Managing Depression in the Workplace: A Systematic Review

IWH Speakers Series

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Evidence in Context for Occupational Health & Safety
This project was part of an interprovincial research team

**Grant:** Research and Workplace Innovation Program of the **Manitoba WCB**

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**Team:** Amanda Butt (**Nfld**), Kim Cullen (**On**), Leslie Johnson, Steven Passmore (**mb**), Ron Saunders, Dwayne Van Eerd (**On**)  

**Stakeholders:** Mike Jones, Sonia Kowalewich, Allen Kraut, Sandra Mowat, Rick Rennie, Richard Rusk, Nick Turner, Norman Tran (**mb**)
Project Objectives

• To **develop** and **test** an innovative approach for synthesizing current scientific knowledge on questions identified as important and urgent by OHS stakeholders; and

• To tailor the syntheses for effective use in specific provincial and local contexts.

• In most research synthesis studies, the aim is to answer the question: **what works?**. This methodology was designed to answer an additional question: **will it work here?**
Why context is important

“…helps us to understand if an intervention identified as promising in general is likely to work in a specific place, setting, situation, time. In other words, will it work here?”

Contextual factors may impact:

• the health equity of an intervention – the effects may be different depending on the population
• the acceptability of an intervention from the perspective of relevant stakeholders
• the feasibility of implementing an intervention.
Putting evidence into context…
Contextual Factors

- Population/workforce
- Service design/location
- Health/Human Resources
- Technology
- Other system factors
- Economics
- Service organization & delivery
- Legislation
- Geography
- Industry
- Political factors

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We achieved this by:

1. **blending** the unique features of two existing approaches:
   - IWH Systematic Review (SR) methodology
   - Methodology for stakeholder engagement and contextualized synthesis (SafetyNet & NL Centre for Applied Health Research)

2. **applying** this blended methodology to IWH Systematic Reviews

3. **applying** the blended methodology to a new topic
   (selected by and in collaboration with the Manitoba Stakeholder Advisory Committee)
SRs that were contextualized

1. The effectiveness of interventions in health-care settings to protect musculoskeletal health - NL

2. A systematic review of the effectiveness of training & education for the protection of workers - NL
   - Lynda Robson, Carol Stephenson, Paul Schulte, Ben Amick, Stella Chan, Amber Bielecky, Anna Wang, Terri Heidotting, Emma Irvin, Don Eggerth, Robert Peters, Judy Clarke, Kimberley Cullen, Lani Boldt, Cathy Rotunda, Paula Grubb

3. Preventing work disability in workers with depression; a systematic review - MB
What do we know about depression in the workplace?

The burden associated with managing the effects of depression in the workplace is extensive.

Workers with depression:

• lose significantly more health-related productive time,
• have higher rates of absenteeism and short-term disability and,
• experience higher rates of job turnover than those without depression
Managing Depression in the Workplace: A Systematic Review
The SR Research & Stakeholder Involvement

The Research Team

Emma Irvin
Kim Cullen
Dwayne Van Eerd
Ron Saunders

Our Stakeholders in ON, MB and BC from:

- Workers compensation boards
- Government authorities
- Employers
- Injured worker advocates
- Organized labour
- Disability management consultants
- OHS Practitioners
- Employee assistance program providers (EAP)
- Clinicians
- Researchers/Scientists
- Health & safety associations
Step 1: Our Research Question

Workplace parties are seeking guidance to:

Determine what intervention approaches to manage depression in the workplace have been successful and yielded value for employers in developed economies?
Step 2: Conduct Literature Search

- **Population**: Working age + Depression
- **Intervention**: Work-focused
- **Outcome**: Relevant to employers

Studies retrieved in search
Step 3: Identify relevant studies (Inclusion criteria)

- Work-focused intervention
- Workers with Depression
- Comparison group
- SAW, RTW & Recurrences

- PTSD
- Stress/Anxiety/Burnout
- Serious mental disorder

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## Step 6: Applying our evidence synthesis algorithm

<table>
<thead>
<tr>
<th>Level of Evidence</th>
<th>Minimum Quality</th>
<th>Minimum Quantity</th>
<th>Consistency</th>
<th>Strength of Messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>High (H)</td>
<td>3</td>
<td>3H studies agree; If &gt;3 studies, ¾ of the M + H agree</td>
<td>Recommendations</td>
</tr>
<tr>
<td>Moderate</td>
<td>Medium (M)</td>
<td>2H or 2M + 1H</td>
<td>2H studies agree or 2M + 1H agree; If &gt;3 studies, &gt; ⅔ of the M + H agree</td>
<td>Practice Considerations</td>
</tr>
<tr>
<td>Limited</td>
<td>Medium (M)</td>
<td>1H or 2M or 1M + 1H</td>
<td>1 H or 2 (M and/or H) studies agree; If &gt;2 studies, &gt; ½ of the M + H agree</td>
<td>Not enough evidence to make recommendations or practice considerations</td>
</tr>
<tr>
<td>Mixed</td>
<td>Medium (M)</td>
<td>2</td>
<td>Findings from M + H are contradictory</td>
<td></td>
</tr>
<tr>
<td>Insufficient</td>
<td></td>
<td></td>
<td>No high quality studies. Only medium quality studies that do not meet the above criteria</td>
<td></td>
</tr>
</tbody>
</table>

*High = >85% in quality assessment; Medium = 50-85% in quality assessment
What did we find?
1. Develop Question

**What intervention approaches to manage depression in the workplace have been successful and yielded value for employers in developed economies?**

2. Literature Search

<table>
<thead>
<tr>
<th>Database</th>
<th>Retrieved (n)</th>
<th>Duplicates (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medline</td>
<td>2081</td>
<td></td>
</tr>
<tr>
<td>Embase</td>
<td>3958</td>
<td></td>
</tr>
<tr>
<td>PsycInfo</td>
<td>1825</td>
<td></td>
</tr>
<tr>
<td>CINAHL</td>
<td>1879</td>
<td></td>
</tr>
<tr>
<td>Business Source Premier</td>
<td>634</td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td>158</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>137</td>
<td></td>
</tr>
</tbody>
</table>

3. Relevance Screen

Retrieved (n=10672) – Duplicates (n=2549)  
Title & abstract relevance screen (n=8123)

4. Quality Appraisal

Full Text Relevance screen (n=493)

5. Data extraction

Quality appraisal of relevant studies (N=65)

Data extracted from relevant studies of sufficient quality  
(n=12, original review; + 15, update)

6. Evidence synthesis

27 relevant high and medium quality studies
Jurisdiction

- Netherlands: 10
- USA: 5
- Canada: 2
- UK: 2
- Germany: 2
- Sweden: 2
- Denmark: 1
- Finland: 1
- Japan: 1

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Study Design

- Randomized Control Trial
- Non-randomized Study - Comparison
- Non-randomized Study - Before/After
Outcomes of Interest

- RTW
- SAW
- Recurrences
Interventions identified in the literature (n=13)

- Enhanced care (EC)
- Cognitive behavioural therapy (CBT)
- Work-focused CBT

- Coordination of services
- ST Psychodynamic psychotherapy
- LT Psychodynamic psychotherapy
- Stress reduction program
- Strength training

- Aerobic training
- Relaxation training
- Part-time sick-leave
- Nature-based rehab
- Problem-based method
Details on the interventions with sufficient evidence

Enhanced care (EC):
Enhancement of usual care.

It includes:
- Integrated and coordinated services across health care providers.
- Care givers were explicitly trained in the *diagnosis*, and *treatment* of depressive disorders and RTW strategies.

Cognitive-behavioural therapy (CBT):
Based on a positive, shared therapeutic relationship between therapist and client (CAMH).

It includes:
- structured,
- time-limited,
- problem-focused and
- goal-oriented,
- teaches strategies and skill

Work-focused CBT:
- Focused on work-relevant problems for SAW and/or RTW
What are the findings?

<table>
<thead>
<tr>
<th>Intervention</th>
<th>SAW</th>
<th>RTW</th>
<th>Recurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>Mixed</td>
<td>Moderate =</td>
<td>No evidence</td>
</tr>
<tr>
<td>CBT</td>
<td>Strong +</td>
<td>Moderate =</td>
<td>Limited =</td>
</tr>
<tr>
<td>W-CBT</td>
<td>Moderate +</td>
<td>Moderate +</td>
<td>Moderate =</td>
</tr>
</tbody>
</table>

+ Intervention has a **POSITIVE** effect on outcome

= Intervention has **NO** effect on outcome
Key Messages

For workers managing their symptoms (IN the workplace):
• CBT is effective, with or without work-focus

For workers experiencing a work absence (OUT of the workplace):
• There is a gradient effect that suggests that workers need more therapeutic support AND a focus on identifying work-relevant strategies related to their RTW.

Regarding the prevention of recurrences of work absence:
• There is work to be done to find effective approaches to help prevent recurrent work absence.
What does CBT look like?

Type of intervention provider

Clinician

Non-clinician

Few studies have examined non-clinician led interventions (RTW: n=2, SAW: n=1)

Of those in the review, they seem to have positive effect on these outcomes.
What does CBT look like?

Delivery to groups or individuals

Few studies have examined group-based interventions (RTW: n=2, SAW: n=2).

*Of those in the review, they seem to have positive effect on these outcomes.*
What does CBT look like?

Alternate forms of delivery

Telephone

Computer

There is moderate evidence that alternate forms of delivery have a positive effect for SAW
Putting these findings into context

Individual Focus
- EAPs
- Psychotherapy
- Stress reduction program
- W-CBT
- Exercise
- Enhanced care

Organization Focus
- Accommodations
- Social Support
- Job stressors
- Addressing Stigma
- Work Processes
- Workplace Culture

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Putting these findings into context
Next steps

• Publish & present findings in peer-review

• These findings were used in the development of a **Best Practice Guide** for **Managing Depression in the Workplace** (funded by WorkSafeBC).
Products to date...

March 2017
Evidence in Context for Occupational Health & Safety
OPERATIONAL HANDBOOK

March 2017
Managing depression in the workplace:
A systematic review contextualized for Manitoba

An evidence-informed guide
to supporting people with
depression in the workplace
Acknowledgements

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Contextual Factors

Can have an impact on workplace, and health outcomes and cost effectiveness:

- Population/workforce
- Other system factors
- Geography
- Service design/location
- Economics
- Industry
- Health/Human Resources
- Service organization & delivery
- Political factors
- Technology
- Legislation