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# Work-connected interventions for people with psychological injuries

Ross Iles, Campbell Hogan, Ashley Craig & Alex Collie

This research report was prepared by Dr Ross Iles, Mr Campbell Hogan and Professor Alex Collie from the Insurance Work and Health Group in the School of Public Health and Preventive Medicine at Monash University, and Professor Ashley Craig from the University of Sydney.

For further information relating to this report please contact the research team via the email address: [ross.iles@monash.edu](mailto:ross.iles@monash.edu)

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## ABBREVIATIONS

<b>Abbreviation</b>	<b>Description</b>
CMD	Common mental disorders
CTP	Compulsory Third Party (Insurance)
EAP	Employee assistance program
MHCs	Mental health conditions
NSW	New South Wales
PTSD	Post-traumatic stress disorder
RCT	Randomised controlled trial
RTA	Road traffic accident
RTW	Return to work
SAW	Stay at work

## EXECUTIVE SUMMARY

This report describes existing evidence around current practices in the management of people with claims for psychological injury, including a description of the effectiveness of work-connected interventions for people with psychological injury. A psychological injury includes a range of cognitive, emotional and behavioural symptoms that interfere with a person's life and can significantly affect how they feel, think and interact with others. A work-connected intervention is one that is either conducted within or initiated by the workplace, or where treatment is targeted towards workplace goals.

This review combines three components: 1) interviews with key industry stakeholders; 2) a rapid meta-review of peer reviewed published research; and 3) a search of "grey literature" such as government or industry reports. This review aims to synthesise the findings of each component.

High level principles about preventing and managing psychological injuries were identified in the interviews with stakeholders. These included an emphasis on an individualised approach to providing supports, the importance of mental health literacy in the workplace and the need to use an appropriate framework to manage psychological injury. Those interviewed were familiar with the current evidence, and are attempting to put it into everyday practice. While organisations are becoming more sophisticated in how they can identify and respond to psychological injury in the workplace, evaluation of the approaches being applied is typically informal. Without sufficient evaluation it is not yet possible to determine with confidence which interventions work and which do not. Stakeholders considered evaluation to be challenging as programs are often multifaceted and it is not possible to identify the most effective components.

A common thread running through the stakeholder interviews and the grey literature is the need for an individualised approach to the management of psychological injuries. It stands to reason that the assessment of the supports required for each individual will require a high level of skill from all involved in the management of the injury. There was a strong emphasis on training managers and colleagues in mental health literacy that demonstrates the understanding of psychological injuries is a long way behind the understanding of physical injuries.

The rapid meta-review of published research literature identified 55 relevant studies. Interventions were categorised into psychological intervention alone, psychological plus other intervention or other intervention alone. There was moderate evidence found to support psychological intervention in the treatment of non-traumatic stress. The remaining evidence was either limited (there were only a small number of studies) or mixed (contained a mixture of positive, neutral or negative results) for common mental disorders, depression and insomnia. No included studies specifically examined interventions for PTSD or anxiety. With the exception of psychological intervention for non-traumatic stress, the evidence does not clearly identify effective workplace-connected interventions for psychological injury.

Grey literature included multiple evidence reviews aiming to summarise the effectiveness of approaches to improve mental health from primary prevention through to interventions for those experiencing ongoing disability. Some of these reviews formed the basis of mental health strategy documents, aiming to set the directions of future approaches to addressing mental health. Within the documents located were several examples of programs or initiatives putting principles into practice, but only one instance was located that demonstrated some evaluation of the program. While there was a strong consistency between the experts interviewed and key strategy documents identified in the grey literature, a greater emphasis on evaluation is required to determine which approaches are effective.

A challenge in this area is synthesising the volume of research evidence available, which when analysed as a whole provided few clear recommendations for practice. One explanation for this finding is the common approach of grouping different types of psychological injuries as “common mental disorders”. So while there is a lot of research being conducted, the diversity of studies make it difficult to draw conclusions about specific psychological injuries or types of interventions. Despite this, some findings are making their way into some workplace practices, with a number of resources translated for use in the workplace. It appears the key challenge in this space is not only conversion of principles and policies into everyday practice, but also evaluation of outcomes. Evaluation of programs and communication of findings is essential if the management of psychological injuries in the workplace is to be improved.

## **NEXT STEPS**

Despite the significant body of research around mentally healthy workplaces, psychological injury and the availability of workplace-focused resources, the number of psychological injuries connected with work continue to grow, both in NSW and other personal injury schemes. The next phase of the project will aim to identify the following for the improved management of psychological injuries: 1) the interventions most commonly applied in practice; 2) industry stakeholders’ priority areas for change; and 3) the key challenges for implementing different approaches for the management of psychological injuries.

## BACKGROUND

Mental health morbidity is a growing focus in injury insurance in NSW, in other Australian states and similar international jurisdictions<sup>1</sup>. In workers' compensation schemes nationally and internationally there is a growing trend in both the incidence and duration of psychological injury claims. For example, in NSW there has been a 22% growth in psychological injury claims from calendar year 2018 to calendar year 2019, representing 7.5% of all claims lodged. There is also increasing recognition of the high prevalence of co-morbid or 'secondary' mental health conditions in people making physical injury claims<sup>2,3</sup>. Recent analysis of the National Return to Work Survey demonstrated that up to 38% of people making claims for musculoskeletal conditions reported moderate or severe psychological distress, and of these less than one quarter reported receiving mental health care<sup>4</sup>. In CTP schemes there has been a growing awareness of the adverse impact of Post-Traumatic Stress Disorder (PTSD) and depression on recovery, including among bystanders<sup>5,6</sup>.

In this report a psychological injury includes a range of cognitive, emotional and behavioural symptoms that interfere with a person's life and can significantly affect how they feel, think and interact with others<sup>7</sup>. Psychological injury may include such diagnosed disorders as depression, anxiety or post-traumatic stress disorder (PTSD).

There is now substantial evidence that people making psychological injury claims take much longer on average to return to work, have slower recovery trajectories, report poorer claims management experiences, and have more costly claims<sup>1,4,8,9</sup>. The personal, occupational and social factors underlying these negative outcomes are well documented. The focus of research to date in Australian workers' compensation schemes has been on the epidemiology and impact of mental health conditions, with less focus on developing and trialling effective interventions.

The Project seeks to identify and document opportunities to prevent and more effectively manage psychological injury claims, and to support the recovery and return to work of people with psychological injury claims, in the NSW CTP and workers' compensation schemes. To achieve this aim the project consists of multiple parts:

1. A review of existing knowledge: this includes industry expertise, peer-reviewed research and other published forms of research. This document addresses the findings of this component of the project.
2. A survey and series of workshops with industry experts to establish current practice, prioritise areas for action and identify challenges for implementation of different approaches to psychological injury management. This report will form one of the inputs into these workshops.

## REVIEW OBJECTIVE

The objective of this report is to summarise existing evidence to describe the effectiveness of work-connected interventions for people with psychological injury. We define a work-connected

intervention as one that is either conducted within or initiated by the workplace, or where treatment is targeted towards workplace goals. This objective is achieved through three distinct methods:

- A series of interviews with expert stakeholders from a range of roles concerning the clinical and case management of people with psychological injuries and claims for compensation.
- A systematic meta-review of the published academic literature examining the effectiveness of work-related interventions for employees or compensable individuals with psychological injuries.
- A summary of the published grey literature including government and industry reports or guidelines that inform the management of employees or compensable individuals with psychological injuries.

## METHODS

### STAKEHOLDER INTERVIEWS

SIRA identified a range of individuals and organisations with expertise that would contribute to the aims of the project. An invitation was emailed inviting each stakeholder to participate in a 30-45 minute telephone interview with the research team. Ten semi-structured interviews were conducted. An interview schedule was developed to guide the conversation and interviews were recorded to allow review of key concepts after the interview. Stakeholders represented four key categories from the following organisations:

- Workplaces considered to be “high risk” for psychological injury claims
  - New South Wales Fire and Rescue
  - NSW Ministry of Health
- Healthcare and rehabilitation providers
  - Australian Rehabilitation Providers Association
  - Resilia
  - Treating practitioners with specific compensation system expertise (x2)
- Insurers and self-insurers
  - EML
  - Woolworths
  - Westpac
- Other related parties
  - Superfriend

### META-REVIEW

#### SEARCH STRATEGY, STUDY SELECTION & STUDY ELIGIBILITY

A search strategy was devised that combined terms relating to employees or compensable individuals, psychological conditions, and work- or compensation-related outcomes. The search



strategy was executed on the MEDLINE and PsychINFO databases on the 8<sup>th</sup> of November, 2019. The resultant search yields from each database were pooled into a master library and studies were screened against the eligibility criteria to identify relevant studies (Table 1). The first 100 studies were screened in duplicate by two independent authors to ensure the eligibility criteria were consistently applied. The remaining studies were then screened by a sole author. To ensure all contemporary literature examining interventions were included in this review, RCTs that were published in the past five years and not contained within the included systematic reviews were also included. Targeting existing reviews results in gathering pre-appraised evidence, and only including randomised control trials aimed to ensure we examined the highest level of evidence possible.

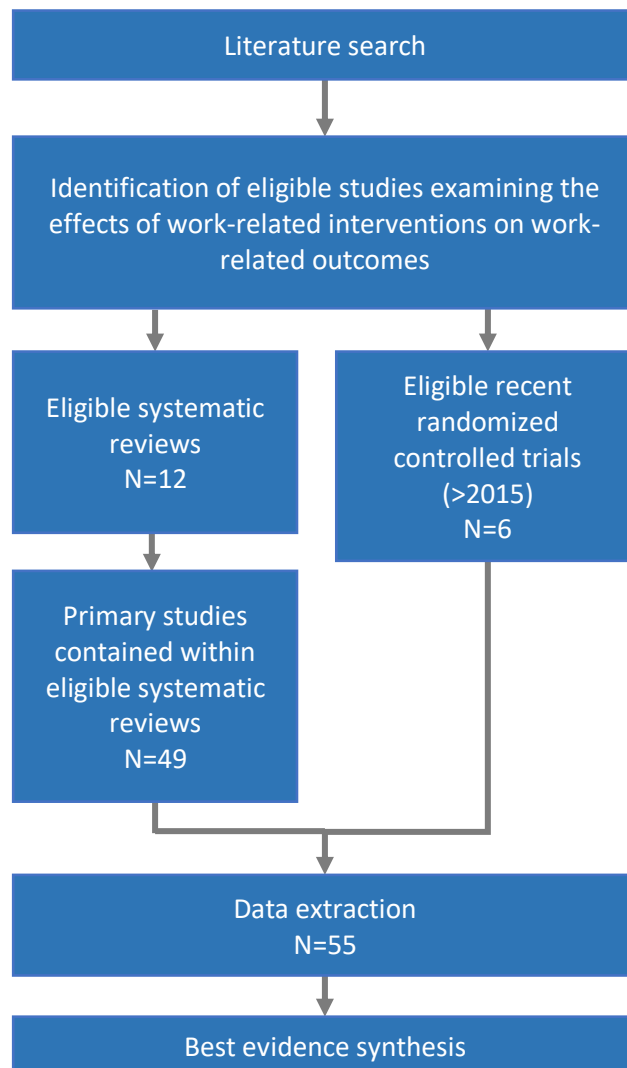
**Table 1:** Eligibility criteria for inclusion in the meta-review

Include	Exclude
Systematic reviews of interventions RCTs not contained within the included systematic reviews.	Systematic reviews published before the year 2000 RCTs published before the year 2015 Case reports, books, letters, dissertations, abstracts.
Employees or third-party compensable individuals with a common mental health disorder (depression, anxiety, post-traumatic stress disorder (PTSD), conversion disorder, stress) either self-reported, or diagnosed by a clinician or defined using a validated screening tool.	Participants of non-working age (<17 - >67 years) Participants with psychosis, schizophrenia, and bipolar disorder.
Clinical, procedural or institutional interventions that are workplace connected, that is either conducted within or initiated by the workplace, or where treatment is targeted towards workplace goals.	Interventions that are not focused or related to the workplace (e.g. traditional CBT delivered by a private psychologist).
Outcomes that related to the workplace, incidences of claims, claim expenses, or duration of a claim (e.g. Return to work).	Studies that did not include any work-related outcomes.

#### OUTCOMES OF INTEREST

The primary outcome of interest for this meta-review included any work-related or claim-related outcome. For example, sick leave, proportion of claimants returning to or staying at work or the number of claims being made. Work-related outcomes were prioritised as individuals with psychological injury can demonstrate an improvement in health-related outcomes without a matched change in work-related outcomes (for example a change in

depression outcome measure scores with no change in work status).<sup>10</sup> Additionally, focussing on work-related outcomes allowed for the timely review of a vast quantity of literature that is most relevant to the study aims. Where available, secondary outcomes of interest including symptoms, healthcare expenditure, and disability were extracted, however, for these secondary



outcomes were not used in the final data synthesis.

#### DATA EXTRACTION AND SYNTHESIS APPROACH

**Figure 1:** Identification of studies used in data synthesis

For each of the included systematic reviews, data relating to the number and design of included studies, primary study quality as assessed in the review, included conditions and population were extracted. Where possible, the MHCs, intervention descriptions, and primary and secondary outcome data were extracted from the primary studies contained within each of the systematic reviews (Appendix 1), and from the eligible recent RCTs (Appendix 2). The effectiveness of the interventions contained within the primary studies was determined by

examining the primary outcomes to determine if the intervention produced a negative, neutral or positive effect. Quality assessment of individual studies was not conducted in line with established rapid review methods. A summary of study identification through to data synthesis is provided in Figure 1.

Individual primary studies were stratified according to the type of intervention applied using the categories below:

- Psychological intervention alone: the intervention was typically provided by a psychologist, but could include other health professionals delivering a similar type of intervention
- Psychological intervention plus other intervention: intervention contained an element of psychological intervention alongside another element, such as occupational physician input or workplace placement
- Other intervention alone: intervention did not contain psychological therapy delivered by a psychologist or similarly trained health professional.

Within each stratum, the direction of the effects from included studies were synthesised using a best evidence synthesis methodology<sup>11,12</sup> (Table 2). This approach considers the quantity and consistency of studies to provide a summary of the effectiveness for each intervention category, for individuals across multiple psychological injuries.

**Table 2:** The best evidence synthesis methodology used to summarise and grade the strength of evidence<sup>11,12</sup>

Level of Evidence	Description
Strong evidence	Findings provided by at least five included studies. The direction of effect on RTW is consistent between all studies.
Moderate evidence	Findings provided in at least three included studies in which the direction of effect on RTW is consistent; OR Findings provided in at least four included studies in which the direction of effect on RTW is consistent in $\frac{3}{4}$ of studies.
Limited evidence	Findings provided by two or fewer included studies in which the direction of effect is consistent.
Mixed evidence	Findings provided by multiple included studies in which the direction of effect on RTW is consistent in less than $\frac{3}{4}$ of included studies.

## GREY LITERATURE REVIEW

### SEARCH STRATEGY, LITERATURE SELECTION & DATA EXTRACTION

To address gaps in the published academic literature, we also sought to identify relevant non peer-reviewed literature (grey literature) from both industry and government bodies. This was achieved by asking interviewed stakeholders about their knowledge of specific resources or

guidelines used in practice, targeted searching of government and institutional websites, and performing a broad search using Google. Targeted searches of government and industry websites included the following organisational sites: Black Dog Institute, Superfriend, Phoenix Australia, Employers Mutual Limited, Comcare, Beyond Blue, Safework (NSW and SA), Worksafe (VIC, QLD, NT, ACT, TAS), the Department of Veteran Affairs, Australian Defence Force and the state emergency services. Google searches were performed using the following string: “mental health AND road traffic accident or employee AND intervention AND return to work”. The first five pages of search results were screened for relevant government or institutional grey literature. Condition-specific searches were then performed to target identified gaps in the academic literature including: “Anxiety AND employee AND return to work” and “PTSD AND employee AND return to work”. Candidate grey literature documents were then subject to further screening against the population and intervention eligibility criteria (Table 1) to determine suitability for inclusion. Included documents were read by a single author and information describing the purpose of the document and information deemed relevant to the review was extracted.

## RESULTS

### STAKEHOLDER INTERVIEWS

Eight key themes emerged from the stakeholder interviews: 1. Take an individualised approach, 2. Focus on the person and not the condition, 3. Mental health literacy is needed, 4. Diagnosis, treatment and oversight, 5. Sophistication is increasing, 6. Unhelpful claims processes, 7. Be mental health specific, 8. Evaluation is limited. These themes shape high level principles about preventing and managing psychological injury more effectively. Where possible, specific examples from the interviews are described to illustrate the principle and demonstrate how this can be put into practice. The approaches mentioned below have generally not undergone formal evaluation.

#### *1. Take an individualised approach.*

Stakeholders were remarkably consistent in stating that supports for people with psychological injuries should be tailored to the needs to the individual. This involves a biopsychosocial approach that takes a holistic view of the individual and their circumstances as opposed to a more medical approach to treating the condition. This also extends to the assessment of the person's condition to determine the true nature of what is disrupting their ability to function. Several stakeholders identified that workplace factors (such as relationships with co-workers and supervisors) contribute to a large proportion of problems, and early identification of these workplace causes can enable intervention before a compensation claim is required.

Stakeholders identified that being able to tailor the processes to the individual, both in terms of assessment and provision of appropriate supports, requires considerable training and skill. It was also noted that while evidence-based clinical guidelines do exist for some conditions (e.g. PTSD), these also need to be tailored to the individual. Stakeholders noted that such clinical guidelines are not always effective, and that in these cases other factors are often affecting the individual. Co-morbid conditions, chronic pain or legal processes that impede treatment are all factors that require significant expertise to cater for in any treatment approach.

#### **Example 1: NSW Fire and Rescue**

NSW Fire and Rescue have an approach that appears to have lower injury rates, claim costs and premiums (although has not been formally evaluated). Key components of this approach include:

- Aim to get early (within 2 weeks of a claim) clarification and agreement on diagnosis. This includes detailed assessment of the actual issue, then applying clinical guidelines as appropriate.
- Provide evidence-based treatment, acknowledging that not all GPs and psychologists are experts in that.

- A variety of supports are available: e.g. dietetics, exercise physiology, occupational therapy. Clear communication to treatment providers around the supports that are directly available from NSW Fire and Rescue.
- Actively involve family – including providing resources specifically for family members.
- Take a conservative line and accept that the person may be having a temporary psychological condition and does require help.

## *2. Focus on the person and not the condition.*

The stakeholders interviewed are adopting an approach of “support first, ask questions later”, which provides immediate support when required and leaves questions of legitimacy or liability to later. This was agreed on as the best approach to starting intervention, maintaining workplace relationships and avoiding barriers to return to function. Several referred to the availability of Employee Assistance Programs (EAP) where confidential psychological support is made available free of charge to the employee as best practice. These programs often have a limit of three or five sessions, but one organisation had removed any limits of service access for employees. It is also noted that an EAP program is best suited to addressing minor psychological issues, and should not be viewed as an approach to manage all types of psychological injuries. A key focus in the early stages of the emergence of ill health is recognising that the person has difficulty doing their work due to their mental health and doing what is needed to help. Stakeholders tended to speak in general principles rather than specific actions, but were able to provide details to fit specific situations.

### **Example 2: Woolworths program**

Woolworths is a very large employer. Among their workforce Woolworths estimates that one employee attempts suicide or thinks of committing suicide once per week. Woolworths has developed the “I am here” program in response to the leadership decision to make psychological safety the number 1 priority.

- Based on the belief that it’s ok not to feel ok and it is ok to ask for help. The aim was to increase belief amongst employees that if someone didn’t feel ok, they would know what to do.
- Training for managers and voluntary program within the company. Currently 25,000+ have completed the program, with 8,000+ signed up to be an ambassador of the program
- 3 key steps: 1. show you care; 2. ask the question; 3. call for help.
- Currently sharing the content with other companies.
- No limits to consultations through the EAP. Also provision of financial assistance programs to staff members.

## *3. Mental health literacy is needed.*

A common emphasis across the stakeholders was the importance of the initial response to a worker disclosing a mental health concern. When the response from the direct manager was perceived as supportive, outcomes were generally believed to be better. However, to achieve

this, training is required within the workplace to improve the skills and capacity of managers to respond appropriately. Different models of training were described by the stakeholders interviewed, but the common element was related to improving mental health literacy for all employees within the workplace to be able to provide immediate support for the individual concerned, and appropriate initial responses and follow-up actions from the manager. Stakeholders noted that some industry sectors (e.g. aged care sector) have a better understanding of how to respond to psychological injury than others. It was described by multiple stakeholders that sometimes the way mental health is discussed or emphasised in the workplace can actually serve to reinforce or maintain the negative stigma around mental health. The importance of the relationship between the worker and the workplace was emphasised, and role of the direct manager was described as incredibly powerful in establishing a supportive atmosphere. It was also emphasised that just having policies in place or encouraging mental health first aid training was not sufficient if these aspects were not played out in practice.

Regarding the immediate response to disclosure of a psychological injury, training direct managers to respond appropriately is viewed as a low cost, high value strategy. There was a strong view that staff in workplaces need to be trained to respond specifically to psychological injuries, and not just adapt processes routinely used for physical injuries. In terms of ongoing treatment, large organisations recognise they have significant resources that increase the variety of supports they may be able to provide to employees. However, size was not seen as a key determinant of the ability to respond to a worker reporting a psychological injury. Most important was how the size of the institution was used in terms of providing the support the individual needed.

### **Example 3: Resilia framework**

- Resilia and Centre for Corporate Health is a specialised psychological rehabilitation provider.
- Developed a Mental Health Intervention Framework. The Framework is underpinned by three pillars of support for Low (Stress), Medium (Distress), High (Crisis) mental health presentations.
- Supports workplaces to establish a customised approach (Framework) to ensure that when an employee starts to experience symptoms of poor mental health, managers, HR and other key members of staff know what signs to look for, how to have a supportive conversation and how to take appropriate action aligned with the level of support required.
- Early intervention is defined as having a mental health framework embedded at all levels of an organisation through a staged training program.
- Framework and approach has been implemented within finance and banking, media and government sectors. Internal evaluation has demonstrated improvements in reducing workers compensation and salary continuance claims for mental health, improving engagement, destigmatising mental health in the workplace, and adopting an early intervention supportive approach to wellbeing.

#### *4. Diagnosis, treatment and oversight.*

Stakeholders recognised that external (i.e. non-workplace parties) have important roles to play in the recovery of workers with psychological injuries. Most stakeholders acknowledged the difficulty GPs have in providing an accurate diagnosis for mental health conditions. Clinicians interviewed described the most important aspect of the GP diagnosis was the opinion that work was contributing to the psychological injury. The role of diagnosis was seen to facilitate the provision of evidence-based treatment, but most stakeholders acknowledged that the diagnosis for someone with a psychological injury often changed over the course of management.

Commonly stakeholders described the importance of treatment overview, or independent review from clinical specialists. This came from two perspectives: 1. Independent review offered an opportunity for a skilled clinician to identify the treatment needs of the individual, and where appropriate adjust the diagnosis; 2. To ensure appropriate treatments were being applied for existing diagnosis and treatment wasn't being allowed to "drift" into a holding pattern with little therapeutic benefit. It was also identified that current practices meant an independent assessor may not spend enough time to understand all the complexities of a case, and the resulting findings could present a barrier to providing the best treatment for the individual concerned.

It was identified that when there is legal involvement, this can often provide a significant barrier to the progress of treatment. While in some cases the individual is able focus on recovery and allow the legal component to run its course, it is commonly noted that clinical progress is often slow until the legal hurdle is cleared, regardless of outcome.

#### *5. Sophistication is increasing.*

The stakeholders interviewed demonstrated varying levels of sophistication in their approach to mental health within the workplace through the use of data-driven approaches and the range of supports being provided to support employees. Two organisations reported using data to identify areas that require more support (e.g. training in managing aggressive customers in specific regions) or structural opportunities to manage better psychological health (e.g. merging HR teams with injury management teams). Employer stakeholders interviewed represented large organisations with the resources to provide a range of supports for employees, and provided examples of senior leadership prioritising mental health in the workplace as an area for action. Finally it was noted that organisations don't want or need a website that provides high level guidance on providing a mentally healthy workplace, rather they would benefit from clear strategies of what to do or example programs that can be put in place. This suggests there is an understanding of the high level principles, but specific examples are needed to guide practice.

#### **Example 4: Application of data for early identification**

- Woolworths applying an externally developed data model to identify high risk claims, particularly secondary psychological claims. Also applies a psychosocial screening tool for employees with manual handling claims to identify whether other supports are needed.



- Westpac analysing trends in injury reporting to identify areas for targeted training, such as in managing aggressive customers. Also aiming to deliver specific training to leaders in those areas to provide first aid response to incidents.

#### *6. Unhelpful claims processes.*

A number of elements of the claims process were described as unhelpful for people with psychological injury claims. It was noted that it is often not beneficial to require the person to describe in detail the trauma experienced early in the process (this can lead to re-traumatisation), or be required to re-tell the story multiple times (which can increase distress). Two informants commented on the mismatch between existing administrative structures such as payment codes, and the types of treatments that psychological injuries require. Fitting treatment approaches for psychological injuries into structures developed for treatment of physical injuries, such as short duration treatments and existing treatment codes, sometimes clashed. A further aspect of the insurance system identified as problematic was the attempt to identify liability for psychological injuries. At times this aims to “remove things that can’t be removed” as a person’s response to a situation is the result of a life experience. The notion of really understanding the person, how they are affected and why is different to the model often applied to physiological injuries where identifying a specific diagnosis and cause is the focus.

#### *7. Be mental health specific.*

A common concept described was the need to have a mental-health specific framework for the management of psychological injury. Stakeholders described current approaches as trying to adapt a model developed to manage physical injury to the requirements of psychological injury, which often does not work. The stakeholders suggested a very structured approach was required. While this is commonly a feature of the approach to the management of physical injury, the types of supports and the approach needed for psychological injuries were seen as different. Examples provided included how information was gathered on a claim (not requiring the person to re-live a traumatic event repeatedly), strategies for re-introduction to the workplace (such as choosing timing when the worker returned and allowing for potential anxiety-inducing work tasks such as team meetings) and claims management teams with specific expertise.

#### *8. Evaluation is limited*

Across the interviews, stakeholders were limited in their ability to describe detailed evaluations of the programs put in place. One stakeholder described a program that had been evaluated within a corporate environment, but otherwise stakeholders spoke in general terms about improved outcomes and were less able to describe detailed evaluations of the approaches being applied. In the case of multi-component intervention models being applied, stakeholders stated it would be difficult to determine which component of the intervention was more or less effective than another, as a key aim of the program is to provide a comprehensive approach to supporting the person with a psychological injury.

## META-REVIEW

### SEARCH RESULTS AND STUDY SELECTION

The search identified an initial 252 references once duplicates were removed. Twelve systematic reviews met the study criteria and a further six RCTs not part of these reviews were included. A total of 55 studies were included in the final synthesis (49 primary studies included in reviews and 6 further RCTs).

### CHARACTERISTICS OF THE INCLUDED STUDIES

The included systematic reviews were published between 2012 and 2018 and all focused on employees on sick leave. The population for the reviews tended to cover a range of diagnosed psychological injuries, with all but one including common mental disorders such as depression, anxiety and adjustment disorders. Neiwenhuijsen et al<sup>13</sup> exclusively included studies examining employees on sick leave due to depression. The largest review included a total of 30 relevant studies<sup>14</sup>, with the smallest containing just 2 primary studies meeting the study criteria<sup>15</sup>. According to the quality appraisal methods applied in the reviews, the studies were generally of moderate to high methodological quality.

There were 18 included studies examining psychological interventions alone. A psychological plus other intervention was examined in 30 studies, and 7 studies examined other interventions. The most commonly studied group of psychological injuries was common mental disorders, examined in 28 studies. Specific studies examined conditions including non-traumatic stress (13 studies), depression (11 studies), insomnia (2 studies) and adjustment disorders (1 study).

### RESULTS

Using the best-evidence synthesis approach there is moderate evidence to support workplace-connected psychological intervention in the treatment of non-traumatic stress (Table 3). From a total of five studies, we identified that four trialling psychological intervention alone demonstrated positive effects on a work outcome, while a single study showed no effect.

There is limited evidence for a positive effect of psychological intervention alone for employees with insomnia and adjustment disorders. There is also limited evidence of no effect of other interventions alone for non-traumatic stress.

The remaining evidence for other conditions and intervention approaches is mixed. For the most commonly investigated diagnostic category, common mental disorders, each of three intervention categories contained examples that demonstrated improvement in outcomes as well as examples that did not. As a result, we conclude that there is mixed evidence of the effectiveness of interventions for common mental disorders. The findings are similar for workers with depression.

We did not include any studies of people with diagnoses of anxiety or post-traumatic stress disorder (PTSD). In order to be eligible for inclusion in this review, interventions had to have a connection to the workplace, so the number of studies included is not a reflection of the extensive body of clinical treatment evidence for these conditions.

**Table 3:** Best evidence synthesis of primary studies evaluating work-related interventions stratified according to condition and intervention category

	Psychological interventions	Psychological plus other interventions	Other interventions alone
<b>Adjustment disorders</b>	n: 1 (+): 1 Positive effects Limited evidence	- - - -	- - - -
<b>Anxiety</b>	-	-	-
<b>CMDs</b>	n: 5 (+): 2 (0): 3 (-): 0 Mixed evidence	n: 18 (+): 4 (0): 12 (-): 2 Mixed evidence	n: 5 (+): 2 (0): 3 (-): 0 Mixed evidence
<b>Depression</b>	n: 5 (+): 3 (0): 2 (-): 0 Mixed evidence	n: 6 (+): 3 (0): 3 (-): 0 Mixed evidence	- - - -
<b>Insomnia</b>	n: 2 (+): 2 Positive effects Limited evidence	- - - -	- - - -
<b>PTSD</b>	-	-	-
<b>Stress (non-traumatic)</b>	n: 5 (+): 4 (0): 1 Positive effects Moderate evidence	n: 6 (+): 4 (0): 2 Mixed evidence	n: 2 (+): 0 (0): 2 No effect Limited evidence

n: Number of primary studies, CMDs: Common mental disorders, PTSD: Post traumatic stress disorder, (+) demonstrating a positive effect on outcomes, (0) demonstrating no effect on outcomes, (-) demonstrating a negative effect on outcomes.

## GREY LITERATURE REVIEW

### SEARCH RESULTS AND LITERATURE SELECTION

The grey literature search identified 27 documents that were examined for relevance to the review. Of these, 21 were included for data extraction (appendix 4). Documents ranged from organisational strategy documents (e.g. from large government departments) to fact sheets designed for employers.

### RESULTS

On examination of the gathered grey literature, it is evident that there have been multiple reviews aiming to summarise the effectiveness of approaches to improve mental health, considering primary prevention, stay at work and return to work perspectives. There have also been significant efforts to set the directions of future approaches to addressing mental health. The following provides a high level summary of the grey literature examined.

*Documents generally describe high level principles*

Eleven documents, in particular documents outlining strategic approaches to mental health, combined advice related to primary prevention with appropriate responses for people sustaining a psychological injury. A common framework of Promote, Prevent, Intervene Early and Support Recovery was noted across several documents. This approach aims to promote the understanding of mental health and mental ill health (i.e. psychological injury) within the workplace. This also formed a component of prevention of psychological injury through aspects of work such as job design, workplace culture and wellbeing. The notion of intervening early aims to address issues that can impact psychological health as soon as they become apparent, with the nature of the intervention depending on the severity of the problem. Intervention can range from addressing interpersonal conflict to emergency intervention to ensure an individual's safety. The final component of this approach, most relevant to this review, is supporting recovery. Previous components have a strong prevention focus, which falls outside the scope of this review. Overall, the strategies and principle documents described in the grey literature largely reflected the high level themes discussed in the stakeholder interviews.

*There are useful resources available for employers based on these principles.*

The grey literature review provided a number of examples of turning strategic statements and evidence-based principles into resources for employers to apply in practice. The most comprehensive example located was <http://returntowork.workplace-mentalhealth.net.au/>. This site, developed by the Population Mental Health Group at the University of Melbourne, separates information and resources according to a range of roles in the workplace, such as return to work coordinators, employees and trade union representatives. It provides case studies, tools and video examples based on a systematic process assessing consensus between consumers, employers and health professionals (called a Delphi approach). While this is an excellent resource for anyone involved in the process of returning to work after psychological injury, the site provides no additional information regarding the effectiveness of different interventions to improve return to work or stay at work.

*Evaluation is rare, and the quality of evaluation is difficult to determine.*

Within the grey literature documents there are a number of examples, albeit briefly described, of interventions to address mental health. Several of these are within high risk workplaces, such as first responders and the defence forces. While there are examples of putting principles into practice, there were very few examples of evaluations of those programs available. The one exception located was the FRESHminds program launched by the Sunshine City Council in Queensland in 2015. Limited details are provided about the evaluation methods, but an employee survey suggests an increase in worker perception that the Council provides for their health and wellbeing, utilisation of the EAP after the program was higher than the industry benchmark and the total number of leave days taken due to injury (including stress leave) decreased by 40% compared to the year before the program was introduced.

## SYNTHESIS

The sources used in this review reflect current practice, integrating industry expertise with the best available external evidence from systematic research<sup>16</sup>. Information was sought from key stakeholders representing treatment providers, insurers, high risk occupations and other organisations with experience in managing psychological injury. The high-level themes described by this group of experts are closely aligned to the principles outlined in comprehensive strategy documents identified in the grey literature aiming to reduce the impact of psychological injury on work in general. Several of these documents are based on reviews of existing evidence and were developed through round-table exercises with experts in the field. Stakeholders interviewed consistently described key principles underpinning the management of psychological injury, suggesting that the stakeholders interviewed were familiar with the current evidence, and were attempting to put it into practice. However, evaluation of these approaches was uncommon. Without clear evidence of evaluation, it is not clear whether a particular approach is effective, or in the case of multi-component interventions, which element had the greatest impact. In order to improve the management of psychological injury, evaluation and communication of findings must be more common.

One particular challenge is the volume of evidence available in the area of psychological health and psychological injury. Even though 68 documents were identified overall, few clear recommendations for practice were defined. Aside from providing moderate evidence to support the application of psychological interventions for non-traumatic stress conditions, the evidence is mixed for the treatment approaches examined across different types of psychological injury. One explanation for this finding is the common approach of grouping different types of psychological injuries as “common mental disorders”. Investigations of interventions to address physical injuries are typically applied in more homogenous groups with the same or similar diagnoses, for example people with low back pain. Greater guidance on the effectiveness of interventions for psychological injuries may be provided by studies examining a single type of psychological injury. Future research into workplace connected interventions should focus on clearly defining the condition of interest.

A common thread running through the stakeholder interviews and the grey literature is the need for an individualised approach to the management of psychological injuries. It was common for the stakeholders to describe this approach at a high level and in general terms. This was often referred to as taking the time to identify the needs of the individual and providing appropriate support or even a range of supports. How these supports were defined was often unclear. This may be due to the impact and causality of the injury being highly specific to the individual. The individualistic approach then demands a high level of skill from all involved in the management of the injury. The importance of the workplace culture and environment was emphasised in the stakeholder interviews as a critical part of staying at work and returning to work. The same can be said of many physical injuries, but is even more important in the case of psychological injuries. There was a strong emphasis on training managers and colleagues in mental health literacy to increase the understanding of psychological injuries, which was

identified in the interviews and in the grey literature as being a long way behind the understanding of physical injuries. While the stakeholders identified the importance of workplaces and employers being able to respond to psychological injuries effectively, it is likely that many organisations, insurers and treatment providers are not as well-versed in these principles.

One of the benefits of the volume of attention and research in the area of psychological health that a number of resources have already been translated to be used in the workplace. This review identified one comprehensive website designed to be used by a variety of workplace roles (<http://returntowork.workplace-mentalhealth.net.au>) that is based on evidence review and expert input. Grey literature strategy documents covered primary prevention of psychological injury through to providing support when a psychological injury is impacting the person's ability to work, meaning developing appropriate responses to disclosure of mental health concerns is a natural progression for employers aiming to providing a mentally healthy workplace. Significant work has been done to establish suitable frameworks to improve the management of psychological injury, and resources have been developed with employers in mind. It appears the key challenge in this space is the conversion of principles and policies into everyday practice in the majority of workplaces. Evaluation of programs and communication of findings is essential if the management of psychological injuries in the workplace is to be improved.

## **NEXT STEPS**

The peer reviewed research literature regarding work-connected interventions applied in the management of psychological injuries, on the whole, was mixed. This is despite a significant body of research and knowledge in the area of work-related mental health interventions. There are also a wide range of workplace-focused resources available to support people in the prevention and management of psychological injuries. Despite these efforts, the incidence and impact of psychological injuries continues to grow without a full understanding of the long-term effectiveness of available interventions.

The next phase of the project will aim to identify interventions most commonly applied in practice when managing psychological injuries. Alongside establishing a picture of current practice, a wider set of industry stakeholders will be asked to prioritise areas for action and to identify key challenges for implementation of a range of approaches to manage psychological injuries more effectively. A key focus of the next phase of the project is to ensure psychological injury arising from traffic accidents are more specifically considered in the data gathered.

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## APPENDIX 1

Study design, population, intervention and outcome data of the included systematic reviews

Systematic review	Included primary studies, QA tool and outcome	Population	Intervention category	Effect on work related outcomes	Effect on secondary outcomes	
<b>Carolan, 2017</b> <sup>17</sup>	RCTs (n=5) Cochrane risk of bias tool 46% of ratings were considered unclear or high risk	Employees of working age	<b>Psychological intervention alone</b>			
				<b>Conditions</b>	Work effectiveness	Psychological wellbeing
			<b>Billings 2008</b> CBT delivered audio-visual media with a focus on stress and mood management <sup>18</sup>	CMDs	(0)	(0)
			<b>Ebert 2014</b> Internet-based problem solving, consisting of solving and rumination-based techniques <sup>19</sup>	Depression	(+)	(+)
			<b>Erbert 2016</b> Website (text messages) delivered. Transactional model of stress, problem solving and emotional regulation <sup>20</sup>	Stress	(0)	(+++)
<b>Thiart 2015</b> CBT for insomnia consisting of independent homework, coaching via email, weekly feedback on exercises <sup>21</sup>	Insomnia	(++)	(++)			
<b>Ebert 2015</b> CBT and meta-cognitive techniques for insomnia that included articles, testimonies, audio-visual media <sup>22</sup>	Insomnia	(+++)	(++)			

Systematic review	Included primary studies, QA tool and outcome	Population	Intervention category	Effect on work related outcomes	Effect on secondary outcomes	
<b>Cullen, 2018</b> <sup>12</sup>	RCTs (n=6) and nRCTs (n=3)  Proprietary QA tool  All studies were of moderate or high quality	Employees	<b>Psychological intervention alone</b>	<b>Conditions</b>		
			<b>Kroger 2015</b> Work-focused CBT <sup>23</sup>	Depression	RTW (+)	Sickness absence (+)
			<b>Lagerveld 2012</b> Work-focused CBT <sup>24</sup>	CMDs	RTW (+)	
			<b>Psychological plus other intervention</b>			
			<b>Beutel 2005</b> Inpatient psychosomatic rehabilitation including work placement and graded exposure <sup>25</sup>	CMDs	Sickness absence (+)	Work disability (0)
			<b>Hees 2013</b> Individual and group sessions with an occupational therapist. Intervention focused on facilitating contact to the work place and engaging in simulated work situations <sup>26</sup>	Depression	Work participation (0)	Symptom recovery time (0)
			<b>Vlasveld 2013</b> Collaborative care provided by occupational physicians and psychiatrists <sup>27</sup>	Depression	RTW proportion (0)	Depressive symptoms (0)
			<b>Arends 2013</b> Stimulating Healthy participation And Relapse Prevention (SHARP)-at work intervention <sup>28</sup>	CMDs	Sickness absence (+)	Time until relapse (+)
			<b>Schene 2007</b> Additional occupational therapy (to usual care) <sup>29</sup>	Depression	Time to RTW (+)	Symptoms (0)
			<b>Other intervention alone</b>			
			<b>Karlson 2010</b> A dialogue-meeting focused on problem solving between the worker, team worker and employer <sup>30</sup>	Stress	RTW (0)	
<b>van Oostrom 2010</b> Participatory workplace intervention <sup>31</sup>	Stress	RTW (0)				
<b>Ebriham, 2014</b> <sup>32</sup>	RCT (n=1) QA not performed	Employees on sick leave	<b>Psychological intervention alone</b>			
			<b>Lagerveld 2012</b> Work-focused CBT <sup>33</sup>	CMDs	Full and partial RTW (+)	



Systematic review	Included primary studies; QA tool and outcome	Population	Intervention category	Effect on work related outcomes	Effect on secondary outcomes			
<b>Hamberg-van Reenen, 2012</b> <sup>34</sup>	Modelling studies (n=1), RCTs (n=5) Consensus Health Economic Criteria List Studies obtained 71% of the QA criteria	Employees on sick leave or with substantial absenteeism	<b>Psychological intervention alone</b>			<b>Condition(s)</b>		
			<b>Brouwers 2007</b> Problem solving strategies delivered by trained SWs <sup>35</sup>	CMDS	Sick leave (0)		Health and functional status (0)	
			<b>Leon 2002</b> Depression screening program, antidepressant medication and sessions with a psychiatrist <sup>36</sup>	Depression	RTW claim expenditure (+)			
			<b>Uegaki 2010</b> Minimal Intervention for Stress-related mental disorders with sick leave delivered by GPs <sup>37</sup>	Stress				QALYs (0)
			<b>Psychological intervention plus other intervention</b>				Sick leave (0)	Lost productivity costs (0)
			<b>Rebergen 2009</b> A guideline-based care delivered by occupational physicians (activating approach, process evaluation, CBT) <sup>38</sup>	CMDs				
			<b>Schene 2007</b> Additional occupational therapy (to usual care) <sup>29</sup>	Depression	Time until RTW (+++)			
<b>Other intervention</b>			RTW (0)	QALYs (0)				
<b>Van Oostrom 2010</b> Participatory RTW-intervention at occupational health services <sup>31</sup>	Stress							

Systematic review	Included primary studies; QA tool and outcome	Population	Intervention category	Effect on work related outcomes	
<b>Hoefsmit, 2012</b> <sup>39</sup>	RCTs (n=4), nRCT (n=1) Modified Effective Public Practice Project Tool Studies were considered to be of moderate (n=1), good (n=4) or very good (n=1) quality	Workers on sickness absence	<b>Psychological intervention alone</b>		
			<b>Brouwers 2007</b> Problem solving strategies delivered by trained SWs <sup>35</sup>	CMDs	Sick leave duration (0)
			<b>Grossi and Santell 2009</b> Coping with psychological and somatic symptoms of stress <sup>40</sup>	Stress	RTW rate (0)
			<b>Psychological intervention plus other intervention</b>		
			<b>van der Feldtz-Cornelis 2010</b> Training of occupational physicians in diagnosis and treatment, supportive psychiatric consultations, training of psychiatrist <sup>41</sup>	CMDs	Full RTW (+)
			<b>Other intervention</b>		
<b>van der Klink 2003</b> Graded activity <sup>42</sup>	Adjustment disorders	RTW rate (+++)			
<b>Bakker 2007</b> Communications by GPs to promote functional recovery (e.g. in informing and advising the employee) <sup>43</sup>	Stress	Sick leave duration (0)			

Systematic review	Included primary studies; QA tool and outcome	Population	Intervention category	Effect on work-related outcome	
<b>Mikkelsen, 2018</b> <sup>14</sup>	RCTs (n=24), controlled studies (n=6)  The NIH Quality Assessment Tool  Included studies were of high (n=8), fair (n=18), and low (n=4) quality	Sick-listed workers	<b>Psychological Interventions</b>		
			<b>Brouwers 2006</b> Early intervention focused on problem solving and coping <sup>44</sup>	CMDs	Time until RTW (0)
			<b>Fleten 2006</b> Minimal intervention: letters containing generic information about sick leave and a questionnaire <sup>45</sup>	CMDs	Time until RTW (+)
			<b>Noordik 2013</b> Coordinated and tailored exposure-based RTW program <sup>46</sup>	CMDs	Time until RTW (-)
			<b>Beck 2015</b> Psychotherapy using music to reduce stress <sup>47</sup>	Stress	Self-reported work readiness (0)
			<b>De vente 2008</b> Stress-management based on CBT <sup>48</sup>	Stress	Sickness absence (0)
			<b>Willert 2011</b> Stress inoculation training <sup>49</sup>	Stress	Sickness absence (++)
			<b>Folke 2012</b> Acceptance and commitment therapy <sup>50</sup>	Depression	Work readiness (0)
			<b>Lagerveld 2012</b> Work-related CBT <sup>33</sup>	CMDs	Time until RTW (+)
			<b>Grossi and Santell 2009</b> Rehabilitation programme consisting of consultations with the course leader, coping skills and relaxation techniques <sup>40</sup>	Stress	Sickness absence (0)
			<b>Psychological intervention plus other intervention</b>		
			<b>Reme 2015</b> Integrated CBT and Individual Placement and Support (IPS) <sup>51</sup>	CMDs	Full RTW at 12 months (+)
			<b>van der Feltz Cornelis 2010</b> Training of occupational physicians in diagnosing and treating CMDs. Training of psychiatrists in facilitating RTW <sup>41</sup>	CMDs	Time until RTW (0)
			<b>Hees 2013</b> Occupational therapy provided by residents. Intervention focused on facilitating contact to the work place and engaging in simulated work situations <sup>26</sup>	Depression	Full RTW at 18 months (0)
			<b>Vlasveld 2013</b> Collaborative care provided by occupation care manager. Problem solving, guided self-help and interventions at the work place <sup>27</sup>	Depression	Time until RTW (0)
<b>Hellstrom 2017</b> Individual Placement and Support modified to fit workers with depression and anxiety <sup>52</sup>	CMDs	Full RTW at 12 months (0)			
<b>de Weerd 2016</b> Meeting focused on problem solving between employee, employer and employer plus CBT <sup>53</sup>	CMDs	Time until RTW (0)			

<b>Lytsy 2017</b> Individualised rehabilitation plan and acceptance and commitment therapy <sup>54</sup>	CMDs	Time until RTW (0)
<b>Martin 2013</b> Multidisciplinary team developed individualised rehabilitation plans with a problem-solving focus <sup>55</sup>	CMDs	Full RTW at 12 months (-)
<b>Momsen 2016</b> Multidisciplinary team is appointed to develop an individualised RTW plan <sup>56</sup>	CMDs	Time until RTW (0)
<b>Rebergen 2009</b> A guideline-based care delivered by occupational physicians (activating approach, process evaluation, CBT <sup>38</sup>	CMDs	Time until RTW (0)
<b>van Beurden 2015</b> Training of occupational physicians in following guidelines <sup>57</sup>	CMDs	Time until RTW (0)
<b>Blonk 2006</b> CBT combined with advice from labour experts on work processes, stress management, and RTW <sup>58</sup>	Stress	Time until RTW (0)
<b>Netterstrom 2010</b> Stress-inoculation intervention, mindfulness, contact with the workplace <sup>59</sup>	Stress	Full RTW at 3 months (+)
<b>Netterstrom 2013</b> Stress therapy, mindfulness, workplace dialogue <sup>60</sup>	Stress	Full RTW at 3 months (++)
<b>van der Klink 2003</b> CBT focused on problem solving and contact with the workplace <sup>42</sup>	Stress	Time until RTW (+)
<b>Kroger 2015</b> Problem solving to facilitate gradual RTW. Employer and occupational physician input if possible <sup>23</sup>	Depression	Sickness absence (0)
<b>Waahlin 2013</b> Medical, rehabilitating and/or work-related intervention-modules <sup>61</sup>	CMDs	Self-reported workability (+)
<b>Netterstrom 2012</b> Anamnesis, clinical assessment, stress management program, contact with workplace <sup>62</sup>	Stress	Full RTW at 4 months (++)
<b><i>Other intervention alone</i></b>		
<b>Bakker 2007</b> Brief training of primary care physicians in giving advice on achieving RTW <sup>43</sup>	Stress	Time until RTW (0)
<b>Lammerts 2016</b> Early coordinated intervention focused on problem solving and fast, supported RTW <sup>63</sup>	CMDs	Time until RTW (0)
<b>Karlson 2010</b> A dialogue-meeting focused on problem solving between the worker, team worker and employer <sup>30</sup>	Stress	RTW at 80 weeks (0)

Systematic review	Included primary studies; QA tool and outcome	Population	Intervention category	Effect on work related outcomes	Effect on secondary outcomes		
<b>Munoz-Murillo, 2018</b> <sup>64</sup>	RCTs (n=5), controlled trials (n=3), cohort studies (n=3) NICE Checklist Studies were considered + (n=10) or ++ (n=8)	Employees on sick leave and unemployed individuals seeking employment	<b>Psychological intervention alone</b>				
			<b>Conditions</b>				
			<b>Kroger 2015</b> Work-focused CBT <sup>23</sup>	Depression	RTW (+) Sickness absence (+)		
			<b>Lagerveld 2012</b> Work-Focused CBT <sup>33</sup>	CMDs	Full and partial RTW (+)		
			<b>Noordik 2013</b> Coordinated and tailored exposure-based RTW program <sup>46</sup>	CMDs	Time to RTW (-)		
			<b>Psychological intervention plus other intervention</b>				
			<b>Germundsson 2012</b> - Vocational rehabilitation, according to the supported employment approach <sup>65</sup>	CMDs	Time to finding employment (+)		
			<b>Martin 2013</b> Multidisciplinary, coordinated and tailored RTW intervention <sup>55</sup>	CMDs	Time to RTW (--)		
			<b>Arends 2014</b> Stimulating Healthy participation And Relapse Prevention (SHARP)-at work intervention <sup>66</sup>	CMDs	Sickness absence (+)	Time until relapse (+)	
			<b>Reme 2015</b> At Work and Coping (Work-focused CBT and individual job support) <sup>51</sup>	CMDs	Work participation (+) RTW (-)		
			<b>Vlasveld 2013</b> Collaborative care provided my occupational care manager <sup>27</sup>	Depression	Work related outcomes (0)		
			<b>Volker 2015</b> E-health module embedded in Collaborative Occupational health care <sup>67</sup>	CMDs	Full RTW (0) Sickness absence (0)		
			<b>Other intervention</b>				
			<b>Hogelund 2012</b> Part-time Sick Leave <sup>68</sup>	CMDs	RTW (0)		
<b>Andren 2014</b> Part-time sick leave <sup>69</sup>	CMDs	Obtaining employment (+) Maintaining employment (+)					

Systematic review	Included primary studies; QA tool and outcome	Population	Intervention category	Effect on work related outcomes	Effect on secondary outcome	
<b>Nieuwenhuijsen, 2014</b> <sup>70</sup>	RCTs (n=5) Cochrane Collaboration Risk of bias Tool  Studies were considered to be at low (n=3) or high risk of bias (n=2)	Employees on sick leave	<b>Psychological intervention alone</b>	<b>Conditions</b>		
			<b>Noordik 2013</b> Coordinated and tailored exposure-based RTW program <sup>46</sup>	CMDs	Sickness absence (0)	Depressive symptoms (0)
			<b>Psychological intervention + other intervention</b>			
			<b>Hees 2013</b> Occupational therapy provided by residents. Intervention focused on facilitating contact to the work place and engaging in simulated work situations <sup>26</sup>	Depression	Work functioning (0)	Depressive symptoms (0)
			<b>Lerner 2012</b> Work coaching and modification, care coordination and CBT <sup>71</sup>	Depression	Work functioning (++)	Depressive symptoms (+++)
<b>Schene 2007</b> Treatment as usual plus occupational therapy <sup>29</sup>	Depression	Sickness absence (0)	Depressive symptoms (0)			
<b>Vlasveld 2013</b> Collaborative care provided by occupation care manager. Problem solving, guided self-help and interventions at the work place <sup>27</sup>	Depression	Sickness absence (0)				

Systematic review	Included primary studies; QA tool and outcome	Conditions	Population	Intervention category	Effect on work related outcomes		
<b>Nigatu, 2016</b> <sup>72</sup>	RCTs (n=14) Cochrane Collaboration Risk of Bias Tool Nil classification of QA results	CMDs	Employees on sickness absence (mostly >2 weeks)	<b>Psychological intervention alone</b>	<b>Conditions</b>	<b>RTW proportion</b>	<b>Time to RTW</b>
				<b>Brouwers 2006</b> Problem solving activity and graded activity <sup>44</sup>	CMDs	(0)	(0)
				<b>Lagerveld 2012</b> Work focused CBT plus conventional CBT <sup>33</sup>	CMDs	(0)	(0)
				<b>Noordik 2013</b> Coordinated and tailored exposure-based RTW program <sup>46</sup>	CMDs	(0)	
				<b>Pedersen 2015</b> Psychoeducation, focused on stress and work life, problem-solving techniques and coping strategies <sup>73</sup>	CMDs	(0)	
				<b>van der Klink 2003</b> Problem-solving intervention and graded activity <sup>42</sup>	Adjustment disorders	(+)	(++)
				<b>Psychological intervention plus other intervention</b>			
				<b>Martin 2013</b> Coordinated and Tailored Work Rehabilitation <sup>55</sup>	CMDs	(-)	
				<b>Rebergen 2009</b> A guideline-based care delivered by occupational physicians (activating approach, process evaluation, CBT <sup>38</sup>	CMDs	(--)	(0)
				<b>Netterstrom 2013</b> Multidisciplinary stress treatment program <sup>59</sup>	Stress	(+++)	
				<b>Sogaard and Bech 2009</b> Multidisciplinary RTW program (psychiatrists, GPs, SWs) <sup>74</sup>	CMDs	(0)	
				<b>Vlasveld 2013</b> Collaborative care (occupational physician, psychiatrist) <sup>27</sup>	Depression	(0)	(0)
				<b>Volker 2015</b> E-health module embedded in Collaborative Occupational healthcare <sup>67</sup>	CMDs	(0)	(0)
				<b>van der Feltz-Cornelis 2010</b> Enhanced care by consultant psychiatrist with collaborating occupational physician <sup>41</sup>	CMDs	(0)	
				<b>Other intervention</b>			
<b>Van Oostrom 2010</b> Participatory workplace intervention <sup>31</sup>	Stress	(0)					

Systematic review	Included primary studies; QA tool and outcome	Population	Intervention category	Effect on work related outcomes	Effect on secondary outcomes	
<b>Pomaki, 2012</b> <sup>75</sup>	RCTs (n=4), CTs (n=2), unmatched historical groups (n=1) Modified Down's and Black Checklist Studies were considered to be either high (n=3) or medium quality (n=4)	Employees	<b>Psychological intervention alone</b>			
			<b>Grossi and Santell 2009</b> Rehabilitation program (strategies to identify, handle and understand stress) <sup>40</sup>	Stress	RTW (0) Sick leave (0)	Sickness benefits (0)
			<b>Wang 2007</b> Structured telephone-based intervention <sup>76</sup>	Depression	Job retention (+) Hours worked (0)	Job performance (0)
			<b>Psychological intervention plus other intervention</b>			
			<b>Lander 2009</b> Activating intervention, education, facilitated RTW (psychologist, social workers) <sup>77</sup>	Stress	Time to RTW (0)	
			<b>Rebergen 2009</b> A guideline-based care delivered by occupational physicians (activating approach, process evaluation, CBT) <sup>38</sup>	CMDs	RTW proportion (-) Time until RTW (0)	
			<b>Sogaard and Bech 2009</b> Multidisciplinary RTW program (psychiatrists, GPs, SWs) <sup>74</sup>	CMDs	RTW (0)	
			<b>Other intervention</b>			
			<b>Fleten and Johnsen 2006</b> Written education regarding RTW <sup>45</sup>	CMDs	Time to RTW (++)	Disability benefits (+)
			<b>Van Vilsteren, 2015</b> <sup>78</sup>	RCTs (n=5) Cochrane Collaboration Risk of Bias Tool Studies were considered to be either at high (n=3) or low risk of bias (n=2)	Employees on sick leave	<b>Psychological intervention alone</b>
<b>Noordik 2013</b> Coordinated and tailored exposure-based RTW program <sup>46</sup>	CMDs	Time until lasting RTW (--)				
<b>Psychological intervention plus other intervention</b>						
<b>Blonk 2006</b> Work focussed CBT + advice from labour experts on RTW <sup>58</sup>	CMDs	Time until first RTW (++)				
<b>Hees 2013</b> Individual and group sessions with an occupational therapist. Intervention focused on facilitating contact to the work place and engaging in simulated work situations <sup>26</sup>	Depression	Work participation (0)				Time until partial RTW (0)
<b>Vlasveld 2013</b> Collaborative care provided by occupational physicians and psychiatrists <sup>27</sup>	Depression	Time until lasting RTW (0) Sickness absence (0)				Depressive symptoms (0)



***Other intervention***

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<b>Van Oostrom 2010</b> Participatory workplace intervention <sup>31</sup>	Stress	Time until lasting RTW (0)
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Systematic review	Included primary studies; QA tool and outcome	Population	Intervention category	Effect on work related outcomes
<b>Vogel, 2017</b> <sup>15</sup>	RCTs (n=2) Cochrane Collaboration Risk of Bias Tool Studies were considered to be at low (n=1) or high risk of bias (n=1)	Employees on sickness absence	<b>Psychological intervention plus other intervention</b> <b>van der Feltz-Cornelis 2010</b> Enhanced care by consultant psychiatrist with collaborating occupational physician <sup>41</sup> <b>Volker 2015</b> E-health module embedded in Collaborative Occupational healthcare <sup>67</sup>	<b>Condition(s)</b> CMDs RTW proportion (0) CMDs Full RTW (0) Sickness absence (0)

(0): No effect; (+) small positive effect; (++) moderate positive effect; (+++) strong positive effect; (-) negative effect; (--) moderate negative effect; (---) strong negative effect; QA: Quality appraisal; RCTs: Randomised controlled trials; nRCTs: Non-randomised controlled trials; SRs: Systematic reviews; CTs: Controlled trials; CBT: CMD: Common mental disorders; Cognitive behavioural therapy; GPs: General Practitioners; SWs: social workers; QALYs: Quality adjusted life years; RTW: Return to work; NIH: National Institute of Health; NICE: National Institute of Health and Clinical Excellence

Recent randomised controlled trials evaluating the effects of work-related or mediated interventions for employees with mental health conditions

Study	Conditions	Population	Intervention	Comparison	Effect of intervention on work related outcome	Effect of intervention on secondary outcome
<b>Lerner 2015</b> <sup>79</sup>	Major and persistent depressive disorders	Employed adults	Work-focused CBT, care coordination and work coaching delivered via telephone by a counsellor with employee access experience.	Usual care	Sickness absence (+)	Symptom severity (++)
<b>Lokman 2017</b> <sup>80</sup>	Depression, somatisation and anxiety	Adult employees sick-listed for 4-24 weeks	E-Health module embedded in Collaborative Occupation Healthcare, consisting of email delivered self-efficacy strategies to the employee and a treatment/referral decision aid to their occupational therapist	Usual sickness guidance	Absenteeism costs (+ <sup>a</sup> )	-
<b>van Beurden 2017</b> <sup>81</sup>	Common mental disorders	Employees with a past history of sickness absence under the care of an occupational physician	Eight training sessions delivered to occupational physicians in order to improve guideline adherence	Care as usual	Full-RTW (0)	Sickness absence (0)
<b>Hogelund 2018</b> <sup>82</sup>	Mental disorders	Employees claiming sickness benefits	Treatment as usual plus a multidisciplinary health assessment performed by a job centre case manager, a psychiatrist and a job coach	Usual care: case management performed by job centre case manager	Sick leave duration (0)	RTW duration (0)
<b>Overland 2018</b> <sup>83</sup>	Common mental disorders (primarily anxiety and depression)	Employees with difficulty participating in work, including those on	At work and coping programme consisting of individual, work-focused CBT and job support	Usual care as provided by GP or other health professionals	Work participation in total sample (0) Work participation in subgroup of participants	-

		sick leave and long-term benefits			receiving long term benefits (+)	
<b>Finnes 2019</b> <sup>84</sup>	Common mental disorders	Employees on or with a history of sickness absence	WDI alone: Facilitation of short- and long-term solutions for RTW	ACT alone; WDI + ACT; TAU alone	Sickness absence (ACT alone, WDI alone: 0) Sickness absence (ACT + WDI: -)	-

(0): No effect; (+) small positive effect; (++) moderate positive effect; (+++) strong positive effect; (-) negative effect; (--) moderate negative effect; (---) strong negative effect; CBT: Cognitive behavioural therapy; RTW: Return to work; GP: General practitioner; WDI: Workplace dialogue intervention; TAU: Treatment as usual; ACT: Acceptance and commitment therapy; <sup>a</sup>: Unable to determine the effect magnitude

Treatment effects on work-related outcomes stratified according to condition

	Psychological interventions alone		Psychological plus other intervention		Other interventions alone	
	Primary study	Effect	Primary study	Effect	Primary study	Effect
<b>Adjustment disorders</b>	<b>van der Klink 2003</b> Problem-solving intervention and graded activity <sup>42</sup>	(+)				
<b>CMDs</b>						
	<b>Billings 2008</b> CBT delivered audio-visual media with a focus on stress and mood management <sup>18</sup>	(0)	<b>van Beurden 2017</b> Eight training sessions delivered to occupational physicians in order to improve guideline adherence <sup>81</sup>	(0)	<b>Finnes 2019</b> Workplace dialogue intervention Facilitation of short- and long-term solutions for RTW <sup>84</sup>	(0)
	<b>Brouwers 2006</b> Early intervention focused on problem solving and coping <sup>44</sup>	(0)	<b>Overland 2018</b> At work and coping programme consisting of individual, work-focused CBT and job support <sup>83</sup>	(0)	<b>Andren 2014</b> Part-time sick leave <sup>69</sup>	(+)
	<b>Fleten 2006</b> Minimal intervention: letters containing generic information about sick leave and RTW <sup>45</sup>	(+)	<b>Arends 2014</b> Stimulating Healthy participation And Relapse Prevention (SHARP)-at work intervention <sup>66</sup>	(+)	<b>Fleten and Johnsen 2006</b> Written education regarding RTW <sup>45</sup>	(+)
	<b>Lagerveld 2012</b> Work-related CBT <sup>33</sup>	(+)	<b>Beutel 2005</b> Inpatient psychosomatic rehabilitation including work placement and graded exposure <sup>25</sup>	(+)	<b>Hogelund 2012</b> Part-time Sick Leave <sup>68</sup>	(0)
	<b>Pedersen 2015</b> Psychoeducation, focused on stress and work life, problem-solving techniques and coping strategies <sup>73</sup>	(0)	<b>de Weerd 2016</b> Meeting focused on problem solving between employee, employer and employer plus CBT <sup>53</sup>	(0)	<b>Lammerts 2016</b> Early coordinated intervention focused on problem solving and fast, supported RTW <sup>63</sup>	(0)
			<b>Germundsson 2012</b> Vocational rehabilitation, according to the supported employment approach <sup>65</sup>	(+)		
			<b>Hellstrom 2017</b> Individual Placement and Support modified to fit workers with depression and anxiety <sup>52</sup>	(0)		
			<b>Lytsy 2017</b> Individualised rehabilitation plan and acceptance and commitment therapy <sup>54</sup>	(0)		
			<b>Martin 2013</b> Multidisciplinary, coordinated and tailored RTW intervention <sup>55</sup>	(-)		

	<b>Momsen 2016</b> Multidisciplinary team is appointed to develop an individualised RTW plan <sup>56</sup>	(0)
	<b>Rebergen 2009</b> Guideline-based care (activating approach, process evaluation, CBT) <sup>38</sup>	(-)
	<b>Reme 2015</b> At Work and Coping (Work-focused CBT and individual job support) <sup>51</sup>	(0)
	<b>Sogaard and Bech 2009</b> Multidisciplinary RTW program (psychiatrists, GPs, SWs) <sup>74</sup>	(0)
	<b>van Beurden 2015</b> Training of occupational physicians in following guidelines <sup>57</sup>	(0)
	<b>van der Feltz Cornelis 2010</b> Training of occupational physicians in diagnosing and treating CMDs. Training of psychiatrists in facilitating RTW <sup>41</sup>	(0)
	<b>Volker 2015</b> E-health module embedded in Collaborative Occupational health care <sup>67</sup>	(0)
	<b>Wahlin 2013</b> Medical, rehabilitating and/or work-related intervention-modules <sup>61</sup>	(+)
	<b>Hogelund 2018</b> Treatment as usual plus a multidisciplinary health assessment performed by a job centre case manager, a psychiatrist and a job coach <sup>82</sup>	(0)
<b>Depression</b>	<b>Ebert 2014</b> Internet-based problem solving, consisting of solving and rumination-based techniques <sup>19</sup>	(+)
	<b>Folke 2012</b> Acceptance and commitment therapy <sup>50</sup>	(0)
	<b>Lerner 2015</b> Work-focused CBT, care coordination and work coaching delivered via telephone by a counsellor with employee access experience <sup>79</sup>	(+)
	<b>Lokman 2017</b> E-Health module embedded in Collaborative Occupation Healthcare, consisting of email delivered self-efficacy strategies to the employee and a treatment/referral decision aid to their occupational therapist <sup>80</sup>	(+)


	<b>Kroger 2015</b> Work-focused CBT <sup>23</sup>	(+)	<b>Kroger 2015</b> Problem solving to facilitate gradual RTW. Employer and occupational physician input if possible <sup>23</sup>	(0)
	<b>Leon 2002</b> Depression screening program, antidepressant medication and sessions with a psychiatrist <sup>36</sup>	(+)	<b>Lerner 2012</b> Work coaching and modification, care coordination and CBT <sup>71</sup>	(+)
	<b>Wang 2007</b> Structured telephone-based intervention <sup>76</sup>	(0)	<b>Schene 2007</b> Treatment as usual plus occupational therapy <sup>29</sup>	(0)
			<b>Vlasveld 2013</b> Collaborative care (occupational physician, psychiatrist) <sup>27</sup>	(0)
<b>Insomnia</b>	<b>Ebert 2015</b> CBT and meta-cognitive techniques for insomnia that included articles, testimonies, audio-visual media <sup>22</sup>	(+)		
	<b>Thiart 2015</b> CBT for insomnia consisting of independent homework, coaching via email, weekly feedback on exercises <sup>21</sup>	(+)		
<b>Stress (non-trauma related)</b>	<b>Beck 2015</b> Psychotherapy using music to reduce stress <sup>85</sup>	(0)	<b>Lander 2009</b> Activating intervention, education, facilitated RTW (psychologist, social workers) <sup>77</sup>	(0)
	<b>De vente 2008</b> Stress-management based on CBT <sup>48</sup>	(0)	<b>Blonk 2006</b> CBT combined with advice from labour experts on work processes, stress management, and RTW <sup>58</sup>	(0)
	<b>Ebert 2016</b> Website (text messages) delivered. Transactional model of stress, problem solving and emotional regulation <sup>20</sup>	(0)	<b>Netterstrom 2010</b> Stress-inoculation intervention, mindfulness, contact with the workplace <sup>59</sup>	(+)
	<b>Grossi and Santell 2009</b> Coping with psychological and somatic symptoms of stress <sup>40</sup>	(0)	<b>Netterstrom 2012</b> Anamnesis, clinical assessment, stress management program, contact with workplace <sup>62</sup>	(+)
	<b>Willert 2011</b> Stress inoculation training <sup>49</sup>	(+)	<b>van der Klink 2003</b> CBT focused on problem solving and contact with the workplace <sup>42</sup>	(+)
			<b>Netterstrom 2013</b> Multidisciplinary stress treatment program <sup>60</sup>	(+)

CMDs: Common mental disorders; RTW: Return to work; (+): Positive effect; (0) Neutral effect; Negative effect (-)

### Grey literature data extraction

Reference	Content	Relation to review
<p>An integrated approach to workplace mental health: Nine priorities for implementation in Australia. 2016  <a href="https://www.utas.edu.au/_data/assets/pdf_file/0008/972395/WHW-Network-White-Paper.pdf">https://www.utas.edu.au/_data/assets/pdf_file/0008/972395/WHW-Network-White-Paper.pdf</a></p>	<p>Nine priorities for implementation of an integrated approach to workplace mental health in Australia were identified.</p> <p>Priorities for managing illness:</p> <p>7. Undertake stigma reduction and mental health literacy programs to foster an environment where people are able to seek help early without adverse consequences in the workplace.</p> <p>8. Ensure clear roles, responsibilities and processes for supporting employees with mental illness.</p> <p>9. Implement flexible work practices to accommodate individual needs.</p>	<p>Describes an approach that integrates prevention (out of scope), promote the positive (out of scope) and manage illness.</p> <p>Priorities for managing illness consistent with the findings of the earlier component of the review (i.e. stakeholder interviews)</p>
<p>Workplace prevention of mental health problems: Guidelines for organisations. Melbourne School of Population and Global Health, University of Melbourne; 2013  <a href="http://returntowork.workplace-mentalhealth.net.au/">http://returntowork.workplace-mentalhealth.net.au/</a></p>	<p>Helping Australian employees successfully return to work following depression, anxiety or a related mental health problem.</p> <p>Contains case studies, different information based on role</p>	<p>This is a resource based on Delphi research methods with experts. It contains practical strategies, case studies and video examples to guide how a workplace should respond to psychological injuries.</p>
<p>Helping employees successfully return to work following depression, anxiety or a related mental health problem: guidelines for organisations  <a href="https://static-content.springer.com/esm/art%3A10.1186%2F1471-244X-12-135/MediaObjects/12888_2011_1169_MOESM1_ESM.pdf">https://static-content.springer.com/esm/art%3A10.1186%2F1471-244X-12-135/MediaObjects/12888_2011_1169_MOESM1_ESM.pdf</a></p>	<p>The development of workplace-mentalhealth.net.au was funded by beyondblue under the Victorian Centre for Excellence in Depression and Anxiety research grant scheme. The site was developed by a group of researchers in the Population Mental Health Group at The University of Melbourne with support from an expert Advisory Panel.</p>	<p>These guidelines consist of actions organisations can take to facilitate return to work for employees following an episode of depression, anxiety or a related disorder. They were produced using the Delphi method, which is a systematic way of assessing the consensus of a panel of experts. The actions have been rated as important or essential by expert panels of consumers, employers and health professionals. It is hoped that the guidelines will be used to improve the practices of organisations as they support those returning to work after mental health problems.</p>



Reference	Content	Relation to review
<p>Glozier 2017, Review of Evidence of Interventions to Reduce Mental Ill-health in the Workplace</p>  <p>Glozier 2017 Review</p>	<p>Applied similar methods to our review to identify the strength of the evidence for interventions designed to reduce workplace mental ill-health (includes primary prevention).</p> <p>Examined three levels: 1. <u>Universal interventions</u> aim to prevent disease or injury; 2. <u>Secondary prevention</u> (prevention strategies for subgroups at risk) and <u>Indicated preventions</u> (identify individuals experiencing early signs of mental ill-health); 3. <u>Tertiary prevention</u> (treat and reduce the impact of ongoing illness).</p> <p>Guidelines for employers to detect, prevent, and manage mental ill-health in the workplace Memish, Martin et al. 2017 systematically reviewed 20 international guidelines and found that the poorer quality guidelines lacked a focus on prevention, concentrated on the detection and treatment of mental health problems in the workplace, and did not include practical tools or advice for implementation.</p>	<p>This document provides detailed guidance for an organisation planning to support RTW for an employee with a psychological injury.</p> <p>Strong evidence found for:</p> <ul style="list-style-type: none"> <li>• CBT based resilience training for high risk occupations</li> <li>• Workplace physical activity programs</li> <li>• Mental Health First Aid</li> <li>• Work focussed psychological therapy</li> </ul> <p>Moderate evidence found for:</p> <ul style="list-style-type: none"> <li>• Well-being checks / health screening</li> <li>• Workplace counselling</li> <li>• Clinical interventions</li> </ul> <p>Limited evidence found for</p> <ul style="list-style-type: none"> <li>• Peer support schemes</li> <li>• Facilitating return to work through support</li> </ul> <p>However, this review looked at different outcome measures, included similar reviews to our review. Even when describing strong evidence for work focused psychological theory, the studies described as having contradictory findings.</p> <p>When Guthrie et al (2010) examined regulatory interventions, they suggested a number of new approaches integrating beyond the organisation itself to the wider context. This included funding non-adversarial compensation responses and adopting of ‘a corporate citizenship approach to the prevention and management of stress in the workplace....that extends beyond compliance with OH&amp;S risk reduction requirements’. This reflects the themes discussed by industry stakeholders in the interviews.</p>

Reference	Content	Relation to review
<p>Developing a mentally healthy workplace: A review of the literature (2014). Harvey et al.  <a href="https://www.headsup.org.au/docs/default-source/resources/developing-a-mentally-healthy-workplace_final-november-2014.pdf?sfvrsn=8">https://www.headsup.org.au/docs/default-source/resources/developing-a-mentally-healthy-workplace_final-november-2014.pdf?sfvrsn=8</a></p>	<p>The aim of this report is to provide a detailed review of the academic literature around what constitutes a mentally healthy workplace as well as to identify the practical means by which workplaces can enhance and support the mental health and wellbeing of employees.</p> <p>Review of the literature not a comprehensive systematic review.</p>	<p>The majority of this report addresses primary prevention.</p> <p>Strategies identified relevant o this review include:</p> <ul style="list-style-type: none"> <li>• Promoting and facilitating early help-seeking – consider conducting well-being checks, although these are likely to be of most use in high risk groups and should only be done when detailed post-screening procedures are in place, use of Employee Assistance Programs which utilise experienced staff and evidence-based methods and peer support schemes</li> <li>• Supporting workers recovery from mental illness – provide supervisor support and training, facilitate partial sickness absence, provide return-to-work programs, encourage individual placement support for those with severe mental illness, provide a supportive environment for those engaged in work focused exposure therapy</li> <li>• Increasing awareness of mental illness and reducing stigma – provide mental health education and training to all staff</li> </ul> <p>Many of the strategies for supporting worker recovery are aligned with stakeholder interviews.</p>
<p>Taking Action: A best practice framework for the management of psychological claims in the Australian workers' compensation sector  <a href="https://www.superfriend.com.au/ap/uploads/2016/10/TAKING-ACTION-Best-Practice-Framework-for-the-Management-of-Psychological-Claims.pdf">https://www.superfriend.com.au/ap/uploads/2016/10/TAKING-ACTION-Best-Practice-Framework-for-the-Management-of-Psychological-Claims.pdf</a></p>	<p>The framework takes the form of six action areas. The action areas have emerged through the framework development process as agreed points of traction towards better practice in psychological claims management.</p> <p>The focus of the framework means there is little mention of the effectiveness of work-connected interventions. Rather it is an assumption that work-connectedness is part of best practice.</p>	<p>Taking Action provides a framework for the management of workers' compensation claims for psychological injuries. A number of the concepts described are mentioned in the practices applied by the interviewed stakeholders, reflecting those interviewed as being evidence-informed in their practice.</p>

Reference	Content	Relation to review
Workers with Mental Illness: a Practical Guide for Managers (2010). <a href="https://www.humanrights.gov.au/sites/default/files/document/publication/workers_mental_illness_guide_0.pdf">https://www.humanrights.gov.au/sites/default/files/document/publication/workers_mental_illness_guide_0.pdf</a>	The Guide is intended to assist managers and employers to meet obligations towards all workers, including workers with mental illness.	This document provides practical advice for employers trying to support workers with psychological injury.
Working Well: An organisational approach to preventing psychological injury. A GUIDE FOR CORPORATE, HR AND OHS MANAGERS (2008) <a href="https://www.comcare.gov.au/about/forms-publications/documents/publications/safety/working-well-guide.pdf">https://www.comcare.gov.au/about/forms-publications/documents/publications/safety/working-well-guide.pdf</a>	This publication provides information to assist Australian government organisations to design and implement strategies to manage work-related stress and prevent psychological injury. It provides information on the major causes of stress and psychological injury. It also covers evidence-based interventions for minimising the adverse impact of these factors, as indicated by international and Australian research and analysis of Comcare claims data. Developing and implementing a plan to: a) address the workplace factors that are risks of psychological injury (primary intervention); b) minimise the impact of stress on employees (secondary intervention); c) provide safe and effective rehabilitation and return to work for individuals once an injury has occurred (tertiary intervention)	This document provides a list of potential risks to known workplace psychosocial risks.
Australian Guidelines for the Treatment of Acute Stress Disorder & Posttraumatic Stress Disorder (2013) Phoenix Australia <a href="https://www.phoenixaustralia.org/wp-content/uploads/2015/03/Phoenix-ASD-PTSD-Guidelines.pdf">https://www.phoenixaustralia.org/wp-content/uploads/2015/03/Phoenix-ASD-PTSD-Guidelines.pdf</a>	These Guidelines provide recommendations on the best interventions for children, adolescents and adults who have been exposed to potentially traumatic events as well as those who have developed acute stress disorder (ASD) or posttraumatic stress disorder (PTSD). The Guidelines have been designed to be used by: a) the range of general and mental health practitioners planning and providing treatment across clinical settings; b) people affected by trauma making decisions about their treatment; and c) funding bodies making service purchasing decisions.  The Guidelines were developed by a team of Australia's leading trauma experts, in collaboration with representatives of the professional associations for	Interviews with stakeholders (in particular NSW Fire and Rescue) suggest there are examples in practice operationalising different aspects of these guidelines, such as developing resources for family members of those experiencing PTSD.  A summary of the finding regarding interventions for PTSD are: <ul style="list-style-type: none"> <li>For adults exposed to a potentially traumatic event, a one-session, structured, psychological intervention in the acute phase, such as psychological debriefing, should not be offered on a routine basis for the prevention of PTSD (body of</li> </ul>

Reference	Content	Relation to review
	psychiatrists, psychologists, general practitioners, social workers, occupational therapists, mental health nurses, school counsellors, and service users. Recommendations were based on best practice evidence found through a systematic review of the Australian and international trauma literature.	<p>evidence can be trusted to guide practice in most situations)</p> <ul style="list-style-type: none"> <li>• For adults displaying symptoms in the initial four weeks after a potentially traumatic event, individual trauma-focussed cognitive behavioural therapy, including exposure and/or cognitive therapy, should be considered if indicated by a thorough clinical assessment (body of evidence provides some support for recommendation)</li> <li>• Adults with PTSD should be offered trauma-focussed cognitive behavioural interventions or eye movement desensitisation and reprocessing (body of evidence can be trusted to guide practice)</li> <li>• Drug treatments for PTSD should not be preferentially used as a routine first treatment for adults, over trauma-focussed cognitive behavioural therapy or eye movement desensitisation and reprocessing (body of evidence can be trusted to guide practice in most situations)</li> </ul>
Work and depression/anxiety disorders – a systematic review of reviews. Harvey et al (2012) <a href="https://www.beyondblue.org.au/docs/default-source/research-projects/files/bw0204.pdf?sfvrsn=4">https://www.beyondblue.org.au/docs/default-source/research-projects/files/bw0204.pdf?sfvrsn=4</a>	<p>Overarching meta-review aim: To complete a detailed systematic meta-review on work and the most common mental illnesses, specifically depression and anxiety disorders.</p> <p>Aim most relevant to this review: What interventions have been effective in addressing depression and anxiety disorders in the workplace?</p>	<p>Relevant findings:</p> <ul style="list-style-type: none"> <li>• The majority of studies examining workplace interventions for depression or anxiety disorders have solely focused on reducing symptoms, with few studies examining occupational outcomes.</li> <li>• The evidence for the effectiveness of primary prevention interventions based in the workplace is mixed and limited by methodological drawbacks</li> <li>• Amongst the variety of interventions designed for employees reporting stress in the workplace, those utilising cognitive behavioural techniques had moderate levels of evidence for their effectiveness in reducing self-reported stress and symptoms of both depression and anxiety.</li> </ul>

Reference	Content	Relation to review
<p>Expert guidelines: Diagnosis and treatment of post-traumatic stress disorder in emergency service workers (2015)  <a href="https://blackdoginstitute.org.au/docs/default-source/research/expert-guidelines---diagnosis-and-treatment-of-post-traumatic-stress-disorder-in-emergency-service-workers.pdf">https://blackdoginstitute.org.au/docs/default-source/research/expert-guidelines---diagnosis-and-treatment-of-post-traumatic-stress-disorder-in-emergency-service-workers.pdf</a></p>	<p>The guidelines presented in this report aim to utilise a combination of expert opinion and the best available research evidence to produce succinct, focused guidelines on the diagnosis and treatment of emergency workers with PTSD.</p> <p>A panel of nine of Australia’s leading experts in PTSD was assembled, with expertise in psychiatry, clinical psychology, general practice, epidemiology and occupational medicine. The resulting guidelines are summarised in this document.</p> <p>Members of the panel are authors of other documents included in this table.</p>	<ul style="list-style-type: none"> <li>• Once a depressive or anxiety disorder has been established, there is moderate evidence for the effectiveness of workplace-based CBT in terms of symptomatic improvement. However, reviews which have examined the use of standard CBT or antidepressant treatment in the workplace were not able to find a benefit in terms of occupational outcomes such as reduced sickness absence.</li> <li>• There was moderate evidence for the effectiveness of workplace based exposure therapy (in-vivo and imaginal) for workers who have developed PTSD following a work-related injury, on both individual and organisational outcomes.</li> <li>• There is also moderate evidence that modified CBT delivered as part of a return to work program may have positive organisation outcomes such as reduced sickness absence in addition to the known individual symptom reduction benefits of CBT.</li> </ul> <p>Relevant findings:</p> <ul style="list-style-type: none"> <li>• All emergency workers suffering from PTSD should be offered either trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR).</li> <li>• Emergency workers will usually require 8 to 12 sessions of trauma-focused psychological treatment (either CBT or EMDR), each lasting between 60 and 120 minutes (at least 90 minutes in sessions where the traumatic events are discussed in detail).</li> <li>• Occupational recovery should be considered from the very beginning of treatment. Remaining at, or returning to, work should be an aim of treatment</li> </ul>

Reference	Content	Relation to review
		and considered an important part of the recovery of emergency workers with PTSD.
An integrated approach to return to work with mental injuries or illness <a href="https://www.worksafe.qld.gov.au/data/assets/pdf_file/0011/185708/an-integrated-approach-to-return-to-work-with-mental-injuries-or-illness.pdf">https://www.worksafe.qld.gov.au/data/assets/pdf_file/0011/185708/an-integrated-approach-to-return-to-work-with-mental-injuries-or-illness.pdf</a>	Slides from Masterclass with compensation insurance agents and treatment/claims specialists	Contains applications of previously discussed principles.
WHEN HELPING HURTS: PTSD IN FIRST RESPONDERS. Report following a high-level roundtable (2018) <a href="https://www.aph.gov.au/DocumentStore.ashx?id=861dd710-f231-46e8-aaa1-6f21544294b8&amp;subId=613617">https://www.aph.gov.au/DocumentStore.ashx?id=861dd710-f231-46e8-aaa1-6f21544294b8&amp;subId=613617</a>	<p>This is the report of a day-long roundtable which was held at Australian Federal Police Headquarters in Canberra in May 2017.</p> <p>The report focuses on several narratives around PTSD in first responders and those involved in their management. The document provides detailed examples of many of the challenges faced in the management of those with PTSD.</p> <p>There is also a strong focus on the organisational aspects that may hinder the recovery and support for first responders with PTSD.</p>	<p>Regarding effectiveness of intervention, this document references other treatment guideline documents in this table. However, it does state that a recent audit of clinical practice in one State found that the skills needed to provide state-of-the-art psychological therapy are not always available to those who are managing the patient. Less than 50% of treatments reviewed in that State were consistent with PTSD clinical guidelines.</p> <p>The discussion documented three relevant knowledge gaps:</p> <ul style="list-style-type: none"> <li>• How best to advise people who are troubled by stress in the immediate aftermath of a trauma exposure</li> <li>• How to predict why some people go on to develop PTSD and others do not</li> <li>• How to broaden understanding about the epidemiology of PTSD among first responders and the workplace issues that can mitigate or worsen its effects.</li> </ul> <p>Better management of trauma-related stress in the first responder workforce requires sustained attention in these four main areas:</p> <ol style="list-style-type: none"> <li>1. Managing the health risks of trauma-related stress in the first responder workforce.</li> <li>2. Achieving the best treatment and care for impacted personnel.</li> </ol>

Reference	Content	Relation to review
		<p>3. Facilitating the sharing of knowledge and encouraging more research to generate better understanding of PTSD and its management.</p> <p>4. Developing a national approach for sharing information and improving understanding of the issue among politicians, within central agencies, and with the general public</p>
<p>Work-related psychological health and safety A systematic approach to meeting your duties (2019) <a href="https://www.safeworkaustralia.gov.au/system/files/documents/1911/work-related_psychological_health_and_safety_a_systematic_approach_to_meeting_your_duties.pdf">https://www.safeworkaustralia.gov.au/system/files/documents/1911/work-related_psychological_health_and_safety_a_systematic_approach_to_meeting_your_duties.pdf</a></p>	<p>This Guide describes a systematic practical approach to managing work-related psychological health and safety. This Guide is intended to provide greater clarity about what a person conducting a business or undertaking (PCBU) under WHS laws, or an employer under workers' compensation laws must or should do in relation to psychological health and safety.</p> <p>This Guide does not cover non-work-related psychological injuries. It also does not cover programs to support non-work related general and mental health delivered in worksites which are not required under WHS or workers' compensation laws.</p>	<p>Support recovery – This element relates to your duties under workers' compensation laws. Legislative requirements vary across Australia but there are common elements in each jurisdiction including that you:</p> <ul style="list-style-type: none"> <li>• should provide early assistance and support to access treatment and rehabilitation services, generally from the time a claim is lodged</li> <li>• must support timely and sustainable recovery at work (RAW) or return to work (RTW) through effective consultation, addressing any remaining work-related psychosocial hazards and risks that may exacerbate the existing work-related psychological injury or cause a new injury, and</li> <li>• must review the effectiveness of the control measures to ensure further harm or new injury does not occur.</li> </ul> <p>This document clearly sets out what is required by employers under health and safety legislation. It does not provide evidence regarding effective intervention.</p>
<p>NSW Mentally Healthy Workplaces Strategy 2018–22 <a href="https://www.safework.nsw.gov.au/data/assets/pdf_file/0006/362274/NSW_mentallyhealthyworkplacesstrategy_2018_22.pdf">https://www.safework.nsw.gov.au/data/assets/pdf_file/0006/362274/NSW_mentallyhealthyworkplacesstrategy_2018_22.pdf</a></p>	<p>This strategy sets out a long-term vision to create mentally healthy workplaces across NSW. Its key objectives are to reduce the impact of mental illness on working age people, improve health and social outcomes for the people of NSW, improve capability and reduce productivity costs to employers. It is comprised of a four year program, which will be delivered over four streams: awareness raising, evidence-informed</p>	<p>Document refers to “evidence-informed” interventions, and describes manager training, group/digital mental health programs, recovery at work program, peer support scheme and eHealth tools.</p> <p>The focus of this document does not add to the review in terms of the effectiveness of interventions. A number of</p>

Reference	Content	Relation to review
<p>Mentally healthy workplaces toolkit  <a href="https://www.worksafe.qld.gov.au/data/assets/pdf_file/0009/146385/mentally-healthy-workplaces-toolkit.pdf">https://www.worksafe.qld.gov.au/data/assets/pdf_file/0009/146385/mentally-healthy-workplaces-toolkit.pdf</a></p>	<p>interventions, research, and programs to enable NSW workplaces to act.</p> <p>The Mentally healthy workplaces toolkit aims to help employers, managers and leaders eliminate and minimise risks to psychological health and create workplace environments that are mentally healthy.</p> <p>A particularly impactful component of FRESHminds was a ten minute video featuring SCC employees sharing their mental health stories. Designed to encourage people to talk about mental illness in the workplace, the initiative was underpinned by research that showed connecting people who have personally experienced or had someone close to them affected by mental illness helps reduce stigma, encourage health seeking behaviour and promote early intervention.</p>	<p>the evidence informed interventions are described in practice by the stakeholder interviews.</p> <p>Provides a case example of the FRESHminds program launched in 2015 by the Sunshine Coast Council, which aimed to promote a mentally healthy workplace. Evaluation of this program revealed:</p> <ul style="list-style-type: none"> <li>• 30 per cent of workforce voluntarily undertook mental health related training.</li> <li>• In a 2016 survey, 87 per cent of employees agreed that SCC provides for their health and wellbeing (an increase of 37 per cent since 2014).</li> <li>• SCC's EAP utilisation rate for 2016 was 8.4 per cent, 2.7 per cent higher than the government industry benchmark.</li> <li>• The total number of leave days taken due to injury (including stress leave) has reduced by 40 per cent since 2014.</li> </ul> <p>This program straddles primary prevention and injury management, but provides an example of an intervention tested in practice. There are similarities between FRESHminds and the program described by Woolworths, particularly in the messaging that it is ok to not be ok.</p>
<p>Good practice framework for mental health and wellbeing in first responder organisations  <a href="https://das.bluestaronline.com.au/api/prism/document?token=BL/1675">https://das.bluestaronline.com.au/api/prism/document?token=BL/1675</a></p>	<p>The Good practice framework for mental health and wellbeing in first responder organisations was developed as part of the beyondblue First Responders Program. The framework has been developed collaboratively, with input from small and large first responder agencies in several states and territories.</p> <p>The framework:</p> <ul style="list-style-type: none"> <li>• offers an evidence-based framework of preventative measures, as well as supportive interventions for first responders in the field</li> <li>• provides practical guidance on how to develop or check an existing strategy to promote the mental</li> </ul>	<p>This document provides first responder organisations with a good practice framework that aims to provide guidance to protect the mental health of their workforces, promote wellbeing and prevent suicide.</p> <p>The document states that preventative measures, treatment guidelines, and practice suggestions in this framework are based on the best available data.</p> <p>Ensuring first responders remain connected to the workplace and their colleagues promotes recovery and better outcomes for the worker and the organisation. Extended leaves of absence increase the likelihood of</p>



Reference	Content	Relation to review
	health and wellbeing of a first responder workforce	highly-skilled first responders not returning to the workplace.  First responders with a mental health condition may require extra support to stay at or return to work. Any stay at work/return to work plan should be tailored to the worker's needs, incorporate any reasonable adjustments to their job, and be developed in collaboration with the worker
MENTAL HEALTH AND WELLBEING STRATEGY FOR FIRST RESPONDER ORGANISATIONS IN NSW <a href="https://nswmentalhealthcommission.com.au/sites/default/files/publication-documents/First%20Responders%20FIN%20AL%20WEB%20%281%29.pdf/">https://nswmentalhealthcommission.com.au/sites/default/files/publication-documents/First%20Responders FIN AL WEB%20%281%29.pdf/</a>	The strategy outlines 9 principles and three strategic principles: 1. Robust engagement of the workforce/ membership at every stage of planning and implementing the strategic objective. 2. Close partnership and collaboration between first responder agencies, as well as policy makers, insurers, health professionals, experts and rehabilitation organisations, unions and first responders themselves. 3. Continuous quality improvement with ongoing assessment of the effectiveness of strategies implemented and responsiveness to new knowledge and research as it becomes available.	This document describes many of the principles identified in stakeholder interviews.  Strategic objective 4 states: First responders who develop a mental disorder receive evidence-based mental health care that supports the best possible functional recovery. It is increasingly recognised that good functional recovery, including return to work, from a mental disorder is not a guaranteed consequence of symptomatic treatment. Occupationally-focused interventions, such as evidence-based return to work programs, should now be part of the recovery and treatment plan for any first-responder suffering from a mental disorder.  Principles and strategies described align with other similar resources.
Defence mental health and wellbeing strategy 2018-2023 (2017) <a href="https://www.defence.gov.au/Health/_master/HealthUpdates/docs/Defence_Mental_Health_Wellbeing_Strategy_2018-2023.PDF">https://www.defence.gov.au/Health/_master/HealthUpdates/docs/Defence_Mental_Health_Wellbeing_Strategy_2018-2023.PDF</a>	Defence has long recognised that the mental health and wellbeing of its workforce is critical to overall capability. We are committed to providing programs and services responsive to changing needs, which can vary from basic self-care to complex interventions, particularly when people face multiple problems and stressors.  Our vision for this Strategy is that our people — military and public servants — experience positive mental health and wellbeing. They are Fit to Fight, Fit to Work, Fit for Life.	Six strategic objectives: 1. Leadership and shared responsibility 2. A thriving culture and healthy workplace 3. Responding to the risks of military service 4. Person-driven care and recovery 5. Building the evidence 6. Continually improving  This document outlines a number of programs and initiatives in different areas of defence that have been

Reference	Content	Relation to review
		implemented to address a component of mental health. There is also a section titled building the evidence, which describes approaches to developing evidence. However the document does not provide clear evaluation of the services and programs.
Veteran Mental Health Strategy: A Ten Year Framework 2013 – 2023 (2013) <a href="https://at-ease.dva.gov.au/file/336/download?token=GMzZnVNr">https://at-ease.dva.gov.au/file/336/download?token=GMzZnVNr</a>	<p>The Veteran Mental Health Strategy 2013 sets out a ten year framework and objectives to support the mental health and wellbeing of the veteran and ex-service community.</p> <p>The strategic objectives for mental health and wellbeing in the veteran and ex-service community are underpinned by three principles: prevention, recovery and optimisation. Prevention aims to reduce the onset and prevalence of mental health conditions. Recovery goes beyond the traditional notion of ‘cure’, and creates opportunities to live personally fulfilling and meaningful lives. Optimisation maximises individual mental health and quality of life.</p>	<p>The document provides an overview of a range of initiatives put in place for the specific groups in the veteran and ex-service community. It also provides case examples of how different members would utilise different services on offer.</p> <p>There are clearly a range of methods used to respond to the mental health challenges experienced by the veteran and ex-service community. This document describes a number of services that have been implemented (e.g. online PTSD supports), but does not provide a detailed evaluation of those services.</p>
MENTALLY HEALTHY WORKPLACES IN NSW A RETURN-ON-INVESTMENT STUDY (2017) <a href="https://www.safework.nsw.gov.au/data/assets/pdf_file/0011/320132/Mentally-healthy-workplaces-A-return-on-investment-study-August-2017-SW08735.pdf">https://www.safework.nsw.gov.au/data/assets/pdf_file/0011/320132/Mentally-healthy-workplaces-A-return-on-investment-study-August-2017-SW08735.pdf</a>	This report combines the evidence of effects for workplace interventions, the costs of undertaking these and real world data on the prevalence and costs of mental ill-health in Australian employees to show the potential impact employers could have just on their own bottom line.	The document suggests, based on a review of three randomised trials, that workplace-plus-clinical intervention reduced sick leave days by 0.4 standard deviations. This was equivalent to a reduction of 3.3 absentee days in a large organisation (and 3.3 days in a small/medium organisation). Assuming the intervention targets all employees experiencing severe mental ill-health, the return on investment for RTW interventions is positive, returning \$3.90 per dollar invested in a small/medium employer, and \$3.74 in a large organisations.