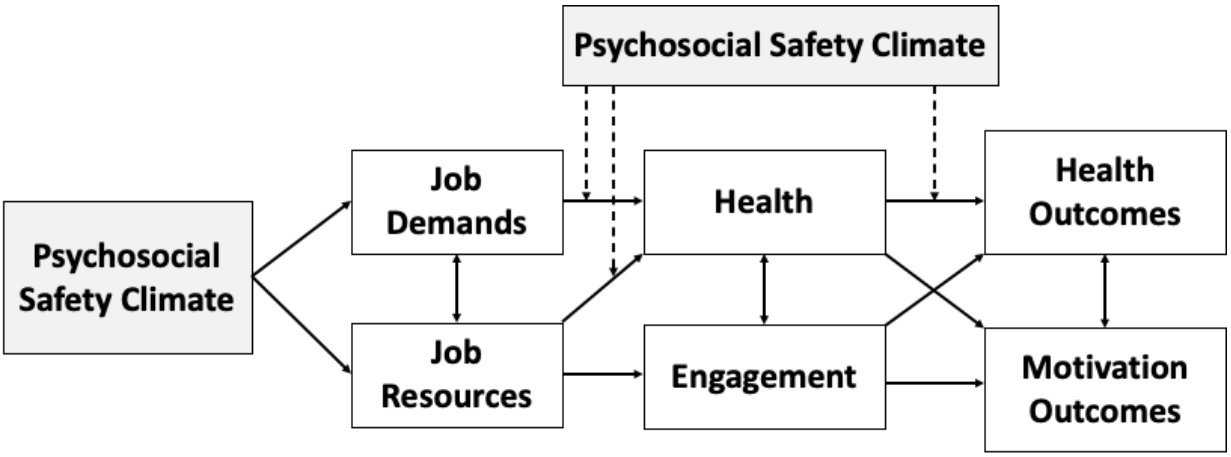


Figure 3: Psychosocial Safety Climate Model

There has been limited research conducted on PSC in the New Zealand context to date. Forsyth and colleagues (2022) identified PSC as one of the four key features of the work environment that had a positive effect on individual and organisational outcomes. High levels of PSC were associated with better mental wellbeing, engagement, and satisfaction, and also had positive influences on co-worker support, inclusion, and perceptions of organisational justice. They also found that high PSC was associated with lower levels of psychological distress and lower leave intentions. In a sample of New Zealand workers, Bentley and colleagues (2021) found that lower PSC was related to higher perceptions of exposure to workplace bullying which, in turn, affected workers' psychological health, while Plimmer and colleagues (2022) also found a similar relationship between PSC and bullying in their sample of public sector workers.

PSC is measured by researchers using the PSC-12 survey (Hall et al., 2010). This contains 12 survey items – three statements relating to each of the four PSC domains. Respondents indicate agreement with each statement on a 5-point Likert scale where 1=Strongly disagree and 5=Strong agree. Adding the scores for each item provides a total score for the survey ranging from 12 to 60. Higher scores reflect higher PSC and a lower risk of psychosocial harm. Previous efforts to set benchmarks for managers, HR professionals, and OHS professionals (Bailey et al., 2015b) suggest that a PSC score of 41 or above is likely to mean that workers are at low risk of psychosocial harm, scores between 37-41 reflect a mild risk of psychosocial harm, while scores below 37 are often found in organisations with high-strain jobs where workers are at high risk of psychosocial harm. The PSC-12 items are shown in Table 2.

Table 2: PSC-12 survey items

Management Priority	Psychological wellbeing of staff is a priority for this organisation
	Senior management clearly considers the psychological health of workers to be of great importance
	Senior management considers worker psychological health to be as important as productivity
Management Commitment	In my workplace senior management acts quickly to correct problems/issues that affect workers' psychological health
	Senior management acts decisively when concern of a worker's psychological status is raised
	Senior management show support for stress prevention through involvement and commitment
Organisational Communication	There is good communication here about psychological safety issues which affect me
	Information about workplace psychological wellbeing is always brought to my attention by my manager/supervisor
	My contributions to resolving occupational health and safety concerns in the organisation are listened to
Organisational participation	Participation and consultation in psychological health and safety occurs with workers, unions, and health and safety representatives in my workplace
	Workers are encouraged to become involved in psychological health and safety matters
	In my organisation, the prevention of stress involves all levels of the organisation

1.3 Wellbeing Interventions

Approaches to managing workplace wellbeing are commonly grouped into individual or organisational level interventions. Individual level interventions target individual workers and aim to improve their coping resources (e.g. mindfulness training, health and fitness programmes). Organisational level interventions are aimed at mitigating or minimising psychosocial risks and fostering a healthy work environment; in doing so, these interventions aim to improve the conditions within which workers work (e.g. workload realignment, culture change, leadership development) (de Wijn & van der Doef, 2022). Organisational initiatives are often primary prevention interventions, through improving the design of work systems to address risks, while individual level initiatives are often secondary or tertiary level interventions that aim to moderate the consequences of risks by enabling workers to cope, or by reducing their negative impacts.

Research shows that organisational level interventions are more likely to result in longer-term benefits than individual level interventions (Giga et al., 2003). However, researchers generally agree that multi-level interventions that include both primary prevention and secondary moderation of risks, and that aim for positive individual and organisational outcomes, are likely to be most effective in reducing stress and improving wellbeing (Bailey et al., 2014; Bentley et al., 2023; LaMontagne et al., 2007). Despite this, interventions that are most often implemented are instead those that focus on individual level stress management and coping (Bailey et al., 2014; Cedstrand et al., 2021; Giga et al., 2003). Therefore, researchers and OHS regulatory bodies are increasingly advocating for interventions that target the organisational level.

There is a considerable body of literature outlining good practice in implementing organisational level occupational health or stress interventions. Extant literature generally advocates that interventions follow a common series of steps or stages. Nielsen and colleagues (2010) published an overview of five prominent European methods for improving psychosocial working conditions in organisations and identified five common phases (see Figure 4) which are also reflected in much of the broader literature (for example, Biggs & Brough, 2015; Biron & Karanika-Murray, 2014; Christensen et al., 2019; Nielsen & Abildgaard, 2013; Noblet & LaMontagne, 2009).

The first step Nielsen et al. (2010) identified involves ***preparation*** for the intervention whereby the intent and aim of the intervention are communicated and buy-in from organisational stakeholders is sought, a steering group is identified to drive the intervention, and senior management support is obtained to ensure that both the appropriate resources and time can be given to the intervention and that it is supported and promoted from the top. Following this, the authors identified a ***screening*** stage during which an initial needs assessment is conducted to identify risks to health and wellbeing, and upon which to develop the intervention initiatives; this is usually conducted via a staff questionnaire and can be supplemented by an audit of existing systems. Results should be fed back to staff. It is then recommended that organisations develop a clear ***action plan*** comprising initiatives to address the identified risks, the resources required to implement them, deadlines for implementation, the roles and responsibilities of those involved, and a clear communication plan for how to communicate the initiatives and their intended outcomes. The ***implementation*** stage involves the action plan being carried out and monitored. Communicating progress across the wider organisation is also important during this phase. Finally, an ***evaluation*** stage was identified that can involve both effect (i.e. the degree to which the initiatives had the intended effect) and process (i.e. contextual factors or components of the process which had hindered or facilitated the intervention and its outcomes) evaluation, as well as the extent to which the intervention initiatives have reached the target audience.

Incorporated within this model, and empirically researched and elaborated on extensively in the academic literature, are a range of features that have been found to be particularly important to the effective implementation of organisational level health and wellbeing interventions. Five of the most commonly identified features are discussed below: worker participation; organisational fit; mental models; management support; and communication.

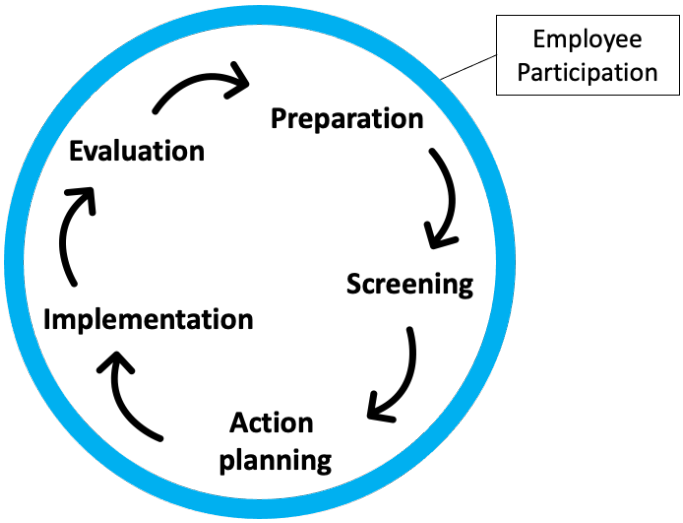


Figure 4: Common stages of organisational-level occupational health interventions (Source: Adapted from Nielsen et al., 2010).

Worker participation is the most researched element of organisational level stress management interventions and the one with the strongest evidence to support its influence on PSC. Participation can take the form of staff input and control into how the intervention is carried out, as well as the content and scope of the intervention activities (Abildgaard et al., 2020). Workers may be directly involved in the intervention or represented by appointed members of a steering group (Abildgaard et al., 2020). Participation is important for several reasons. First, it enables organisations to obtain information about key concerns for wellbeing upon which to develop intervention initiatives. Second, staff participation increases awareness of the intervention, and helps to foster positive staff mental models (i.e. attitudes towards the intervention), potentially leading to the development of more impactful initiatives. Third, it allows staff to better understand the intervention and how it affects them, which in turn has a positive effect on their acceptance of changes resulting from the intervention (depending on whether workers believe that the change will result in positive outcomes for them) (Abildgaard et al., 2020). Finally, staff participation also acts as an intervention in itself, increasing workers' sense of ownership, control, justice and support, all of which are psychosocial factors contributing to a healthy working environment (Nielsen et al., 2010).

Related to participation, **intervention fit** is identified as a key component of any successful intervention. Off-the-shelf organisational interventions are unlikely to be effective and instead organisations should develop evidence-based interventions that are tailored to the specific organisational context (Biron & Karanika-Murray, 2014). Participation is key in this regard as staff input is required to carry out a thorough assessment of wellbeing concerns and their root causes, as well as potential barriers to initiative implementation, upon which the intervention is tailored (Biron & Karanika-Murray, 2014; Lamontagne et al., 2007). Wellbeing interventions should be tailored to fit both the content and process of the intervention. Context at multiple levels can influence the effectiveness of an intervention, and tailoring an intervention to fit should take into account workers' immediate working environment (e.g. methods and timing of participation should align with work structures), the organisational environment

(e.g. the intervention should align with or avoid concurrent organisational change), and give consideration to the current economic and social environment in which the intervention is being implemented (Randall & Nielsen, 2012).

Mental models reflect workers' attitudes towards and perceptions of the intervention. While participation in an intervention can encourage positive mental models (Abildgaard et al., 2020), mental models in turn determine how workers respond to and engage with an intervention (Nielsen & Randall, 2013). For example, if workers believe that the organisation's intent is genuine and see value in the intervention, they are more likely to engage in the intervention in a positive way than individuals who do not agree with the approach of the intervention or do not see value in it. Mental models may also be negatively affected if staff feel the organisation has initiated too many projects, if the organisation's intent is unclear, or if they are aware of challenges that are likely to result in unsuccessful implementation of the intervention (Havermans et al., 2016). For an intervention to be effective, workers and managers need to realise the need for change and believe that the intervention will effectively address the existing issues (Nielsen & Randall, 2013).

Another important aspect of an organisational wellbeing intervention is **management support** from all levels of the organisation. Senior management support is required to commit to the intervention and allocate resources to it, to assist with the development and implementation of intervention activities, and to support the tailoring of the intervention to fit with organisational culture (Roodbari et al., 2021). Senior management attitudes towards the intervention will also be visible to staff, making them role models through their attitudes and actions (Nielsen & Randall, 2013). Particularly in large organisations, line managers are responsible for implementing policy and process and therefore play an integral role in implementing intervention initiatives (Christensen et al., 2019; Tafvelin et al., 2019).

Finally, effective **communication** is an important element of wellbeing interventions, creating awareness of the intervention and supporting participation. Communication about the intervention and the need for change is important prior to the intervention to foster preparedness and staff buy-in (Nielsen & Randall, 2013), while feedback to workers during the intervention and communication of intervention phases and outcomes increases participation and commitment to the intervention and supports the intervention process (Bourbonnais et al., 2012; Nielsen & Randall, 2013).

1.4 PSC as an Organisational Intervention

A small but growing number of studies have explored PSC as an approach to managing psychosocial risks and fostering mentally healthy work, reducing stress, and improving wellbeing. Such intervention studies have aimed to improve PSC in organisations by enacting the four PSC domains (Yulita et al., 2017). For example, through a process involving training and action planning, organisations in Dollard and Bailey's (2021) study implemented communication strategies (such as adding psychosocial safety as an agenda item in meetings), and participation strategies (such as introducing systems for staff to raise issues about hazards and risks with managers). The organisations also enhanced management priorities (for example, by improving transparency around how management were aiming to improve mental health), and implemented policies to manage demands (e.g. an overtime policy), as well as improving resources and supports to balance demands (e.g. increasing job control).

Bailey et al. (2014) argued that PSC interventions should not be "add-on processes" to existing operations, but instead should be "integrally linked to organisational frameworks and processes" (Bailey et al., 2014, p. 108). Bailey and colleagues (2014) propose three key steps for PSC interventions. Firstly, they recommend generating management or political will to build a strong PSC culture to support the intervention and ensure it is adequately resourced and promoted. Secondly, they recommend a steering group or committee to design relevant policies and practices that are coordinated across the organisation. Finally, they suggest that the functioning of the steering group should be evidence-informed; in other words, that the group identify and assess hazards, base initiatives on these assessments, and carry out frequent and systematic evaluation of the initiatives to encourage continuous improvement of the intervention.

The domains of PSC and the steps outlined above are very much in line with generally accepted approaches to health and wellbeing interventions and are also key factors required for effective organisational change such as that described by Nielsen et al. (2010). Top management support, evidence to support the need for change, communication about the change, participation in the change process, and monitoring and evaluating change, are all necessary for an effective organisational change process (Stouten et al., 2018). The PSC domains are also intrinsically embedded within recommended approaches to psychosocial risk and wellbeing interventions in that they encourage obtaining senior management support for the intervention (reflecting the domain of management priority), communicating frequently throughout the process (reflecting the organisational communication domain), and encouraging worker participation in the intervention (reflecting organisational participation). It seems logical, therefore, that PSC can play a central role to improve the efficacy of interventions directly targeting psychosocial risks (Dollard et al., 2012). For example, de Wijn & van der Doef (2022) introduced a PSC intervention after identifying barriers to conducting and implementing psychosocial risk reduction initiatives. The researchers posited that improving PSC would foster a more positive context for their intervention by improving job demands and resources, thus allowing more time and resources to be put into the intervention itself.

Other researchers have also explored a range of specific initiatives for improving PSC. Such initiatives include training and selection of managers, recruiting specifically for workers who value psychological health (Loh et al., 2018), improving interaction with senior management, improving communication to ensure fairness and transparency, providing worker recognition and acknowledgement (McLinton et al., 2018), introducing anti-bullying procedures and processes to resolve conflict, and improving work design (Dollard et al., 2017). Many of these studies highlight the importance of establishing both espoused and enacted PSC. While PSC is often portrayed as an espoused theory of senior management communication, and subsequent worker perceptions of policies, practices and procedures pertaining to psychological health and safety (Dollard & Bakker, 2010; Yulita et al., 2017), several studies have highlighted the importance of the implementation of these espoused policies and procedures (i.e. enacted PSC) (Biron et al., 2018; Parent-Lamarche & Biron, 2022; Yulita et al., 2017).

There is now a relatively substantial body of research exploring OHS and psychosocial risk interventions, and several published studies exploring PSC interventions specifically. However, many of these studies have been conducted in large organisations, where: senior management is largely removed from front

line workers, interventions need to be coordinated across multiple departments/units, formal policy and procedures are commonplace, and middle managers are largely responsible for the implementation of policies. These are just some examples of characteristics that are likely to differ in terms of possible applications of PSC interventions in an SME context. The following sections outline the SME context in Aotearoa New Zealand in which our study was conducted.

1.5 Small and Medium Enterprise Context

In New Zealand, small businesses are defined as those with 1-19 workers, and the same definition is also used in Australia. Industry in New Zealand is comprised largely of small and medium sized organisations, which are defined as organisations with 20-49 people, and often but not always, 50-99 people. For this study, we defined SMEs as those employing 6-99 workers as this is the range used in the study to meet statistical sample requirements, and to best match the demographic characteristics of the sectors involved in the study.

As of February 2022, over 42% of the New Zealand workforce (999,000 people) were employed in organisations with 6-99 staff, and organisations in this size range accounted for 10.2% of the total number of business enterprises in 2021 (58,539 businesses) (Statistics New Zealand, 2022). The industries in this group employing the highest numbers of workers included retail trade (142,200 workers), construction (134,100 workers), accommodation and food services (129,100 workers), manufacturing (127,500 workers), education (120,400 workers), and healthcare (113,800 workers). No further breakdown of workforce data by sector was provided and public data for the three sectors involved in this study are limited. However, business demography statistics indicate there are 87,600 workers in Fast-moving Consumer Goods; 39,000 workers in Mental Health and Addictions; and 30,400 workers in Early Childhood Education – with most if not all working in an SME (Business Demography Statistics, Stats NZ, 2022).

Collectively, SMEs make a significant contribution to the New Zealand economy. While more recent data are not readily available for organisations employing 6-99 people, just those employing fewer than 20 people contributed more than a quarter of New Zealand's GDP in 2017 (Ministry of Business Innovation and Employment, 2018), although it is important to note that this figure also included micro-businesses employing one to five people.

With health and safety legislation designed predominantly for large organisations, SMEs often find it challenging to meet health and safety obligations (Legg et al., 2009) due to such factors as limited internal OHS experience, and less specific OHS management systems. Small SME owner-managers often work long hours and prioritise operational issues, meaning less time and fewer resources are dedicated to health and safety (Lamm, 1997; Legg et al., 2015). Additionally, they often have less formal documentation and processes and limited access to external sources of advice and support (Legg et al., 2009, Hasle et al., 2012). Furthermore, the health and safety focus of SMEs is often on severe or fatal incidents, and those pertaining to physical safety rather than psychosocial health. However, the informality of workplace relationships in SMEs can be of value when managing health and safety risks (MacEachen et al., 2010).

Research internationally has highlighted that SME workers are particularly vulnerable to health and safety risks (Brown et al., 2021; Dorman, 2000). Reasons for this include a lack of health and safety resources, in many cases no dedicated health and safety staff and limited understanding of psychosocial hazards and risks (Brown et al., 2021; McCoy et al., 2014; NIOSH 1999). Many SMEs employ precarious workers, such as those on temporary and part time contracts, those who are economically disadvantaged, migrant workers with lower English proficiency, and many lack access to computers to access wellbeing resources (Ingram et al., 2021).

According to the Business NZ Workplace Wellness Report (Business New Zealand, 2019), SME workers reported similar stress and anxiety levels to those working in larger businesses. The Mental Health Foundation of New Zealand's Small Business Wellbeing Report (Mental Health Foundation, 2019) reports that 32% of employers surveyed felt that their staff would benefit from improved wellbeing. Of the 1001 small business leaders surveyed, over 50% felt that their staff worked long hours, while over 40% felt that their staff were tired and run down, struggled with many aspects of their lives, and were short tempered, irritable or emotional. Lack of time and other priorities was the top barrier to supporting staff wellbeing, followed by perceptions that staff don't want to be helped or concerns about offending them or breaching their privacy. Lack of skills, lack of awareness of issues, and the expense associated with managing staff wellbeing were among the other top barriers. Many small businesses in New Zealand did however, report informal approaches to managing worker wellbeing, such as allowing time off to deal with personal issues (78%), having an open-door policy (78%), having social gatherings (60%), and fostering a supportive culture where it's okay to talk (53%).

SMEs face a range of challenges in implementing health and safety programmes. SMEs, which often work with less readily available capital than larger organisations, may struggle with the overhead costs of implementing such programmes, and SME owners may not see the financial value of investing resources in such initiatives (Dorman, 2000). SME employers may lack the knowledge, confidence and time to coordinate such initiatives internally. Limited internal capacity means that SME employers often rely on external expertise. However, with many health and safety programmes being designed for large businesses, SME owners often do not see such programmes as being appropriate and able to be tailored to their business. Research also suggests that many SME owners do not see their workers' wellbeing as their responsibility to manage and that workers lack interest in such initiatives (Harris et al., 2014).

On the other hand, smaller workplaces are likely to have advantages over larger organisations in terms of implementing health, safety and wellbeing initiatives as they have fewer hierarchical layers meaning that implementation of new policies and programmes is often easier. Senior management is often more visible and can more easily champion wellbeing initiatives, and a smaller worker base and more relationship-based culture can mean that worker participation and incorporating worker suggestions into such initiatives is also easier (Harris et al., 2014; Schwatka et al., 2018).

1.5.1 Industry Sectors Involved in the Study

Three industry sub-sectors were selected to be involved in the study (see Section 2.3.1 for the selection process). An overview of each of the sectors is provided below.

Mental Health and Addictions (MHA): Mental Health and Addictions services in New Zealand are delivered by a range of organisations including primary health organisations, private hospitals and non-governmental organisations (NGOs). Some of the key services include community support, residential services, transitional housing, and health coaching (within general practices). The workforce comprises clinical (e.g. psychologists, general practitioners, and mental health nurses) and non-clinical (e.g. community support workers, and cultural advisors) workers who work across a range of environments, including in residential facilities, in the community, and in office-based work. The mental health system is known to be severely over-worked with high levels of staff reporting feeling stressed (Elliot, 2017), limited professional development, and understaffing (Paterson et al., 2018). WorkSafe New Zealand's Worker Exposure survey (2019) identified a range of psychosocial hazards experienced by community-based nurses (many of whom work in this sector), including violence, time demand pressure and job stress.

Food and Grocery Manufacturing / Fast-moving Consumer Goods (FMCG): This sector employs a large and diverse workforce, including manufacturing workers, sales and marketing workers, product and supply chain managers, and logistics and warehousing staff. There are limited sector-specific data highlighting psychosocial risks in this sector, but the Health and Safety Attitudes and Behaviours in the NZ Workforce survey (WorkSafe New Zealand, 2018) found that FMCG employers and workers were positive about worker engagement and two-way communication. Negative factors reported by workers included long work hours, limited breaks, and a lower priority towards health and safety.

Early Childhood Education (ECE): The ECE sector provides education and care for children from birth to age 5. It is a highly regulated sector and all providers must be licensed and registered with the Ministry of Education. The ECE workforce includes teachers, caregivers, administrators, and other support staff. In ECE, psychosocial risks include burnout, low job satisfaction, and high educator turnover (Cumming, 2015). While data on the relationship between working conditions and mental health and wellbeing are limited (Corr et al., 2014), there is acknowledgement that structural tensions and negative leadership practices are prevalent – including high levels of coercion, emotional blackmail, bullying, and low job satisfaction linked to high turnover (Brooker & Cumming, 2019).

1.6 Aims and Scope of the Study

The overall aim of the study was to contextualise and evaluate a multi-level Psychosocial Safety Climate (PSC) intervention to reduce psychosocial risk and improve psychosocial health – as a component of the health and wellbeing of workers – in small and medium-sized enterprises.

Following a participatory approach, the specific study aims are to:

i) Contextualise a multi-level PSC intervention for implementation within SMEs in New Zealand's Early Childhood Education, Mental Health and Addictions, and Fast-moving Consumer Goods sectors;
ii) Implement the PSC intervention across 12 case organisations within these sectors;
iii) Quantitatively evaluate the PSC intervention's effectiveness to enhance perceived PSC levels and reduce psychosocial risks in the case organisations:
iv) Qualitatively evaluate the intervention process, including implementation of PSC engagement and activation within the case organisations;
v) Identify how findings might be applied to benefit other workplace settings;
vi) Consider the application of findings to policy and national approaches to psychosocial risk, as well as organisational policy and practice.

The study also sought to quantitatively test three hypotheses in regard to aim iii) above:

1) PSC will be positively related to wellbeing and negatively related to psychosocial risk;
2) PSC scores will increase across time for case organisations (that participated in the PSC intervention) relative to control organisations (that did not participate in the intervention).
3) Psychosocial risks will decrease for case organisations relative to control organisations.

1.7 Impacts of Covid-19 on the Study

This study commenced in February 2020 and within the same month the emerging Covid-19 pandemic began to have an impact on home and work activities in New Zealand. A State of National Emergency was declared at the end of March 2020 along with the first of several national lockdowns. The disruptive consequences of this lockdown on organisations and society in general made it necessary to delay the recruitment of organisations to participate in the study. Approval was granted in August 2020 to extend the study by five months. A further extension of one month was granted in September 2021 as a result of a further lockdown period and its impacts on data collection activities due to be undertaken at that time.

The months from October 2020 until early August 2021 were comparatively settled insofar as Covid-19 was concerned, enabling the recruitment of organisations for the study, and for many of the initial data collection activities to be undertaken. However, a long lockdown from August 2021, along with the imposition of vaccine mandates in November 2021 and the introduction of self-isolation requirements, all had negative effects on the three sectors involved in the study. The nature of these individual and organisational effects emerged through survey and interview data, both of which were delayed as a

result of these events. The outbreak of Omicron in early 2022 and emerging cost of living difficulties nationally contributed further to these difficulties and were evidenced through high levels of sickness absence, and higher than normal staff turnover in some organisations. Cumulative fatigue from the ongoing restrictions related to Covid-19 occurred with workers in all organisations, with the loss of social contact cited as taking a toll on mental health, in addition to the restrictions already mentioned. Furthermore, as all three sectors provided essential services, the organisations participating in our study continued to operate throughout the events of Covid-19 (with some exceptions to dates and/or services for some organisations).

All of the factors mentioned above created significant pressures for the participating organisations. This inevitably led to a reduction in the time they were able to give to the study, and the level to which they were able to prioritise their wellbeing at work and home. Although national and sector level responses to Covid-19 are likely to have raised awareness of wellbeing to some extent, this probably had minimal effect against the more pressing day-to-day operational activities for the organisations in maintaining the expected essential services. This reduction in time and priority afforded the study was undoubtedly a limitation of the study, and the findings should be considered with this in mind.

2.0 Methods

2.0 Methods

2.1 Introduction

This study was carried out over four stages (Figure 5). Following an initial stage of study preparation (Stage 1), participating organisations were recruited, matched, and assigned to case or control groups (Stage 2). Representatives from key national and sector stakeholder organisations were also recruited to advisory groups. The PSC intervention was implemented within the case organisations throughout 2021-2022, with survey and process evaluation data collected from both case and control organisations throughout this period (Stage 3). The data were then analysed, using a combination of quantitative analysis and realist evaluation (Stage 4). The following sections are structured according to these stages.

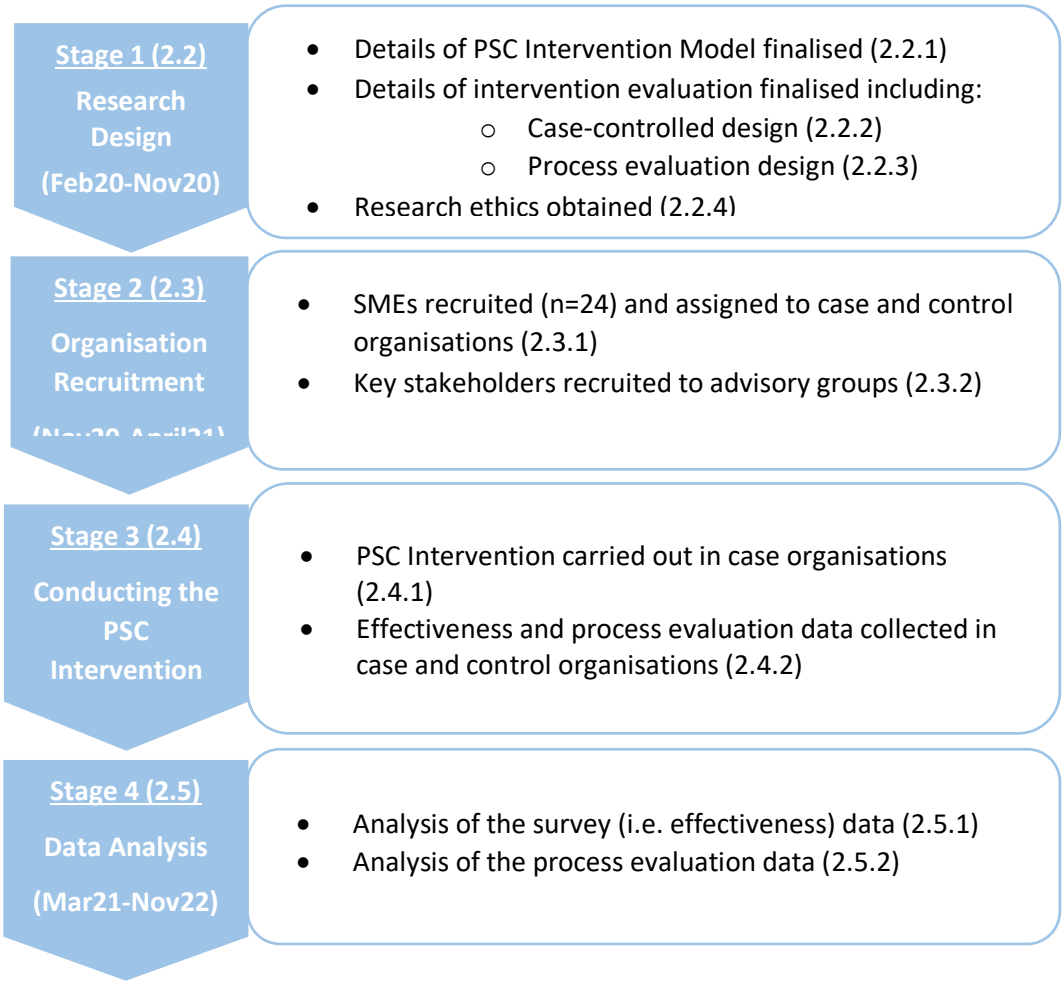


Figure 5: Research Design Stages

2.2 Stage One: Research Design

2.2.1 The PSC Intervention Model

The PSC Intervention Model is represented in Figure 6. As shown in the model, the aim of the intervention is to develop PSC by first ***engaging*** with PSC, followed by ***activating*** PSC through the development and implementation of an Action Plan consisting of PSC initiatives. The PSC Intervention Model embeds PSC in all stages of interaction with the organisation while also being consistent with best practice reported in many influential standards and guidelines on conducting organisational interventions (Biggs & Brough, 2015; Nielsen et al., 2010). The model reflects a broad framework for embedding PSC, allowing participative and tailored implementation of the model to fit with the organisation in which it is being implemented. Further details of how the PSC Intervention Model was operationalised in this study are provided in Section 2.4.1.

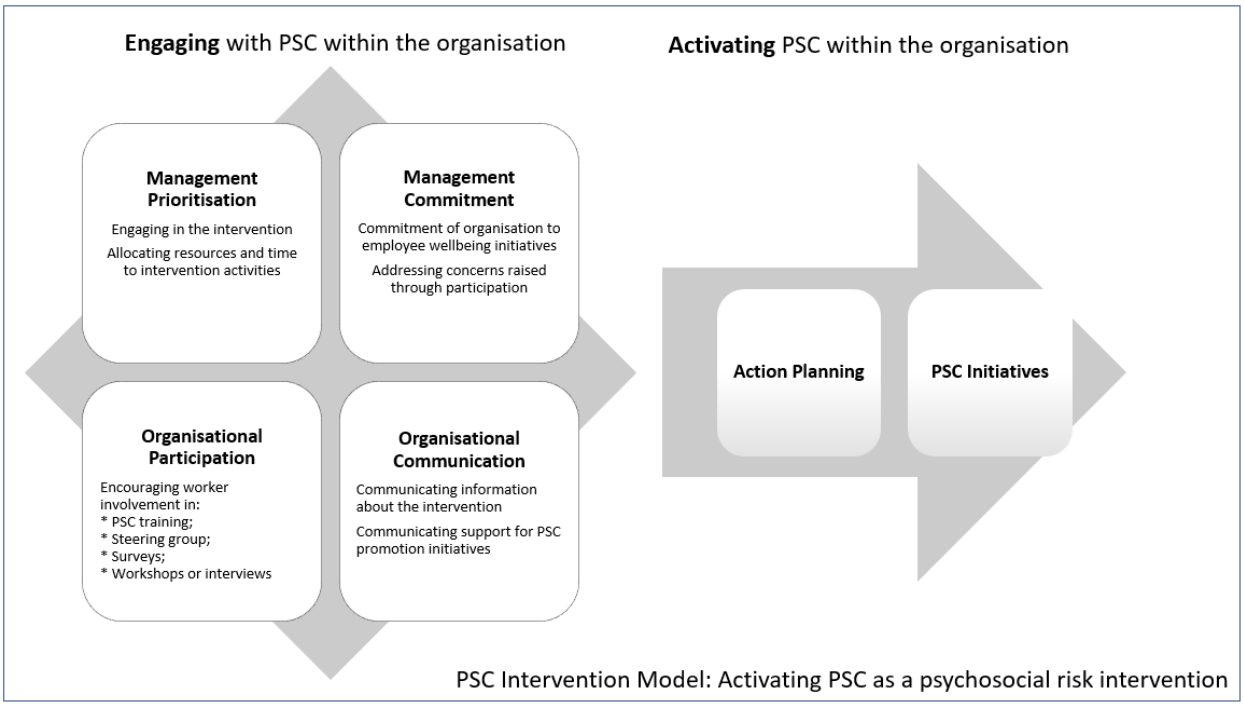


Figure 6: PSC Intervention Model

It is widely agreed that organisational intervention research requires an initial preparatory stage whereby relationships are established with organisational stakeholders and foundation work carried out to understand the needs of the organisation (Biggs & Brough, 2015; Nielsen et al., 2010). The 'Engaging with PSC' component of our intervention model embeds these recommendations while recognising that, in doing so, the organisation is already beginning to build PSC. Engaging with PSC is demonstrated in the following ways:

- **Prioritisation of wellbeing:** In signing up to the intervention and committing resources to it, the organisation sends a message to staff that wellbeing is a priority to them.

- **Participation in wellbeing-related efforts:** At the outset of the intervention a Steering Group is established consisting of staff representatives who are responsible for driving the intervention process. Following this, workers are encouraged to participate in a survey and workshops to voice their concerns about wellbeing and offer possible solutions, and PSC/wellbeing training is also offered to all staff.
- **Communication about wellbeing and related efforts:** Throughout the intervention, the organisation is also encouraged to communicate with workers about the intervention and progress which helps to foster awareness and reinforces the value that the organisation places on worker wellbeing. Steering Group and staff training is also a form of communication about wellbeing.
- **Commitment to addressing wellbeing issues:** Senior management and the Steering Group receive the input and feedback from workers (through the survey and workshops), which is an opportunity for them to learn about the risks to wellbeing present in their organisation and demonstrate their commitment to addressing the concerns raised.

The 'Engaging with PSC' component of the intervention model aims to build authentic commitment and prioritisation of wellbeing by the whole organisation, effective communication of that commitment and a genuine desire for all workers in the organisation to be an active participant in the organisation's wellbeing journey. Only then can the organisation effectively activate PSC by developing and implementing initiatives directly aimed at further strengthening it (i.e. move to the 'Activating PSC' component of the model).

The 'Activating PSC' component of the model involves an **Action Planning** stage whereby organisations commit to a series of initiatives, aligned with the concerns and solutions suggested by workers, aimed at further enhancing one or more of the four PSC domains. This is followed by the organisations implementing the planned **PSC Initiatives**. Action planning and implementation is not only a recommended approach for most organisational wellbeing interventions (Nielsen et al., 2010) but is likely to be particularly important for building PSC because it demonstrates the organisation moving from espoused to enacted PSC (Yulita et al., 2017). Espoused PSC, reflecting the values held by the organisation around mentally healthy work and wellbeing, is fostered in the 'Engaging' component of the model; while the 'Activating PSC' component provides an opportunity to act on those values (i.e. enacted PSC) through the implementation of PSC-focused initiatives (Yulita et al., 2017).

2.2.2 Case-control Evaluation Design

A matched case-control design was selected for evaluation of the PSC intervention to ensure that the intervention group (i.e. the case organisations) was as similar as possible to the comparison group (i.e. the control organisations) and differences between case and control organisations could reasonably be attributed to the intervention and not to extraneous factors. Initially, a randomised assignment of cases and controls was proposed; however, recruitment through Advisory Group channels resulted in fewer organisations than was anticipated, therefore requiring direct recruitment methods with the assistance of Advisory Groups (Section 2.3.2) in some instances. Approval was granted by the funding agencies to change to a matched case-control design.

Organisations were matched to the extent possible by sub-sector specificity, organisation size, organisation age, geographic location, and the services they offered. In some instances, allocation to case or control had to be determined by organisational availability and priorities. Statistical power calculations (Eldridge et al., 2006) determined that 12 case organisations (four from each sector) and 12 control organisations provided satisfactory power to detect the required differences between case and control organisations. This was based on 16 organisations with 20-99 workers, and eight organisations with 6-19 workers. Survey data were collected from the case and control organisations at baseline (prior to any intervention activities taking place), at the intervention midpoint (approximately 7 months following baseline) and at the end of the intervention period (between 13 and 18 months after the baseline data collection).

2.2.3 Participation and Process Evaluation Design

Leading researchers in the field of organisational intervention evaluations argue that 'off the shelf' interventions are unlikely to succeed, and that contextualised interventions containing tailored solutions are required to meet the needs of each unique organisational context (Hurrell & Murphy, 1996; Nielsen & Randall, 2013). A participatory approach has been proven to optimise the fit between the intervention and the organisation's context and enhance commitment to the process of wellbeing generally, and is an approach advocated by leading researchers in organisational evaluation research (Dollard et al., 2008; LaMontagne et al., 2007; Nielsen & Randall, 2013). A participatory approach allows organisations autonomy to shape the intervention process and design their own tailored Action Plan initiatives and, in accordance with good practice recommendations, was the approach taken for this study.

To maintain a degree of consistency, the intervention involved a series of common steps (see Section 2.4.1). However, participating organisations were given autonomy over numerous aspects of the intervention process to ensure that the intervention was appropriate for them. For example, participating organisations determined their own Steering Group composition and the method of recruitment of Steering Group members (some opted for a voluntary approach while others invited staff in specific roles, or assigned responsibility to an already established committee); they determined the methods and amount of communication that best suited their organisation; and they had autonomy over when to begin the surveys, how long to leave them open for, methods of survey completion (online and/or paper copies), and to what extent staff participation was encouraged.

Although there was a degree of autonomy throughout the intervention, the researchers adopted an 'expert model' at the outset, providing training about psychosocial risks, PSC and wellbeing, facilitating the workshops, and providing guidance to Steering Groups. Throughout the intervention, the researchers' role moved from one of engagement to one of facilitation: after the initial Action Planning session, facilitated by the researchers, the case organisations were required to take responsibility for finalising their Action Plans and driving the implementation of Action Plan initiatives.

A participatory approach introduces variance in how the participating organisations implement the intervention, and this can mean it is more difficult to make accurate comparisons and evaluate its true effects or its suitability for other contexts. Compounding these challenges, the ever-changing and often unpredictable nature of organisations introduces further variance, as many external variables could have an influence on intervention outcomes. To capture the variations that facilitated or hindered

intervention outcomes, process evaluation data were collected throughout all stages of the intervention (Nielsen & Randall, 2013) and subjected to realist evaluation (Roodbari et al., 2021; 2022).

In accordance with recommended practice (Wong et al., 2013; Roodbari et al., 2021; 2022), potentially relevant process evaluation factors were identified from the literature (Nielsen & Randall, 2013; Nielsen & Agilbaard, 2013; Nielsen & Miraglia, 2017; Roodbari et al., 2021; Roodbari et al., 2022) and informed an initial framework to guide the process evaluation in case organisations (Figure 7). The framework groups process evaluation factors into two sections, 'Mechanisms' (in green) and 'Context' factors (in orange) and also identifies the broad desired outcomes (in blue):

- **Mechanisms (M).** These are what make the intervention work. Mechanisms can include the content of the intervention, as well as the process of implementing the intervention.
- **Context (C).** These are the conditions required to trigger the mechanisms. There are two types of context: 1) Omnibus – the comparatively stable characteristics of an organisation which can be identified at individual, group, or organisation levels; and 2) Discrete – the changes taking place during the intervention period.
- **Outcomes (O).** These are the changes that can be observed from an intervention. They may also relate to improvements in subsequent stages of the intervention process (for example, improved participation in the intervention).

Process evaluation data were also collected from control organisations to identify factors likely to affect the survey findings, although collection of these data was not guided by the process evaluation framework for case organisations as described here. Process evaluation data collection and analysis is discussed further in Sections 2.4 and 2.5.

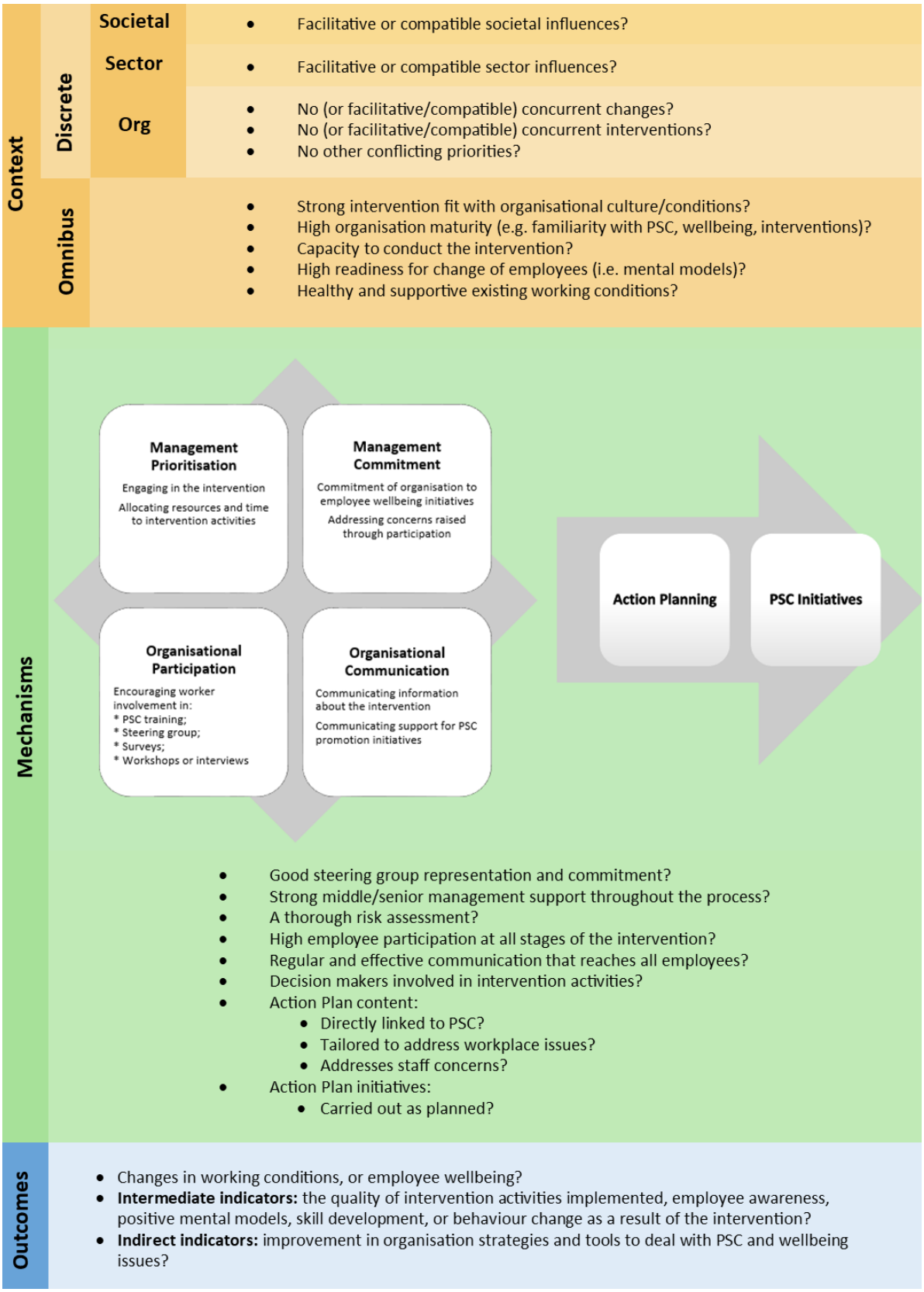


Figure 7: Initial Process Evaluation Framework

2.2.4 Research Ethics

Research ethics principles described in Massey University's Code of Ethical Conduct were closely considered by the research team in the development of the study data collection activities. The initial stage of process and method development (see Stage One, Figure 5), which involved discussion with research and industry experts, was considered to be low risk and notice of this was lodged with Massey University's Human Ethics Committee in March 2020 (Appendix 1). Towards completion of this stage of the study, approval was then sought from the Human Ethics Committee for the proposed data collection methods to be used in the remaining stages of the study. Important ethical issues that were addressed included preventing potential discomfort and vulnerability of participants in the data collection activities, preventing the disclosure of organisational and participant data throughout the study process (other than in summarised and de-identified forms), and the avoiding coercion to take part in the data collection activities. Approval to conduct the study was granted by the committee in October 2020 (Appendix 2).

2.3 Stage Two: Organisation Recruitment

2.3.1 Case and Control Organisations

The three industry sectors involved in the study (education, manufacturing, and health) were initially identified as being suitable for contextualising the PSC intervention due to their high levels of psychosocial risk (Bentley et al., 2009; WorkSafe New Zealand, 2018). Once the study commenced in February 2020, suitable sub-sectors were identified, along with the associated industry groups that would also be involved. These were Early Childhood Education (ECE), Fast-moving Consumer Goods (FMCG), and Mental Health and Addictions (MHA).

The criteria applied to their selection were: the number of SME organisations for each sub-sector; the level of psychosocial risks evident in the sub-sectors (where these could be ascertained); the potential impact that Covid-19 was likely to have within the sub-sectors; and the likelihood that the sub-sector would want to be involved with the study. These sectors also provided a broad contextual scope for the evaluation, including a range of different roles, public and private sectors, and numerous occupational groups. All three sectors were significantly affected by Covid-19 but were essential services and therefore were likely to remain in operation during lockdowns. Based on these criteria and preliminary feedback from some industry stakeholders, the decision to involve these sub-sectors was made in May 2020.

Eight small and medium sized organisations (6-99 workers) from each of the three sub-sectors were recruited between November 2020 and April 2021. The case and control organisations that participated in the study are listed in Table 3 which includes information on location, size, champion (cases), contact person (controls), and a brief overview of each organisation. All organisations were based in the upper half of the North Island to ensure accessibility to the research team. Organisations were initially approached to participate via invitation through sector stakeholder forums or via direct recruitment of organisations that met the sector, size and location participation criteria. Upon recruitment, organisations were matched and then assigned to either case or control group (Table 4). In recognition

of their involvement and as an incentive to take part, control organisations were offered the intervention or similar assistance after completion of the study. Four organisations withdrew from the study over its course, two in Stage 2 (one ECE control & one FMCG case organisation) and two in Stage 3 (both ECE organisations – one case and one control). Two withdrawals were due largely to the challenges of Covid-19, while the other two were internal decisions by the organisations concerned.

Table 3: Case and Control Organisations

		Location	Size (FTE)	Champion / Contact person and organisation overview
Early Childhood Education (ECE)				
Case	ECa1	Northland	6 - 19	Owner operator; one centre (approx. 2 years old at commencement of the study).
	ECa2	Auckland	20 - 49	Owner operator; three centres (all three involved in the study).
	ECa3	Auckland	20 - 49	Assistant centre manager; large centre established in the past five years. Withdrew due to pressures related to Covid-19 following their midpoint survey in April 2022.
	ECa4	Auckland	20 - 49	Centre manager; two centres (a third opened later in the intervention period). Both centres initially involved in the study, reduced to one for the midpoint and endpoint surveys.
Control	ECo1	Auckland	6 - 19	Owner operator; one centre.
	ECo2	Auckland	6 - 19	Centre manager; two centres, withdrew in May 2022 following departure of the centre manager.
	ECo3	Auckland	6 - 19	Owner operator; Board of Directors; withdrew in April 2021 prior to the baseline survey.
	ECo4	Auckland	6 - 19	Centre manager; one centre (one of three centres operated by the company).
Fast-moving Consumer Goods (FMCG)				
Case	FGa1	Auckland	50 - 99	Section manager; Board of Directors; grocery product manufacturer.
	FGa2	Auckland	6 - 19	HR manager; Board of Directors; food manufacturer.
	FGa3	Auckland	20 - 49	CEO; food manufacturer and retail/restaurant. Board of Directors; withdrew from the study in March 2022 following the workshops.
	FGa4	Auckland	50 - 99	HR manager; Board of Directors; food manufacturer.
Control	FGo1	Auckland	50 - 99	HR manager; Board of Directors; food manufacturer.
	FGo2	Hawkes Bay	20 - 49	H&S manager; Board of Directors; food manufacturer.
	FGo3	Auckland	20 - 49	CEO; Limited company; Board of Directors; food merchandiser.
	FGo4	Auckland	50 - 99	Section manager; Limited company; Board of Directors; food importer/distributor.
Mental Health and Addictions (MH&A)				
Case	MHa1	Northland	50 - 99	H&S manager; Charitable trust; NGO; Board of Trustees; community support and residential services; staff work out of geographically dispersed offices due to the range of locations they service.

	MHa2	Bay of Plenty	6 - 19	H&S manager; Charitable trust; NGO; Board of Trustees; provide residential housing, community support, and transitional housing.
	MHa3	Auckland	20 - 49	Senior manager; Charitable trust; NGO; Board of Trustees; kaupapa Māori provider of residential, respite and community support services; staff work across several residential houses.
	MHa4	Bay of Plenty	20 - 49	CEO; Charitable trust; NGO; Board of Trustees; kaupapa Māori organisation offering a range of mental health services, including community support, counselling, and whānau support.
Control	MHo1	Auckland	6 - 19	CEO; Charitable trust; NGO; Board of Trustees; provider of residential rehabilitation housing.
	MHo2	Bay of Plenty	6 - 19	Team manager; Charitable trust; NGO; Board of Trustees; community support services.
	MHo3	Auckland	50 - 99	CEO; Charitable trust; NGO; Board of Trustees; therapeutic and medical services provider, community services and peer support groups.
	MHo4	Auckland	50 - 99	H&S manager; Charitable trust; NGO; Board of Trustees; provide a range of services, including community support services, respite services, and whānau support services.

Table 4: Matched case and control organisations

Sector	Case Organisation	Control Organisation
Early Childhood Education	ECa1	ECo1
	ECa2	ECo2
	ECa3	ECo3
	ECa4	ECo4
Fast-moving Consumer Goods	FGa1	FGo4
	FGa2	FGo3
	FGa3	FGo2
	FGa4	FGo1
Mental Health & Addictions	MHa1	MHo4
	MHa2	MHo1
	MHa3	MHo2
	MHa4	MHo3

2.3.2 Stakeholder Engagement and Consultation

During Stage 2, key stakeholders within each sector - ECE, FMCG, and MHA - were identified, and agreed to be part of an advisory group for their sector (Table 5). A representative from WorkSafe New Zealand was included in each sector advisory group. Discussions with these stakeholders throughout Stages 2-4 helped to provide sector level context to inform the findings and aimed to ensure the relevance of the study to industry. These stakeholders also assisted with recruiting organisations for the study, and with dissemination of the study findings. National advocates for workplace wellbeing were also kept aware of the study as it progressed, and a Māori advisor was engaged particularly in the early stages to support the research team on cultural matters. All stakeholders engaged in this study are listed in Table 5.

Table 5: National and Sector Level Stakeholders

Early Childhood Education (ECE)
Early Childhood Council
Teaching Council
New Zealand Educational Institute
Fast-moving Consumer Goods (FMCG)
Shopcare
Real Leadership Company
Mental Health and Addictions (MH&A)
Platform Trust
Te Pou
Te Rau Ora
Navigate Midlands
Public Services Association
National Stakeholders
Mental Health Foundation
Health and Safety Association of New Zealand
New Zealand Council of Trade Unions
Employers and Manufacturers Association (Northern)

2.4 Stage Three: Conducting the PSC Intervention

Table 6 outlines the intervention stages (in blue) and the related data collection activities at each stage (in green) for both the case and control organisations. These activities are discussed in the following sections. As PSC relates to perceptions regarding the organisation's prioritisation of and commitment to wellbeing, each point of communication with the organisation (including data collection activities) can shape perceptions and understandings and therefore potentially influence PSC (Nielsen et al., 2010). Therefore, all stages of the process from the initial point of recruitment through to the final Steering Group meeting, including data collection activities, were considered part of the intervention with respect to case organisations. Contact with the control organisations after recruitment was limited to correspondence concerning the surveys and the process evaluation interviews.

Table 6: Intervention Stages and Data Collection Activities

INTERVENTION STAGES			DATA COLLECTION ACTIVITIES			
PSC INTERVENTION MODEL ALIGNMENT	**CASE ORGANISATIONS**		**CASE ORGANISATIONS**		**CONTROL ORGANISATIONS**	
Engaging with PSC	Onboarding the organisation: • Communicating the intervention • Forming the Steering Group	*Ad hoc conversations*	Initial conversation	*Process evaluation observation data*	Initial conversation	*Process evaluation observation data*
	Steering Group Training		Initial Steering Group Interview			
	Baseline Survey		Baseline Survey		Baseline Survey	
	Workshops and 1:1 interviews		Workshops and 1:1 interviews		Initial Process Evaluation interview	
Activating PSC	Action Planning session					
	Midpoint Survey and 1:1 interviews		Midpoint Survey		Midpoint Survey	
	Midpoint Steering Group meeting		Midpoint Steering Group interview		Midpoint Process Evaluation interview	
	Steering Group interim meeting		Interim Steering Group interview		Interim Process Evaluation interview	
	Endpoint Survey		Endpoint Survey		Endpoint Survey	
	Final Steering Group meeting		Final Steering Group interview		End-point Process Evaluation interview	

2.4.1 The PSC Intervention Stages

The PSC Intervention was carried out over 13-18 months, accommodating timing delays as a consequence of Covid-19 events. Although the participatory approach meant that organisations had reasonable flexibility (for example, methods and frequency of communication, timing of surveys) to maximise organisational fit with the intervention, the following steps were followed consistently across all participating case organisations. The steps reflect the components of the PSC Intervention Model described in Section 2.2.1.

2.4.1.1 Engaging With PSC

This component of the intervention was aimed at preparing the case organisations for the intervention and conducting an initial needs assessment, which is in line with good practice in occupational health intervention research generally (Nielsen et al., 2010). However, the four domains of PSC are also deeply interwoven in this process, in that these stages educate organisational stakeholders about PSC, reflect communication and participation in wellbeing efforts, and encourage genuine commitment to fostering mentally healthy work and improving wellbeing.

1) **Onboarding the organisation:** Following recruitment, each case organisation was assigned a primary researcher who was responsible for communication with the organisation contact (their 'champion'), and for coordinating all intervention and data collection activities. Case organisation champions were first tasked with communicating about the study with the wider organisation to ensure staff were on board from the outset and to encourage ownership and engagement (LaMontagne et al., 2012; Nielsen & Abildgaard, 2013), and then to establish a Steering Group who were to be responsible for the intervention. Each stage is described below.
    a. ***Communicating the intervention:*** Each case organisation was provided with posters and a general description of the study and intervention which could be adapted to suit their organisation. They were encouraged to communicate with their workers about the study and its purpose to create awareness and prepare workers for the intervention. Communication was also encouraged throughout the intervention period to encourage worker participation and provide updates on intervention progress. Organisations chose communication methods that best suited the communication style of their organisation, with some organisations offering extensive and thorough communication and others communicating more minimally.
    b. ***Forming the Steering Group:*** In each case organisation, a Steering Group was established to coordinate and drive the intervention with the support of the research team. The Steering Group helped to communicate intervention activities to all teams throughout the organisation and was also a voice to advocate for their teams, providing team-specific input into the intervention process. As such, organisations were encouraged to include worker and/or line manager representatives from different teams within the organisation, as well as senior management representation. In some cases, individual workers volunteered to be a part of the group, while in other organisations members were assigned the role. From this group, a champion was also identified to coordinate the Steering Group (most often a senior manager or HR/OHS person), and each champion became the main point of contact for the primary

researcher. Steering groups consisted of between four and ten members reflecting organisation size.

2) **Steering Group training:** Once the Steering Group had been established, the researchers visited each of the case organisations to assist with building study and researcher credibility and ensuring that the case organisations had multiple people they could contact to minimise the impacts of any researcher unavailability during the intervention period. Alongside meeting the Steering Group members, Steering Group training was conducted. The training took around one hour and contained information about wellbeing, mentally healthy work, common psychosocial factors affecting wellbeing, and an introduction to the concept of PSC as a means to improve the work environment and worker wellbeing. An initial Steering Group interview was also conducted during this meeting to collect process evaluation data.
3) **Baseline survey:** All workers in case and control organisations were invited to participate in a baseline survey (Appendix 3) at the outset of the intervention. The baseline survey served two purposes: i) to establish baseline data upon which to evaluate the effectiveness of the intervention; and ii) as a key component of the risk/needs assessment upon which case organisations came to understand and reflect on the potential areas for improvement with regards to worker wellbeing. The survey was administered through an online link sent to the champion in each participating organisation, who then sent the link to their workers and encouraged them to take part. The link provided anonymity to the survey respondents but enabled the researchers to identify the organisation they were from. Alternative means of completing the survey (electronic tablets and paper copies) were also offered to the organisations where individual online access was not suitable. Survey responses were returned to the research team directly through the online link or, in the case of paper copies, in sealed envelopes collected from the champion. The survey responses for each organisation were analysed by the research team and summarised in a report (Appendix 4) which was sent to the Steering Group. Control organisations did not receive the reports until after completion of the intervention to avoid knowledge of the results influencing their subsequent activities. A total of 312 case organisation workers and 185 control organisation workers completed the baseline survey.
4) **Workshop (and 1:1 interviews):** Each case organisation invited their workers to participate in a workshop with the researchers if they so wished. The workshops served three main purposes: i) to provide intervention-relevant training to workers with the aim of improving understanding of and engagement with the intervention (LaMontagne et al., 2012; Nielsen & Abildgaard, 2013); ii) to further inform the risk/needs assessment by identifying staff concerns and generating ideas to address concerns; and iii) to gather initial process evaluation data from staff. The workshops were structured in three parts:

   Part A - Wellbeing: Training on wellbeing and approaches to its management, encouraging looking beyond individual health promotion to addressing work design and management. Following this, the researchers facilitated a group discussion on current wellbeing levels and the organisation's stance on wellbeing.

Part B – Psychosocial Risk: Training on common psychosocial risks and how they affect people. A brainstorming activity encouraged participants to identify and discuss risks in their organisation.

Part C – Psychosocial Safety Climate: Training about PSC, with the results of the baseline survey providing the basis for a reflective discussion as to whether participants felt their PSC score was accurate or inaccurate and why. Following this, a brainstorming activity encouraged participants to identify initiatives their organisation could implement to improve each of the domains of PSC.

Between one and five workshops were conducted in each organisation, depending on the number of participants that volunteered to participate. An opportunity for one-on-one interviews was provided for workers as an alternative or additional opportunity to provide input beyond the workshop, the structure of which loosely followed the workshop structure. A total of 24 workshops (consisting of a total of 179 workers) and 17 interviews were conducted, reflecting approximately 40 per cent of total workers across the participating case organisations. Data from the workshops and interviews were collated and reported back to the Steering Groups in an anonymised summary report.

2.4.1.2 Activating PSC

5) **Action Planning Session:** Each case organisation Steering Group was tasked with developing an Action Plan of PSC initiatives. To prepare for this, a two-hour meeting with each Steering Group was facilitated by the research team in which participants were encouraged to draw on their survey and workshop reports, as well as other relevant documents, to work through a three-step process, including:

    Step 1 – Psychosocial Risk: Each Steering Group was asked to identify and discuss key psychosocial risks in their organisation, which provided a focus on work-related impacts on wellbeing and encouraged reflection on the concerns of workers, as gathered through the surveys and workshops.

    Step 2 – PSC Initiatives: Steering Groups were tasked with identifying PSC-related initiatives they would like to see implemented to address the psychosocial risks discussed in Step 1 and potential future risks.

    Step 3 – Action Plan: Steering Groups were then asked to commit to a set of initiatives they would like to implement, the number and nature of which were at their discretion, in an Action Plan which outlined the timeframes and key people responsible for implementation.

Case organisations were provided with an Action Plan Guide to support this process (Appendix 5). Most Steering Groups reached Step 2 in the facilitated meeting and continued developing their Action Plans in the following weeks with input and support from the research team. Immediately following the development of their Action Plan (in accordance with the timeline set

out in their finalised Action Plan), the organisations were tasked with implementing the initiatives. Largely due to Covid-19 related pressures, two case organisations did not submit an Action Plan but did still implement some impromptu wellbeing initiatives, while those that did submit a Plan made varying degrees of progress with implementation.

6) **Midpoint Survey (and 1:1 interviews):** Approximately seven months after the initial baseline survey the midpoint survey was carried out in participating organisations. The timeframe was extended from the intended six-month interval by one month for most organisations, and by five months for three ECE organisations significantly affected by Covid-19. For the case organisations, questions were added to the survey to obtain staff feedback on the Action Plan and how it was being received by workers. At the end of the survey, case organisation staff were offered an opportunity to participate in a one-on-one interview with the primary researcher to elaborate on their experiences of the intervention and provide further input into the process. Again, the survey responses and one-one-one interviews for each organisation were analysed by the research team and summarised in a report which was sent to the case organisation Steering Groups. A total of 177 case organisation workers and 220 control organisation workers completed the midpoint survey.
7) **Midpoint Steering Group meeting:** Upon sending each case organisation the midpoint survey report, a meeting was held with each organisation's primary researcher and Steering Group to discuss the findings of the report and intervention progress. Discussion focused on feedback (gathered through the midpoint survey) about staff perceptions of the Action Plan. This information was used to inform Action Plan revisions in some case organisations. Obtaining feedback on how Action Plan initiatives are being received early in the implementation phase is recommended good practice in intervention design (Biron & Karanika-Murray, 2014; Noblet & LaMontagne, 2009). Process evaluation data were also collected during these meetings.
8) **Steering Group Interim meeting:** Several months after the midpoint meeting, a further meeting with each case organisation Steering Group was held to review progress and discuss any changes that had since been made to the Action Plans. Support and guidance were provided by the primary researcher if requested, and process evaluation data were collected again during these meetings.
9) **Endpoint Survey:** Approximately 13 months after the initial baseline survey, the endpoint survey was carried out in all participating organisations. As with the midpoint survey, this was extended by four months for three ECE case organisations due to Covid-19 related issues. As with the previous two surveys, analysis of the results was reported back to case organisations in the form of a report. Each report contained key recommendations based on the findings for how the organisations could focus future efforts beyond the study, and summarised suggestions from respondents about further initiatives they would like to see incorporated into the Action Plans. A total of 181 case organisation workers and 122 control organisation workers completed the endpoint survey.
10) **Final Steering Group meeting:** Upon sending each case organisation the endpoint survey report, a final meeting was held with each case organisation Steering Group to discuss the findings of the report and intervention progress. The meeting was also an opportunity for case organisations to reflect on the whole intervention experience and describe their intentions for

wellbeing efforts beyond the study. Process evaluation data were also collected during the meeting.

11) **Ad hoc meetings/discussions:** Throughout the intervention period, ad hoc meetings were held at the request of organisations to discuss aspects of the intervention and provide further support. These were most often held with the intervention champion and served to solidify the relationship between the research team and organisations, encourage organisations to continue to progress the intervention, and further increase their understanding of PSC and wellbeing.

2.4.2 Data Collection Activities

As outlined in Table 6 above, survey and process evaluation data were collected throughout the intervention. Survey data were collected from case and control organisations through the baseline, midpoint, and endpoint surveys. Process evaluation data for case organisations were collected through interviews with managers, the Steering Group, and staff at multiple time points throughout, as well as through open questions within the three surveys. Process evaluation data for control organisations were collected through quarterly interviews with the contact person. Researchers also took field notes (referred to as *Observation Data* in Table 6) at each point of engagement with the organisations to record key process factors that were unlikely to be captured in other data collection activities.

2.4.2.1 Survey

Respondents in the case and control groups completed the three surveys described in the previous section (2.4.1). The surveys comprised a selection of standardised, validated measures along with demographic and job information and took respondents approximately 15 minutes to complete. Based on feedback from the first survey, information about the surveys was translated into Māori, Samoan and Tongan for the midpoint and endpoint surveys. A link to the surveys was provided by the research team to case and control organisations, with information to support them to inform and electronically distribute the survey to their workers. In most cases the survey was completed online via the emailed link but paper versions were available and supplied in instances where staff preferred this method or had no access to the internet at work.

<u>Measures:</u>

The scales were selected from internationally recognised and psychometrically validated measures.

Demographic data included age, gender, ethnicity, highest qualification, tenure with the organisation, hours worked per week, employment arrangement, job title and union membership, and normal place of work. *Psychosocial safety climate* was measured with the PSC-12 (Hall et al., 2010) e.g. “In my workplace, senior management acts quickly to correct problems/issues that affect workers’ psychological health” (1=Strongly disagree, 5 = Strongly agree).

Negative acts at work were measured with the Negative Acts Questionnaire-9 (Notelaers et al., 2019) e.g. “In the last six months, how often have you been subjected to the following negative acts at work… Someone withholding information which affects your performance” (1=Never, 5 = Daily).

Peer support was measured with 4 items (O'Driscoll et al., 2004) e.g. “My colleagues provide helpful information or advice about my work” (1=Never, 6=All the time).

Supervisor support was measured with 4 items (Yarker & Lewis., 2008) e.g. “My supervisor provides helpful information or advice about my work” (1=Never, 6=All the time).

The 6-item measure of wellbeing based on *Te Whare Tapa Whā* (Durie, 1998) was designed for this study. A sample item is: “how do you feel about your Hinengaro (mental health)”, from Dissatisfied (0) to Satisfied (10), with a Not Sure option.

Mental wellbeing was measured with the World Health Organization Five Wellbeing Index (WHO-5) (WHO, 1998) e.g. “over the last 2 weeks… I have felt cheerful and in good spirits” (1=None of the time, 5=All of the time).

Psychological distress was measured with 6 items (Kessler et al., 2003a), e.g. “Over the past 30 days, how often did you feel: Nervous” (1=None of the time, 5=All of the time).

Burnout was measured with the 16-item Oldenburg Burnout Inventory (Demerouti & Bakker, 2008) e.g. “I always find new and interesting aspects in my work” (reverse coded) (1=Strongly disagree, 4=Strongly agree).

Intentions to leave were assessed with three items (Meyer et al., 1993) e.g. “I frequently think about leaving my current employer” (1=Strongly disagree, 7=Strongly agree).

Three items assessed *work performance* (the Health and Work Performance Questionnaire (HPQ)) (Kessler et al., 2003b) e.g. “On a scale of 0 to 10, where 0 = the worst performance anyone could have at your job, and 10 = the performance of a top worker, how would you rate… Your overall performance on the days you worked during the past 7 days?”.

Job satisfaction was measured with a single item (Warr et al., 1979): “Taking everything into consideration, how do you feel about your job as a whole?” (1=Extremely dissatisfied, 7=Extremely satisfied).

Absenteeism was evaluated with one question from the HPQ (Kessler et al., 2003b): “In the past 12 months, how many full work days did you miss because of problems with your physical or mental health? (1=None, 6=More than 20).

In the baseline survey, case and control organisation respondents were asked five yes/no questions designed to capture worker readiness for change (Whysall et al., 2007; Rothmore et al., 2017) and three open questions about existing psychosocial risks and facilitators of worker wellbeing. In the midpoint survey (time 2), case organisation respondents were asked whether they were familiar with the Action Plan (yes, no, I don’t know) and seven questions about their perspectives on the Action Plan (1=Strongly disagree, 5=Strongly agree).

Open-ended process evaluation questions were included in all three surveys for case organisations, and asked about participants’ perceptions of wellbeing, involvement in the study and engagement with the Action Plan (Appendix 6).

2.4.2.2 Process Evaluation Interviews

In each of the case organisations, process evaluation interviews (referred to as Steering Group interviews in Table 6) were conducted with the Steering Group every three to four months throughout the intervention (see Appendix 7). The interviews aimed to capture process factors which, based on existing wellbeing intervention research (Nielsen & Randall, 2013; Nielsen & Agilbaard, 2013; Nielsen & Miraglia, 2017; Nielsen et al., 2010), we theorised could influence the PSC intervention process and outcomes (see Figure 7). The interview questions asked participants to reflect on intervention progress and impacts, and likely influencing factors, such as Steering Group actions, staff participation, and sector or societal impacts (e.g. Covid-19). The interviews were either in person or via Zoom, and ranged between approximately 30-60 minutes, with final endpoint interviews taking approximately 1.5 hours.

In the control organisations, interviews were conducted with the contact person on four occasions throughout the intervention period, approximately every three to four months (Appendix 8). The primary purpose of the interviews was to capture any significant changes in the control organisations that could influence the findings. A secondary purpose was to build and maintain a relationship with the contact person to reduce the likelihood of their withdrawal from the study. To this end, the initial interview was conducted in person where possible, or remotely where this was not possible. These interviews were between 20-40 minutes.

2.4.2.3 Other Process Evaluation Data

To collect comprehensive process evaluation data sufficient to explain the conditions under which the intervention is likely to be successful in future, the research literature recommends gathering data on a significant number of intervention features and contextual factors, at all stages of the intervention process, and from multiple stakeholder perspectives (Biron & Karanika-Murray, 2014; Nielsen & Randall, 2013). The following data collection activities were designed to capture as much process data as was possible while balancing case organisation capacity and research fatigue.

- **Initial Conversation:** An initial screening conversation (Appendix 9) was carried out with the main contact at each of the case and control organisations, to assess whether they met the criteria for participation in the intervention (in terms of sector and size) and their suitability as a matched case or control organisation. To the extent possible, process evaluation considerations were noted relating to the organisation's motivation for involvement, insights into their organisational maturity regarding wellbeing, and likely mental models of workers and managers.
- **Workshops (case organisations only):** The workshops were primarily conducted as part of the needs assessment component of the intervention and aimed to provide case organisations with information to inform their Action Plans. All staff from the case organisations were invited to attend, with the exception of managers so as to encourage staff to openly share their concerns. The workshop included several process evaluation questions to ascertain from staff how they felt about the organisation's stance on wellbeing, their perceptions of senior management's intent, and insights into their understanding of the intervention. These data were summarised in the workshop reports provided to organisations and incorporated into researcher observation notes. Details regarding workshop structure and participant numbers are provided in Section 2.4.1.1.

- **One-on-one worker interviews (case organisations only):** Staff were invited to participate in one-on-one interviews at two points during the intervention. Immediately following the workshops, staff were invited to participate in an interview if they were unable to attend or had further input to contribute that they did not want to raise in a group setting. These interviews loosely followed the workshop structure (if workers were unable to attend the workshop) or were unstructured if the worker had requested an opportunity to provide further input, allowing them to share freely. A total of 17 interviews were conducted following the workshops. The second opportunity for one-on-one interviews was following the midpoint survey and aimed to gather further data relating to worker perceptions of and exposure to the Action Plan initiatives (Appendix 10). Questions were asked about awareness of and attitude towards the Action Plan initiatives and about any suggestions to improve the Action Plan. A total of 11 interviews were conducted following the midpoint survey. At both interview points, interviews were conducted face-to-face (at the participants choice of location, most commonly at their place of work) or via phone/Zoom. Interviews generally lasted between 30 and 60 minutes.
- **Observations and Field Notes (case organisations only):** Throughout the intervention, the research team took comprehensive notes on all interactions with the case organisations, including email correspondence and ad hoc conversations with all case and control organisations. These notes enabled process elements to be captured that were unlikely to be shared or captured directly through interviews and workshops. Examples include the responsiveness of the champion to communications with the research team as an indicator of champion proactivity and engagement with the intervention, the attitudes and actions of the Steering Group, and the level of enthusiasm and discussion at the Action Plan sessions. The focus of the notes was guided by the Process Evaluation Framework.

2.5 Stage Four: Data Analysis

2.5.1 Analysis of the Survey Data

The Statistical Package for the Social Sciences (SPSS v29.0.0.0 [241]) was used for data analysis. Comparisons between case and control organisations were carried out with independent samples t-tests or Analysis of Variance (ANOVA), while comparisons between sectors used ANOVA. Chi-square tests were used to analyse questions with categorical response options. Correlation and regression analyses examined relationships among study variables. Two-way analysis of variance with Tukey post-hoc testing was used to compare the interaction between case/control organisations and sector.

Because survey responses were anonymous it was not possible to match individual participants' responses to the three surveys. This meant that repeated measures analyses or longitudinal modelling was not possible at the level of individual participants, only at the organisational level, with resulting small sample sizes and low statistical power.

2.5.2 Analysis of the Process Evaluation Data

The process evaluation data were subjected to realist evaluation, which "seeks to answer the questions of what works for whom in which circumstances" (Nielsen & Miraglia, 2017, p. 41). Realist evaluation assumes that there are mechanisms (M) through which an intervention achieves its outcomes (O), and that certain contextual conditions (C) are necessary to trigger those mechanisms (Nielsen & Miraglia, 2017). The outcomes, mechanisms and contextual factors that guided the process evaluation are outlined in the Process Evaluation Framework (Figure 7, p. 34). The analysis process involves identifying patterns of related contextual conditions, mechanisms and outcomes which are then grouped into Context-Mechanism-Outcome (CMO) configurations. The configurations can pertain to the entire intervention or to parts of it (Nielsen & Miraglia, 2017).

To identify CMO configurations, the research team collated all forms of process evaluation data to produce a comprehensive set of all these data for each case and control organisation. Each case organisation data set was then subjected to a coding process whereby the research team pulled relevant data into each theme identified in the Process Evaluation Framework, summarising key points where possible but retaining key quotes to make the data more manageable to enable identification of patterns. During this process, the researchers were open to any new themes that might emerge but, although themes took shape according to the data, no completely new themes were identified. This process resulted in summaries of four to six pages per case organisation, including a list of the primary contextual factors and mechanisms that influenced the intervention process and outcomes for each case organisation. This process also enabled the researchers to refamiliarise themselves with the data. The research team members responsible for the analysis were also those who collected most of the process evaluation data and, throughout the intervention process, had regularly discussed and compared amongst themselves the themes that were emerging as influential in the intervention process.

Once all summaries had been completed, the research team met again to reflect on the summaries and compare findings across the case organisations which resulted in the identification of five initial CMOs that were thought to be fundamental to achieving the desired intervention outcomes.

Finally, to test the CMOs, the researchers returned to the data, again coding relevant extracts (i.e. data pertaining to contextual factors that triggered the mechanism, and the resulting outcomes) from each data set under each of the CMO headings. Through this process, one of the CMOs (Action Plan Content and Implementation) was split into two separate CMOs, but all other mechanisms remained, and no new mechanisms were identified. The process also generated more comprehensive insights into the contextual factors that triggered the mechanisms and how the context, in turn, enabled the mechanisms to trigger certain outcomes (Greenhalgh et al., 2015). The findings resulting from this process are detailed in Section 3.4.2.

The realist evaluation that resulted in the CMOs was the main focus of the process evaluation analysis. However, other findings from the qualitative data (including Sections 3.1, 3.2, and 3.4.1) were analysed according to the basic principles of thematic analysis (Braun & Clarke, 2006) and template analysis (King, 1998). Process evaluation data from control organisations were summarised to highlight any events in the organisation or wider context that may have had an influence on the quantitative findings (Section 3.5).

3.0 Results

3.0 Results

This section reports on the key findings of the PSC Intervention evaluation. Firstly, we provide an overview of the context of the study with a brief review of the key psychosocial risks and understandings of wellbeing specific to each sector (Section 3.1). Section 3.2 summarises the PSC initiatives from the case organisations' Action Plans that were implemented or planned during the intervention. We then detail the effectiveness of the PSC intervention based on the survey results (Section 3.3) followed by key findings from the process evaluation interviews (Section 3.4). These include intervention outcomes reported by the case organisations beyond the survey results (Section 3.4.1), and the key mechanisms and contextual factors that contributed to the intervention outcomes (Section 3.4.2). Finally, Section 3.5 maps the PSC scores from the surveys alongside the process evaluation results by organisation.

3.1 Organisational Risks and Contextual Contributors

Sources of psychosocial risk identified by case organisation participants in the three sectors are listed in Table 7. They are drawn from the workshops and baseline survey and are grouped by sector. Psychosocial risks which were common in all three sectors included high workloads and inadequate or limited communication in the organisation. Organisations in all three sectors also identified issues associated with teamwork and interpersonal relationships as potential risk factors. As such, all the sectors indicated the need for effective and empathetic leadership and good communication.

Table 7: Psychosocial risks by sector

Sources of psychosocial risk	MHA	ECE	FMCG
Communication	• Poor communication or leadership • Working / communicating with other organisations in the system	• Lack of communication from management	• Miscommunication / lack of communication
Recognition and reward	• Feeling undervalued and unsupported by management	• Not supported by or able to approach management / lack of recognition, leadership, empathy from management	• Lack of participation / appreciation by senior management / perceptions of unfairness • Low pay
Interpersonal relationships	• Interpersonal conflicts between colleagues, poor teamwork	• Conflict between colleagues / lazy or disrespectful colleagues / poor teamwork / lack of support from colleagues	• Peers not doing their job properly / making mistakes / interpersonal conflicts / siloes
Working hours and schedule	• Shiftwork and long working hours	• Long hours, insufficient rest breaks (fatigue) / Insufficient non-contact time	• Work hours and shift changes / contacted outside of work hours and when on holiday
Workload and workpace	• High or excessive caseloads, limited time, falling behind with work	• High workload, poor staff child ratios / short staffing made worse by absences	• High workload and workpace, volume of customers / tight deadlines and expectation to deliver at short notice
Job demands	• Demands of and concern for clients and families (complex, demanding, unpredictable, aggressive, negative clients) • Insufficient resources (staffing, equipment, work environment)	• Pressure, high expectations and responsibility • Challenging child behaviour / emotional or unsettled children	• Being unable to meet high expectations and targets / pressure to meet deadlines/achieve targets
Job control or autonomy	• Administration - paperwork, bureaucracy, meetings, interruptions	• Changing or unpredictable roster • Low / poor pay; not paid what owed • Administration / paperwork	• Short staffing / absenteeism / high staff turnover. Requirement to train new staff
Organisational/work group culture	• Lack of confidence in own ability	• Lack of resources, systems and regimes	• Constant changes in processes and systems preventing learning / role ambiguity / limited flexibility and autonomy
Career development		• Limited professional development	• Limited career development opportunities, professional development and training
Poor work environment / workplace conditions		• Poor environment - exposure to sick children and noise	• Distractions in office environment

MHA Sector

In the MHA sector, specific risks to wellbeing identified by participants included having excessive caseloads with not enough time to effectively manage the number of clients, and a perception of falling behind and not providing the necessary care for clients. The needs and demands of clients (and their families) were described as increasingly complex and challenging, and there was also pressure resulting from the need to deal with other organisations across the health system as well as recent health system reforms. The extent to which senior managers communicate, support and acknowledge the work completed appeared to be important, because there was a risk that staff would be left with a perception that they were undervalued, and that that they had not been provided with sufficient resources. These factors, along with paperwork and other bureaucratic demands, were seen as contributing to the psychosocial risks that staff face.

All four participating MHA case organisations were already focused on improving wellbeing to varying extents and were motivated to be involved in the study to receive guidance on how to strengthen their existing efforts. Senior managers unanimously felt that to provide appropriate care for their clients, they need to care 'for ourselves first'. Many staff within all four case organisations had struggled in the past with mental health issues and, as such, there was a prevailing focus on personal (as opposed to work-related) wellbeing across the participating organisations.

ECE Sector

Workload was also identified as contributing to psychosocial risk in the ECE sector, but this tended to be associated with high or inconsistent staff-child ratios, and subsequently less time than desirable for quality staff-child interactions. Participants referred to fatigue being commonplace, with unpredictable rosters, an ongoing inability to take sufficient breaks and limited non-contact time to recharge and recover from the interactions with the children in their care. This sector also identified additional risk associated with being routinely exposed to sick children and working in sometimes challenging work environments, for example noisy rooms. The impact of Covid-19 was significant in this sector, with workloads affected by a high turnover of staff and Covid-19 cases.

Staff in these organisations were interested in how the study might lead to a sense of shared purpose. The owner-managers in this sector perceived a need to support staff to take responsibility for their own wellbeing, and were sensitive to findings from the survey and workshop reports, contributing to perceptions of divisions between staff and management. Finally, this sector identified low pay or feeling undervalued as a contributor to psychosocial risk.

FMCG Sector

The FMCG sector also identified workload as a risk, and this appeared to be mostly related to difficulties recruiting sufficient staff, absenteeism, and high staff turnover. All of these factors also required additional time and resources to train new staff. This sector identified as being extremely busy and facing workplace pressure related to customer demands and expectations, supply chain pressures, and a need to adapt to the performance of others (for example needing to address problems or fix errors by others in the team). Covid-19 conditions served to exacerbate these pressures. Different sub-cultures across different workgroups and operating within siloed teams were identified as risks to wellbeing, for example between process and office workers. The pace of work was often influenced by tight deadlines

and an expectation to do what is required to meet them. Further psychosocial factors identified included perceptions of unfairness and favouritism at management levels in some organisations. As with the ECE sector, low pay was also identified as a contributor to psychosocial risk.

3.2 Action Plans and PSC initiatives

The participating case organisations developed and implemented their Action Plans, which consisted of a range of PSC-focused initiatives. Although this was just one stage of the intervention, and the preparatory stages (Engaging with PSC) were important to the overall aim of improving PSC, this stage (Activating PSC) reflects the organisation taking ownership for worker wellbeing and demonstrates organisational commitment to address worker concerns. The extent of Action Plan implementation varied, and for many organisations there were delays primarily due to Covid-19-related disruptions.

Table 8 lists the PSC initiatives planned and/or implemented by case organisations. It shows the number of initiatives implemented in total and by each sector (note that some case organisations implemented two or more initiatives relating to the same point). The colours in the Table reflect the researchers' assessment of the PSC actions that were most likely to help foster the four domains of PSC. These domains are **management priority** of health and wellbeing above productivity; **management commitment** to addressing worker's health and wellbeing concerns; **organisational participation** in the protection of worker health and wellbeing at all levels; and **organisational communication** regarding health and wellbeing issues.

Thus, initiatives with high PSC alignment were those that *directly contributed to improving one or more of the four PSC domains* (green). Examples included creating opportunities for improved communication about wellbeing risks and solutions, introducing wellbeing-related policy, and realigning the organisation's values to reflect their prioritisation of wellbeing. Those that were assessed as medium PSC alignment were *primary initiatives that targeted a specific risk* (yellow). Examples included increasing staff numbers to address workload, supporting wellbeing through staff events which, in turn, reflected management prioritisation and commitment to wellbeing. Those that were assessed as low PSC alignment were more *secondary/tertiary level initiatives* in nature, such as wellness activities and counselling (orange).

Table 8: PSC initiatives planned and/or implemented by case organisations

Initiative	Number of case organisations			
	ECE	FMCG	MH&A	**Total**
• Communicate about wellbeing (e.g. wellbeing wall, wellbeing initiatives calendar, posters, agenda item in meetings)	1	3	5	**9**
• Create opportunities for staff to communicate psychosocial risks and potential solutions (e.g. feedback box, online system, team meeting agenda)	1	5	2	**8**
• Introduce wellbeing-related policy and incentives (e.g. wellbeing policy, psychosocial risks in H&S management plan, flexible working policy, H&S awards)	1	2	4	**7**
• Revise vision and values to align with wellbeing prioritisation (collaboratively with staff)	1	3	1	**5**
• Review policies and processes to improve work design and reduce psychosocial risks (e.g. workload & rostering, clarify job descriptions, communication)	5	9	4	**18**
• Staff training on psychosocial hazards and risks, and management (e.g. managing conflict, time management, effective communication, work-life boundaries)	-	2	2	**4**
• Increase staff numbers to address workload	1	1	5	**7**
• Regular team meetings to improve communication	5	-	2	**7**

• Improve communication with senior management to:
  ○ Create opportunities for staff input and feedback
  ○ Increase transparency regarding strategic decisions
	6	2	1	**9**

• Plan staff events for team building and socialising	3	5	4	**12**
• Collaboratively identify skill gaps and provide opportunities for professional development	2	3	3	**8**
• Review/introduce ways of acknowledging achievements or occasions (e.g. staff successes, birthdays, tenure)	3	1	2	**6**
• Improve indoor/outdoor spaces for staff	3	-	2	**5**
• Increase the wellbeing budget	1	-	-	**1**
• Create regular opportunities for staff feedback from management (i.e. appraisals)	2	-	-	**2**
• Paid time away for staff wellbeing	3	-	2	**5**
• Wellness activities (e.g. fitness challenges, provision of healthy lunches, annual health checks, gym memberships, self-care conversations, counselling)	2	1	5	**8**
• Get involved in external wellbeing initiatives (e.g. Mental Health Awareness Week, Pink Shirt Day)	-	2	-	**2**

In accordance with a participatory approach, these initiatives are those which the organisations thought would work best considering their context and current circumstances. Relatively few were focused on highly aligned PSC initiatives which involved creating the structures and processes to identify and attend to future wellbeing concerns. Instead, many initiatives focused on addressing specific psychosocial hazards (reflecting medium PSC alignment) which were voiced as concerns by workers. These initiatives demonstrated that the organisation was committed to addressing worker wellbeing concerns (i.e. the PSC domain of management commitment) and were, therefore, an important component of building PSC.

3.3 Intervention Results from the Survey Data

3.3.1 Survey respondents

The baseline survey was distributed to approximately 890 people. Four hundred and ninety-seven responses were received, with a response rate of approximately 56%. Some 312 responses were from case organisations and 185 were from control organisations. Table 9 shows the response rates by organisation for the three surveys.

Table 9: Survey response rates by organisation

Case organisations	Baseline	Midpoint	Endpoint	Control organisations	Baseline	Midpoint	Endpoint
ECa1	93%	73%	67%	ECo1	78%	100%	100%
ECa2	68%	19%	32%	ECo4	70%	60%	40%
ECa4	93%	50%	67%	FGo1	16%	35%	15%
FGa1	73%	49%	46%	FGo2	43%	14%	17%
FGa2	95%	94%	39%	FGo3	92%	83%	79%
FGa4	49%	18%	41%	FGo4	34%	41%	15%
MHa1	65%	44%	43%	MHo1	60%	44%	42%
MHa2	100%	75%	100%	MHo2	89%	89%	89%
MHa3	84%	70%	53%	MHo3	27%	18%	11%
MHa4	50%	45%	39%	MHo4	43%	48%	40%

3.3.2 Demographic comparisons between case and control organisations.

Table 10 summarises the baseline demographic data by case/control and by sector, for respondents who completed the survey. There were no statistically significant differences in gender or highest qualifications between case and control organisations (Table 10). There were too few respondents who did not specify their gender for analysis of this separate group, so the data analysis for only two groups (male and female) are included.

Case organisations had higher union membership than control organisations, but membership rates overall were low (case: 7%; control: 2%, $p<.05$).

In both case and control organisations, most respondents reported being permanent staff (case: 89%; control: 85%). Case organisations had slightly more respondents who described themselves as casual staff ($p<.001$; 4% vs. 2%) while control organisations had more volunteer workers (case: 0%, control: 7%).

Table 10: Participant demographics at Baseline

	Case		Control		χ2	ECE		FMCG		MHA		χ2
	N	%	N	%		N	%	N	%	N	%	
Gender: Female												**42.46*** **
Female	230	*74*	139	*75*	**n/s**	110	*97*	144	*66*	115	*72*	
Male	76	*24*	42	*23*		3	*3*	72	*32*	43	*27*	
Not specified	6	*2*	4	*2*		1	*1*	7	*3*	2	*1*	
Ethnicity[+]												
NZ European	159		123									
Māori	65		20									
Other	130		72									
Employment arrangement					**26.62*** **							**55.36*** **
Permanent	279	*89*	157	*85*		111	*97*	204	*92*	121	*76*	
Fixed term	13	*4*	7	*4*		0	*0*	11	*5*	9	*6*	
Casual	13	*4*	3	*2*		1	*1*	4	*2*	11	*7*	
Contractor/self-employed	4	*1*	3	*2*		0	*0*	4	*2*	3	*2*	
Other	3	*1*	1	*<1*		2	*2*	0	*0*	2	*2*	
Volunteer worker	0	*0*	14	*7*		0	*0*	0	*0*	14	*9*	
Union member					**7.85***							**n/s**
Yes	22	*7*	3	*2*		6	*5*	13	*6*	6	*4*	
No	274	*88*	175	*94*		101	*89*	202	*91*	146	*91*	
Prefer not to say	16	*5*	7	*4*		7	*6*	8	*4*	8	*5*	
Highest qualification					**n/s**							**48.81*** **
Secondary	77	*25*	43	*23*		17	*15*	83	*38*	20	*13*	
Tertiary	154	*50*	81	*44*		73	*64*	80	*37*	82	*51*	
postgraduate	55	*18*	47	*26*		18	*16*	41	*19*	43	*27*	
Other	23	*7*	13	*7*		6	*5*	15	*6*	15	*9*	
Title/Role					**22.83*** **							**35.48*** **
Contractor	3	*1*	2	*1*		0	*0*	3	*1*	2	*1*	
Employee	219	*70*	110	*60*		88	*77*	130	*58*	111	*69*	
Supervisor/team leader	39	*12*	17	*9*		13	*11*	30	*14*	13	*8*	
Mid-level manager	21	*7*	19	*10*		6	*5*	25	*11*	9	*6*	
Senior manager	24	*8*	17	*9*		3	*3*	29	*13*	9	*6*	
Other	6	*2*	20	*11*		4	*4*	6	*3*	16	*10*	
Normal place of work[+]												
Place of employment	283		136			107		190		122		
Work from home	30		41			5		31		35		
Place of my choice	6		5			3		1		7		
Away from workplace e.g. client visits	42		40			2		28		52		
Other	12		10			3		10		9		

[+] Some respondents identified with more than one ethnic group or normal place of work. Chi squared (χ^2) results indicate significant differences where applicable.

Compared to control organisations, respondents in case organisations were more likely to be workers (p<.001; case: 70% vs. control: 60%) or supervisors/team leaders (12% vs 9%), while those in control organisations were more likely to be mid-level or senior managers (15% vs. 19%).

Respondents in case organisations reported working more hours per week than those in control organisations (p<.05). There was no difference in tenure/years spent in the organisation.

Respondents could identify with multiple ethnicity categories so a percentage could not be calculated; most respondents self-identified with the NZ European category.

Although the PSC Intervention stage spanned a period involving NZ Covid-19 related lockdowns, most respondents reported working from their place of employment rather than from home or elsewhere. However, this is consistent with the nature of the work in the three study sectors, where working from home is not possible for most people.

3.3.3 Demographic comparisons by sector

There were more female respondents in the ECE organisations than in the others (ECE 97%; FMCG 66%; MHA 72%, p<.001) (Table 10). There were no significant differences in union membership between sectors. In terms of highest qualification achieved, 64% of ECE respondents had tertiary qualifications compared to 37% of FMCG and 51% of MHA participants (p<.001).

In relation to current employment arrangements, fewer respondents in the MHA sector reported they were permanent staff (ECE 97%; FMCG 92%, MHA 76%), while more reported being fixed term, casual or volunteer (p<.001).

Most respondents were employees (ECE 77%; FMCG 58%; MHA 69%); the FMCG group had the highest proportion of senior manager/owner participants (13%, vs. 3% for ECE and 6% for MHA; p<.001).

Respondents in MHA organisations had spent longest in the organisation (p<.05: ECE 5.5 years; FMCG 4.83 years; MHA 6.04 years). The FMCG group reported the longest working hours (p<.05). These data were in categories so the actual number of working hours cannot be computed. Respondents in the MHA sector were older (Mean = 45.17) than those in the ECE (36.6) or FMCG (41.6) sectors.

3.3.4 Responses about improving wellbeing at work at baseline

Five yes/no questions asked about perceptions of ways to improve wellbeing at work (Table 11).

Table 11: Baseline yes/no questions about improving wellbeing (not included in midpoint and endpoint surveys). Frequency (percent in brackets)

	Case	Control	χ2	ECE	FMCG	MHA	χ2
Are you concerned about work negatively impacting on your wellbeing?			**n/s**				**n/s**
No	184 (59)	118 (64)		66(58)	127 (57)	109 (68)	
Yes	128 (41)	67 (36)		48 (42)	96 (43)	51 (32)	
Do you think changes should be made to improve wellbeing at work?			**20.34*** **				**6.31***
No	75 (24)	80 (44)		33 (29)	60(27)	62 (39)	
Yes	237 (76)	104 (56)		81 (71)	162 (73)	98 (61)	
Before today, have you thought of any ways to improve wellbeing at work?			**n/s**				**9.10****
No	70 (29)	32 (28)		26 (30)	59 (35)	17 (17)	
Yes	173 (71)	81 (72)		61 (70)	112 (65)	81 (83)	
Are you doing, or have you done, anything to improve wellbeing at work?			**n/s**				**7.33***
No	76 (40)	30 (34)		30 (45)	55 (42)	21 (26)	
Yes	113 (60)	59 (66)		37 (55)	75 (58)	60 (74)	
Do you intend to do anything *more* to improve wellbeing at work?			**n/s**				**n/s**
No	47 (35)	19 (32)		11 (30)	40 (42)	15 (25)	
Yes	86 (65)	40 (68)		26 (70)	55 (58)	75 (60)	

*p<.05; **p<.01; ***p<.001; n/s = not statistically significant; χ2 = chi-square test statistic.

Case and control organisations did not differ significantly on three of these questions. When asked whether changes should be made to improve wellbeing at work, respondents in case organisations were more likely to say 'yes' than in control organisations (24% vs. 44%, p<.001). There were no sector or case/control differences in whether participants intended to do anything *more* to improve wellbeing at work.

There were no sector differences in whether respondents were concerned about work affecting their wellbeing. However, MHA respondents were least likely to report that they thought changes should be made to improve wellbeing at work (ECE 71%; FMCG 73%; MHA 61%, p<.05).

When asked whether they had thought of any ways to improve wellbeing at work, 81% of MHA respondents said yes compared to 70% of ECE and 65% of FMCG respondents ($p<.01$). When asked whether they had done, or were doing, anything to improve wellbeing at work, 74% of MHA respondents said yes compared to 55% of ECE respondents and 58% of FMCG respondents ($p<.05$).

3.3.5 Case organisations' responses to questions about the Action Plan at Midpoint

Responses to questions about the intervention and Action Plan in the case organisations are summarised in Table 12. When asked whether they were familiar with the Action Plan, 115 (66%) of respondents in the case organisations said yes, 33 (19%) said no and 27 (15%) did not know. There was a high level of agreement (averaging over 4 (Agree) on a 5-point scale), showing that at the time of the midpoint survey, perceptions of the Action Plan and intervention overall were positive. As surveys were anonymous, it was not possible to follow up with individual respondents to explore the reasons for their responses. However, respondents who wanted to speak with the researchers were able to do so. The information from these interviews is included in the process evaluation results in section 3.4.

Table 12: Mean and standard deviations, and frequencies in each category, for midpoint perceptions of the Action Plan and Healthy Work Project (case organisation participants)

	Mean	SD	1: Strongly disagree	2: Disagree	3: Neither	4: Agree	5: Strongly agree
Feel positive about the HWP?	4.16	.86	2	4	25	68	65
Positive changes from HWP?	3.80	.92	2	14	33	78	34
The Action Plan has been clearly communicated to me.	4.01	.79	1	5	14	67	28
I think the Action Plan ideas will improve employee wellbeing in my workplace.	4.08	.69	0	3	14	69	29
I think the Action Plan ideas will benefit me.	4.00	.75	1	2	20	64	27
I support the Action Plan ideas.	4.20	.74	1	1	13	28	41
Managers/supervisors/team leaders in my workplace support the Action Plan ideas.	4.14	.83	1	3	15	50	39

3.3.6 Psychosocial Safety Climate

3.3.6.1 Individual item means

Table 13 shows the 12 individual PSC items at baseline, midpoint and endpoint for all organisations combined. The high scoring items reflected a view that senior management was committed to managing the psychological health of workers; the least agreement was to items about communication with workers about psychological health, although it is important to note that the differences were small.

Table 13: PSC item mean scores (high scores mean more agreement with the item)

	Mean scores		
	Baseline	Midpoint (6-month)	Endpoint (12-month)
PSC1. In my workplace senior management acts quickly to correct problems/issues that affect employees' psychological health	3.74	3.9	3.84
PSC2. Senior management acts decisively when a concern about an employee's psychological status is raised	3.79	3.92	3.89
PSC3. Senior management show support for stress prevention through involvement and commitment	3.66	3.92	3.81
PSC4. Psychological well-being of staff is a priority for this organisation	3.75	3.99	3.83
PSC5. Senior management clearly considers the psychological health of employees to be of great importance	3.82	4.03	3.91
PSC6. Senior management considers employee psychological health to be as important as productivity	3.61	3.91	3.72
PSC7. There is good communication here about psychological safety issues which affect me	3.47	3.8	3.61
PSC8. Information about workplace psychological well-being is always brought to my attention by my manager/supervisor	3.39	3.74	3.57
PSC9. My contributions to resolving occupational health and safety concerns in the organisation are listened to	3.74	3.85	3.81
PSC10. Participation and consultation in psychological health and safety occurs with employees, unions and health and safety representatives in my workplace	3.44	3.64	3.59
PSC11. Employees are encouraged to become involved in psychological safety and health matters	3.59	3.86	3.75
PSC12. In my organisation, the prevention of stress involves all levels of the organisation	3.47	3.76	3.61

Hall, G. B., Dollard, M. F., & Coward, J. (2010). Psychosocial safety climate: Development of the PSC-12. *International Journal of Stress Management*, *17*(4), 353-383.

3.3.6.2 Bivariate correlations for Psychosocial Safety Climate and other study variables for case and control organisations combined

Table 14a: Bivariate correlations between study variables for case and control organisations combined at Baseline

		1	2	3	4	5	6	7	8	9	10	11
1	PSC12[1]											
2	NAQ[2]	-.277**										
3	Coworker support	.372**	-.256**									
4	Supervisor support	.533**	-.323**	.557**								
5	Holistic wellbeing	.316**	-.170**	.176**	.314**							
6	Wellbeing	.421**	-.254**	.309**	.383**	.630**						
7	Burnout	-.544**	.273**	-.254**	-.430**	-.553**	-.680**					
8	Psych distress	-.384**	.374**	-.214**	-.362**	-.572**	-.594**	.561**				
9	Job satisfaction	.575**	-.320**	.311**	.482**	.456**	.572**	-.679**	-.506**			
10	Intentions to leave	-.498**	.305**	-.241**	-.437**	-.358**	-.467**	.598**	.455**	-.724**		
11	Self-rated perf	.246**	-.195**	.278**	.337**	.328**	.377**	-.428**	-.298**	.381**	-.282**	
12	Absenteeism	-.144**	.191**	-.073	-.097	-.228**	-.221**	.227**	.193**	-.240**	.150**	-.084

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

[1] PSC12: Psychosocial Safety Climate 12 item scale.

[2] NAQ: Negative Acts Questionnaire

Table 14b: Bivariate correlations for study variables for case and control organisations combined at midpoint

		1	2	3	4	5	6	7	8	9
1	PSC12									
2	NAQ	-.275**								
3	Coworker support	.404**	-.069							
4	Supervisor support	.539**	-.133**	.524**						
5	Holistic wellbeing	.293**	-.218**	.334**	.247**					
6	Wellbeing	.380**	-.113*	.367**	.332**	.621**				
7	Burnout	-.531**	.206**	-.349**	-.364**	-.539**	-.681**			
8	Psych distress	-.221**	.295**	-.207**	-.189**	-.481**	-.526**	.499**		
9	Job satisfaction	.614**	-.224**	.414**	.479**	.475**	.556**	-.706**	-.371**	
10	Absenteeism	-.019	-.082	-.153*	-.141	-.146	-.133	.123	.056	-.114

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

Table 14c: Bivariate correlations for study variables for case and control organisations combined at endpoint

		1	2	3	4	5	6	7	8	9	10	11
1	PSC12											
2	NAQ	-.287**										
3	Coworker support	.463**	-.189**									
4	Supervisor support	.623**	-.253**	.589**								
5	Holistic wellbeing	.466**	-.352**	.326**	.370**							
6	Wellbeing	.541**	-.240**	.351**	.425**	.685**						
7	Burnout	-.568**	.301**	-.396**	-.472**	-.625**	-.708**					
8	Psych distress	-.292**	.430**	-.226**	-.260**	-.563**	-.484**	.499**				
9	Job satisfaction	.615**	-.319**	.499**	.584**	.559**	.623**	-.697**	-.455**			
10	Intentions to leave	-.552**	.270**	-.311**	-.499**	-.406**	-.482**	.687**	.417**	-.670**		
11	Absenteeism	-.173**	0.057	-.103	-.177**	-.200**	-.336**	.263**	.166**	-.225**	.154**	

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

Hypothesis 1, that PSC would be positively related to wellbeing and negatively related to psychosocial risk, was supported. In all three tables the first column shows that higher levels of PSC were associated with lower levels of negative acts experienced, as well as lower levels of burnout, psychological distress, and intentions to leave. Higher PSC was associated with higher perceptions of co-worker and supervisor support, and higher wellbeing and job satisfaction. This is in line with other research into PSC and its negative associations with demands and positive associations with better work characteristics (e.g. resources).

3.3.6.3 Comparing case and control organisations: Analysis of Psychosocial Safety Climate

Table 15 shows the means, standard deviations and statistical tests for baseline, midpoint and endpoint surveys for case and control organisations, for the total PSC score and the scores for each PSC domain.

Table 15: Means, standard deviations and statistical tests for PSC

		Baseline			Midpoint			Endpoint		
		Mean	*SD*	t-test	Mean	*SD*	t-test	Mean	*SD*	t-test
PSC (sum)	case	42.45	*10.63*	-2.64**	44.12	*8.83*	-2.08*	43.08	*10.66*	-3.53***
	control	45.01	*10.16*		46.28	*11.32*		47.37	*9.84*	
PSC 1:	case	10.98	*2.88*	-2.09*	11.35	*2.50*	-1.38	11.13	*2.86*	-3.18***
Commitment	control	11.54	*2.88*		11.74	*3.08*		12.16	*2.55*	
PSC 2:	case	10.90	*3.01*	-2.71**	11.15	*2.76*	-2.55**	10.93	*3.20*	-3.69***
Priority	control	11.66	*3.01*		11.93	*3.20*		12.23	*2.66*	
PSC 3:	case	10.39	*2.72*	-2.30*	10.84	*2.22*	-2.14*	10.66	*2.64*	-2.63**
Communication	control	10.95	*2.52*		11.40	*2.85*		11.46	*2.53*	
PSC 4:	case	10.25	*2.70*	-2.61**	10.79	*2.33*	-1.81*	10.54	*2.75*	-3.03**
Participation	control	10.90	*2.64*		11.27	*2.88*		11.52	*2.71*	

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

At baseline, midpoint and endpoint surveys, control organisations had higher scores than case organisations on overall PSC scores (Figure 8).

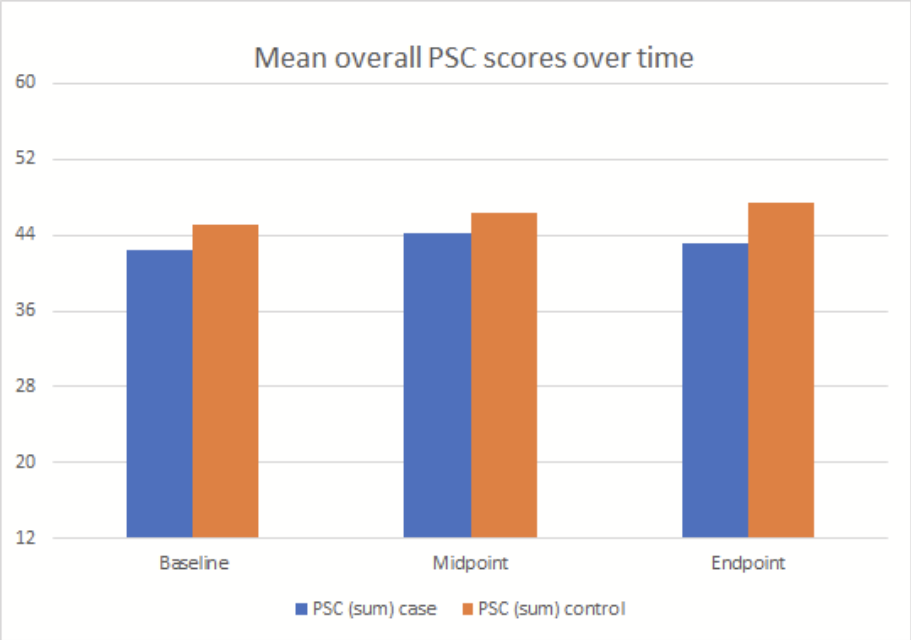


Figure 8: Total PSC scores for case and control organisations over the three time points

Hypothesis 2, that PSC scores would increase across time for case organisations (that participated in the PSC intervention) relative to control organisations (that did not participate in the intervention), was not supported. Between baseline and endpoint surveys there was no significant difference in PSC scores for case organisations but an increase in total PSC scores for control organisations. Analyses comparing baseline and midpoint, and baseline and endpoint scores are shown in Appendix 11, Tables A11a and A11b.

Figure 9 shows the four domains of PSC examined separately for case and control groups for each time point. At baseline and midpoint, control organisations had higher scores than case organisations on all of the four domains of PSC ($p<.05$), except there was no statistically significant difference between case and control organisations for Management Commitment at midpoint.

The PSC domain Management Commitment did not change significantly for control organisations between baseline and midpoint, but for case organisations it increased ($p<.05$). The other three domains (Management Priority, Communication and Participation) increased between baseline and midpoint for case and control organisations ($p<.05$). The largest increases for case organisations were in Communication and Participation.

Between baseline and midpoint, PSC scores for case and control organisations increased but more so for the case organisations. This change was evident for all four PSC domains but especially for Participation.

Between baseline and endpoint surveys, however, there was no significant difference in PSC scores for case organisations but an increase in all four PSC domains for control organisations.

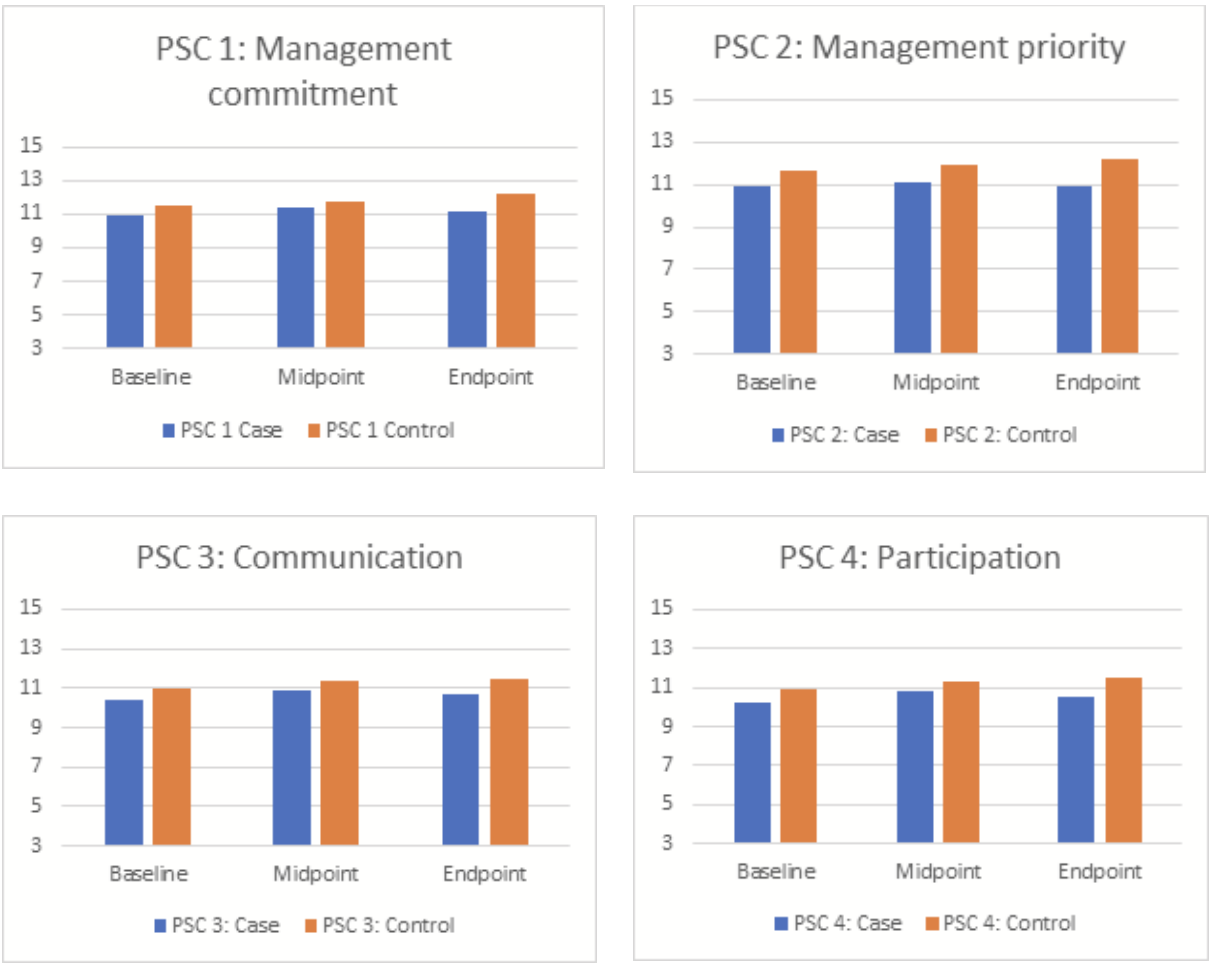


Figure 9: Mean scores for each PSC domain for case and control organisations at all time points

Further analysis grouped responses in case and control organisations by PSC scores, with a score of less than 37 representing low PSC, scores of 37-41 showing moderate PSC and scores over 41 showing high PSC. The number and percentage of responses in each group at each time point are shown in Table 16.

For both case and control organisations the largest proportion of respondents had scores in the highest category. Overall, however, control respondents reported a larger proportion of scores in the higher category than case organisations.

3.3.6.4. Comparing case and control organisations: Other study variables

Table 17 shows the case and control organisation scores at baseline, midpoint and endpoint for the other scale variables apart from PSC.

Table 16: Comparison of number and percentage of respondents from case and control organisations with high, medium or low scores at each time point.

Baseline			
PSC total score	Case (N, %)	Control (N, %)	Chi-square
Lowest to 37.99	99 (32)	36 (19)	8.84*
38-40.99	23 (7)	16 (9)	
41+	190 (61)	133 (72)	
Total	*312*	*185*	
Midpoint			
PSC total score	Case (N, %)	Control (N, %)	Chi-square
Lowest to 37.99	38 (21)	43 (20)	6.79*
38-40.99	16 (9)	7 (3)	
41+	123 (70)	170 (77)	
Total	*177*	*220*	
Endpoint			
PSC total score	Case (N, %)	Control (N, %)	Chi-square
Lowest to 37.99	54 (30)	18 (15)	10.64**
38-40.99	15 (8)	7 (6)	
41+	112 (62)	96 (79)	
Total	*181*	*121*	

Table 17: Study variables for case and control organisations at all three time points

		Baseline			Midpoint			Endpoint		
		Mean	*SD*	t-test	Mean	*SD*	t-test	Mean	*SD*	t-test
NAQ	case	.67	*1.70*	2.72**	0.45	*1.53*	0.51	0.37	*1.21*	1.26
	control	.30	*.90*		0.38	*1.23*		0.21	*.96*	.
Co-worker	case	4.52	*1.25*	-0.34	4.61	*1.12*	-1.32	4.50	*1.17*	-2.00*
support	control	4.55	*1.20*		4.76	*1.12*		4.76	*1.07*	.
Mgr support	case	4.52	*1.43*	-1.06	4.85	*1.36*	-0.76	4.60	*1.40*	-1.78*
	control	4.66	*1.25*		4.95	*1.31*		4.89	*1.28*	.
Holistic	case	3.75	*0.64*	1.35	3.80	*0.67*	-0.35	3.79	*0.72*	-0.32
wellbeing	control	3.67	*0.62*		3.82	*0.72*		3.82	*0.66*	.
Wellbeing	case	3.42	*0.80*	1.46	3.46	*0.83*	-0.10	3.48	*0.83*	-0.73
	control	3.32	*0.71*		3.47	*0.84*		3.55	*0.75*	.
Burnout	case	2.35	*0.41*	0.85	2.31	*0.38*	0.49	2.31	*0.40*	1.67*
	control	2.32	*0.34*		2.29	*0.39*		2.23	*0.40*	.
Psych distress	case	1.97	*0.81*	1.68	1.83	*0.78*	-0.52	1.82	*0.80*	1.13
	control	1.85	*0.74*		1.87	*0.75*		1.72	*0.75*	.
Job	case	5.25	*1.44*	-0.27	5.21	*1.34*	-0.87	5.12	*1.31*	-2.17*
Satisfaction	control	5.29	*1.41*		5.33	*1.33*		5.45	*1.30*	.
Intention to	case	2.97	*1.82*	-0.29	n/a			3.06	*1.80*	1.96*
leave	control	3.02	*1.85*					2.69	*1.60*	
Self-Rated	case	7.49	*1.35*	-1.15	n/a			n/a		
Performance	control	7.63	*1.28*							
Absenteeism	case	.94	*1.27*	1.10	.87	.92	1.20	.93	*.97*	-.175
(ordinal)	control	.80	*1.07*		.76	1.01		.95	*.96*	
Age	case	41.25	*12.55*	-0.80	40.38	14.69	0.20	41.79	*14.85*	-1.05
	control	42.23	*12.91*		40.08	14.39		43.61	*14.33*	

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

At baseline, case organisations reported slightly more negative acts than control organisations but this difference was not apparent at midpoint or endpoint. There were no other significant differences between case and control organisations on the baseline or midpoint study variables (Table 17 above). At the endpoint, co-worker support, manager support and job satisfaction were slightly higher and burnout and intentions to leave were slightly lower for control than case organisations.

Hypothesis 3, that psychosocial risks will decrease for case organisations relative to control organisations, was partially supported as changes were evident in some variables but not all. Analyses comparing baseline and midpoint, and baseline and endpoint, scores are shown in Appendix 11, Tables A11a and A11b. Control organisations, but not case organisations, had higher mean scores for co-worker support, holistic wellbeing and wellbeing at midpoint than baseline ($p<.01$). Both case and control organisations showed increases in supervisor support ($p<.001$) and neither showed a significant change in burnout or job satisfaction.

Between baseline and endpoint, case but not control organisations showed reduced negative acts experienced and burnout scores. Control organisations but not case organisations showed increased co-worker and supervisor support, and increased holistic wellbeing and wellbeing. Both case and control showed lower scores for psychological distress. There were no changes in job satisfaction, absenteeism or intentions to leave.

3.3.6.5 Comparing sectors: Analysis of Psychosocial Safety Climate

Means, standard deviations and analysis of variance for PSC by sector at baseline, midpoint and endpoint surveys are in Table 18.

At all three time points (Table 18), there were significant sector differences on PSC overall and each of the four PSC domains (Figure 10).

Baseline: Looking at differences between case and control organisations in each sector at baseline, ECE scores for PSC were the lowest, regardless of whether they were in case or control conditions, followed by FMCG then MHA (Figure 11).

Midpoint: At midpoint, case and control organisations did not differ significantly on PSC scores but the sectors differed from each other, with MHA being higher than the other two. MHA organisations in the control condition were higher than other groups (Figure 12).

Endpoint: At the endpoint survey, control organisations had higher PSC Scores than case organisations and the MHA sector had the highest PSC scores in both case and control organisations (Figure 13).

Table 18: Means, standard deviations and analysis of variance for PSC by sector at baseline, midpoint and endpoint

	ECE		FMCG		MHA		ANOVA
	Mean	*SD*	Mean	*SD*	Mean	*SD*	
Baseline							
PSC (sum)	39.32	*10.96*	42.5	*9.67*	47.57	*9.95*	23.96***
PSC 1: *Commitment*	10.29	*3.06*	10.93	*2.77*	12.19	*2.65*	17.10***
PSC 2: *Priority*	10.18	*3.21*	10.92	*2.93*	12.27	*2.69*	18.59***
PSC 3: *Communication*	9.39	*2.91*	10.5	*2.28*	11.58	*2.59*	25.02***
PSC 4: *Participation*	9.48	*2.62*	10.26	*2.49*	11.53	*2.67*	22.31***
Midpoint							
PSC (sum)	38.57	*12.62*	45.15	*9.08*	49.33	*8.38*	30.48***
PSC 1: *Commitment*	9.87	*3.57*	11.51	*2.50*	12.60	*2.31*	25.37***
PSC 2: *Priority*	10.11	*3.64*	11.35	*2.86*	12.72	*2.41*	21.15***
PSC 3: *Communication*	9.47	*3.05*	11.18	*2.29*	12.03	*2.27*	26.66***
PSC 4: *Participation*	9.13	*3.00*	11.15	*2.41*	11.99	*2.20*	32.52***
Endpoint							
PSC (sum)	42.63	12.65	42.98	9.73	47.64	10.08	7.70***
PSC 1: *Commitment*	11.10	3.31	11.14	2.64	12.16	2.66	5.05**
PSC 2: *Priority*	11.02	3.72	10.88	2.95	12.26	2.77	7.44***
PSC 3: *Communication*	10.24	2.96	10.58	2.39	11.69	2.62	8.05**
PSC 4: *Participation*	10.27	3.29	10.62	2.52	11.53	2.77	4.98**

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

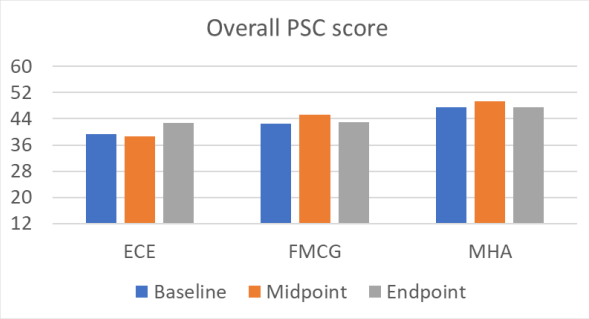


Figure 10: Overall PSC scores by sector at each time point

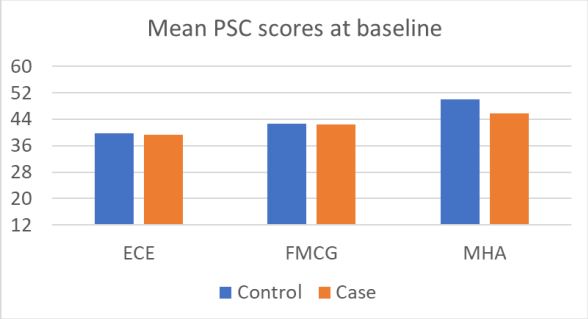


Figure 11: Mean PSC scores by case/control and sector at baseline

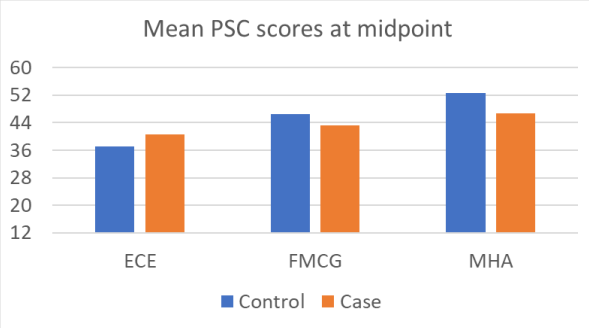


Figure 12: Mean PSC scores by case/control and sector at midpoint

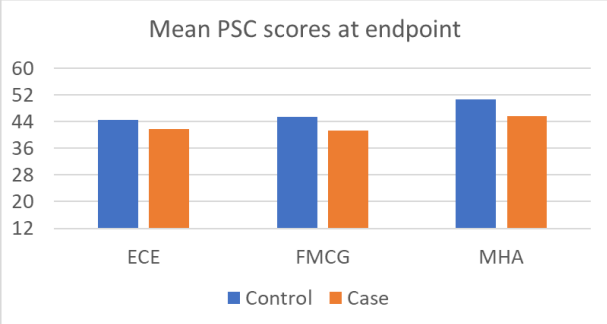


Figure 13: Mean PSC scores by case/control and sector at endpoint

3.3.6.6 Comparing sectors: Analysis of other variables

Overall, the MHA sector showed higher scores on support and wellbeing than ECE and FMCG sectors (Table 19). However, MHA sector respondents were on average older and had longer tenure than in other sectors (see Section 3.3.3 of this report). Also of note, many of the differences, while statistically significant, were small.

Table 19: Means, standard deviations and analysis of variance for study variables by sector at all three time points. Where a statistically significant difference was found the highest score in that row is highlighted.

	ECE		FMCG		MHA		ANOVA
	Mean	*SD*	Mean	*SD*	Mean	*SD*	
Baseline							
NAQ	.41	*1.09*	.79	*1.79*	.26	*1.09*	6.94**
Coworker support	4.53	*1.21*	4.42	*1.30*	4.69	*1.13*	2.25
Supervisor support	4.21	*1.44*	4.56	*1.40*	4.84	*1.20*	7.00***
Holistic wellbeing	3.65	*0.60*	3.69	*0.70*	3.81	*0.56*	2.7
Wellbeing	3.24	*0.74*	3.34	*0.82*	3.55	*0.69*	6.00**
Burnout	2.45	*0.43*	2.34	*0.38*	2.25	*0.32*	9.12***
Psych distress	2.00	*0.81*	2.02	*0.83*	1.72	*0.65*	8.00***
Intention to leave	3.18	*1.96*	3.12	*1.85*	2.68	*1.66*	3.46*
Self-rated performance	7.29	*1.25*	7.62	*1.39*	7.60	*1.26*	2.64
Job satisfaction	4.91	*1.58*	5.24	*1.44*	5.54	*1.23*	6.70***
Absenteeism	.95	*1.26*	.86	*1.17*	.86	*1.16*	.15
Age	36.56	*10.91*	41.62	*12.11*	45.17	*13.40*	15.54***
Midpoint							
NAQ	0.39	1.33	0.56	1.57	0.22	1.04	2.46
Coworker support	4.62	*1.09*	4.59	*1.21*	4.88	*0.97*	3.02*
Supervisor support	4.59	*1.48*	4.89	*1.33*	5.11	*1.23*	3.74*
Holistic wellbeing	3.69	*0.61*	3.83	*0.80*	3.85	*0.58*	1.34
Wellbeing	3.29	*0.72*	3.46	*0.92*	3.59	*0.75*	3.10*
Burnout	2.46	*0.40*	2.30	*0.38*	2.20	*0.35*	11.76***
Psych distress	1.90	*0.72*	1.88	*0.84*	1.78	*0.67*	.84
Job satisfaction	4.71	*1.35*	5.25	*1.34*	5.63	*1.20*	12.43***
Absenteeism	.49	*.72*	.85	*1.05*	.93	*.94*	5.15**
Age	38.39	*13.32*	39.78	*14.71*	41.82	*14.80*	1.52
Endpoint							
NAQ	0.24	*0.77*	0.43	*1.40*	0.17	*0.79*	1.83
Coworker support	4.62	*1.10*	4.44	*1.18*	4.78	*1.08*	2.94*
Supervisor support	4.37	*1.44*	4.71	*1.36*	4.83	*1.32*	1.59
Holistic wellbeing	3.65	*0.67*	3.74	*0.79*	3.92	*0.56*	3.33*
Wellbeing	3.40	*0.73*	3.40	*0.90*	3.66	*0.66*	3.83*
Burnout	2.35	*0.43*	2.34	*0.42*	2.18	*0.34*	6.29**
Psych distress	1.84	*0.73*	1.90	*0.85*	1.63	*0.69*	4.038*
Job satisfaction	4.95	*1.55*	5.10	*1.39*	5.54	*1.07*	4.98**
Intention to leave	3.10	*2.10*	3.10	*1.70*	2.68	*1.63*	2.11
Absenteeism	1.10	*.10*	.81	*.95*	1.02	*.97*	2.04
Age	36.75	*14.20*	42.31	*13.94*	44.67	*15.13*	4.53*

*p<.05; **p<.01; ***p<.001. Highlights show the highest or equal highest scores in each row where this is a statistically significant difference between groups.

3.3.7 Summary of Survey Data Analysis

Three hypotheses were tested in the analysis of the survey data. As expected, higher levels of PSC were associated with higher levels of wellbeing and lower levels of psychosocial risks. Indeed, the relationship between PSC and all other measures, including mental health measures, were higher than for any other work environment variable, providing some validation to the rationale of the intervention to target it for improvement. These results strongly support Hypothesis 1 and the broader body of evidence that PSC is associated with better work characteristics and health outcomes. We did not, however, find that PSC increased over time for case but not control organisations, which did not support Hypothesis 2. Control organisations showed an increase in their PSC scores between baseline and endpoint. Hypothesis 3 proposed that psychosocial risks would decrease more for case than control organisations but the evidence was mixed. Case organisations showed greater reductions in negative acts and burnout, and both case and control organisations showed reduced scores in psychological distress. There were, however, no significant changes in job satisfaction, absenteeism or intentions to leave, and there were increases for both case and control organisations in co-worker and supervisor support.

A challenge for interpreting the findings from the survey data is that, despite being matched, the case and control organisations differed from each other in several ways at baseline. However, gender distributions, levels of participant education and tenure were comparable between the two groups, most participants in both groups were permanent staff, and the other differences, while statistically significant, were probably too small to affect the overall findings. This is reflected by the similar scores for most study variables at baseline and midpoint.

One unexpected finding was that at baseline, midpoint and endpoint, scores for PSC were higher for the control than the case organisations, and both groups of organisations showed increases in PSC scores over time. There was, however, a greater increase for case organisations than for control organisations. Case organisations showed the most increase in communication and participation.

In relation to the other study variables, case organisations showed a significant decrease in negative acts and psychological distress which was not apparent in control organisations. Control organisations, however, increased wellbeing and co-worker support scores between baseline and midpoint while case organisations did not, while supervisor support scores increased across time for both groups of organisations. Wellbeing increased for control organisations but not for case organisations, however levels were already high at baseline. There was no change in burnout for either group. Implications of these findings will be discussed further in the general discussion.

3.4 Intervention Results from the Process Evaluation Data

Process evaluation data were collected via interviews conducted at regular intervals throughout the study. These data sources enabled the researchers to understand which aspects of the intervention were successful or unsuccessful and under what circumstances. In this section, we report on the case organisations' reflections of the intervention outcomes (Section 3.4.1) followed by the key mechanisms and contextual factors required to effectively carry out this PSC intervention in SMEs (Section 3.4.2).

3.4.1 Outcomes of the PSC intervention

Despite not seeing meaningful change in PSC and wellbeing scores from the survey data at a cohort level, Steering Groups reported a range of positive outcomes emerging from the intervention in the final process evaluation interviews. These general outcomes pertain to awareness of psychosocial risk and approaches to their management. They are separate to specific outcomes from implementing Action Plan initiatives, which are discussed in Section 3.2. Many relate to the domains of PSC and indicate that PSC may improve over time as workers begin to experience the benefits accruing from these changes. All organisations that completed the intervention were able to report some positive outcomes from it, with some organisations reporting more benefits than others. There were no negative outcomes reported.

- **Increased recognition and awareness of wellbeing and psychosocial risk:**
  - Steering Groups reported perceptions that wellbeing was better prioritised. One organisation reported that the intervention had lifted their whole thinking about the issue.
  - There was increased recognition of psychosocial risks as a potential health and safety issue. There was also a reported increase in mental health awareness, but it is unknown to what extent this was a by-product of Covid-19.
- **Improved structures/processes for supporting wellbeing:**
  - Existing processes for supporting people's wellbeing were made clearer or were solidified.
  - Steering Groups felt the study was helpful for keeping "intentionality" around wellbeing and placing it front of mind, and they felt that communication about wellbeing improved.
  - Some Steering Groups saw a change in attitude from management, with managers appearing to demonstrate more genuine commitment to wellbeing and greater efforts to make staff feel supported.
  - The intervention encouraged senior managers to further consider the composition and role of their H&S committee, as well as improving H&S committee awareness by facilitating staff input about wellbeing concerns and solutions.
  - Several Steering Groups intended to continue with the Action Plan, updating and revising it as necessary, as part of their approach to ongoing psychosocial risk management.
- **Increased communication and participation around wellbeing:**
  - Steering Groups felt that staff buy-in and appreciation for wellbeing had increased, particularly when staff were able to clearly witness the changes that were being made.
  - There were more discussions about wellbeing and greater reporting of issues. One organisation noted that participation in the study opened the door for wellbeing to be spoken about in a non-threatening way.

- The intervention fostered shared responsibility for wellbeing across both staff and management.
- Steering Groups reported an increase in appreciation and connectedness between workers, as well as between workers and management. Several managers reported that the intervention had helped them better relate to staff.

3.4.2 Key factors influencing the outcome of the PSC intervention

Organisation-level occupational health interventions often produce inconsistent results (Richardson and Rothstein, 2008; Ruotsalainen et al., 2014; Van der Klink et al., 2001), and it is important to explore the mechanisms that hinder or facilitate intervention outcomes (Nielsen & Randall, 2013). Throughout the study, we collected and analysed process evaluation data (see Section 2.5.2). This analysis enabled identification of the mechanisms that improved the likelihood of success of the intervention, and the context or conditions that enabled those mechanisms to operate effectively (Roodbari et al., 2021). Collectively, these are presented as "Context-Mechanism-Outcome" (CMO) configurations (Figure 14).

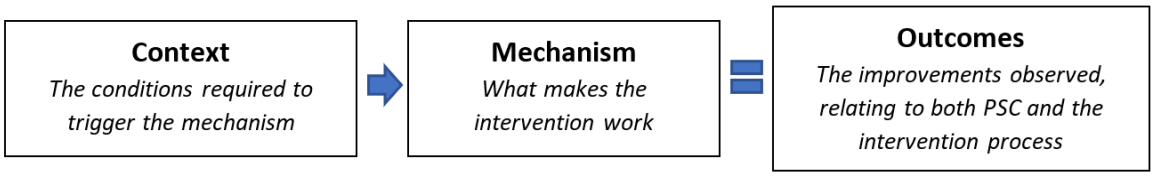


Figure 14: CMO structure

Six CMOs were identified and these are discussed in the following section. Each CMO is labelled according to its key mechanism:

A. Senior Management engagement

B. Involvement of a Champion and Steering Group

C. Worker Participation and Engagement

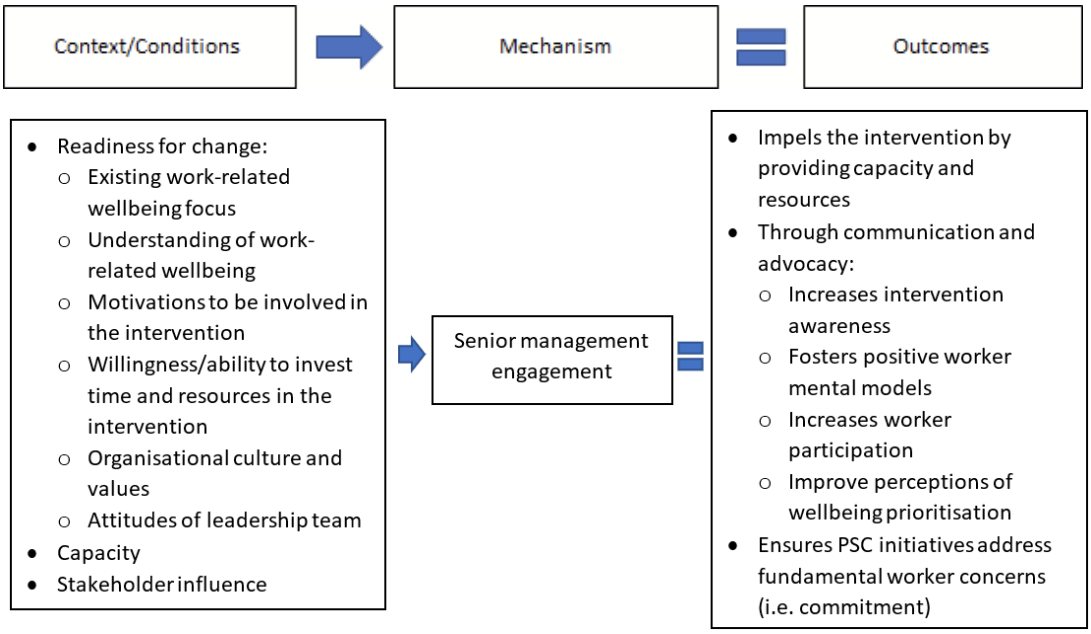
D. Communication

E. Action Plan Content

F. Action Plan Implementation

The contextual factors, mechanisms, and outcomes presented below are not an exhaustive list, but are the main themes that emerged from the analysis. Because the intervention was complex and multi-faceted, in some cases there were longer pathways to the desired outcomes (improving PSC) and therefore some of the outcomes relate to other mechanisms (i.e. they reflect an improvement to other aspects of the intervention process) (Wong et al., 2013). Where relevant, we discuss the impacts on the final outcome, or cross-reference to the relevant CMO. Each CMO table outlines the relevant factors, while the text below the table elaborates on the main points.

CMO A. Senior management engagement



Senior management engagement is a prominent mechanism that was identified as fundamental to the success of the PSC intervention and incorporates both senior management attitudes towards the intervention and their involvement in the intervention process. In five of the 12 case organisations, the CEO or most senior manager (in three cases they were also the owner) was our primary contact and the champion of the intervention (see CMO B). In the other seven cases, the level of senior management influenced the intervention and PSC outcomes in other ways. Firstly, they provided capacity and resources, the extent of which influenced the ability of the champion and Steering Group to drive a positive and effective intervention process. Secondly, the nature and extent of their communication and advocacy with workers about the intervention influenced intervention awareness and sent a message about the extent to which the organisation genuinely prioritised wellbeing, which in turn influenced worker attitudes towards the intervention and their participation/engagement in intervention activities. And finally, while senior management did not necessarily have to drive the intervention for it to be successful, their active involvement was particularly important to ensuring that deep-seated wellbeing concerns that related to fundamental business activities were addressed, and that the PSC initiatives were able to go beyond peripheral 'nice to have' wellness activities. Importantly, these outcomes reflect all four domains of PSC - they signal management's prioritisation of wellbeing and commitment to addressing wellbeing concerns, and senior management communication and advocacy is itself a form of organisational communication about wellbeing, which in turn encourages organisational participation.

There were three main contextual factors found to affect the nature and extent of senior management's engagement in the intervention: readiness for change, capacity, and stakeholder influence. Senior management's ***readiness for change*** had considerably the biggest impact on their engagement in the intervention.

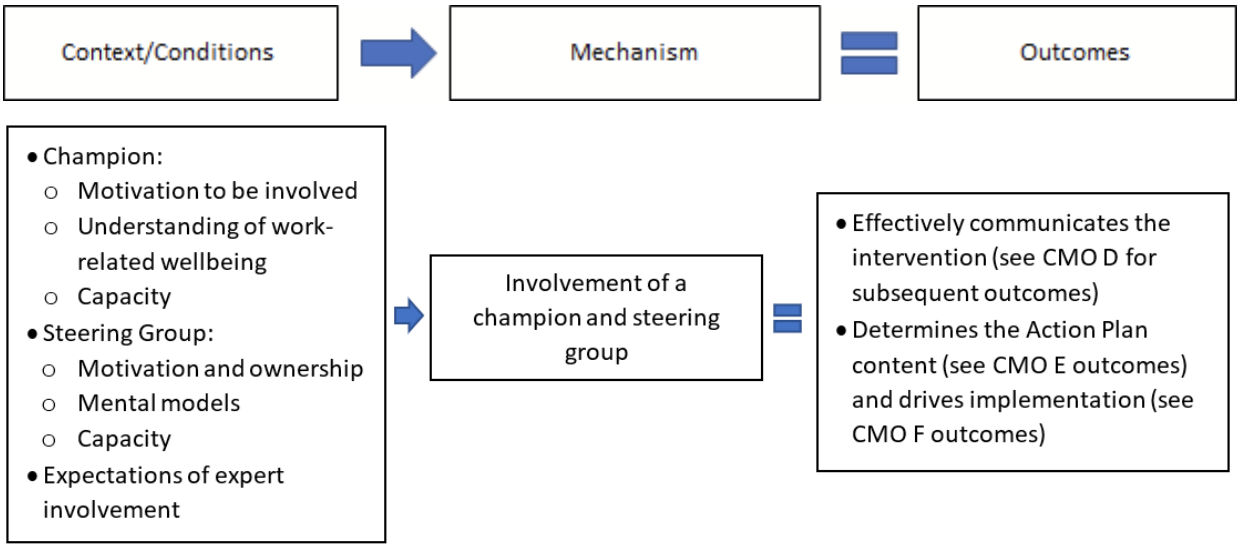
- An existing work-related wellbeing focus indicated senior management's readiness for change. All organisations, whether they labelled it wellbeing or not, were already focused on aspects of wellbeing to different degrees. Organisations that were the least advanced (e.g. FGa3) had no formal initiatives in place but staff looked after one another and managers were doing what they could to address staff wellbeing concerns when they were raised. Other organisations (e.g. MHa1) were highly aware of the impacts of work on wellbeing, and wellbeing was very much a priority for them before the study: "*working out how we can improve wellbeing was already something that was a priority for us, not an add on*" (MHa1). Those that were highly aware and focused on wellbeing were generally more open to the intervention and enthusiastic to engage in the process.
- Understanding work-related aspects of wellbeing influenced senior management's engagement with the intervention. At the outset of the study, in some organisations (particularly in the ECE sector), senior management had a view that wellbeing was a personal issue and predominantly influenced by factors external to the workplace: "*as individuals, [staff are] not on top of their physical and emotional wellbeing, and we want to support them with that*" (ECa1). Some of the activities these organisations had previously carried out included bringing in food and pamper packages, and introducing fitness initiatives. Although senior management at these organisations indicated an intent to focus on personal wellbeing at the outset, these organisations, as well as MHA organisations who naturally take a personal care focus to their work with clients, were amenable to focusing on impacts of work on wellbeing once we had explained the focus of the study.
- In most organisations, motivation to be involved in the intervention was to gain expertise and advice on how to improve their existing wellbeing activities. For example, MHa1 sought a more concrete, consistent approach to wellbeing, MHa3 wanted feedback on how they were doing and whether it was making a difference, and FGa4 sought support to ensure that systems were in place to support wellbeing. Several organisations were motivated by a related goal – for example, in FGa3 they hoped that their involvement would support achieving an external accreditation, and in MHa4 they hoped it would help to meet a KPI of the Board. In these organisations, senior management was less invested and took less ownership of the process.
- One of the readiness for change barriers, likely to be particularly relevant to SMEs working within tight resource constraints, was the willingness to genuinely invest (financially, as well as time and resources) in the intervention and in wellbeing generally. The importance of genuinely addressing staff stressors and wellbeing concerns was key to the success of the intervention and there were several examples where senior management were unwilling or unable to make fundamental business decisions to improve wellbeing, which left staff and Steering Groups deflated and feeling that their efforts would only ever be superficial or tokenistic.
- In the larger SMEs (i.e., 50+ workers) where the organisational culture was established by a team (as opposed to a smaller SME where culture and values are primarily shaped by one senior manager or owner), the espoused culture and values of the organisation influenced how senior management's engagement was perceived by the broader organisation. The CEO of FGa1, for example, was very passionate about improving wellbeing in their organisation, but sometimes

faced difficulties genuinely prioritising wellbeing in the very fast-paced and highly productivity-focused environment within which they were operating (FGa1). This was further compounded when other members of the senior management team were not as invested in wellbeing as the CEO: "*[The CEO] is not supported [regarding wellbeing efforts] by the senior management team. Accounting are only interesting in counting numbers, sales are only interested in selling numbers*" (FGa1). This lack of senior management engagement was likely to have had a direct impact on PSC as workers felt like "*the SLT has given up on them*" (FGa1). Likewise, in MHa3, while the CEO was genuinely invested in wellbeing, other senior managers who were more task-focused and showed less concern for wellbeing of staff posed a significant barrier to progressing the intervention, inhibiting participation and creating barriers to initiative implementation. This was in stark contrast to other organisations (e.g. MHa1) where the organisational culture and senior management team facilitated the organisation's effective involvement in the intervention.

Capacity was another contextual factor influencing senior management involvement in the intervention. As the interventions were carried out during the Covid-19 pandemic, senior managers were faced with unprecedented challenges – coordinating staff 'bubbles', online communication, staff absences and turnover due to vaccine mandates, self-isolation requirements, sickness absence, and so on. While for two organisations Covid-19 resulted in more interest in the study and in wellbeing generally, for most organisations it posed a major barrier to participation and momentum. For example, ECa4 reflected on Covid-19 lockdowns and its impact on the intervention saying, "*we were all so ready, the team was ready to smash it and do an awesome job, then all of a sudden it went bleep and got taken away*". Several of the participating case organisations were also undergoing significant organisational change and expansion. These factors significantly compounded the already busy and multifunctional role of senior management and, in cases where the senior manager was also the intervention champion, the intervention process was delayed. The capacity of senior management had less of an impact in cases where someone in another role was the champion (and it was instead the champion's capacity that was affected, see CMO B), but engagement and capacity of senior management became particularly important when it came to developing and implementing PSC initiatives that required higher level decision-making and implementation (see CMO F).

Another smaller but relevant contextual theme that emerged was ***stakeholder influence***, which in our cases consisted mostly of the Board of Directors/Trustees. All four MHA organisations, and three of the four FMCG organisations (none of the ECE organisations) had such Boards. For the most part, the Boards did not appear to have a strong effect on the intervention. However, it was mentioned that in some cases the Board was very supportive of the organisation's involvement in the study, and in other cases it was a barrier to positive outcomes (particularly where there were financial implications). For MHa3, the Board's attitude resulted in senior management voicing reluctance at some stages in the intervention process as they felt the Board would take an accusatory approach, holding management to account for any areas of weakness that came out of their involvement in the study: "*they will have a go at us for not achieving in those areas, and use it as evidence of something else*" (MHa3). Conversely, FGa4 had a highly supportive Board who encouraged their involvement and, as a result, they felt supported to engage unreservedly in the intervention.

CMO B. Involvement of a Champion and Steering Group



The involvement of a champion and Steering Group emerged as a fundamental mechanism, imperative to the success of the PSC intervention. The champion was the primary contact with the research team and led the Steering Group, which held overall responsibility for coordinating and driving the intervention. In cases where there was effective involvement of the champion and Steering Group, there was more effective communication and higher levels of participation, there was good coordination of the Action Plan development, and momentum with its implementation. Greater participation and effective Action Plan development, and there was momentum in its implementation, in turn, helped to foster PSC (see CMOs C, E, and F).

Having a proactive ***champion*** was particularly important to the success of the PSC intervention. In some organisations (n=7), the champion was the owner or a manager, in others it was someone who had HR or H&S responsibilities in their role (n=4), and for one organisation it was a worker who had volunteered for a role on the wellbeing committee. The champion's role was unrelated to organisation size.

- In those organisations that were particularly successful, the champion's motivation to be involved appeared to be clear and genuine. The champions who were passionate and knowledgeable about wellbeing (and therefore, the intervention) (e.g. FGa2, MHa2) took actions to improve the outcomes of the intervention, such as strongly encouraging participation and creating capacity for people to be involved, holding extra meetings internally to refine the Action Plan and get staff feedback, and communicating effectively with the research team. On the other hand, there were several champions who took less ownership (e.g. MHa4, FGa3), and in these organisations there was only minimal communication and as a result much lower awareness of the intervention and its outcomes, and generally lower participation. In these organisations the research team was relied on to drive the process and the Action Plan content and implementation was not prioritised.
- Lack of champion understanding and confidence regarding wellbeing in the workplace came through as a minor theme creating barriers in the process for two SMEs: "*we lack the internal*

knowledge to lead wellbeing and facilitate discussions to improve it" (MHa4). The training provided as part of the intervention was sufficient in most cases, but these two SMEs relied more on the expertise of the research team to guide the process.

- Champion capacity also had a significant impact on the intervention. Champion capacity was affected in all case organisations to different extents by Covid-19, resulting in delays at all stages throughout the process. In the most severely affected cases, delays resulted in no Action Plan being developed (e.g. MHa3) or withdrawal from the study (e.g. FGa3). Those organisations with a proactive champion who was able to prioritise the study (e.g. MHa1, FGa2) were more easily able to manage the consequences of Covid-19; those organisations where the champion was employed in an HR or H&S role appeared particularly resilient and were able to maintain capacity for the study; whereas those where the CEO or owner was also the champion struggled with competing organisational priorities. Organisation changes and expansion, and champion sickness or absence were other reasons for lack of champion capacity.

All participating case organisations had a ***Steering Group***, as a requirement of the study. The Steering Groups consisted of between four and 10 members (most between four and six), and were made up of worker representatives, team leaders, or a mix of both.

- The motivation for the intervention varied, but most of the Steering Group members took a relatively passive role in the intervention. They were happy to be part of it and contributed when asked but took no ownership or proactive steps towards progressing the intervention. ECa2 had a particularly proactive Steering Group comprised of team leaders who felt they had a responsibility to advocate for their respective teams. However, this was not the case for all Steering Groups comprised of team leaders (e.g. MHa3) and it appeared that culture and autonomy of team leaders contributed in this regard, with those leaders who had more autonomy to lead their respective teams taking more ownership of the process.
- Capacity of the Steering Group members also impeded Steering Group input and overall progress of the Action Plan and its implementation. This was primarily attributed to Covid-19, but also many Steering Group members were expected to take on this role on top of their workloads. Four Steering Groups experienced attrition throughout the study, either because staff had left the organisation, or "*could no longer commit*" to being part of it due to other responsibilities. Many resignations coincided with the intervention losing momentum due to Covid-19 and were likely in part due to waning Steering Group mental models (i.e. attitudes towards the intervention). Examples of this included FGa1 and ECa4, who lost most of their Steering Group members during Covid-19 lockdown periods. This further reduced momentum with finalising and implementing their Action Plans, and left the champions largely responsible for the intervention, reducing representation from the broader organisation in the process.
- Those Steering Groups more resilient to lack of capacity were those that were an existing committee or group where members' role on the committee was built into their workloads. For example, ECa2 and ECa3 Steering Groups both consisted of team leaders; these pre-established groups of leaders already had scheduled meetings, and meetings regarding the intervention could be added to these agendas. In ECa2's Action Planning session, the researchers noted that "*there was good rapport within the team. They proactively discussed issues, and the facilitators*

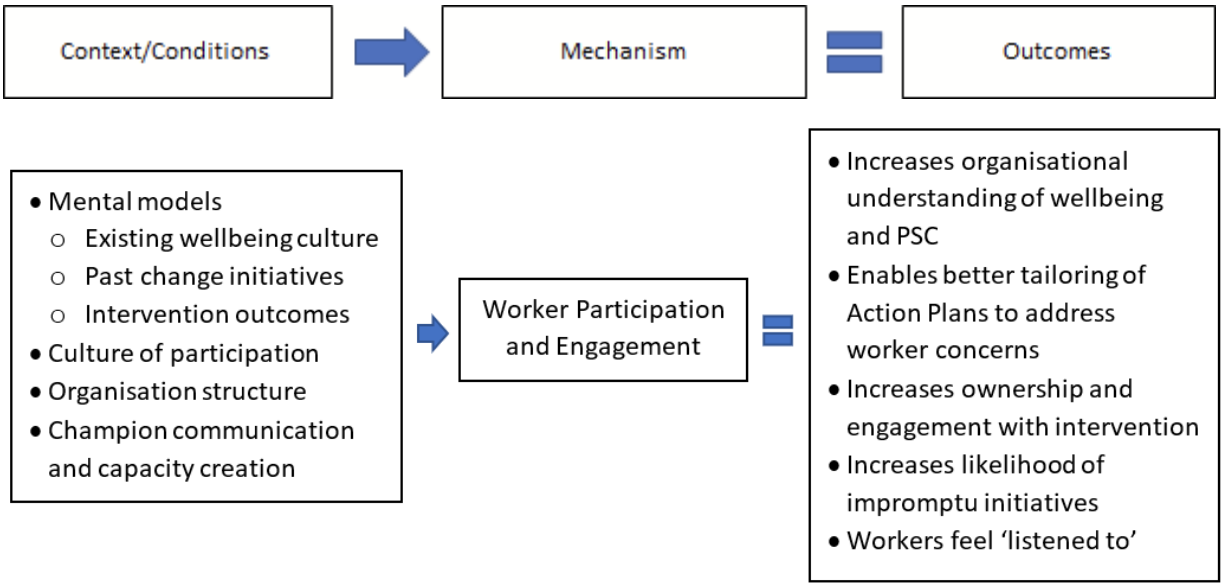
quickly became spare parts". Although MHa4 and FGa1's Steering Groups also consisted of an established wellbeing committee, staff involvement in these committees was on top of their workloads and they experienced greater attrition. Regardless of capacity, most Steering Groups that were committees or pre-established groups also intended to continue with the Action Planning beyond the study.

Overall, the champions played a much more impactful role in the success of the intervention than the Steering Groups, which is perhaps to be expected in a SME context where senior management and/or HR/H&S personnel are more accessible to on-the-ground operations and staff. Larger organisations with dispersed or siloed teams saw value in the Steering Groups to represent their respective teams and ensure the initiatives targeted the needs of the whole organisation.

Finally, there was a noticeable difference between organisations in their ***expectations of expert involvement*** which, in turn, effected intervention outcomes. Some champions/Steering Groups appreciated that it was up to them to take responsibility for their Action Plan development and implementation, as it encouraged ownership of the process: "*we get to make it ours and people will buy into it more*" (FGa1). MHa2 was very proactive in terms of driving the process but relied heavily on the research team's expertise, valuing feedback and input. However, it appeared that some of the organisations wanted more input from the research team. ECa3, who withdrew from the intervention due to Covid-19 related pressures, wanted more direction about what to do regarding their Action Plan, rather than following the participatory approach that was central to the intervention. MHa4, with no proactive champion, required the research team to be more involved in taking notes and drafting an initial Action Plan from the ideas raised by the Steering Group in the Action Planning session.

Our study indicates that SMEs are likely to require support and guidance in developing and implementing the PSC intervention, particularly when working within the constraints of limited internal knowledge and capacity. With other priorities competing for their time, many of the SMEs in our study had forgotten elements of the training on psychosocial factors and PSC provided at the outset of the study, and required continual guidance to ensure their efforts were aligned with good practice and likely to be effective. This was particularly evident where there was no internal HR or OHS capacity, with those case organisations stating their preference to be told what to do. While our findings still support a participatory approach, in that it allowed the Action Plans to be tailored and owned by the organisations, they highlight the need to consider the different conditions under which SMEs might require support to develop and implement a PSC Action Plan. See CMO E and CMO F for more details on Action Plan Content and Implementation.

CMO C. Worker Participation and Engagement



Worker participation was identified as another key mechanism impacting the outcomes of the PSC intervention. High levels of staff participation in the intervention (through the surveys, workshops, engagement with the Steering Group, and/or input into the Action Plan and its implementation) resulted in a range of positive outcomes. Firstly, participation ensured that the state of wellbeing in the organisation, and existing risk(s), were well understood at the outset of the intervention and that the Steering Group had sufficient information upon which to develop the Action Plan (see subsequent outcomes in CMO E). Participation in the workshops meant that staff were exposed to training and developed a better understanding of wellbeing, and participation in the surveys enabled staff to reflect on their own wellbeing and how their work environment contributed positively or negatively to it. In some cases, participation in the workshops led staff to better understand some of the risks their colleagues were working with and led to impromptu initiatives being developed in pockets of the organisation to help support colleagues working under stress. One of the most mentioned positive outcomes of the intervention process was that staff now feel 'listened to' (reflecting the PSC domain of organisational communication). Organisational participation in wellbeing-related activities is one of the four PSC domains, and these opportunities for participation in the intervention therefore present an opportunity to directly improve PSC.

Mental models is a predominant theme influencing participation, either positively or negatively depending on the extent to which they are perceived to be of value in the intervention. While *mental models* is a contextual factor influencing participation, it is also inextricably linked to the outcomes of the intervention in that staff attitudes towards the organisation's actions regarding the intervention is a reflection of PSC in itself (i.e. it reflects perceptions of prioritisation and commitment to wellbeing).

Three contextual factors influenced staff mental models:

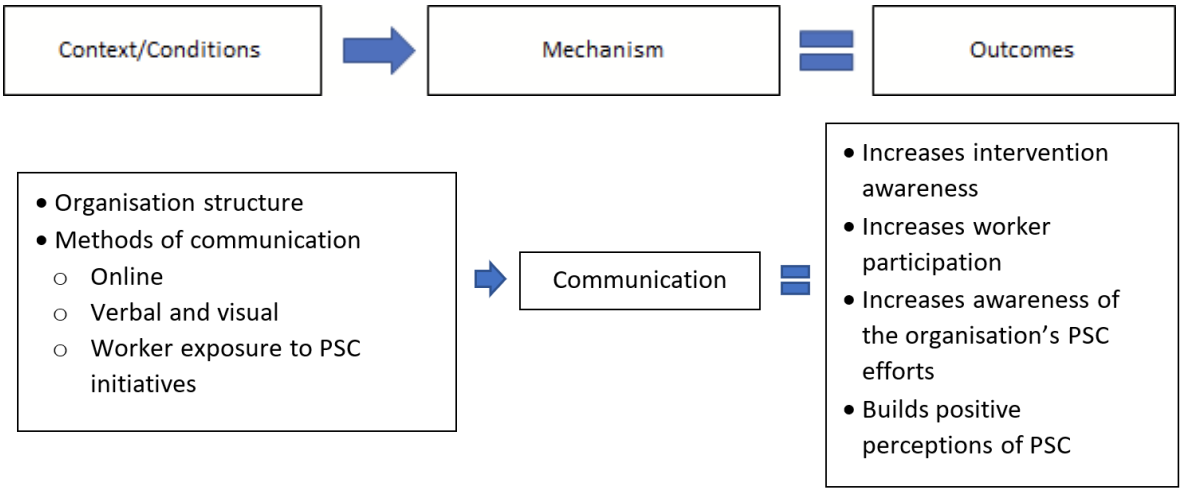
- Existing wellbeing culture in the organisation influenced the mental models of staff and, in turn, the extent to which they engaged with the intervention. In organisations where a focus on wellbeing was already embedded in the organisation's culture, the intent and involvement of the organisation was perceived to be genuine, and staff could already see the value in wellbeing. In MHa1, for example, staff come from a sector where care for others is implicit in what they do, and they were already focusing efforts on staff wellbeing. They felt that this was an authentic foundation on which to encourage staff to engage in the process. ECa2 also felt that the nature of their sector contributed to positive mental models: "*teachers are reflective practitioners. It's part of their role, they're all about improving, so will want to participate to improve wellbeing*" (ECa2). On the other hand, where organisational culture required staff to have "*a tough skin and get on with it*" (FGa1), or where the intervention appeared not to be a good "fit" with the organisation (FGa3), staff appeared to be hesitant of the process and sceptical of the Action Plan initiatives and their intent.
- In some cases, where past change initiatives had resulted in positive outcomes, the organisations felt that staff would approach the intervention with a positive mindset (e.g. ECa3, FGa3), while in MHa1 which is undergoing frequent change, staff were accepting of change, which was a possible explanation for the general complacency and lack of staff proactivity or investment in the process. In ECa1 and ECa2, which had not previously been involved in similar initiatives, staff were optimistic about the process from the outset: "*I don't know how anybody wouldn't want a better, healthier workplace*" (ECa2).
- The prevailing theme affecting staff mental models was the value that staff saw in the intervention outcomes. At the outset of the study, when asked about staff's likely attitude towards the process, there was general agreement from staff across all organisations that involvement in such a process could only be positive. However, many case organisations (n=7) staff felt that "*the proof will be in the pudding*" (MHa1), in other words, their attitude will depend on whether they see value in the initiatives. For example, the owner of FGa3 said "*whether workers support it will be in anything they value coming out of it – whether they see directly the improvement in their work, and how quickly*" and the MHa4 CEO said, "*it will depend on how we sell it to them*". As expected at the outset, the mental models of staff were impacted by intervention outcomes. In organisations where multiple PSC initiatives were implemented and visible to staff, and where they could see their value (e.g. MHa2), staff stayed engaged with the intervention and reported positive outcomes. However, in the organisations where momentum waned, where staff were not aware of initiatives, or where initiatives were perceived to be superficial or tokenistic and not addressing fundamental risks to wellbeing, mental models of staff and their engagement with the intervention declined. For example, FGa2 reported that, despite organising staff events to build culture and implementing other initiatives, there was frustration amongst some staff that the main work psychosocial risks were not resolved. Further related findings are discussed in CMO E and CMO F.

Three contextual themes also emerged that directly affected staff participation in the intervention. Firstly, the ***culture of participation*** and consultation that existed within the organisation influenced the extent to which staff participated in the intervention. Many of the case organisations explained that staff and managers are already supportive of one another (e.g. ECa4), and they already had a culture where staff felt safe to raise issues (e.g. FGa2), where management were "*very approachable*" (e.g. MHa1). These organisations felt that this culture was fundamental to the success of the intervention in that it encouraged participation: "*you've got to have that solid foundation which creates a safe space to be able to talk about wellbeing and what we need to improve wellbeing*" (MHa1). On the other hand, several participating organisations had quite the opposite culture where staff felt hesitant to speak up and participate in the process. In these organisations, staff were concerned about anonymity of their input into the intervention and were concerned about "*sticking their head above the parapet*". For some organisations, where senior management was particularly invested in the intervention, the intervention was able to foster a culture of participation with senior management realising the need to be open to staff feedback and take positive steps to address concerns (e.g. ECa1). For other organisations where there was less genuine support from senior management, a culture of participation could not be achieved during the intervention period (e.g. MHa3, FGa3).

Another contextual factor influencing participation levels was ***organisational structure***. Ensuring that all staff had an opportunity to participate was particularly difficult for the FMCG sector where staff on the production floor had limited access to computers and limited time off the floor to complete the survey. A large portion of the production floor workforce were also linguistically diverse and lacked confidence in completing the surveys. For one MHA organisation (MHa4) the dispersed and autonomous nature of their Community Support Workers (CSWs, who work in the community with clients) meant that engaging them in the intervention process was difficult. This was not the case, however, for the other MHA organisations where there appeared to be a different culture and more accountability of the CSWs to participate in organisational initiatives.

Indeed, despite all MHA organisations and several ECE organisations having dispersed work sites, the impact of structure on participation was able to be overcome through effective ***champion communication and capacity creation***. For example, MHa1 organised five workshops for different work teams at the different work sites, while FGa1 organised four workshops – one for the production staff so that their specific environment and concerns could be discussed, and others at times that meant that all staff had the opportunity to attend one of the sessions. Participation improved where champions sent multiple reminders about participation opportunities. For example, at FGa2, staff had concerns about a lack of communication and acknowledged that this led to non-attendance at meetings if people were busy.

CMO D. Communication



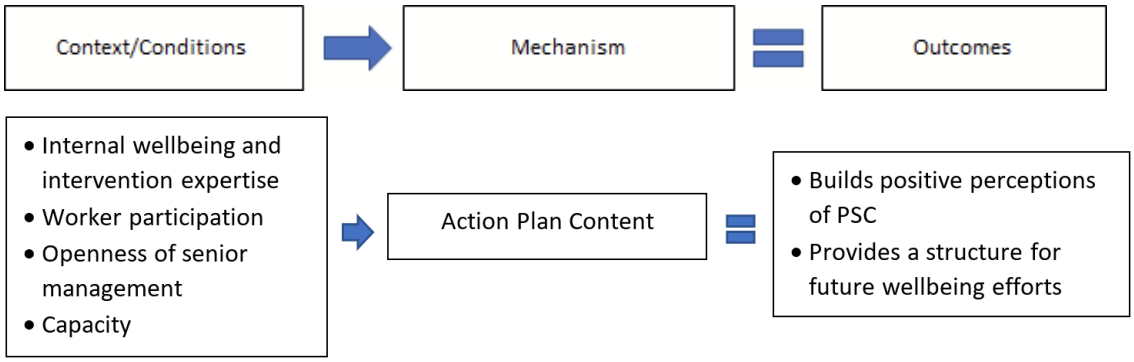
As with participation (CMO C) organisational communication regarding wellbeing is one of the four domains of PSC. Effective communication by the champion and Steering Group to the wider organisation was a fundamental mechanism throughout all stages of the intervention. At the outset, the champion and/or Steering Group were required to inform staff about the study and the organisation's involvement, and then to encourage participation in the surveys and workshops. Beyond these preparatory stages, communication was also important to ensure that everyone remained aware of the process, had opportunities for input into the development and implementation of initiatives, and that they were aware of the progress made towards improving wellbeing within the organisation. Effective communication about intervention progress contributed to positive perceptions of the organisation's efforts to improve wellbeing, which is an indicator of PSC improving. We found that many staff overlooked communication about the study and, in many cases, staff awareness about the intervention was low. Staff turnover, which increased for many organisations over the study period due to Covid-19, also compounded issues of staff being unaware of intervention progress and highlighted the need for more frequent communication. Building PSC is very much focused on staff perceptions of the organisation's focus on wellbeing, and, therefore, staff awareness is a requirement of high PSC.

As with participation, ***organisation structure*** was a significant theme impacting on the participating organisations' ability to communicate effectively throughout the intervention. For example, geographically dispersed and autonomous teams made communication more difficult, particularly face-to-face forms of communication. In the MHA sector, different teams were responsible for working on different contracts, and teams were generally responsible for their own communication and team meetings. In the FMCG sector, shift work for production staff created difficulties with communication (particularly night shift staff). In the ECE sector, teams were largely siloed with communication predominantly occurring within (rather than across) each teaching room. Covid-19 exacerbated communication issues for a large period of the intervention due to teams being forced to work in 'bubbles' and, wherever possible, to work from home. These impacts were still felt at the completion of the intervention with some teams feeling more disconnected than at the outset.

The ***method of communication*** determined the efficacy of communication:

- Most of the organisations' communication about the intervention, including communicating about participation opportunities, the Action Plan and progress on its implementation, happened via email or intranet. However, responses to the endpoint survey indicated that many workers were not aware of changes as a result of the intervention, or were not aware of the extent of change. Although organisations had sent emails communicating their Action Plans, or made their Action Plan accessible online, these methods of communication were often overlooked. Online communication was particularly ineffective in organisations where not all staff had computer access at work or company email addresses.
- Worker awareness of the intervention was highest when information about it was communicated via verbal face-to-face channels, such as in staff meetings (e.g. FGa1, MHa2). However, the findings indicate that verbal communication needed to happen regularly to ensure that all staff, including new staff who were recruited during the intervention, were aware of progress. Visual communication such as posters was also effective. ECa3, for example, displayed a copy of their Action Plan in the staffroom so everyone knew what was happening.
- Worker exposure to the implemented initiatives impacted on their awareness of the intervention and the perceived efforts that the organisation was putting into wellbeing. Results from the midpoint survey suggest that many staff had a relatively good understanding and awareness of the intervention, and this generally dropped off at the endpoint survey. One explanation could be that in the first half of the study, there was a lot of worker exposure to the intervention, with frequent communication to encourage participation in surveys, workshops and Action Plan development. For many organisations, the second half of the intervention period was disrupted with lockdowns, isolation periods, and other Covid-19 ramifications that resulted in a loss of momentum, fewer initiatives being implemented, and less focus on the intervention. MHa2 was able to maintain momentum throughout Covid-19 and implement a range of initiatives, and workers saw much more focus on wellbeing as a result of this, which was reflected in upward trending PSC scores. On the other hand, several organisations continued to make good progress on implementing their Action Plan, but many of the initiatives were not realised by workers as being part of the Action Plan or as having a wellbeing focus. For example, many of the initiatives in MHa1's Action Plan involved addressing psychosocial risks that would also improve operational efficiency, such as addressing workload issues. As a result, while workers were aware of the changes happening, they did not see these as a demonstration of the organisation's prioritisation of wellbeing, nor were they aware that they were part of the Action Plan. Similarly, FGa1 implemented a range of initiatives but acknowledged that workers were not aware of their progress: "*We're not great at building the visibility of what we've achieved. A lot of targets have been behind the scenes actions, a lot of people don't know if we're ticking things off or not*" (FGa1). MHa1 and FGa1 both experienced a drop in PSC scores between the midpoint and endpoint surveys, which indicates that lack of awareness of implementation progress harmed many workers' perceptions of the organisation's commitment to implementing wellbeing initiatives and mental models towards the intervention waned.

CMO E. Action Plan Content



The Action Plan content was a fundamental component of the intervention. Although signing up to the study indicated that senior management prioritised wellbeing, the Action Plan was the stage at which the organisation took responsibility for its ongoing focus on wellbeing. This also signalled to staff the extent to which the organisation was genuinely committed to making changes intended to improve staff wellbeing (the PSC domain of 'management commitment'). To be perceived positively by staff, the Action Plan needed to address the concerns of staff and not overlook any fundamental concerns they had raised through the surveys and workshops. Several organisations provided further versions of their Action Plans which incorporated feedback, adding new initiatives and amending less successful initiatives. A summary of the Action Plan initiatives is provided in Section 3.2.

Four main contextual factors were important to developing Action Plan content that was tailored to staff concerns and effectively contributed to fostering PSC.

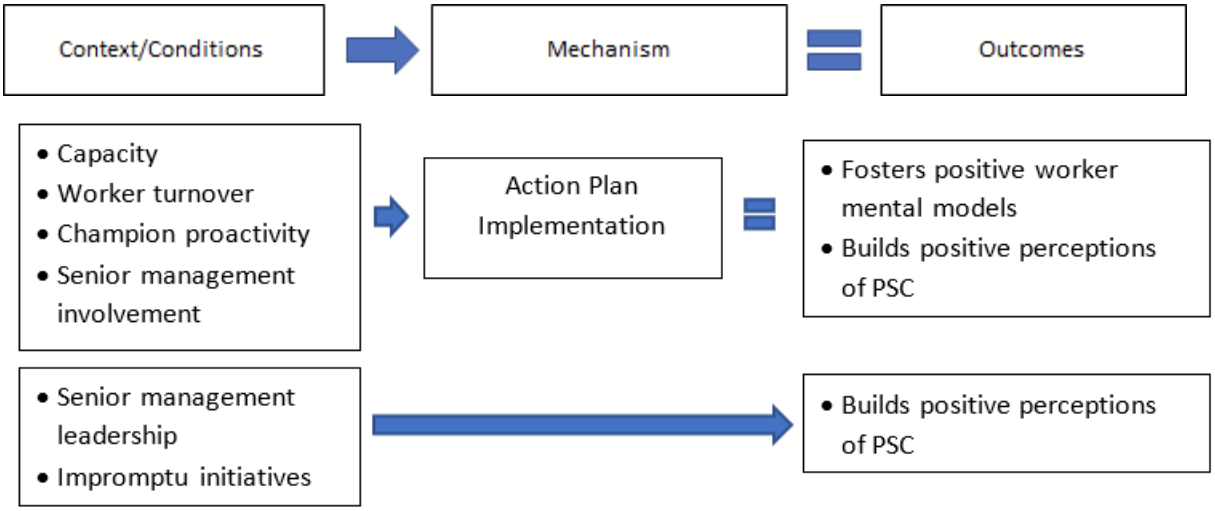
From the outset, it was clear that many participating case organisations, despite seeing the value of prioritising wellbeing, lacked ***internal expertise***, and were seeking guidance to improve or validate their existing efforts. Many organisations, particularly from the ECE and MHA sectors, were primarily focused on self-care. The intervention involved training for Steering Group members and workers. Regular contact points with the research team ensured that the Steering Group was reminded about PSC and work-related impacts on wellbeing throughout the process. While organisations were responsible for finalising their Action Plans independently, they were invited to discuss their plans with the research team. Six organisations asked for feedback on their draft Action Plans. This feedback was to provide clarification on their suggestions and answer their questions on the Action Plan development process and did not involve specific suggestions or guidance on Action Plan initiatives. As a result, most organisations were largely focused on addressing risks identified through the surveys and workshops, and in many cases, some of the foundations required to establish a climate for a sustainable focus on wellbeing were overlooked. For example, while organisations made plans to address current risks, channels for communicating about and addressing future risks (one of the major advantages of a PSC focus) were not established as part of the Action Plan. FGa2 exemplified this point in the following statement: "*I think the Action Plan had an awesome summary of what staff wanted at the time. It might be time to address that again*".

Relatedly, ***worker participation*** was important to obtain information about worker wellbeing and ensure the Action Plan content was adequately tailored to staff needs. Not only is participation strongly encouraged in organisational health interventions generally (Abildgaard et al., 2020; Cedstrand et al., 2021; Nielsen et al., 2013), it is one of the four domains of PSC and therefore of central importance to fostering PSC. That said, in some cases where the organisation encouraged extensive staff input beyond the formal intervention stages, champions faced challenges in responding to current concerns raised by staff while also implementing initiatives that were PSC-focused and would set them up to identify and address future issues. For example, MHa2 took the most consultative approach, holding regular meetings with all workers to get their feedback and input on the Action Plan. As a result, the Action Plan was very heavily tailored to the organisation but became overly focused on what workers wanted at the time, so initiatives were more secondary in nature and focused on coping with rather than mitigating risks. The champion in this case reported finding the process "*overwhelming*" as they were aware PSC required staff input and wanted to do everything they could to achieve this, but were unable to satisfy and meet the wants of all staff.

The Action Planning phase also presented a potential pressure point for organisations, which appeared to be particularly pertinent where business owners were also the CEO (n=4). These senior managers reported feeling that the workshop results were "*difficult to read*" (ECa1), "*confronting*" (ECa3), or were "*hurtful*" towards them (FGa3). It became clear that they felt personally attacked by some of the wellbeing concerns raised by workers through the workshops which, in some cases, caused minor antagonism between the managers and workers. In these cases, the ***openness of senior management*** and their ability to reflect and respond positively to worker concerns and not become defensive was a key factor in the success of the intervention. In all cases, except for FGa3 which withdrew before the Action Planning stage, the response from senior managers was positive and they went on to develop Action Plans that acknowledged and addressed worker concerns. For one ECE organisation, although it took some time, the attitude of senior management towards hearing worker concerns and allowing participation changed for the better as an outcome of the intervention: "*Her demeanour has changed in a positive way – she's trying*" (ECa1).

Finally, the ***capacity*** of SMEs to implement certain initiatives emerged as a barrier to developing initiatives to improve PSC. In some cases, participating organisations struggled with how to address fundamental wellbeing concerns, such as workload issues, due to limited funding and resources. This became another factor leading to many of their initiatives becoming secondary- or tertiary-focused. In SMEs managed by the owners, there appeared to be a tension between workers expecting wellbeing efforts by 'the organisation' and these coming at a personal cost to the owner. Some senior managers (n=3) felt like "*I'm always giving [to staff relating to wellbeing] but it's never enough*" (ECa3). This point reflects the personal investment that owner-operators make in wellbeing, the disconnect present in some cases between management perceptions of worker 'wants' versus actual worker concerns, and the need for external guidance to ensure that resource-constrained SMEs have the knowledge to implement wellbeing initiatives that directly address the needs of workers.

CMO F Action Plan Implementation



Implementation of the Action Plans was fundamental to building PSC as it demonstrated a genuine commitment from the organisation to follow through on the Action Plan and address the concerns of workers. In other words, it demonstrated organisational prioritisation and commitment - two of the four domains of PSC. As previously discussed, implementing initiatives that workers valued also improved their mental models. A further finding of relevance to this CMO was related to PSC actions that occurred throughout the intervention process but outside of the Action Plan. These actions, including senior management leadership and impromptu initiatives, are included in this CMO as they also contributed to positive perceptions of PSC and are findings likely to be unique to the SME context.

Four contextual factors were found to enable Action Plan implementation. ***Capacity*** was a strong theme influencing all organisations at this stage of the intervention. The Action Plan implementation period coincided with Covid-19 lockdowns, mandates and related sickness with all participating case organisations impacted to varying degrees in terms of their ability to implement their Action Plan initiatives. Many organisations experienced significant ***staff turnover*** during this time. This meant that new staff were less aware of the intervention and initiatives. This was a particular challenge in organisations which experienced Steering Group member and champion turnover because new members had different values and priorities and new members/champions experienced difficulties familiarising themselves with the intervention, particularly during a time when Covid-19 related issues were also competing for their time and attention. Levels of knowledge relating to PSC and wellbeing of new staff were also likely to be less than those they replaced as the initial training for Steering Group members could not be provided to each new person. ECa4, for example, had three replacement centre managers (who were also the champions) during the intervention period and, as a result, despite implementing several initiatives to improve wellbeing, ran out of time during the study to develop an Action Plan. This resulted in a significant drop in PSC over the intervention period.

Champion proactivity was one of the most predominant themes. Champions who had capacity and passion were able to prioritise the intervention despite competing priorities (see also CMO B). Those organisations that did not have a passionate champion struggled at this point as the research team stepped back encouraging the organisation to take responsibility for driving the process. For example, at the end of the Action Plan session for MHa3, there was silence when they were asked who was going to drive and coordinate the finalising and implementation of the Action Plan. This organisation failed to produce an Action Plan or implement any of the initiatives discussed in the session. In the endpoint survey for MHa4, staff also acknowledged the need for a champion in their organisation: "*Someone needs to take responsibility for the Action Plan. It needs to get prioritised. At the moment, it gets shunned*". On the other hand, organisations such as MHa1 and MHa2 were able to maintain more momentum during this time; however, they were not based in the Auckland region. Although they still encountered lockdowns and other significant challenges associated with Covid-19, they were not subjected to the 100-day lockdown, nor to the severity of the first Omicron wave, in the same way as Auckland-based organisations.

The ***involvement of senior management*** emerged as an important factor at this stage of the process. As indicated in other CMOs (A, C, and E), our findings indicate that it was important that the Action Plan was perceived to address worker concerns and not just comprise surface level or tokenistic initiatives. Senior management involvement was considered important to the Steering Groups to approve and drive some of the more deep-seated initiatives that address fundamental concerns to wellbeing. For example, for FGa1, where there was no senior leadership representation on the Steering Group, the champion felt helpless: "*I can't be responsible for changing fundamental issues with the business - that's a SLT issue*". As a result, the Steering Group felt that, while their Action Plan was good, it did not go far enough to change the wellbeing and culture in the organisation: "*there's nothing that is substantially big or game changing, it doesn't address the fundamentals*" (FGa1). Several other organisations acknowledged the need for senior management to drive key initiatives at this stage of the intervention. For example, the Steering Group at ECa2 felt that "*the champion needs to be someone who has the capability to change things, someone responsible for moving it forward*". As previously discussed, when key concerns of workers weren't addressed, mental models began to wane, and workers began to doubt whether the organisation was genuinely committed to wellbeing.

Senior management leadership and impromptu initiatives emerged as two prominent themes that impacted PSC beyond the Action Plan. In the SME context, the channels through which PSC is demonstrated may be less formal or concrete than those in large organisations, where PSC is predominantly conveyed via formal policy and processes. For example, senior management is highly visible in a SME environment and, as such, ***leadership styles of senior management*** may have a greater influence on PSC than in large organisations. FGa1 provided an example of this where staff reported that one of the senior leadership team "*takes time to sit down, listen, take on board feedback and action it*". The actions of this senior manager reflect the domains of PSC suggesting that PSC is likely to be influenced by their actions, or lack thereof, and may potentially exist in pockets within the organisation. The influence of senior leadership was also observed in ECa1, where attitude of the senior manager was seen by some staff to outweigh the Action Plan: "*Staff just want to be able to approach [the owner] without feeling anxious*".

The informality of PSC (and lack of bureaucratic approval processes) available to SMEs was also present in several organisations where managers and workers initiated ***impromptu initiatives*** beyond the scope of the Action Plan. For example, teams within MHa4 were shocked to hear, during the workshops, about some of the risks their colleagues were working with. These teams immediately added wellbeing and colleague check-ins to their daily team meeting agendas. During Covid-19 lockdowns, senior manager support also impacted perceptions of PSC. For example, in MHa2 and MHa3 the senior manager initiated staff check-ins which could have been interpreted by staff as senior management having a greater focus on their wellbeing (reflecting the PSC domain of management prioritisation). The visibility of senior management in a SME context and the ability to demonstrate PSC directly through their actions means that PSC could be much more volatile than when it is formalised through policy in large organisations, and could also be very sensitive to movements of key staff.

3.5 Mapping PSC Scores to Process Evaluation Results

This section provides a breakdown of the survey PSC scores alongside the relevant process evaluation findings for those organisations which completed the intervention. In doing so, it can be observed (Table 20) that **case organisations who featured positive CMO mechanisms had PSC scores which generally increased over the intervention period, while for those organisations who had poor CMO mechanisms, PSC levels generally decreased.** Many control organisations also made efforts to improve wellbeing independently, mostly in response to Covid-19, and in these organisations PSC generally remained stable or improved. For those that took less interest in wellbeing, PSC scores decreased over the intervention period. While these findings are indicative only, and PSC scores were often based on small response numbers (see Table 10, page 58), the patterns evident from the mapping provide insights to support the potential efficacy of the PSC intervention when the CMO mechanisms are present.

The colours in the tables reflect the PSC benchmark levels. A PSC score equal to or greater than 41 (in green) indicates low risk of poor wellbeing outcomes (e.g. job strain and depression), a PSC score equal to or greater than 37 (in yellow) indicates a moderate risk, and PSC less than 37 (in red) indicates a high risk of poor wellbeing outcomes. As shown in the tables, the large majority (80%) of participating organisations had high PSC levels (i.e. were low risk) at the outset of the intervention. This may have been because senior managers that prioritised worker wellbeing were those who were more likely to express interest and commit to participating in the study. Indeed, many participating SMEs indicated that they saw value in wellbeing and wanted to be involved to receive guidance on how to progress their current or existing wellbeing efforts.

As shown in Table 20, MHa2 was a particularly strong case organisation. All six intervention mechanisms featured positively: the organisation had a highly proactive champion and engaged all workers in the intervention from the outset, they took steps to communicate and encourage participation in the Action Plan development beyond the standard intervention stages, and all workers were aware of implementation progress with many (if not all) experiencing the changes directly. ECa1 was similarly successful, with strong communication and awareness of the initiatives implemented, but perhaps the most influential factor shaping PSC was the shift in the management approach of the owner to being better disposed to addressing worker concerns.

On the other hand, PSC scores decreased in ECa4, which did not produce an Action Plan or widely communicate intervention progress. In FGa1, PSC scores also dropped and, while those involved appeared genuine about wanting to improve wellbeing, they were unable to commit to addressing the fundamental concerns of staff, causing the Action Plan to be perceived by some as tokenistic. Indeed, research shows that seeking input from workers but not addressing their concerns can be harmful (Nielsen & Randall, 2013).

The mapping indicates that one deficient CMO mechanism could have a potentially significant impact on intervention effectiveness. For example, MHa1 featured a passionate and proactive CEO and champion (an HR representative) and a solid Action Plan that was implemented as planned, but a lack of consistent communication about progress and how it reflected the organisation's commitment to wellbeing may have restricted any improvements in PSC. This was also the case with FGa2, where worker awareness of intervention progress was inhibited by less effective communication at times. Indeed, ineffective and infrequent communication leading to low awareness was perhaps the most common barrier for case organisations, alongside delays to Action Plan implementation caused by Covid-19.

As described elsewhere in this report, part of the intervention period coincided with an extended Covid-19 lockdown and participating organisations struggled to varying degrees with added stressors relating to worker isolation, staff shortages, increased workloads, operational restrictions, and vaccine mandate related issues. This led to many workers feeling fatigued and burnt out around the end of the intervention period. In many of the control organisations, where most of the senior management took an interest in wellbeing, a range of initiatives were implemented to support workers during this time, which may help to explain the positive PSC trends observed in many of them.

Table 20: PSC Scores and Process Evaluation Findings by Organisation

Case organisations				
Code	**PSC Score**			**Process evaluation findings**
	Base	Mid	End	
ECa1	32.6	41.3	42.9	• Owner (also the champion and senior manager) initially understood wellbeing to be an individual issue but quickly adapted to the PSC approach. Engaged and proactive but perceived by many staff to be unapproachable at the outset **(CMO A)**. • Strong visual and verbal communication of participation opportunities and intervention progress. Ongoing and frequent communication ensured worker awareness (despite high turnover) **(CMO C, D)**. • A strong Action Plan developed, including many highly visual initiatives, ranging from primary to tertiary level and some highly aligned with PSC. Initiatives were revised throughout, and they intend to continue beyond intervention period **(CMO E)**. • An engaged Steering Group that took ownership of specific initiatives, many actions implemented **(CMO B, F).** • At endpoint, owner perceived to be more approachable and amenable to addressing worker concerns **(CMO F)**.
ECa2	40.4	35.0	45.1	• Owner (also the champion and only senior manager) very engaged and proactive. Was empathetic towards worker concerns **(CMO A)**. • Steering Group consisted of team leaders who were all strong representatives for their teams and highly proactive **(CMO B)**. • Comprehensive Action Plan developed, initiatives were closely aligned with addressing worker concerns, mostly primary and some secondary/tertiary **(CMO E)**. • Lots of actions implemented immediately following action planning (with strong worker awareness), followed by a long period of inaction due to Covid-19 **(CMO F)**. • Note: Very low response rate at midpoint survey. Less effective communication with workers during lockdown caused feelings of isolation for some workers. High staff turnover during this period.
ECa4	41.4	40.5	36.3	• General manager (also the champion) and owner both very engaged at the outset; both on the Steering Group and involved in initial action planning session **(CMO A)**. • Intervention progress halted following the action planning session due to Covid-19 lockdowns and no Action Plan was produced **(CMO E)**. • Multiple turnovers of centre managers (and champions) during the intervention period created barriers to intervention awareness and progress **(CMO B)**. • Third centre manager/champion attempted to revive the Action Plan late in the intervention period through a participative/consultative approach with all workers. Initiatives were discussed but no Action Plan was produced **(CMO E)**.

				• Minimal implementation of some wellbeing-related initiatives at endpoint **(CMO F)** but not communicated effectively with workers who lacked awareness of the intervention and/or progress **(CMO D)** and were feeling burnt out following Covid-19 (also high staff turnover during this period).
FGa1	42.4	43.2	39.2	• CEO enthusiastic and genuine about improving wellbeing. Other SLT members not as committed, influenced by a strong productivity-focused culture. Limited capacity and a desire for workers to drive their wellbeing efforts restricted CEO ability to engage with the intervention **(CMO A)**. • No senior managers on the Steering Group, high turnover in the Steering Group and the champion **(CMO B)**. • A comprehensive plan developed, focusing mostly on the concerns voiced by workers. Action Plan perceived as tokenistic as did not address fundamental concerns (which required senior management engagement in Steering Group) **(CMO A, E)**. • High turnover in Steering Group and champion along with Covid-19 events, meant that little implementation progress was made **(CMO B, F)**. • Action Plan progress was not communicated effectively, and staff lacked awareness of implementation progress **(CMO D)**.
FGa2	41.4	42.3	42.9	• HR manager (and champion) very enthusiastic and proactive throughout. CEO also genuine and engaged **(CMO A)**. • Ambitious Action Plan closely tied to addressing staff concerns, mostly primary initiatives **(CMO E)**. • Resignation of the CEO, and a new CEO appointed during the initiative implementation stage. New CEO was not as engaged and had a clear vision for the organisation **(CMO A)**; this saw some initiatives removed from Action Plan and others that aligned with the vision remain **(CMO F)**. • Strong communication initially about participation opportunities and intervention progress. Initially verbal but became online due to Covid-19 and lagged over time, thus limiting worker awareness of implementation progress **(CMO D)**.
FGa4	42.4	43.6	43.4	• Highly engaged CEO and HR manager (also the champion), both genuinely wanting to improve wellbeing and well-liked amongst workers. Both on the Steering Group and involved in Action Plan development and implementation **(CMO A)**. • Large Steering Group but mostly passive with high turnover during the intervention period **(CMO B)**. • Low worker participation in surveys and workshops **(CMO C)**. • Action Plan consisted of three solid initiatives addressing several key concerns of workers **(CMO E)**. • Sickness absence of CEO in final months of intervention period caused delays in initiative implementation. One substantive initiative implemented **(CMO F)**. • General organisational communication (the initiative implemented) was perceived to have improved at endpoint with more workers open to sharing their concerns. • However, limited communication of the initiative being tied to the intervention, combined with high worker turnover, resulted in low worker awareness of intervention progress **(CMO D)**.
MHa1	47.9	48.6	46.5	• CEO and HR manager (champion) proactive and genuinely wanting to improve wellbeing. CEO engaged in all stages, including Action Plan development and implementation **(CMO A)**.

				• Little turnover of Steering Group members, representation from all teams, engaged but somewhat passive **(CMO B).** • Action Plan consisted of three substantial initiatives which aimed to address some (but not all) fundamental worker concerns; many worker suggestions not included **(CMO E)**. All initiatives implemented **(CMO F)**. • Initiatives not effectively communicated as wellbeing-focused, and this resulted in low awareness of intervention progress **(CMO D)**.
MHa2	42.1	46.8	49.2	• Champion (OHS representative) very passionate and proactive. Manager also genuine and engaged throughout. CEO not on-site or involved in many of the day-to-day operations; interested but not actively engaged **(CMO A)**. • A small but proactive Steering Group, highly engaged at all stages despite some turnover **(CMO B)**. • Very high worker participation in surveys and workshops, with numerous further opportunities for communication and participation through face-to-face staff meetings facilitated by the champion **(CMO C, D)**. • Multiple versions of an ambitious and comprehensive plan submitted to the research team, with multiple rounds of researcher feedback requested. Many initiatives secondary/tertiary level, some also primary, but all aimed at addressing employee concerns **(CMO E)**. • Action Plan draft shared verbally with workers to receive input and revise accordingly **(CMO D)**. • Many actions implemented and workers seeing change as a result, fostering more positive mental models and engagement **(CMO F)**.
MHa3	45.6	49.3	45.9	• CEO interested in improving worker wellbeing; other senior manager (also the champion) on board but management style not always supportive of worker wellbeing. Both senior managers involved in the Steering Group **(CMO A)**. • Champion engaged but passive; progressed the intervention by coordinating meetings and encouraging participation at the request of the research team, but not proactively **(CMO B)**. • Very limited communication with workers about the intervention **(CMO D)**. • No Action Plan produced, however some wellbeing-related initiatives implemented during Covid-19 lockdown (around the midpoint survey) **(CMO E, F)**.
MHa4	44.6	41.6	41.2	• CEO (also the champion and only senior manager) interested in improving worker wellbeing, but lacking confidence and capacity **(CMO A)**. • Steering Group engaged but mostly passive **(CMO B)**. • Very low participation and limited communication with off-site workers (the majority of the workforce) **(CMO C, D)**. • Reluctance to take ownership at Action Planning stage, but an ambitious Action Plan of produced and many highly aligned to PSC **(CMO E)**. • Many initiatives not implemented by study completion (due to Covid-19) but intend to continue **(CMO F)**. • Limited communication of progress (online only) and low worker awareness of the intervention and Action Plan progress at the end of the intervention period **(CMO D)**.

Control organisations				
Code	**PSC Score**			**Process evaluation findings**
	Base	Mid	End	
ECo1	48.0	53.8	52.6	• Motivated owner who genuinely prioritised wellbeing from the outset. • Stable and cohesive team culture throughout, highly supportive of one another. • Strong trusting relationships means issues are raised early and dealt with quickly. • Support for wellbeing further improved during Covid-19 with owner taking actions to support needs of workers.
ECo4	38.1	32.2	26.3	• Contact (Centre Manager) interested in wellbeing. Owner approved involvement but not otherwise involved. • Contact resigned during the intervention period, and two successive replacement managers/contacts were less familiar with, and less committed to, the study. • High staff turnover during Covid-19 related events. • Organisation became difficult to contact following changes in the contact person. Limited process evaluation data gathered in second half of intervention.
FGo1	37.1	46.4	44.6	• Part time HR person (also the contact) at the outset, and contracted H&S person. • Prior to midpoint survey the organisation hired a fulltime health safety and wellbeing person. • Extra wellbeing support provided to workers who were struggling with Covid-19. Very high staff turnover. • A new fulltime HR person halfway through the intervention period also saw more initiatives implemented, many aimed at staff retention but also likely to have positively impacted wellbeing. • At endpoint, workers reported feeling like more of a community and working together. More points of contact (fulltime HR and HSW roles) meant that issues are dealt with when raised and communication has improved.
FGo2	44.0	41.4	45.7	• A proactive and engaged contact who was very interested in improving worker wellbeing. • Substantial efforts made to engage with workers during Covid-19 and sustain wellbeing, mostly secondary level. • Initiatives implemented during the intervention period to improve communication between workers and management, which were received positively and benefitted wellbeing. • Strong culture, comparatively high staff retention under the circumstances.
FGo3	42.7	45.4	45.1	• A small family-owned business with a supportive CEO (main contact) and an HR manager (also a contact). • Had begun 'resetting' their culture around health and wellbeing prior to the intervention, which continued throughout. • A range of initiatives implemented including increased opportunities for feedback from workers and improved communication channels from management to workers. A range of other wellbeing-focused initiatives (mostly secondary level) also implemented. • Staff survey run annually, and suggestions from workers implemented during the intervention period. A consultative approach to implementing initiatives generally.
FGo4	45.7	47.6	46.6	• HR person (and contact) was hesitantly supportive of the study, but throughout the intervention period became very positive and active around wellbeing.

				• CEO was very present and available to workers during Covid-19 and implemented a range of secondary level initiatives aimed at preventing social isolation during periods of physical isolation. Some of these initiatives continued following lockdowns. • Senior managers made more effort to communicate about wellbeing and enable workers to have their say during the intervention period.
MHo1	44.7	52.3	50.6	• CEO (also the contact) wanting to be involved to improve worker wellbeing. CEO had recently been appointed and inherited a small, committed team but which lacked unity. • CEO had already made substantial efforts to improve wellbeing prior to the intervention. • Many changes to organisational structure over the intervention period were likely to have contributed to poor worker wellbeing. Workers feeling fatigued at endpoint. • Several key worker stressors addressed during the intervention period. • Improved relationships, communication and trust at endpoint, and workers feel as though they have a voice.
MHo2	50.8	52.3	50.6	• Contact person is the manager of a small and cohesive work team. • Strong culture of high trust (with worker autonomy and responsibility) and good management support. • Covid-19 prompted changes to improve wellbeing, mostly secondary/tertiary. • Strong communication and empathy for each other is a strength, and issues raised by workers are addressed. • They and the office manager see themselves as holders of the culture – upholding the org values.
MHo3	49.2	51.8	54.1	• CEO (also the contact) was motivated to be involved; worker wellbeing was prioritised before the study. • Worker wellbeing affected over time as a result of Covid-19 related events. • Initiatives implemented during Covid-19 to maintain team connections and support, including surveys and addressing worker concerns. • Adjusted on-line collaborating and participation to ensure that everyone could contribute equally. • Cost of living increases were a stressor for their workers and the organisation.
MHo4	51.4	53.7	50.3	• CEO motivated to be involved, worker wellbeing was prioritised before the study. • Contact has OHS role, knowledgeable and passionate about mental health. • Regular anonymous staff surveys conducted throughout the intervention period (wellbeing included). • Proactive in maintaining staff mental health through supportive management and organisational values and acting on issues raised by staff. • Wellbeing training provided by the organisation. • Mental fatigue increased over the course of the study, attributed to Covid-19 restrictions.

4.0 Discussion

4.1 Introduction

4.2 Assessment of the PSC Intervention

4.3 Summary and Reflection on the Survey Results

4.4 Summary and Reflection on the Process Evaluation Results

4.5 SME Characteristics Influencing the PSC Intervention

4.6 Policy and National Approaches to Psychosocial Risk

4.7 Limitations

4.8 Further research

4.0 Discussion

4.1 Introduction

This was the first study of scale to attempt to systematically implement and evaluate a psychosocial risk intervention within SMEs in New Zealand, and the first globally, to the best of our knowledge, to implement PSC as an intervention within the SME setting. **The study demonstrated that small businesses are able to engage with PSC as an approach to prioritising worker wellbeing and mentally healthy work, and were able to develop and implement PSC promoting initiatives.**

The survey results show an increase in PSC scores at the midpoint of the study, but no significant differences in PSC scores over the full evaluation period. This is perhaps not surprising as many evaluation studies find inconsistent or insignificant results to support their hypotheses due to the dynamic environments of organisations and multiple external variables influencing results (Biggs & Brough, 2015; Karanika-Murray & Biron, 2015; Cedstrand et al., 2021). Indeed, Covid19 was one such variable significantly impacting this study, resulting in considerable constraints in the ability of case organisations to operationalise PSC. It is for these reasons that the process evaluation results become particularly insightful. Our process evaluation results, including the PSC mapping (Section 3.5) and Steering Group reports of the preliminary benefits of the intervention (Section 3.4.1,) indicate that the PSC intervention is likely to be effective in organisations where key mechanisms and supporting contextual factors (see Section 3.4.2 on CMOs) are present.

The following section is structured according to the study aims. First, we discuss the contextualisation and implementation of the PSC intervention (Aims 1 and 2; Section 4.2). We then summarise and reflect on the quantitative evaluation of the study (Aim 3; Section 4.3) and the qualitative process evaluation (Aim 4; Section 4.4). Section 4.5 discusses the application of our findings to other settings, with specific focus on organisation size (Aim 5), and Section 4.6 discusses the applicability of our findings to policy and national approaches to psychosocial risk (Aim 6). We conclude the section with the limitations of the study (4.7), and further research recommendations (4.8).

4.2 Assessment of the PSC Intervention

Aims 1 and 2 in this study involved contextualising and implementing a multi-level PSC Intervention in New Zealand SMEs. Twelve case organisations participated in the intervention, with two withdrawing before completion (one following the workshops and the other following the midpoint survey). This was within anticipated levels of withdrawal and accounted for in the original study design. Contextualisation of the intervention happened at the organisation level whereby the participatory approach allowed case organisations to implement the intervention stages in a way that best suited their respective organisations. The participatory approach of the intervention was considered particularly important to engage all staff in the intervention, to ensure that initiatives were tailored to PSC concerns in the organisation, and to ensure the intervention fitted around organisational operations and aligned appropriately with their existing processes. However, to provide guidance to organisations and a level of consistency for evaluation purposes, the intervention followed a series of common stages.

In this section, we reflect on the following PSC intervention stages, including suggestions for future use of the intervention:

- The process used for the recruitment of organisations and implications (4.2.1)
- The steps involved with engaging organisations with PSC (4.2.2)
- How we went about activating PSC in the participating organisations (4.2.3)
- Some general reflections of the intervention (4.2.4)
- An assessment of the PSC Intervention Model (4.2.5)

4.2.1 Recruiting Organisations

Recruitment of the case and control organisations involved general invitations through sector stakeholder channels as well as direct recruitment of specific organisations by the research team. Interested organisations were provided with a brief information sheet and a project timeline (Appendix 12a and 12b) outlining the stages of the intervention, and a phone conversation with a research team member provided an opportunity to address questions. Several organisations chose to communicate with workers to gauge their interest prior to committing to the study. Organisations that responded to an invitation to participate in the study were generally more prepared for change than those who were approached directly about participating. Two organisations provided feedback that they had hoped for a more directed approach to the study, with solutions provided and implemented by the research team. *More detailed discussions about the intervention focus, and the level of commitment required from the organisation during recruitment may have helped to better prepare organisations for the intervention.*

There were difficulties in recruiting the required number of organisations, which may be due to the uncertainties around Covid-19 at the time but could also have been due to a lack of awareness and interest in wellbeing or a lack of capacity to participate in an intervention. The timing of the intervention was restricted largely to the study timeline and may not have been best aligned with capacity and readiness for the intervention. *Offering alternative times for the intervention in future may result in more interest. However, it is also likely that national efforts currently to foster awareness of wellbeing and its impacts on business will have a positive impact on SME interest in the intervention*.

4.2.2 Engaging with PSC

Once organisations were recruited and assigned as case or control organisations, the case organisations were onboarded and trained, and an initial needs assessment (through the baseline survey, workshops and interviews) was conducted.

1) **Communicating the intervention:** Senior management were encouraged to communicate with all workers about the intervention, and were provided with a project poster to display should they wish. Communication methods varied, with some organisations displaying the posters in shared worker spaces, and others communicating primarily via email. Communication via email/intranet was generally the least effective form of communication, with *frequent verbal and visual forms of communication being more effective.*

2) **Forming the Steering Group:** Case organisations were provided with guidelines for establishing effective intervention Steering Groups. The Steering Groups were either already established wellbeing or H&S committees or they were formed specifically for this study with some being selected by a senior manager or champion and others being volunteers. Steering Groups consisting of volunteers were generally more engaged than those selected into the role. In most cases (n=11), the champion was a senior manager or in an HR/H&S role. Generally, Steering Group members were not particularly engaged with the intervention and did not take ownership of initiative development or implementation which was instead left largely to the champion. Our process evaluation findings suggest that SME managers appear to have greater proximity to all staff and a better understanding of wellbeing concerns and appropriateness of potential solutions, so lack of Steering Group engagement may have had a lesser impact than had our study been conducted in large organisations. Our findings also indicated that *senior management representation in the Steering Group was necessary for designing and implementing initiatives to address deep-seated and complex wellbeing concerns.*

3) **Steering Group training:** Training was conducted on site during the first visit to case organisations. Many Steering Group members were hearing about details of the intervention for the first time at this meeting. Most Steering Group members were engaged but passive. Steering Group members appeared to understand the concepts discussed and agreed that there was value in the focus on improving the work environment through a PSC approach. At later stages of the intervention, it became apparent that many champions and Steering Group members had forgotten central elements of the training. These findings indicate that *subsequent training and guidance for Steering Group members is needed throughout the intervention to reaffirm Steering Group knowledge and focus on PSC, particularly prior to Action Planning.*

4) **Surveys (baseline, midpoint, endpoint):** The surveys were conducted online, and were open for between two and four weeks, depending on the organisation's preference and the response rate. *Anonymity was a feature noted as particularly important*, and care was taken to report results back to the Steering Groups in a way that individual responses could not be identified. *The avenues for people to complete the survey were also an important consideration*. In the FMCG sector in particular, production floor staff had limited access to computers to complete the survey online. In the ECE sector, many teachers did not have an organisation email address, and had only limited time off the floor to complete the survey. Shared tablets and/or paper copies of the survey were provided to organisations to improve accessibility and participation rates. During the baseline survey, it was found that linguistic diversity and low literacy created difficulties for some staff in understanding the purpose of the survey and in completing it. While survey scales/items could not be altered, explanations were provided for some terms and the information sheet was made available in four languages for all participants for the midpoint and endpoint surveys. *Designing survey questions to accommodate literacy levels is likely to be beneficial for future use of the intervention.*

5) **Workshops and 1:1 interviews:** Between one and five workshops were conducted at each case organisation. Champions generally organised the workshops and it was recommended that managers did not attend, in order to encourage staff to openly share concerns and solutions. In workshops where managers chose to attend, staff were more reserved and reluctant to share their thoughts openly. In some organisations, awareness of the content and purpose of the workshops prior to attending was low, indicating insufficient communication about what was involved. *Encouraging organisations to clearly communicate the purpose and content in advance of the workshop, and ensuring attendance is voluntary, is likely to assist with worker comfort and preparedness for the workshops.* In organisations where wellbeing levels were particularly low, sensitive wellbeing issues were often raised and, in some cases, workers became emotional when raising concerns. *Having an experienced facilitator was important to build trust and guide sensitive discussions.* In several groups, workers wanted to ensure anonymity in how their feedback was reported back to management. One-on-one interviews were offered by phone/Zoom or in person to those who could not attend or wanted to share information outside of the workshops. Care was taken in reporting the findings back to management to ensure no identifiable information was included, but that workers' concerns were still adequately reflected in such a way that they could be addressed through action planning. *In organisations with particularly low wellbeing, alternatives for gathering information about wellbeing concerns and encouraging worker input into the intervention (e.g. 1:1 interviews only) may be more appropriate.*

4.2.3 Activating PSC

Following the 'engaging' component of the intervention, the 'activating' phase involved designing and implementing PSC Action Plans. In this phase, researchers moved from an expert role into that of facilitators, stepping back following the action planning session and encouraging the Steering Groups to finalise and implement their Action Plans. Planned Steering Group meetings encouraged regular contact and check-ins with the research team, and many of the organisations engaged in further ad hoc discussions with the research team for support as required:

1) **Action Planning:** One action planning session (approx. 2 hours) was held with Steering Groups on site at each of the case organisations, or on Zoom in three cases due to Covid-19 lockdown. Facilitators guided the sessions, following a three step Action Plan Guide (see Appendix 5). In most cases, the case organisation Steering Groups reflected closely on the baseline survey and workshop findings which ensured that the discussion and resulting Action Plan suggestions were based around the concerns raised by workers. Steering Groups finalised their Action Plans independently in the weeks following the session and provided a copy to the research team. The finalised Action Plans were predominantly focused on addressing staff concerns about psychosocial hazards and risks and, although process evaluation data indicates that Steering Groups found the PSC domains an initially helpful structure to guide their thinking, many had forgotten the four domains of PSC by the end of the intervention. *Addressing worker concerns was fundamental to the PSC intervention as it reflects the PSC domain of management*

commitment. The participatory approach, which saw less input from the research team during the 'Activating' phase, as researchers moved from an 'expert' to a 'facilitator' role, was also important because it allowed case organisations to take responsibility for the Action Plan and implement initiatives that they felt best suited their organisation. That said, some of the benefits of a PSC approach (such as implementing structures to enable future communication of and participation in wellbeing issues) were potentially overlooked, and *there may be value in providing more opportunities for training during the action planning stage to foster Steering Group confidence in building PSC into their Action Plans.*

2) **Steering Group meetings:** Meetings were held approximately every three months during the intervention period with the primary aim of capturing process evaluation data. However, these meetings were also an opportunity for the Steering Groups to seek guidance from the research team, and to reflect on their progress and on the feedback received through subsequent surveys and interviews. Regular check-ins also encouraged Steering Groups to remain focused and to progress the intervention. In particular, the midpoint survey contained a series of questions designed to gain input from workers about their experience of the Action Plan, and several organisations revised their Action Plans based on this feedback. The champions were present at these meetings, but in most cases not all Steering Group members were able to attend. This may have been due to other organisational matters taking precedence but could also reflect a lack of engagement of many Steering Group members, or both. As a result, the champion predominantly drove the intervention process in most cases. While this was likely to have had an impact on the effectiveness of the intervention, limited capacity and greater proximity of workers in many SMEs may mean that frequent meetings with all Steering Group members is not essential.

3) **Ad hoc discussions:** Phone discussions happened frequently with many of the case organisations throughout the intervention period, either with the researchers checking in on progress, or with the champions requesting further guidance (e.g. feedback on Action Plans). *These discussions were an important component of the intervention* as they helped to maintain the case organisation's focus on the intervention and fostered confidence in champions to progress Action Plans and their implementation.

4.2.4 General Reflection

Throughout the intervention period, the case organisations demonstrated PSC, including their level of genuine prioritisation and commitment to wellbeing, through the extent to which they engaged with the intervention process, and through the content and implementation of their Action Plans. Overall, the intervention stages were implemented as planned (although with moderated expectations to account for the Covid-19 context), with minor revisions recommended for future use. Key details of the specific intervention stages and suggested improvements are outlined above; however, there were three related or further areas that are worthy of note for future use of the intervention:

- **Communication and intervention awareness:** Communication was a key intervention mechanism (see CMO D). It is not only important at the outset in preparing staff for the intervention, but also in communicating opportunities for worker participation in the

intervention, and to progress initiative implementation. However, our observations indicated that communication throughout the intervention was often inefficient or lacking. In some cases, there was low participation and workers who did attend had little knowledge of what they were being asked to participate in. Endpoint survey responses from most case organisations indicated only limited awareness of many of the initiatives implemented by the organisations, and in some cases, staff were not aware of any progress (although high staff turnover may be another reason for this). Communication via online methods was often overlooked by workers, while *organisations that communicated intervention progress verbally had greater awareness of the intervention*. Frequent communication was particularly important for organisations with high staff turnover, which was the case for many of the participating case organisations due to Covid-19.

- **Maintaining momentum throughout the intervention:** Following the action planning sessions, we observed a drop in momentum for many of the case organisations in finalising and implementing their Action Plans. Much of this drop in momentum was because this stage coincided with a prolonged Covid-19 lockdown and associated public health initiatives concerning the vaccine. However, this is also when the research team stepped back to encourage organisations to take responsibility for the rest of the activation stage. Encouraging case organisations to drive the intervention at this point was important for fostering ownership and confidence, ensuring that initiatives were appropriately tailored to their needs, and increasing the likelihood of sustained Action Plan efforts beyond the study. Organisations with a proactive champion who had capacity in their role for intervention activities were able to maintain greater momentum in this stage. However, regular check-ins with intervention champions were required in organisations where capacity and ownership were lacking. *Encouraging organisations to make a timeline and plan for how they intend to make progress with finalising and implementing the Action Plan may be beneficial in supporting momentum through this stage.*
- **Building to high PSC alignment:** This pertains largely to Action Plan development. As shown in Table 8 (Section 3.2), relatively few initiatives were assessed as being highly aligned with PSC. Initiatives with 'low' PSC alignment have validity in PSC Action Plans as they are likely to be aligned with organisational readiness and maturity. Organisations that are early in their thinking and actions relating to psychosocial risks will implement initiatives that fit with existing processes and structures, that are likely to be accepted and received well by staff, that address pressing concerns, and are most likely to be perceived to improve their wellbeing. While such initiatives may initially be focused on coping and treatment rather than prevention of psychosocial risk, the intervention may encourage implementation of primary-level initiatives which address the causes of poor wellbeing in time, as staff and managers grow in their capability, confidence and readiness to implement PSC-related initiatives. Although the PSC intervention is designed to improve capability, confidence and readiness, and further steps to enhance organisational preparedness in the Engagement phase may help to facilitate this, *initiatives should reflect those that the organisation is comfortable with implementing.* This will increase the likelihood of organisational ownership and sustained engagement in wellbeing initiatives beyond the intervention.

4.2.5 Assessment of the PSC Intervention Model

Our study involved operationalising a PSC Intervention Model and, in doing so, aimed to improve PSC, reduce psychosocial risks, and improve wellbeing in the participating case organisations. The PSC Intervention Model adopted for this study is presented in Figure 15.

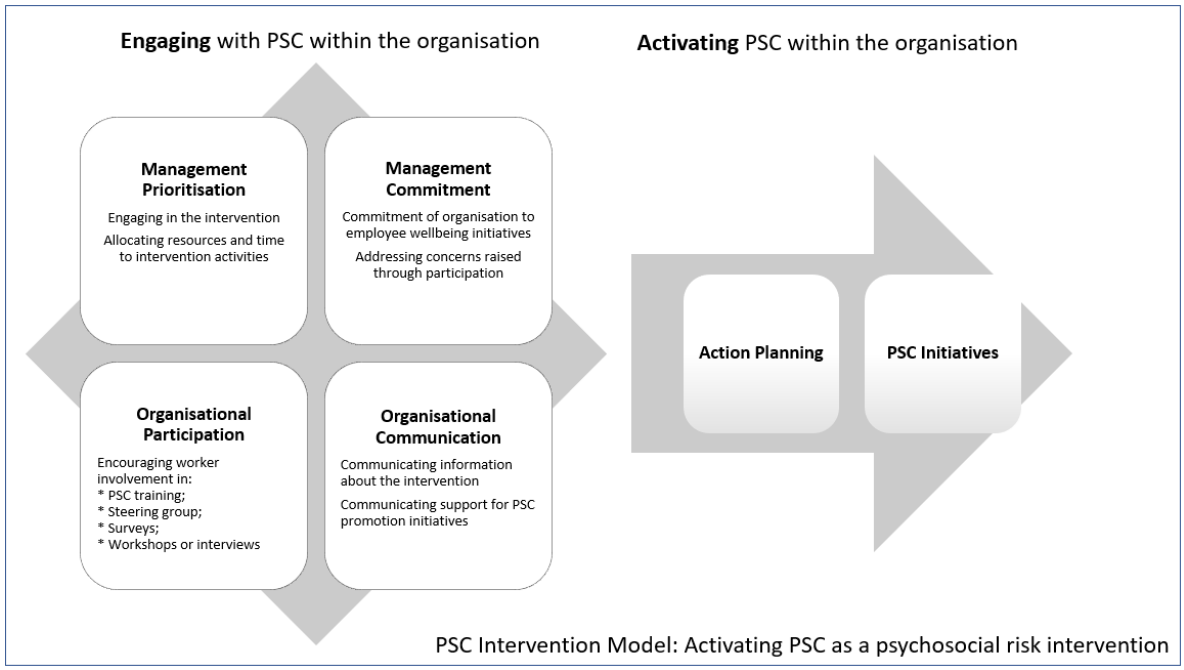


Figure 15: PSC Intervention Model

The PSC Intervention model was able to be operationalised as planned and is likely to be a useful tool to guide psychosocial risk interventions in a SME context. However, although the model distinguishes between Engaging and Activating, we observed that both processes are implicit throughout the entire intervention. PSC was activated during the Engaging phase through impromptu and informal initiatives and direct senior management actions, and organisations continued to engage with PSC throughout the Activating phase as staff and manager perceptions of PSC and wellbeing continued to be shaped through their engagement with the intervention process. This finding differs from the extant literature which differentiates between espoused and enacted PSC (Yulita et al., 2017), a difference that can likely to attributed to the SME context, in which:

- The proximity of workers to the intervention champion and others in the Steering Group provides the potential for workers to engage more easily, frequently, and informally with the intervention.
- The proximity of workers to senior management also means that perceptions of prioritisation and commitment are shaped by the visible actions of senior managers.
- Informal and simple organisational processes enable more impromptu initiatives to be developed and implemented.

- Initiatives are implemented more quickly due to this engagement and informality, but potential downsides could include limited participation and less well-designed initiatives.

4.3 Summary and Reflection on the Survey Results

Analysis of the survey data showed that PSC increased over time for both case and control organisations, meaning that while Hypothesis 1 was supported, Hypothesis 2 was not. PSC scores were slightly higher for control than for case organisations, although there was a greater increase over the intervention period for some case organisations. At an organisational level, PSC for most organisations increased between baseline and midpoint surveys but decreased for most between the midpoint and endpoint surveys (see Table 20).

It is important to consider the study from the perspective of the participating case and control organisations. For a management team to agree to take part in the study, and for participants to agree to complete the surveys, interest in improving staff wellbeing is already likely to be high. Organisations were matched to case and control conditions; case organisations then had a high level of involvement with the research team via regular communications, action planning, ongoing support and, of course, the data collection processes. Control organisations had only a minimal level of involvement with the research team but were aware that assistance with their wellbeing would be available to them after the intervention with case organisations was completed.

Based on the process evaluation data it is reasonable to assume that, to continue to take part in the study, the contact person in most control organisations was highly interested in wellbeing at work. These factors can account for the high scores on PSC at baseline: some control organisations were already focused on wellbeing and mentally healthy work. As the process evaluation data further show, both case and control organisations engaged in activities related to wellbeing throughout most of the intervention period, primarily in response to the events of Covid-19 and the heightened awareness of wellbeing this engendered in workplaces generally. Most of the initiatives were initiated as a means of providing support for staff in uncertain and stressful times.

Other potential reasons for the control organisations' high PSC levels are that information about the study provided as part of recruitment, and the opportunity to be part of the study, may have had a 'priming' effect on recognising the existence and importance of PSC. With management commitment to psychosocial health and safety already high in both case and control groups, we suggest that many control organisations were motivated to improve their workplace climates independently of the study. The feeling of being 'left out' can also provide an incentive; rather than being demoralised by allocation to the no-treatment control group, organisation contacts may well have been motivated to address this important issue themselves.

On the other hand, case organisations were severely delayed in the implementation of Action Plans due to Covid-19 and related restrictions on CEO and champion capacity. However, those case organisations which improved PSC scores over the intervention period were generally those that featured strong CMO mechanisms (see Section 3.5) which is a promising indication that the PSC Intervention is likely to be effective in improving PSC when the CMO mechanisms are present.

While the survey data did not find the expected effects for PSC and wellbeing, the qualitative process evaluation findings provided greater context to understand the role of PSC and the intervention.

4.4 Summary and Reflection on the Process Evaluation Results

Our study design included a comprehensive process evaluation which generated deep insights into the mechanisms of the intervention and the contextual conditions required to effectively conduct the intervention and achieve positive outcomes. These findings are presented in Section 3.4.2 as CMOs (Context-Mechanism-Outcome configurations). Figure 16 summarises the key CMO configuration findings. As shown in the Figure, six key mechanisms were fundamental to the interventions:

1) **Senior Management Engagement:** Genuine commitment to the intervention and to improving wellbeing generally fostered positive staff mental models (i.e. attitudes towards the intervention), encouraged greater staff participation and input, and supported the Steering Group to progress the intervention effectively. Senior management engagement was particularly important at the outset, in communicating the intervention and sending a message to workers that it is supported by senior management, and in the action planning phases, where their involvement is required to support and implement initiatives requiring their input and approval. In many small businesses, including five case organisations participating in our study, a senior manager may also have a significantly more prominent role as the intervention champion.
2) **Involvement of a Champion and Steering Group:** Having a passionate and proactive champion was imperative to success of the intervention. The champion was the primary contact of the research team and was ultimately responsible for coordinating and driving the intervention in their organisation. The Steering Group was less important for smaller organisations but, particularly for larger SMEs, was important as a voice for their respective teams throughout the intervention and particularly at the action planning stage.
3) **Staff Participation and Engagement**: Staff participation throughout the intervention was essential to effectively tailor the intervention to fit the organisation and address staff concerns. Additionally, it increased staff understanding of the intervention and awareness of the organisation's efforts regarding wellbeing, which in itself reflects building PSC.
4) **Communication**: Effective communication of the intervention at the outset was required to inform and engage staff with the intervention, and ongoing communication ensured that staff were aware of participation opportunities and intervention progress. Frequent communication through channels that reached all staff was necessary to ensure awareness, particularly where high staff turnover occurred.
5) **Action Plan Content**: The Action Plan was the first stage for the organisation commit to actions to improve wellbeing. Therefore, its content needed to address the concerns raised through staff input to be perceived positively (also reflecting the domain of 'management commitment').
6) **Action Plan Implementation**: Action Plan implementation signalled to staff the organisation's commitment to following through on the Action Plan. Senior management involvement at this stage was required to ensure that actions were not tokenistic and that deep-seated concerns were acknowledged and addressed. While the Action Plan and its implementation were fundamental to intervention success, senior management visibility in the SME context meant that their actions (outside of the Action Plan) also impacted perceptions of PSC.

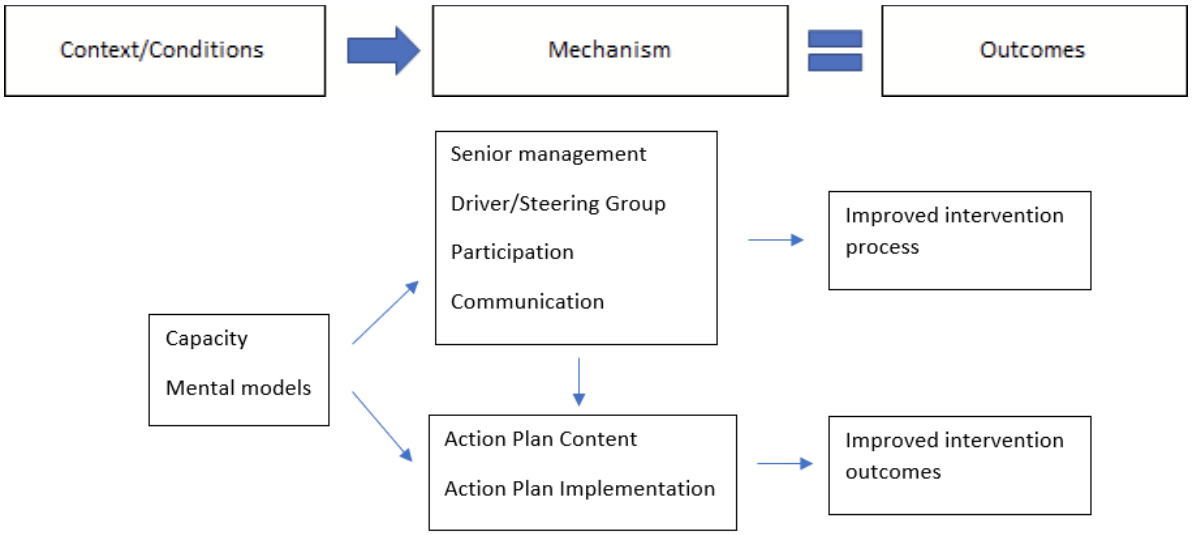


Figure 16: Summary of the CMO results

For the intervention to be most effective all six mechanisms needed to be present.

The first **four mechanisms - senior management engagement, champion/Steering Group presence, participation, and communication - were fundamental to progressing the intervention process effectively**; they created momentum and ensured that the process was thorough and meaningful to those affected by it. These mechanisms, in themselves, reflect the PSC domains of organisation priority and commitment to wellbeing, participation in, and communication of, wellbeing and therefore influenced PSC directly as well as the intervention process. These four mechanisms, if present, provided a solid and necessary foundation on which the organisation could develop and implement the PSC Action Plans.

The final two mechanisms, **Action Plan Content and Action Plan Implementation had a direct impact on the intervention outcomes**, influencing people's perceptions of PSC and creating a structure with which the organisation could then focus on wellbeing.

A range of contextual factors were found to impact the mechanisms and, in turn, the intervention process and outcomes. However, two key contextual factors shaped most of the mechanisms and had a predominant impact on the success of the intervention: 1) organisational capacity; and 2) the mental models held by those in the organisation:

1. ***Capacity*** is likely to have had a particularly significant impact on our study as it was conducted during Covid-19 when many of the organisations were juggling staffing issues and related operational issues. However, as with any organisational intervention conducted in accordance with good practice, the intervention followed a comprehensive process requiring considerable effort from key organisational stakeholders, particularly the champion, Steering Group, and senior management, along with multiple points of input and engagement from staff. In the intervention design phase of our study, steps were taken to minimise demands on the organisation's time and

decrease the likelihood of intervention/research fatigue, while also balancing what is required for a thorough intervention process. However, despite these measures, lack of capacity had extensive impacts on levels of engagement that occurred with the intervention. This affected the process in a number of ways, particularly the progress made on Action Plan development and implementation when progressing the intervention became the responsibility of the organisations, and the research team stepped back into a supportive role. The timing of these few months of development and implementation in mid-late 2021 also coincided with a further Covid-19 lockdown, vaccine mandates and related events. However, Covid-19 impacts aside, capacity is likely to be a greater challenge for SMEs who are operating within tight resource and budget constraints, and who often do not have staff (such as those in an HR/OHS position) who are more likely to prioritise the intervention as a component of their work role.

2. ***Mental models*** were also a major theme which impacted on all stages of the intervention process, and all key stakeholders involved in the intervention itself. The mental models of senior management were reflected in their readiness for change. Those who had genuine motivations and a real willingness to invest in the intervention were more likely to support the process in such a way that led to positive outcomes. Mental models within the wider organisation were in turn shaped by perceptions of senior management's genuine support for the intervention. Staff mental models determined their willingness to engage with the intervention through their participation in the surveys and workshops, or through taking part in the Steering Group. Mental models of staff, and staff attitudes, were also shaped throughout the intervention process. Staff attitudes could change as staff became more aware of wellbeing, reflected on the organisation's wellbeing efforts through the training and ongoing communication, and as they experienced the value of the intervention outcomes. Mental models were negatively impacted when organisations failed to address concerns raised through staff input, or if Action Plan initiatives appeared to be tokenistic or inauthentic, reflecting a perceived unwillingness by the organisation to genuinely invest in wellbeing. Therefore, staff mental models also directly contributed to PSC in that they reflected perceptions of the organisation's prioritisation of, and commitment to, wellbeing.

4.5 SME Characteristics Influencing the PSC Intervention

This study sought to implement and evaluate a PSC Intervention specifically in the context of Small and Medium Enterprises (SMEs). The participating SMEs employed between 6-99 workers, and within this sample we observed a range of characteristics relating to organisation size that influenced the intervention and its outcomes. The characteristics are embedded within the CMO findings above and have been extracted and summarised in Figure 17 and the accompanying text below. These observations highlight the unique implications for conducting the PSC Intervention in a SME context, as well as the diversity of size-relevant characteristics within the SME category.

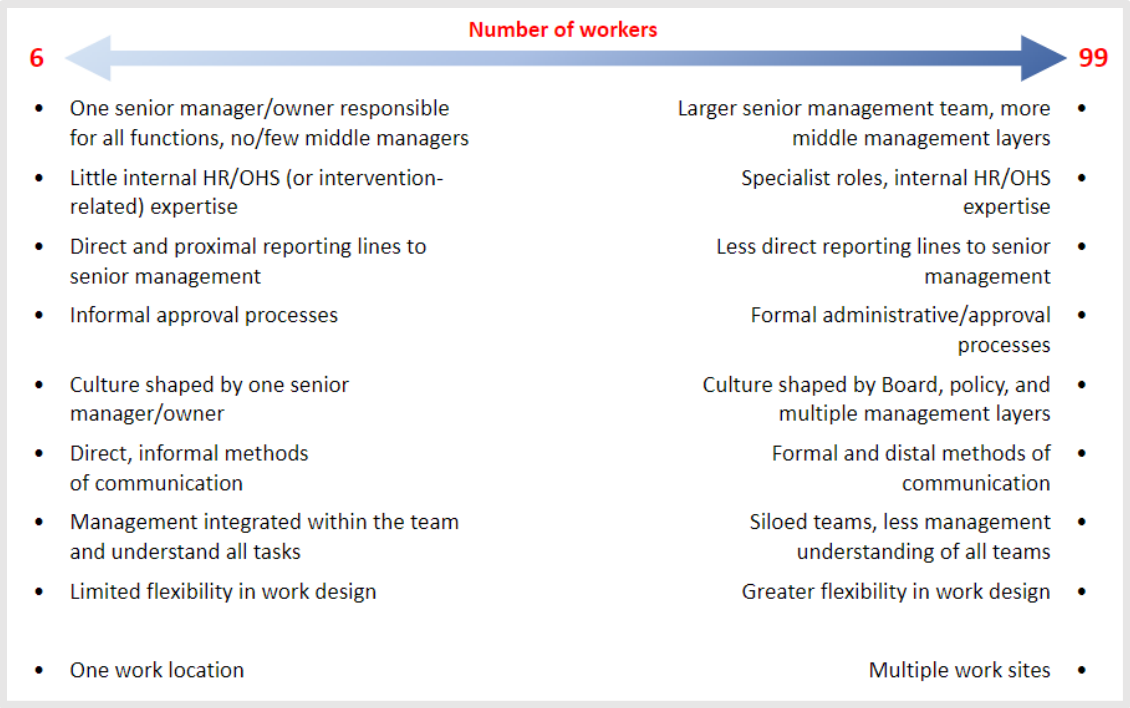


Figure 17: Characteristics of SMEs that shaped the intervention

- Smaller SMEs generally had just one senior manager/owner responsible for all functions and few, if any, middle management or supervision positions. This meant that the senior manager was often also the intervention champion and therefore the responsibility for coordinating the intervention and implementing initiatives from the Action Plan fell largely to them. In larger SMEs, middle managers had greater responsibility for implementing initiatives within their respective teams. While smaller SMEs do not face the challenges of larger organisations in coordinating initiative implementation (and aligning middle manager mental models), intervention success is more reliant on the capacity, capability, and willingness of the senior manager.
- Most of the small organisations in our study (both cases and controls) did not have HR or OHS capacity within their staff and therefore lacked the internal expertise and specific HR skills that often exists in larger organisations. Although internal expertise was not essential to intervention success, a basic level of understanding of work-related wellbeing provided support to both senior management and champions' mental models and led to better intervention outcomes. In cases where wellbeing was already part of the champion's role, the intervention was given more priority.
- Greater visibility and proximity of senior management in smaller organisations meant that their interactions with staff had a direct influence on PSC, with the nature of their relationship with staff and their engagement with the intervention having a bearing on this. Visibility and proximity of senior management was a feature of all organisations in our sample regardless of size. This observation is unique to SMEs as in large organisations organisational prioritisation of wellbeing is predominantly communicated through policy, and commitment is shown through

policy implementation at middle management level. This also means that PSC is likely to be more volatile in smaller organisations, in that it is shaped more by individuals than by policy.

- Fewer levels of bureaucracy enabled small organisations to enact change quickly and informally and allowed for greater fluidity of the Action Plan with some organisations submitting several revisions. This generated more impromptu initiatives beyond those included in the Action Plan.
- Organisational culture had a greater influence in larger SMEs, where the culture was determined by a larger management team and the Board, and less by the individual personality and actions of the senior manager. Where a strong culture of productivity was expected by the Board, included in KPIs, and ingrained in mental models and existing processes, PSC initiatives were more likely to be restricted than in smaller organisations where one senior manager or owner could authorise and drive change very quickly.
- Smaller organisations were able to communicate more frequently and informally with the whole organisation. Champions had more frequent contact with all staff, and more opportunities for ad hoc input into the Action Plan which facilitated more frequent informal engagement with the intervention. Verbal communication of intervention progress was most effective in reaching staff and fostering awareness. With larger organisations the communication structure became more formal and distal by necessity. The effectiveness of verbal communication decreased with the increase in staff and work locations.
- Senior management and champions in smaller organisations had greater proximity to all staff, and thus a better understanding of wellbeing concerns. For this reason, involvement of the Steering Group was perceived to be less important in smaller organisations than in larger SMEs where the Steering Group was considered by staff to best represent the concerns of their respective teams.
- Limited capacity to make fundamental changes (e.g. to work schedules and workloads) was one factor in some small organisations resorting to more individual-level initiatives. Capacity to implement work systems-level changes may be more readily available to larger organisations.
- Generally, workers in smaller organisations in the three sectors involved in this study, were based at one work location, with this proximity making communication and participation much easier to undertake when compared to some larger case organisations with multiple work sites and work teams.

4.6 Policy and National Approaches to Psychosocial Risk

A common feature of SMEs, particularly for smaller organisations, is the limited level of HR and/or H&S knowledge within the organisation. However, there is the potential for national policy that better equips workers – including those in SMEs – with a better understanding of psychosocial risk and its management. One way this could be facilitated is through the inclusion of psychosocial risk management in legislated Health and Safety Representative training. Our findings give weight to the importance of worker involvement in psychosocial risk management – in that PCBUs with individuals who were able to act as champions tended to experience greater success with their participation. Providing training that enables Health and Safety Representatives to become champions in their own organisations may provide value in this regard.

At a national level, there may be benefit in providing prescriptive guidance to PCBUs on the management of psychosocial risk and creation of mentally healthy work. This could be of use to PCBUs of all sizes, but particularly SMEs as they are less likely to have Health and Safety Representatives. Any such Code should be developed with specific consideration of the challenges faced by SMEs in psychosocial risk management, and the limited resources that they tend to have for managing such a process.

4.7 Limitations

There are some limitations to consider with respect to the findings and recommendations resulting from this study. These are discussed in order of their likely ramifications on the study. Events related to the Covid-19 pandemic had the most significant impact on the study through their immediate and cumulative effects on participants, the organisations involved, their sectors, and the wider society - including the research team. The actions that were implemented at a national level to curb Covid-19 all occurred during the study. These contextual factors posed difficulties for recruitment, created delays to meetings, workshops, and survey dissemination, and prompted a move to online meetings from face to face. Participating organisations faced increased workloads and reduced staffing resulting from isolation requirements as well as vaccine mandates and working from home and then returning to work presented additional challenges for many. The specific sectors involved were designated essential workers (or provided childcare services for essential workers) and therefore had additional complications such as looking after children and family members while also working, covering for staff who were absent with Covid-19 or as close contacts. There were additional complications within each of the sectors, such as supply chain pressures and labour shortages in FMCG, and high illness rates among ECE and MHA through close contact with unvaccinated children and diverse community-based populations. The pandemic led to some increased awareness of health and wellbeing issues in organisations but also an increased focus on sustaining business operations within these dramatically altered conditions. Two organisations dropped out of the study for these reasons.

Not all organisations provided a written Action Plan; and whilst some verbally or via email explained initiatives that they were implementing, the extent to which these were communicated to staff or acted on is unclear. More input from the research team during the activating PSC stage, for example by helping direct them towards low scoring PSC domains, may have helped the organisations facilitate design initiatives in their Action Plan development.

The level of PSC and related training for Steering Groups and staff could have been increased in both duration and frequency as this would have helped build clearer understanding of the development and suitability of the initiatives in the Action Plan. Further tailoring of the training would have been beneficial to account for participants' existing knowledge, team dynamics, ease of communication, and how well the Steering Group members were connected with or represented the workforce. All these suggested additions are tempered by participant willingness and availability to commit to the extra time required, and their motivation to learn.

Surveys were disseminated both electronically and in hard copy; however the analysis of survey data will reflect only those respondents who had the time, ability, and inclination to respond. The low percentage of respondents in some organisations may mean that the results do not reflect the organisation more broadly.

Response rates may have been lower in the baseline survey owing to difficulties for people with English as a second or other language (ESOL) to engage with the survey. This was raised by two FMCG organisations after the survey was conducted. Information about the study was subsequently provided in four different languages in the midpoint and endpoint surveys but the survey itself was not translated.

Additionally, some of the language used in some of the scales was mentioned as being difficult for ESOL speakers to understand, resulting in the survey taking longer to complete or being abandoned. While the scales and wording remained the same for the midpoint and endpoint surveys, equivalent words in common usage were included in these surveys.

With respect to the research team, the Covid-19 pandemic had implications for researchers through fatigue and burnout as the study progressed. Researcher turnover may have affected the relationships with some case organisations. Potential impacts were mitigated, however, by having a long transition period to the new researcher (several weeks). Additionally, at the start of the study all organisations were informed and introduced to team members they may meet.

A potential limitation is the likely variation in commitment and interest of the participating organisations depending on the method of recruitment. Organisations were recruited either by responding to a call for interest or to 'cold-calling', and their subsequent participation in the study may have reflected their existing level of interest in addressing worker wellbeing and their readiness for making changes in their organisation. However, there was no noticeable difference in results between these two groups, so the extent of any limitation is likely to be minor.

There were also challenges relating to the different timeframes between organisations conducting each stage of the study. Factors that contributed to this were the organisations determining when best suited them to conduct study activities, and the impacts of Covid-19 related events on all three sectors, but ECE in particular. This resulted in a hiatus for ECE organisations so that they could recover sufficiently to continue with the study. No trends in the data could be identified, but there may be effects that were not measured.

Finally, the ability to apply the findings of the study to other organisations is unknown, primarily due to the importance of contextual factors to outcomes.

4.8 Further research

Although the survey findings showed no significant statistical differences in PSC scores over the full intervention period, when combined with process evaluation findings there are promising trends which indicate that the intervention may prove to be more useful than survey data alone would suggest. This combination of datasets is particularly useful for real-world programme evaluations (Roodbari et al.,

2022). The national measures in response to Covid-19 resulted in delays in the activation stage activities for all case organisations, and in the study becoming a much lower priority as organisations focused on core operational and contractual priorities. Therefore, implementing a PSC intervention in conditions less restrictive than those in 2021-22 would be insightful.

Furthermore, research evaluating similar interventions shows that their effectiveness is unlikely to be fully realised for 24 months following the baseline measure (Parkes & Sparkes, 1998). Further evaluation at this point would be necessary to evaluate the true effects of the PSC Intervention and may allow further insights into action planning and implementation when Covid-19 is less likely to have the same impact on results. Additional research could also focus on SMEs with consistently high or low PSC scores over time. We recommend further research to explore how PSC has been fostered or limited, and to gain further insights into initiatives for building and sustaining high PSC, as well as the mechanisms influencing this success.

5.0 Conclusions and Recommendations

5.1 Conclusions

5.2 Recommendations: Applying PSC Key Principles in SMEs

5.3 Applying PSC interventions in other workplace settings

5.4 National policy and approaches

5.0 Conclusions and Recommendations

5.1 Conclusions

The goal of the study was to implement and evaluate the effectiveness of a multi-level Psychosocial Safety Climate (PSC) intervention to reduce psychosocial risks and improve psychosocial health – and thereby health and wellbeing – in small and medium-sized enterprises.

- With respect to the study objectives, **the PSC Intervention was able to be used by SMEs in New Zealand's manufacturing, education, and health sectors with guidance from the research team. All case organisations engaged with the intervention, and most produced Action Plans consisting of primary and secondary PSC-centred initiatives to address wellbeing.**
- The survey findings showed an **increase in PSC levels between the baseline and midpoint surveys, but no significant change in PSC overall.** However, qualitative findings indicate **perceived improvements in awareness of wellbeing and better processes for managing wellbeing**. CMO mapping indicated positive PSC outcomes are likely when all six CMO mechanisms are present. Positive intervention outcomes may be reflected in survey results over a longer period.
- Process evaluation findings identified **four mechanisms fundamental to an effective intervention process**:

  a) senior management engagement in the intervention;
  b) having a proactive, knowledgeable champion and Steering Group to coordinate intervention activities;
  c) meaningful staff participation and engagement in the intervention process; and
  d) effective communication of intervention activities and progress.

  A further **two key mechanisms were fundamental to overall effective intervention outcomes**:

  e) the content of the Action Plan; and
  f) the implementation of Action Plan initiatives.

  A range of contextual factors were also identified as enabling the mechanisms, two of which were relevant to most mechanisms:

  1) organisation and staff capacity for the intervention; and
  2) mental models of staff and managers towards the intervention.

The following content outlines recommendations grouped according to how PSC principles might be applied in practice, applying PSC interventions in other organisations, and national policies and approaches.

5.2 Recommendations: Applying PSC Key Principles in SMEs

These recommendations are intended to be of use to those who are committed to developing and sustaining mentally healthy work. This includes all workers, but particularly directors, managers, supervisors, team leaders, champions, and those with HR or OHS responsibilities. Others for whom the recommendations may be relevant include external HR and OHS professionals, sector-level advisors, government agencies, and researchers. The recommendations are predominantly based on the analysis of data collected, but also draw on knowledge gained through the study, participant queries and reactions, and from researchers' general observations.

5.2.1 Senior Management Engagement

Senior management engagement is a fundamental precursor to intervention success. It is required from the outset of the intervention and throughout the process itself. Recommendations related to senior management engagement include:

- Senior management must be genuine about wanting to improve staff wellbeing, and demonstrate this through their daily interactions with staff.
- They should be open to developing an understanding of what constitutes mentally healthy work in the context of their organisation and sector.
- It is important to foster senior management and organisational readiness for the change at the outset through discussing in detail the intervention process and the level of commitment required from the organisation.
- Where possible, intervention timing should suit senior management readiness for change, as well as organisational capacity.

5.2.2 Organisational Preparedness

The level of preparedness for change, and the existing interest and activity concerning wellbeing within organisations will affect implementation effort, particularly if senior management are engaged in the intervention from the outset and are fostering positive staff mental models. Recommendations relating to organisational preparedness include:

- Communicate clearly with all staff about the intervention. If there is likely to be resistance, communicate strongly the need for the intervention and how it will benefit staff.
- Discuss barriers to effective participation in the intervention, including an assessment of the four process-related mechanisms (levels of senior management engagement, the availability of a champion and Steering Group, and existing processes for communication and staff participation). Steps to establish positive mechanisms should be taken at the outset, prior to Action Planning.
- Determine the readiness of other stakeholders (e.g. Board of Directors/Trustees) and extend communication to these parties on the basis that PSC interventions come under the remit of Directors' duties.

5.2.3 Identification of a Champion

Identifying an individual who coordinates intervention activities and progresses the intervention is paramount. Recommendations regarding the champion include:

- Ensure that they have capacity in their role for intervention activities and also have senior management support.
- Ensure that they have a passion for improving wellbeing, and have existing knowledge of psychosocial risks and wellbeing, as this is important if they are to be effective champions.

5.2.4 Steering Group Composition and Engagement

An effective Steering Group is a voice for people across the organisation and supports engagement and ownership of initiative development and implementation. Recommendations relating to the Steering Group include:

- Seek passionate and motivated representatives from each area of the organisation as the Steering Group for the intervention if an appropriate group does not already exist. Create capacity in their work role to include intervention-related activities.
- Ensure there is representation on the Steering Group from senior management with authority to approve and initiate fundamental changes.
- Consider whether a Steering Group is necessary in smaller organisations. This may be influenced by the proximity of the intervention champion and/or senior manager to all staff, the extent to which they understand wellbeing concerns across the organisation, and the extent to which staff can remain engaged in the intervention in other ways.

5.2.5 Staff Participation

Meaningful participation of staff throughout the intervention ensures that the Action Plan is appropriately tailored, and that staff are engaged and see value in the intervention. Recommendations relating to staff participation include:

- Offer opportunities for participation throughout the intervention, including in the initial needs assessment, during Action Plan development and implementation, and in evaluating the implemented initiatives.
- Create capacity for staff participation by ensuring that methods of participation are appropriate for all staff, for example whether online participation is available to all, and that staff are given sufficient time at work to participate.
- Encourage staff participation but allow autonomy for people to decide whether to do so.
- Although meaningful participation is required throughout the intervention, an integral component of worker participation is conducting the baseline needs assessment upon which to develop the PSC Action Plan. In this study, the main components of the baseline needs assessment were the baseline survey and staff workshops.

Recommendations for conducting the survey are:

- Tailor questions to reflect the literacy levels of staff, especially for organisations designing their own survey to inform their intervention efforts. Translations of the survey, and information about the survey, may be helpful in organisations with people for whom English is a second or other language. Levels of literacy should also be considered.
- Clearly communicate the content and purpose of the survey in advance of its release. Consider accessibility of the survey to staff, and provide options such as paper versions, shared devices, assistance or interpreters if required.
- Ensure that staff responses are anonymous and are reported back to the organisation in such a way that individual responses cannot be identified.

Recommendations for conducting the workshops are:

- Clearly communicate the content and purpose of the workshop in advance of the session to ensure staff are comfortable and prepared for the session.
- Ensure workshop attendees feel comfortable sharing wellbeing concerns with each other. Staff may be more comfortable if managers are not present.
- Allow workshop attendance to be voluntary and offer staff the opportunity to participate in a one-on-one confidential interview instead of attending the workshop.
- Have an experienced facilitator who is competent in conducting sensitive discussions lead the session.
- Build trust at the outset of the session by setting ground rules for the discussion, and reiterating how the input is to be collated and reported back.
- Report findings back to management and staff, ensuring no identifiable information is included, but that workers' concerns are adequately reflected in such a way that they can be addressed through action planning.

5.2.6 Communication

Effective communication is an important mechanism to foster awareness and encourage participation. Recommendations to develop effective communication include:

- Communicate with staff frequently, to remind them about psychosocial risks to wellbeing and PSC, to increase awareness of wellbeing efforts, and to inform staff of opportunities to participate in voicing wellbeing concerns and potential Action Plan solutions.
- Use communication channels that staff are most likely to encounter and engage with (including shift workers and casual/part-time staff). Verbal communication may be more effective than email or intranet communication.
- Ensure that there is regular communication from and with senior management as this is likely to improve staff perceptions of senior management's engagement with the intervention and their prioritisation of wellbeing, in turn improving perceptions of PSC.

5.2.7 Action Plan Content

A number of aspects relating to the content of the Action Plans are essential to achieving positive intervention outcomes. Recommendations relating to Action Plan content are:

- Action Plan content should address the fundamental concerns of staff in a way that they believe will improve their wellbeing.
- Action Plans should be tailored to align with organisational maturity with respect to wellbeing, and the confidence and resources to implement initiatives.
- Where appropriate, initiatives should be focused on the four domains of PSC.

5.2.8 Action Plan Implementation

Implementation of the Action Plan initiatives is essential in signalling to staff the organisation's genuine commitment to wellbeing and PSC. Recommendations relating to Action Plan implementation include:

- Ensure the timing for the intervention allows for staff capacity for implementing initiatives.
- Communicate with staff regularly about implementation progress. Enable them to be involved in the implementation and to provide feedback on their experience of the initiatives.
- Link PSC initiatives to other organisational processes and activities so that momentum is easier to create and maintain. Communicate that these are wellbeing initiatives to foster awareness of the organisation's wellbeing efforts.
- Hold the people responsible for implementing the initiatives to a strict timeframe for implementation in the Action Plan.
- Help create momentum by scheduling regular meetings with the Steering Group or individuals responsible for implementation.
- Include measures for evaluating and updating the Action Plan.

5.2.9 Facilitator Support

Facilitator support is likely to be required, particularly in smaller organisations lacking internal expertise and capacity, to guide the intervention and provide input and feedback throughout the process. The facilitator could be external to, or from within, the organisation. A prerequisite in either case is that they have knowledge of PSC, psychosocial risk management and mentally healthy work design. Frequent support during intervention set-up is required, but ownership of the process and sustained engagement should be encouraged by allowing organisations to develop and implement their own tailored initiatives. Recommendations for facilitator support include:

- Tailor support to the organisation to overcome identified barriers to the intervention and fit with other commitments.
- Build trust and momentum through regular check-ins and through an understanding and encouraging approach to facilitation.
- In organisations lacking internal expertise and confidence, or where barriers to the intervention process are identified, consider additional ongoing PSC training for staff and managers beyond the initial Steering Group meetings and workshops.

- Offer ongoing facilitator support to Steering Groups during Action Plan development, including feedback on draft Action Plans, to support the alignment of initiatives to PSC.

5.3 Applying PSC interventions in other workplace settings

Our assessment of the PSC Intervention is that it is likely to be suitable for application in other workplace settings. However, organisational 'fit' is essential, and an organisation's unique context should be considered when tailoring the intervention process and timing. Considerations for applying the intervention in other settings include:

- Take account of key characteristics of the organisation and how they are likely to shape the intervention process and outcomes.
- Application of the PSC Intervention may be feasible in large (>100 workers) and micro (<5 workers) organisations, but with consideration of how organisation characteristics and scale may shape the intervention process. Characteristics to consider include, for example, the level of internal expertise and capacity, proximity of senior management to staff, administrative and approval processes, and channels for communication.

5.4 National policy and approaches

While there were no findings from the study that directly relate to this research aim (6), some observations were made during the process.

- It will be important to translate this research for future industry uptake for users with limited knowledge in the area.
- Guidance is needed that is specific to sector, organisation size, and employment type.
- Guidelines should contain infographics to support communication and understanding and to encourage engagement.
- Training programmes are required for facilitators.
- Guidelines need to be highly accessible and provide an easy-to-follow approach.

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7.0 Glossary

Action plan

A plan (or collection of actions) developed by the case organisations to address psychosocial risks in their organisation.

Advisory group

Groups supporting the study activity for each sector, each comprising key sector stakeholders. Established to inform the researchers about sector events, ensure the relevance of the study to industry, and to enhance the uptake of knowledge generated from the study.

Case organisation

Participating organisations that receive the study intervention, in the form of assistance to develop and implement interventions over a one-year period.

CMO

Context-Mechanism-Outcome configurations, derived from realist evaluation which assumes that there are mechanisms (M) through which an intervention achieves its outcomes (O), and that certain contextual conditions (C) are necessary to trigger those mechanisms.

Control organisation

Participating organisations that engage in the study data collection processes, but do not receive the study intervention.

Early Childhood Education (ECE)

Education from birth to school entry age, which can be 'teacher-led' (kindergartens, education and care services, home-based education and care or Te Kura (the Correspondence School)), 'whānau-led' (Te Kōhanga Reo) or 'parent-led' (playcentres, playgroups, Ngā Puna Kōhungahunga or Pacific Island Playgroups).

Fast-moving consumer goods (FMCG) sector

Manufacturers and suppliers of food, beverage, and grocery brands; associated with products with high inventory turnover and a relatively low cost to meet immediate customer needs.

Focus group (case organisations) - NB these are referred to as Workshops in the report

Self-selected group of representatives in a case organisation who receive training from the researchers about psychosocial factors and PSC, who then work together to develop and implement action plans to address psychosocial risks in their organisation.

Intervention (project context)

A series of consistent steps which involved engaging the organisations with PSC and then activating PSC through the development and implementation of action plans, which consisted of PSC initiatives.

Initiatives (wellbeing initiatives)

Measures (actions) designed and implemented to address psychosocial risks, with a view to improving health and wellbeing for workers in case organisations. Commonly grouped into individual or organisational level initiatives.

Mental Health and Addiction Services

Organisations, including helplines and online communities, that provide community, residential and facility-based services to support mental health and addiction needs.

Mentally Healthy Work

Work where risks to people's mental health are eliminated or minimised, and their mental wellbeing is prioritised. Demonstrated by a commitment to create a mentally healthy and safe work environment, by being evidence-informed and by promoting positive workplace cultures and relationships.

Mental Models

These reflect workers' attitudes towards and perceptions of the intervention. Participation in an intervention can encourage positive mental models, and in turn they determine how workers respond to and engage with an intervention

Participatory approach

An approach whereby the research team (experts) assist (facilitate) the organisation to shape the intervention process and design and implement their own interventions to address and manage psychosocial risks.

Process evaluation

A framework or model for identifying 'how and why' interventions are successful or not (as opposed to measuring specific outcomes).

Psychosocial Factors

Aspects of the design, organisation and management of work and the social context in which work is taking place, that can have an impact on the psychological, physical and social health and wellbeing of workers.

Psychosocial Hazards

Aspects of the design, content and management of work that have the potential to cause harm to the health, safety and wellbeing of those in the organisation.

Psychosocial Risks

The probability that psychosocial hazards will cause negative wellbeing and health outcomes for those in the organisation.

Psychosocial Safety Climate (PSC)

The climate that is created by the value that organisations place on the health and wellbeing of their workers and the shared perceptions about the psychological health and safety of those within the organisation.

PSC domains

Aspects of psychosocial climate that together reflect overall PSC, comprising of Management Prioritisation, Management Commitment, Organisational Communication and Participation.

Sector

A group of businesses that operate in the same segment of the economy or share a similar business type.

Steering group (case organisations)

A project specific group consisting of employer and employee representatives. This should comprise members with complementary skills and expertise, empowered to participate as equal partners in decision-making. The steering group may be involved with planning, developing, implementing and monitoring initiatives.

Stress

The physiological or psychological response to internal or external stressors. Stress involves changes affecting most systems of the body, influencing how people feel and behave.

Wellbeing at work

Refers to the fulfilment of the physical, mental, social and cognitive needs and expectations of a worker related to their work.

8.0 Appendices

8.1 Appendix 1: Ethics Committee Low Risk Notification Letter

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

Date: 19 February 2020

Dear A/Pro David Tappin

Re: Ethics Notification - **4000022213** - **Developing a multi-level participatory psychosocial risk intervention**

Thank you for your notification which you have assessed as Low Risk.

Your project has been recorded in our system which is reported in the Annual Report of the Massey University Human Ethics Committee.

The low risk notification for this project is valid for a maximum of three years.

If situations subsequently occur which cause you to reconsider your ethical analysis, please contact a Research Ethics Administrator.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:
"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Professor Craig Johnson, Director - Ethics, telephone 06 3569099 ext 85271, email humanethics@massey.ac.nz."

Please note, if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to complete the application form again, answering "yes" to the publication question to provide more information for one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

Professor Craig Johnson
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Research Ethics Office, Research and Enterprise
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand **T** 06 350 5573; 06 350 5575 **F** 06 355 7973
E humanethics@massey.ac.nz **W** http://humanethics.massey.ac.nz

8.2 Appendix 2: Ethics Committee Approval

Date: 09 October 2020

Dear A/Pro David Tappin

Re: Ethics Notification - **NOR 20/45 - Improving Conditions for Health and Wellbeing in Small and Medium Enterprises in Aotearoa New Zealand**

Thank you for the above application that was considered by the Massey University Human Ethics Committee: **Human Ethics Northern Committee** at their meeting held on **Friday, 9 October, 2020**.

Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Professor Craig Johnson
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Research Ethics Office, Research and Enterprise
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand T 06 350 5573; 06 350 5575 F 06 355 7973
E humanethics@massey.ac.nz W http://humanethics.massey.ac.nz

8.3 Appendix 3: Baseline Survey

He Hauora te Taonga – Health is our Treasure

The Healthy Work Project Survey

An invitation to participate in the Healthy Work Project

As you will likely be aware, your organisation is participating in a project looking at ways to improve mental health and wellbeing in small and medium-sized enterprises in Aotearoa New Zealand. As an employee of an organisation participating in this project, we warmly invite you to complete this survey.

The survey takes approximately 15 minutes to complete. Your responses will be anonymous and cannot be linked to you in any way.

The survey collects data on your workplace, your experiences of work, and your health and wellbeing. All of the questions in this survey are taken from established, validated measures so we can compare the findings against other studies. This survey asks about your thoughts and attitudes, so the most correct response is typically the first response that comes into your mind. We would like you to answer the following questions in relation to the organisation who sent you this survey link, even if you have other jobs. Please try and answer all of the questions.

Please note your participant rights as set out in the information sheet (attached).

Your participation is voluntary and completing the questionnaire will be considered as consent to participate in the study. There will be a follow-up survey in approximately 6 months, and again in 12 months.

We thank you very much for your participation.

Contact

If you would like to discuss any aspect of this project, please contact the research team (Natalia D'Souza, David Tappin, Kate Bone, Kate Blackwood) at healthyworkproject@massey.ac.nz.

1) What year were you born? _____

2) What is your gender?

○ Female

○ Male

○ Another gender. Please specify: _____

○ Prefer not to say

3) What ethnicity / ethnicities do you most identify with? Please tick all those that apply.

○ NZ European

○ Māori

○ Samoan

○ Cook Island Māori

○ Tongan

○ Niuean

○ Chinese

○ Indian

○ Other, e.g Dutch, Japanese, Tokelauan. Please state:

_____

○ Prefer not to say

4) What is the highest qualification you have completed?

- ○ Secondary school qualifications
- ○ Tertiary level qualification
- ○ Postgraduate qualification
- ○ Other. Please state: _____

5) How long (to the closest year) have you been working for this organisation?

Years: _____

6) On average, how many hours a week do you work for this organisation?

Hours: _____

7) What is your current employment arrangement?

- ○ Permanent
- ○ Fixed-term
- ○ Casual
- ○ Contractor/self-employed
- ○ Other. Please state: _____

8) Which of the following most closely matches your job title / role?

- ○ Contractor
- ○ Employee
- ○ First-line supervisor / Team leader
- ○ Mid-level manager
- ○ Senior manager
- ○ Other. Please state: _____

9) Are you currently a union member?

- ○ Yes
- ○ No
- ○ Prefer not to say

10) Where is your normal place of work? Please choose all of those that apply to you in a standard work week.

- ○ I work from my place of employment
- ○ I work from home
- ○ I work from another place of my choice (e.g. a library)
- ○ My role requires me to work away from my workplace (e.g. client visits)
- ○ Other. Please explain:

_____

11) The following statements concern the psychological health and safety in your workplace. Please indicate the extent to which you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
In my workplace senior management acts quickly to correct problems/issues that affect employees' psychological health	○	○	○	○	○
Senior management acts decisively when a concern about an employee's psychological status is raised	○	○	○	○	○
Senior management show support for stress prevention through involvement and commitment	○	○	○	○	○
Psychological well-being of staff is a priority for this organisation	○	○	○	○	○
Senior management clearly considers the psychological health of employees to be of great importance	○	○	○	○	○
Senior management considers employee psychological health to be as important as productivity	○	○	○	○	○

	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
There is good communication here about psychological safety issues which affect me	○	○	○	○	○
Information about workplace psychological well-being is always brought to my attention by my manager/supervisor	○	○	○	○	○
My contributions to resolving occupational health and safety concerns in the organisation are listened to	○	○	○	○	○
Participation and consultation in psychological health and safety occurs with employees, unions and health and safety representatives in my workplace	○	○	○	○	○
Employees are encouraged to become involved in psychological safety and health matters	○	○	○	○	○
In my organisation, the prevention of stress involves all levels of the organisation	○	○	○	○	○

12) Over the last six months, how often have you been subjected to the following negative acts at work?

	Never	Now and then	Monthly	Weekly	Daily
Someone withholding information which affects your performance	○	○	○	○	○
Spreading of gossip and rumours about you	○	○	○	○	○
Being ignored by people at work (being ignored, excluded)	○	○	○	○	○
Having insulting or offensive remarks made about you (i.e. habits, background, attitude or private life)	○	○	○	○	○
Being shouted at or being the target of spontaneous anger (or rage)	○	○	○	○	○
Repeated reminders of your errors or mistakes	○	○	○	○	○
Facing a hostile reaction when you approach others	○	○	○	○	○
Persistent criticism of your work and performance	○	○	○	○	○
Being the subject of unwanted practical jokes (practical jokes carried out by people you don't get on with)	○	○	○	○	○

13) The items below ask about the support that you receive from your colleagues at work over the last 3 months. Please indicate how often in the last 3 months you received the support described in the statements.

	1 Never	2	3	4	5	6 All the time
My colleagues provide helpful information or advice about my work.	○	○	○	○	○	○
My colleagues provide sympathetic understanding and concern.	○	○	○	○	○	○
My colleagues provide clear and helpful feedback about my work.	○	○	○	○	○	○
My colleagues provide practical assistance at work.	○	○	○	○	○	○

14) The items below ask about the support that you receive from your immediate manager over the last 3 months. Please indicate how often in the last 3 months you received the support described in the statements.

	1 Never	2	3	4	5	6 All the time	I do not have a manager
My manager provides helpful information or advice about my work.	○	○	○	○	○	○	○
My manager provides sympathetic understanding and concern.	○	○	○	○	○	○	○
My manager provides clear and helpful feedback about my work.	○	○	○	○	○	○	○
My manager provides practical assistance at work.	○	○	○	○	○	○	○

15) Please indicate for each of the five statements below which is closest to how you have been feeling over the last 2 weeks:

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
I have felt cheerful and in good spirits	○	○	○	○	○
I have felt calm and relaxed	○	○	○	○	○
I have felt active and vigorous	○	○	○	○	○
I woke up feeling fresh and rested	○	○	○	○	○
My daily life has been filled with things that interest me	○	○	○	○	○

16) Please indicate for each of the six statements below which is closest to how you have been feeling over the past 30 days. During the past 30 days, how often did you feel:

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
... nervous?	○	○	○	○	○
... hopeless?	○	○	○	○	○
... restless or fidgety?	○	○	○	○	○
... so depressed that nothing could cheer you up?	○	○	○	○	○
... that everything was an effort?	○	○	○	○	○
... worthless?	○	○	○	○	○

17) Using the scale below, please indicate the extent of your agreement with each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I always find new and interesting aspects in my work	○	○	○	○
There are days when I feel tired before I arrive at work	○	○	○	○
It happens more and more often that I talk about my work in a negative way	○	○	○	○
After work, I tend to need more time than in the past in order to relax and feel better	○	○	○	○
I can tolerate the pressure of my work very well	○	○	○	○
Lately, I tend to think less at work and do my job almost mechanically	○	○	○	○
I find my work to be a positive challenge	○	○	○	○
During my work, I often feel emotionally drained	○	○	○	○
Over time, one can become disconnected from this type of work	○	○	○	○
After working, I have enough energy for my leisure activities	○	○	○	○
Sometimes I feel sickened by my work tasks	○	○	○	○
After my work, I usually feel worn out and weary	○	○	○	○
This is the only type of work that I can imagine myself doing	○	○	○	○
Usually, I can manage the amount of my work well	○	○	○	○
I feel more and more engaged in my work	○	○	○	○
When I work, I usually feel energized	○	○	○	○

18) The items below ask about different aspects of your wellbeing. Please indicate which option best reflects the way you are feeling about each aspect of your wellbeing at present. How do you feel about your:

	Very bad	Not good	Just okay	Good	Extremely good
Wairua (spiritual health)	○	○	○	○	○
Tinana (physical health)	○	○	○	○	○
Hinengaro (mental health)	○	○	○	○	○
Whānau (relationships with your family)	○	○	○	○	○

19) The items below ask about your intention of quitting from your organisation. Please indicate the extent to which you agree or disagree with the following statements.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I frequently think about leaving my current employer	○	○	○	○	○	○	○
It is likely that I would search for a job in another organisation	○	○	○	○	○	○	○
It is likely that I would actually leave the organisation within the next year	○	○	○	○	○	○	○

20) On a scale of 0 to 10, where 0 = the worst performance anyone could have at your job, and 10 = the performance of a top worker, how would you rate each of the following? Please circle your answer.

	Worst possible performance										Best possible performance
The usual performance of most workers in a similar job to yours?	0	1	2	3	4	5	6	7	8	9	10
Your own usual job performance over the past year or two?	0	1	2	3	4	5	6	7	8	9	10
Your overall performance on the days you worked during the past 7 days?	0	1	2	3	4	5	6	7	8	9	10

21) The following question asks about your level of satisfaction with your current job. Please choose the point on the scale that best represents your satisfaction level.

	Extremely dissatisfied 1	2	3	4	5	6	Extremely satisfied 7
Taking everything into consideration, how do you feel about your job as a whole?	○	○	○	○	○	○	○

22) In the past 12 months, how many full work days did you miss because of problems with your physical or mental health?

Days (estimate): _____

23) Are you concerned about your work negatively impacting on your wellbeing?

- ○ No
- ○ Yes

24) Do you think changes should be made to improve wellbeing at work?

- ○ No
- ○ Yes

25) Before today, have you thought of any ways to improve wellbeing at work?

- ○ No
- ○ Yes

26) Are you doing anything, or have you done anything, to improve wellbeing at work?

- ○ No
- ○ Yes. If so, please state what you have done.

_____

_____

_____

27) Do you intend to do anything more to improve wellbeing at work?

○ No

○ Yes. If so, please state what you intend to do.

_____

_____

_____

28) What aspects of your work cause you stress?

_____

_____

_____

_____

_____

29) What aspects of your work have helped to prevent or overcome your stress?

_____

_____

_____

_____

30) Has anything outside of your workplace (i.e. in your personal life) had a particularly positive or negative impact on your wellbeing in the past 6 months?

_____

_____

_____

_____

31) Please let us know if there is anything more you want to add in relation to your wellbeing or any responses in this survey.

_____

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Thank you very much for taking the time to complete this survey.

8.4 Appendix 4: Survey Report Exemplar

HEALTHY WORK GROUP
MASSEY UNIVERSITY

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

The Healthy Work Project
Baseline Survey Summary

Introduction

The Healthy Work Project survey is run every six months in all 24 organisations participating in this project. The survey measures psychosocial safety climate (PSC) as well as other psychosocial factors that impact on outcomes for individual and organisational health and wellbeing. Participating organisations can use their results to understand and monitor their performance with respect to their psychosocial environment and employee wellbeing.

This summary reports on your organisation's results the first time that the survey was run in your organisation in March 2021.

Throughout the summary, comparisons have been made with data collected from 1015 employees working in small and medium sized enterprises (under 100 employees) in a range of industries throughout the country (referred to below as the National SME data).

Important notes on interpretation of your results:

* Your results only indicate the views of those that responded and therefore may not necessarily be representative of your organisation as a whole. The higher the proportion of your employees who participated, the more confidence you can have that these results accurately reflect the psychosocial environment in your organisation. Please note this tool is intended for use with large-scale samples and therefore findings for small organisations need to be considered carefully alongside the focus group and interview data.

* Your results are compared with national averages for small and medium sized enterprises in a range of industries outside your own. Rather than taking these comparisons at face value, it is important to consider where your results sit within the scoring range, and what they mean in the context your organisation and your industry.

* The Standard Deviation (SD) is provided alongside the average (mean) score for each measure. The SD provides an indication of how much variation there was in the responses of employees (a high SD indicates high variation and vice versa). The higher the SD, the more caution is required in taking these results at face value, although this variance in results can be telling in itself.

Your organisation's results

The following sections provide the results of your organisation's psychosocial safety climate (PSC) and your psychosocial risk profile based on the responses from **23** respondents who participated in the first Healthy Work Project Survey.

1. **Psychosocial Safety Climate (PSC)**

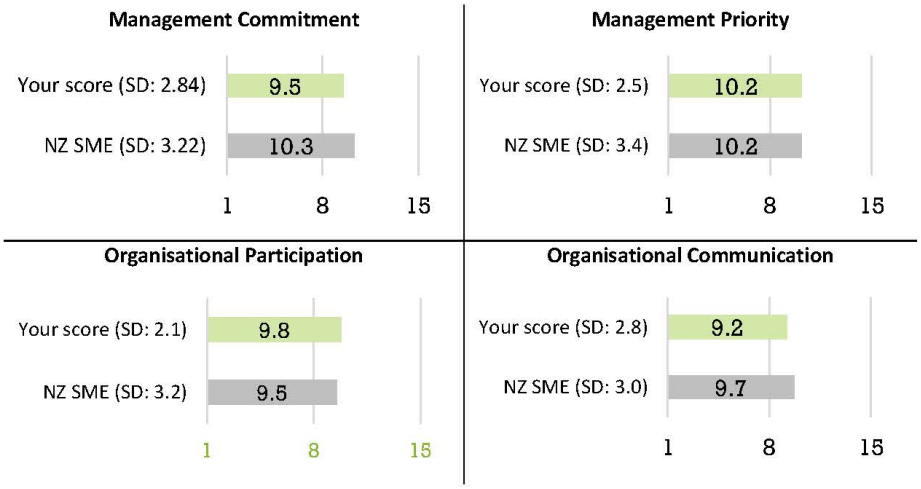
PSC measures the value that organisations place on health and wellbeing. The 12-question PSC tool used in the survey measures PSC using three questions for each of the following four domain: 1) management commitment and support for health and wellbeing; 2) management prioritisation of health and wellbeing; 3) communication around health and wellbeing issues; and 4) the extent that employees and other stakeholders are involved in improving health and wellbeing. The scores for each question are added together to produce a score for each domain, as well as a total PSC score.

Published benchmarks for PSC indicate that a total score of 41 and over is a 'best-practice standard' threshold which is associated with a low-risk of employee burnout and a higher likelihood of healthy levels of employee wellbeing. A PSC score of 37 and below is associated with the risk of negative outcomes such as employee job strain, burnout, and lower productivity.

The higher your total PSC score, the more likely your organisational climate will be associated with favourable psychological health and safety, and favourable employee wellbeing.

PSC variable	Your organisation's score	National SME Average
PSC-12 Scoring range: 12-60	39.0 (sd: 8.0)	39.77 (sd: 11.91)

The graphs below give the scores for the four PSC domain mentioned earlier. The scoring range for each domain is 1 to 15, with 1 representing "strongly disagree," 8 representing "neither agree or disagree" and 15 representing "strongly agree."



Comment on PSC scores:
Your results were slightly below the threshold of 41 for best-practice, which is indicative of the potential for a higher risk of employee job strain and depressive symptoms. When considering the results by each aspect of PSC, there are opportunities to improve health and wellbeing further in all four aspects, particularly organisational communication, which had the lowest score.

2. Psychosocial factors

Psychosocial factors refer to the aspects of work or the work environment that impact on employee wellbeing. Work that is well designed and managed can be facilitative of wellbeing, while poorly designed and managed work can significantly harm wellbeing.

Employees provided text responses to questions asking about what aspect of their work cause them stress, and what aspects help to prevent or overcome stress. The key themes are summarised below. These themes provide an initial indication of potentially relevant factors but should not be viewed as comprehensive or exhaustive.

Psychosocial Factors (*text responses*)	
Facilitators of wellbeing	**Work stressors**
• Receiving positive feedback • Getting support from colleagues • Having support and understanding from management • Using humour in the workplace • Working together as a team to share work • Seeing children smiling and succeeding	• Insufficient non-contact time • High workloads and high child-teacher ratios • Low pay for their work • Short staffing, made worse by absences • Long work hours • Insufficient resources

The survey also measured some specific wellbeing facilitators and work stressors, namely workplace ill-treatment (stressor) and co-worker and supervisor support (wellbeing facilitator).

Workplace ill-treatment	**Percentage (%) your organisation** *(percentage national SME average)*	
	YES (experienced at least one negative act, at least weekly for past 6 months)	**NO**
Workplace ill-treatment	11% *(19%*	89% *81%)*

Relational support	**Your organisation's score**	**National SME Average**
Co-worker support (higher = more support) Scoring range: 1-6	Mean: 4.40 (sd: 1.00)	Mean: 4.37 (sd: 1.19)
Supervisor support (higher = more support) Scoring range: 1-6	Mean: 4.00 (sd: 0.99)	*No national data available*

Comments:

Your results are fairly comparable with the national SME data. The score for co-worker support was higher than that for supervisor support, signalling that the supervisor support is not as strong. Ill-treatment was less prevalent in your organisation than the national average, and your score for co-worker support was similar to the national average. A focus on enhancing support offered by management as well as building strong relationships between co-workers is likely to positively impact your workforce. While these results point to potential areas for consideration, your focus group summary is likely to provide a more comprehensive picture of relevant psychosocial factors impacting staff wellbeing.

3. Employee health and wellbeing

The table below reports on a number of 'general' measures of health and wellbeing. Although these indicators represent a person's overall current status (work and non-work), typically the work environment is a significant determinant of these 'general' health indicators. *Higher* scores mean *better* outcomes, unless indicated.

Individual variable	Your organisation's score	National SME average
Holistic wellbeing (Te Whare Tapa Whā) Scoring range: 1-5 *Higher score is better holistic wellbeing*	Mean: 3.25 (sd: 1.00)	*No national data available*
Mental wellbeing Scoring range: 1-5 *Higher score is mental wellbeing*	Mean: 2.89 (sd: 0.99)	Mean: 2.56 (sd: 0.90)
Burnout Scoring range: 1-4 *Higher score is lower burnout*	Mean: 2.40 (sd: 1.01)	*No national data available*
Psychological distress Scoring range: 1-5 *Higher score is higher distress*	Mean: 2.31 (sd: 0.99)	Mean: 1.88 (sd: 0.82)

Comments:
You scored more favourably for mental wellbeing than the whole national SME average. However, your score for psychological distress was higher (less favourable) than the national average.

4. Indicators of organisational wellbeing

The following results are indicators of the culture and psychosocial wellbeing of the organisation.

Organisational wellbeing variable	Your organisation's score	National SME average
Job satisfaction Scoring range: 1-7 *Higher score is higher job satisfaction*	Mean: 4.65 (sd: 1.20)	Mean: 5.13 (sd: 1.47)
Leave intentions Scoring range: 1-7 *Higher score is higher intention to leave*	Mean: 3.55 (sd: 1.50)	Mean: 3.23 (sd: 1.90)
Self-rated performance Scoring range: 1-10 *Higher score is higher performance*	Mean: 6.55 (sd: 1.20)	*No national data available*

Comments:
Your score for job satisfaction was somewhat lower than the national SME average, and the intention to leave score was higher. This is suggestive of dissatisfaction towards work among some employees who may be looking to leave their roles. The standard deviations for these scores Is fairly high, suggesting that these did vary somewhat across respondents.

The Healthy Work Project

He Hauora te Taonga – Health is our Treasure

Action Plan Guide

Contact: healthyworkproject@massey.ac.nz

Introduction

This resource offers guidance to support you as you develop your wellbeing action plan. We view wellbeing as a product of psychosocial factors at work – these refer to aspects of the design and management of work, and the social and organisational context in which work occurs. Our aim is to help you improve the Psychosocial Safety Climate (PSC) of your workplace, as that is an effective way to reduce the impacts of psychosocial hazards which, in turn, will improve health and wellbeing.

Psychosocial Safety Climate relates to the value that organisations place on health and wellbeing. PSC is reflected in the following four domains:

- Management Prioritisation: How does the organisation demonstrate that staff wellbeing is a priority?
- Management Commitment: How does management address wellbeing issues and what processes are in place to facilitate this?
- Organisational Communication: How does the organisation ensure effective communication with staff about work-related impacts on wellbeing?
- Organisational Participation: How are staff encouraged to have input into work-related impacts on wellbeing?

A high PSC means:

- that staff are encouraged and feel safe to raise issues that affect their wellbeing and have input into how they are addressed;
- that wellbeing is prioritised and that management commitment to wellbeing is demonstrated by addressing concerns when they are raised;
- psychosocial factors are less likely to be harmful in your workplace and efforts can be oriented towards supporting wellbeing, which will positively impact staff and flow on to have benefits for other organisational outcomes, such as productivity, staff engagement, reduced absences and lower turnover of staff;

Fostering a high PSC will set the organisation up to address future psychosocial factors and should be the primary focus of your action plan, because psychosocial factors are not constant and affect people in different ways.

There are three steps to developing your wellbeing action plan:

1) Step One – identify and discuss the issues that you feel need to be addressed to improve employee wellbeing.
2) Step Two – decide on actions that your organisation could take to improve PSC and to address the issues you described in Step One. You need to assess the importance and feasibility of the actions that you are considering, and then prioritise them accordingly.
3) Step Three – consider the prioritised actions from Step Two, and construct your wellbeing action plan. This includes identifying who are responsible for the actions and timeframes for their implementation.

Step One: Identify Psychosocial Factors

Questions to ask

- What aspects of work and the work environment impact on staff wellbeing?
- Does the climate in your organisation foster work that is designed and managed to identify and address work stressors, and to support staff wellbeing?
- Have you thought about positive factors that facilitate wellbeing as well as negative ones?

Actions to take

- ✓ Write down what you think are the most important psychosocial factors to address in your organisation. Use this table as a guide*;
- ✓ Discuss these with others in your organisation to agree on a list of the main ones;
- ✓ Consider other organisational data that you may have available to inform this discussion.

Common Psychosocial Factors		
Content of Work	**Job content**	E.g. Lack of variety or short work cycles, fragmented or meaningless work, under-use of skills, high uncertainty
	Workload & work pace	E.g. Work overload or under load, machine pacing, high levels of time pressure, continually subject to deadlines
	Work schedule	E.g. Shift working, night shifts, inflexible work schedules, unpredictable hours, long or unsociable hours
	Environment & equipment	E.g. Inadequate equipment, suitability or maintenance, poor environmental conditions (lighting, etc), lack of space
Context of Work	**Control**	E.g. Low participation in decision making, lack of control over workload, pacing, etc
	Organisational culture/function	E.g. Poor communication, low support for problem solving, lack of definition or agreement on organisational objectives
	Interpersonal relationships	E.g. Social or physical isolation, interpersonal conflict, lack of social support, bullying, harassment
	Role in organisation	E.g. Role ambiguity, role conflict, and responsibility for people
	Career development	E.g. Career stagnation and uncertainty, under or over promotion, poor pay, job insecurity, low social value to work
	Home-work interface	E.g. Conflicting demands of work and home, low support at home, dual career problems

** See the Healthy Work Project Website for a more comprehensive table of factors https://healthyworkprojectmassey.wordpress.com/*

Step Two: Decide on Actions to Improve PSC

PSC stems from work practices, procedures and policies that promote the health and wellbeing of staff, thereby reducing the risk of harm occurring. It reflects the value that organisations place on health and wellbeing at work, demonstrated by management prioritisation and commitment, communication about wellbeing and involvement of staff in wellbeing discussions and initiatives.

Employees are less likely to suffer from exposure to negative psychosocial factors in organisations with a high PSC, because these organisations have created an environment where:

- wellbeing through work is prioritised;
- employees are encouraged and feel safe to raise wellbeing concerns;
- employees have input into how to address these issues;
- the organisation is decisive and timely in addressing any issues that arise.

In this step, we encourage you to think about what actions your organisation could take that would strengthen PSC.

Questions to ask

- What is the degree of **Management Prioritisation**? How does the organisation demonstrate that staff wellbeing is a priority?
- Is there strong **Management Commitment** to wellbeing? How does management address wellbeing issues, and what processes are in place to facilitate this?
- Is **Organisational Communication** effective? How does the organisation ensure good communication with staff about work-related impacts on wellbeing?
- What is the level of **Organisational Participation**? How are staff encouraged to have input into work-related impacts on wellbeing?

Actions

- ✓ Considering the factors raised in Step One, brainstorm what your organisation can do to improve PSC;
- ✓ Consider all four PSC domains and then write down your possible actions and the PSC domain they relate to, ensuring that each of the actions are specific and measurable. Note that some actions might relate to multiple domains;
- ✓ Discuss whether you believe each of your actions is likely to be of high, medium, or low importance in improving PSC;
- ✓ Write down any factors that might help or hinder each action, such as their cost or feasibility;
- ✓ Prioritise the ideas based on which are most important to address while taking into consideration those helpful or hindering factors to their implementation.

Step Three: Construct an Action Plan

Your Action Plan brings together your prioritised ideas so you can see:

- the actions you intend to take;
- who is responsible for each action, and;
- dates for action implementation and/or completion.

Participation and communication are fundamental components of PSC, so you need to make sure you demonstrate the values of PSC throughout the design and implementation of your action plan.

Questions to ask

- Do your actions reflect the four PSC domains?
- Have you considered how you will measure or evaluate whether the actions you implement have had the intended effects on PSC and staff wellbeing?
- Who is involved in actions and what are their roles?
- Have you thought about how to communicate progress with staff?
- Have you considered long-term actions within your plan?
- Are there some smaller actions that can be put in place straight away?

Actions

- ✓ Use the template attached to develop your Action Plan for the actions you have prioritised in Step Two;
- ✓ State the PSC domain(s) your action intends to address;
- ✓ State who is responsible for the action, and what the roles of different people are if multiple people are responsible;
- ✓ State the timeframe within which the action will be completed;
- ✓ Make sure employee views/ideas have been sufficiently incorporated into your action plan;
- ✓ Consider how you will assess whether the action has been implemented well, and is addressing PSC within your organisation.

Psychosocial Safety Climate (PSC) Action Plan

Date: _____ Version: _____

Action	Which PSC domain(s) is it addressing?	Who is responsible for the action?	Timeframe for completion	Further notes / how will you assess the success of this action and when?

8.6 Appendix 6: Survey Process Evaluation Questions (for case organisations)

Baseline survey
What aspects of your work cause you stress?
What aspects of your work have helped to prevent or overcome your stress?
Has anything outside of your workplace (i.e. in your personal life) had a particularly positive or negative impact on your wellbeing in the past 6 months?
Please let us know if there is anything more you want to add in relation to your wellbeing or any responses in this survey.
Midpoint Survey
Approximately six months ago, you may have completed this survey and attended a meeting (a focus group) with researchers from Massey University to talk about health and wellbeing at your workplace. From these events, a team within your workplace developed an Action Plan to improve health and wellbeing at work. **Did you take part in the survey? (Yes / No / I don't know)** **Did you take part in a focus group meeting? (Yes / No / I don't know)**
The following questions ask about what has happened since you and/or your colleagues took part in the survey and/or the focus group meeting as part of the Healthy Work Project. **Thinking about what you know of The Healthy Work Project, please rate how you feel about the project.** **I feel positive about my workplace's involvement in The Healthy Work Project (strongly disagree to strongly agree)** **I have seen positive changes in my workplace/wellbeing as a result of my organisation's participation in The Healthy Work Project (strongly disagree to strongly agree)**
The following questions relate to the Action Plan developed in your workplace. **Are you familiar with your workplace's Action Plan? (e.g. have you heard of it, or seen it?) (Yes / No / I don't know)**
(If yes) **The following questions (strongly disagree to strongly agree) are about the Action Plan developed in your workplace:** **The Action Plan has been clearly communicated to me** **I think the Action Plan ideas will improve employee wellbeing in my workplace** **I think the Action Plan ideas will benefit me** **I support the Action Plan ideas** **Managers/supervisors/team leaders in my workplace support the Action Plan ideas** Please feel free to explain your response for any of the previous questions here.
What are the best things that have happened because your workplace is involved in The Healthy Work Project?
Please outline any changes that you think should be made to the Action Plan in your workplace to further support workplace health and wellbeing.
If you are willing to talk privately with one of us about The Healthy Work Project or the Action Plan in your workplace, please include your name and contact details here or email us at healthyworkproject@massey.ac.nz. This would be for 10-20 minutes either over the phone, in person or online at a time that suits you.
Endpoint survey
Has anything outside of your workplace (i.e. in your personal life) had a particularly positive or negative impact on your wellbeing in the past 6 months?
What are the best things that have happened because your workplace has been involved in The Healthy Work Project?
Please outline any changes that you think should be made in your workplace to further support health and wellbeing.

Please let us know if there is anything more you want to add in relation to your wellbeing or any responses in this survey.

8.7 Appendix 7: Steering Group Process Evaluation Interview Structure

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The Healthy Work Project

PROCESS EVALUATION STEERING GROUP INTERVIEW SCHEDULE (CONDUCTED EVERY 3 MONTHS DURING THE ACTION PLAN IMPLEMENTATION PHASE)

Introductions

- Reintroduce purpose of meeting (going through report, Action Plan, ask questions).
- Ask if there are any questions?

Preface that our questions are not about judging how much progress has been made in terms of the Action Plan, but rather to help us understand the context and background for what has happened

Intervention Progress, Impacts:

(Interviewers must have copies of action plans)

- To begin with, it would be really helpful to get a quick overview of your own perceptions of what the last couple of months have been like at (organisation name).
- What do you think wellbeing has been like? Are there any particular concerns or issues you've noticed? Any improvements that haven't been captured in the survey?
- Would you be able to provide a quick overview of which Action Plan initiatives have already been implemented? Were there any changes made to the Plan or anything that you've done beyond this Plan?
- Who has been involved in driving these Action Plan initiatives at (organisation name)?
- Have you come up against any barriers to implementing these initiatives?
- Can you tell us a little bit about the role of the steering group over this period (i.e., how often you meet, whether there have been any changes, whether you'd like to make any changes or bring in more people)?

Communication, Worker Participation, Mental Models:

- To what extent have staff been involved in the implementation of initiatives from the Action Plan?
- Have you had any feedback from staff?
- Do you see any changes in staff thinking or attitudes toward wellbeing?

Contextual Impacts:

- We're also interested in broader contextual factors that might be impacting the implementation of the Action Plan initiatives and/or staff wellbeing. This could include things like change in alert levels, changes in staff, funding, finances, or even any bigger issues impacting the sector like vaccine mandates. [Aside from… discussed].

- Can you think of any other events that have taken place in the last three months that may have had an impact?

Closing

- Do you require further support from us or others outside your organisation (e.g. consultants)? What might this look like?

Next steps

- Consider employee feedback in the report alongside survey findings to see whether and how the Action Plan may need to be revised.
- Reminder that we are available to provide support/guidance and reinforce that they are driving this change (we are merely facilitating this).
- Next project milestone will be another steering group interview same as this, at the XX month mark.

8.8 Appendix 8: Control Organisation Process Evaluation Interview Structure

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The Healthy Work Project

CONTROL ORGANISATION PROCESS EVALUATION INTERVIEW SCHEDULE (CONDUCTED EVERY 3 MONTHS OVER THE 12 MONTH INTERVENTION PERIOD)

1. Have there been any changes since we last spoke concerning the extent to which your organisation prioritises or communicates about health and wellbeing? If yes, can you please describe these changes?

2. Has your organisation made any changes since we last spoke that may have a positive impact on employee health and wellbeing (beyond anything discussed above)? (This could relate to anything specific the organisation has implemented aimed at protecting/enhancing wellbeing, or it could be unrelated changes that indirectly impact wellbeing.)

3. Has your organisation made any changes since we last spoke that may have a negative impact on employee health and wellbeing?

4. How would you rate the overall wellbeing in your organisation currently on a scale of 1 (poor) to 10 (excellent)? What is your reasoning for this rating?

8.9 Appendix 9: Initial Conversation Guide

First, check whether they fit the participation criteria:	
How many equivalent full time employees are employed in the organisation?	
Does the organisation operate independently of a larger body?	
Show interest in their wellbeing and what they want out of the project:	
What do you see as the state of wellbeing in your organisation currently?	
What is your motivation for being involved in the project?	
What would you like out of this project? (i.e. what changes are needed that you would like to see?)	
What is your organisation currently doing in the wellbeing space?	
Assess their appropriateness and barriers to participation:	
[Discuss time and resource commitments]. Do you think the organisation is able to commit this time and resource over the project period?	
Does/will senior management support involvement in the project?	
Can you foresee any changes (i.e. changes in leadership/key personnel, significant changes to structure, involvement in other projects) that could impact involvement in the project?	

Any questions?

Next steps:

Project will begin (March 21) and the commitment required of orgs from then – what's required (for case and control).

Discuss the difference between case and control organisations. Make note of whether they express a preference, don't mind, and if you have any thoughts about where they would be best suited. Remind the org that we'll do what we can to accommodate but that it is necessary for this to be matched so won't always be able to accommodate.

Preference for case or control:	

We will be in touch as soon as we can with confirmation of whether they will be a case or control (but we need all 8 organisations for this, so the time it takes will depend on how much interest we get). Once we confirm this, we can send through some materials that they can choose (if wanted) to use to communicate about the project to their organisation/employees.

8.10 Appendix 10: One-on-one Worker Interview Schedule (case organisations)

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The Healthy Work Project

FORMATIVE PROCESS EVALUATION EMPLOYEE INTERVIEW SCHEDULE

Explain:

- The project again – the purpose and the stages undertaken so far (where we are at).
- The purpose of the interview to 'gather feedback from employees to share anonymously with the organisation: what is working well, and where further improvements could be made'.
- Reassure participants their interview data will be anonymised and that they should share their personal perspectives and ideas and that their participation is much appreciated.

Initial Questions:

- Do you have any questions or comments at all you would like to ask me? (e.g. about the project, the Action Plans, or workplace wellbeing?)
- Is there anything in particular you would like to share with me today? Were you at the focus group? Were you able to provide any input or suggestions through the survey, individual interview, or email feedback to support the Action Plan development?
- What information has been provided to you about health and wellbeing initiatives in your workplace? (How do you perceive this information and why? E.g. helpful, unclear, confusing, thoughtful, interesting, informative). How is this information communicated? (i.e. channels)

Perspectives on change (last 2 months):

I now have a few questions about the Action Plan initiatives in your workplace:

- Can you please tell me about the initiatives that your organisation is implementing to improve health and wellbeing? What do you know about these?
- How do you think wellbeing has changed at all in your organisation over the last few months? (Explain why/why not changes have occurred from your perspective)
- Do you feel that your ideas have been/or are being incorporated into the initiatives?
- In your opinion, have there been any negative or unanticipated impacts from your workplace's involvement in this project or any of the health and wellbeing initiatives?

Mental models (and changes in last 2 months):

- Do you think these initiatives are important? Why or why not? (have your thoughts changed in the last 2 months?)
- Can you explain what you personally feel has been the most meaningful change in your workplace in the last 2 months?

Opportunity to suggest future improvements:

- Overall, what do you think could be changed or improved to increase health and wellbeing within your workplace at this stage? (What would these changes look like in an updated Action Plan?)
- Is there any way you could be more supported to engage with the Action Plan initiatives?
- Is there anything else you would like to share with me, or discuss today?

8.11 Appendix 11: Analyses of Survey Scores Over Time

Table A11a: Comparing case and control organisation scores at Baseline and Midpoint

	Baseline	Baseline mean	Midpoint mean	Midpoint-Baseline	t-test[+]
PSC (sum)	case	42.45	44.12	1.67	2.52**
	control	45.01	46.28	1.27	1.67*
PSC 1. Management commitment	case	10.98	11.35	0.37	1.97*
	control	11.54	11.74	0.2	0.98
PSC 2 Management priority	case	10.90	11.15	0.25	1.22*
	control	11.66	11.93	0.27	1.24
PSC 3. Communication	case	10.39	10.84	0.45	2.67**
	control	10.95	11.40	0.45	2.32*
PSC 4. Participation	case	10.25	10.79	0.54	3.05***
	control	10.90	11.27	0.37	1.90*
NAQ	case	0.67	0.45	-0.22	-1.53*
	control	0.30	0.38	0.08	3.65***
Co-worker support	case	4.52	4.61	0.09	1.09
	control	4.55	4.76	0.21	2.79**
Supervisor support	case	4.52	4.85	0.33	3.24***
	control	4.66	4.95	0.29	3.33***
Holistic wellbeing	case	3.75	3.80	0.05	.93
	control	3.67	3.82	0.15	3.11***
Wellbeing	case	3.42	3.46	0.04	.71
	control	3.32	3.47	0.15	2.71**
Burnout	case	2.35	2.31	-0.04	-1.49
	control	2.32	2.29	-0.03	-.121
Psych distress	case	1.97	1.83	-0.14	-2.46**
	control	1.85	1.87	0.02	0.33
Job Satisfaction	case	5.25	5.21	-0.04	-0.35
	control	5.29	5.33	0.04	0.47
Absenteeism	case	.94	.87	-0.07	-2.68*
	control	.80	.76	-0.04	-.66

[+] One-sample t-test on T2 data; test value is T1 mean. *p<.-05; **p<.01; ***p<.001

Table A11b: Comparing case and control organisation scores at Baseline and Endpoint

	Baseline	Baseline mean	Endpoint mean	Endpoint-Baseline	t-test[+]
PSC (sum)	case	42.45	43.08	0.63	0.80
	control	45.01	47.37	2.36	2.64*
PSC 1. Management commitment	case	10.98	11.13	0.15	0.72
	control	11.54	12.16	0.62	2.66**
PSC 2 Management priority	case	10.90	10.93	0.03	0.14
	control	11.66	12.23	0.57	2.36**
PSC 3. Communication	case	10.39	10.66	0.27	1.38
	control	10.95	11.46	0.51	2.23*
PSC 4. Participation	case	10.25	10.54	0.29	1.43
	control	10.90	11.52	0.62	2.52**
NAQ	case	0.67	0.37	-0.30	-3.34***
	control	0.30	0.21	-0.09	1.44
Co-worker support	case	4.52	4.50	-0.02	-0.28
	control	4.55	4.76	0.21	2.18*
Supervisor support	case	4.52	4.60	0.08	0.76
	control	4.66	4.89	0.23	1.92*
Holistic wellbeing	case	3.75	3.79	0.04	0.77
	control	3.67	3.82	0.15	2.47**
Wellbeing	case	3.42	3.48	0.06	0.91
	control	3.32	3.55	0.23	3.33***
Burnout	case	2.35	2.31	-0.04	-1.42
	control	2.32	2.23	-0.09	-2.49**
Psych distress	case	1.97	1.82	-0.15	-0.48*
	control	1.85	1.72	-0.13	-1.95*
Job Satisfaction	case	5.25	5.12	-0.13	-1.31
	control	5.29	5.45	0.16	1.40
Absenteeism	case	.94	.93	-0.01	-.03
	control	.80	.95	0.15	1.71
Intentions to leave	Case	2.97	3.06	0.09	.89
	control	3.02	2.69	-0.33	-2.26*

[+] One-sample t-test on T3 data; test value is T1 mean. *p<.-05; **p<.01; ***p<.001

8.12 Appendix 12: Information for Participating Organisations

Figure 12a Information Sheet

He Hauora Te Taonga – Health is our Treasure

The Healthy Work Project

INFORMATION SHEET FOR CASE AND CONTROL ORGANISATIONS

We are a team of health and wellbeing researchers from the Healthy Work Group at Massey University, supported by international experts based in Australia and the UK. The core team of researchers are: Associate Professor David Tappin, Dr Kate Blackwood, Dr Kate Bone (School of Management at Massey University) and Professor Tim Bentley (School of Business and Law at Edith Cowan University, Australia).

Project Description and Invitation
This three-year project is funded by the Health Research Council and WorkSafe New Zealand and aims to improve conditions for health and wellbeing in small and medium-sized organisations in the health, education, and manufacturing sectors in New Zealand.

We view wellbeing as a product of psychosocial factors at work – these include aspects of the design and management of work, and the social and organisational context in which work occurs. Our aim is to improve the Psychosocial Safety Climate of your workplace to reduce the impacts of psychosocial hazards which, in turn, will help to improve health and wellbeing. Psychosocial safety climate relates to the value that organisations place on health and wellbeing, and is reflected in:

- An organisation's commitment to and prioritisation of health and wellbeing;
- Communication around health and wellbeing issues;
- The extent that employees are involved in improving health and wellbeing.

This research project involves assessing the risks to health and wellbeing that exist within your workplace and working with all employees to design wellbeing initiatives that will benefit employees and the organisation. We invite your organisation to participate in this project.

Participant Identification and Recruitment
You are being invited to take part because your organisation is a small to medium sized enterprise (6-99 EFT employees) in the upper North Island in one of the three sectors that are the focus of this project.

Project Procedures
There are 24 organisations participating in this project – 12 case organisations and 12 control organisations.

If you are participating as a case organisation, we will be providing training for employees along with support for developing and implementing an action plan of ways to address psychosocial risks and improve health and wellbeing. This support will continue for 16 months (from around March 2021). In return, we will be collecting data from willing employees through a focus group, surveys and interviews so that we can measure any changes in psychosocial safety climate over time.

If you are participating as a control organisation, employees will be invited to complete an online survey on health and wellbeing three times during the 16 month period (from around March 2021), and the research team will be in regular contact to record any significant organisational changes that may occur. You will be offered the same training for staff, along with support for developing and implementing an action plan after the 16 month period has ended. You will also receive the overall findings from the case organisations to assist in your action plan development.

We will be asking both case and control organisation to also participate in online follow-up surveys after 18 and 24 months.

The purpose of having 'case' and 'control' organisations is so that we can see the difference that psychosocial health and wellbeing initiatives have on organisations and employees. This helps us to understand the impact of our project in supporting organisations to improve their psychosocial safety climate and the resulting impacts on employee wellbeing.

Should you agree to participate in this project you will be asked to support the project by allocating time to employees to engage in the project and helping to facilitate data collection and other project-related activities.

Data Management
Specific information sheets and consent forms will be provided to individual participants at each stage of data collection. Upon completion of the project, all participating organizations' will be provided with a summary of the project report and will be encouraged to share this with all employees. Individual participants are also welcomed to contact the researchers to for a copy of this report, available in 2023. Please note that in any publications, or other outputs from this project, all individuals and organisations will be kept confidential. We will also store personal details and consent forms in a separate location to the research data so that your data cannot be linked to your personal information.

Participant's Rights
You are under no obligation to accept this invitation. If your organisation decides to participate, you have the right to:

- withdraw from the study at any time until the completion of data collection (approx. June 2022)
- ask any questions about the study at any time during participation;
- provide information on the understanding that organisation's name will not be used in external publications;
- be given access to a summary of the project findings when it is concluded.

By accepting this invitation to participate, you are agreeing on behalf of the organisation to be involved in the project as a case or control organisation. Acceptance of this invitation does not commit any individual employee to participate in this project. Instead, separate information sheets and consent forms will be provided for each specific data collection activity.

Project Contacts
If you have any questions or concerns about the project please contact research team on: (09) 414 0800 ext. 43384 (David Tappin), or email: healthyworkproject@massey.ac.nz

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application NOR 20/45). If you have any concerns about the conduct of this research, please contact Dr Fiona Te Momo, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 43347, email humanethicsnorth@massey.ac.nz.

Figure 12b Project Timeline

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application NOR 20/45. If you have any concerns about the conduct of this research, please contact Dr Fiona Te Momo, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800, x 43347, email humanethicsnorth@massey.ac.nz