Evidence on Tap Knowledge Synthesis Grant : Depression in the Workplace

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The Team

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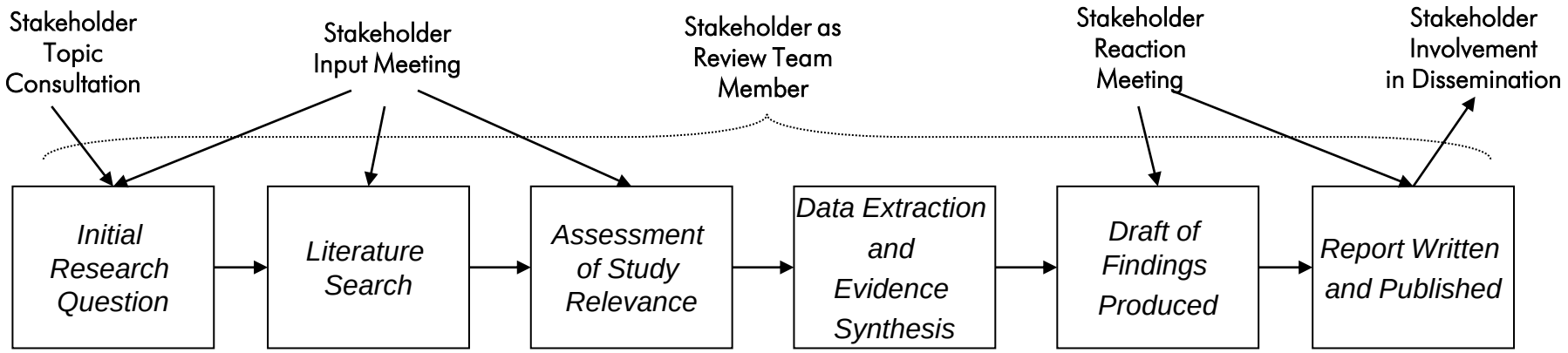
- CIHR Evidence on Tap
- Nancy Carnide is supported by a Canadian Institutes of Health Research Vanier Canada Graduate Scholarship.
- Kimberley Cullen is supported by a National Sciences and Engineering Research Council of Canada Graduate Scholarship.

Stakeholders (May and Nov 2010)

15 stakeholders

- Ontario Ministry of Health and Long-Term Care (MOHLTC)
- Ontario Ministry of Government Services (MGS)
- insurance providers
- WSIB
- disability management service providers
- mental health organizations
- mental health disorder survivors
- organized labour
- employers

Stakeholder Involvement



Systematic Review Steps

(Keown, Van Eerd & Irvin, 2008)

Steps of a Systematic Review

1. Develop question
2. Conduct literature search
3. Identify relevant publications
4. Quality appraisal
5. Data extraction
6. Evidence synthesis

Research Question

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

Search Terms (part 1)

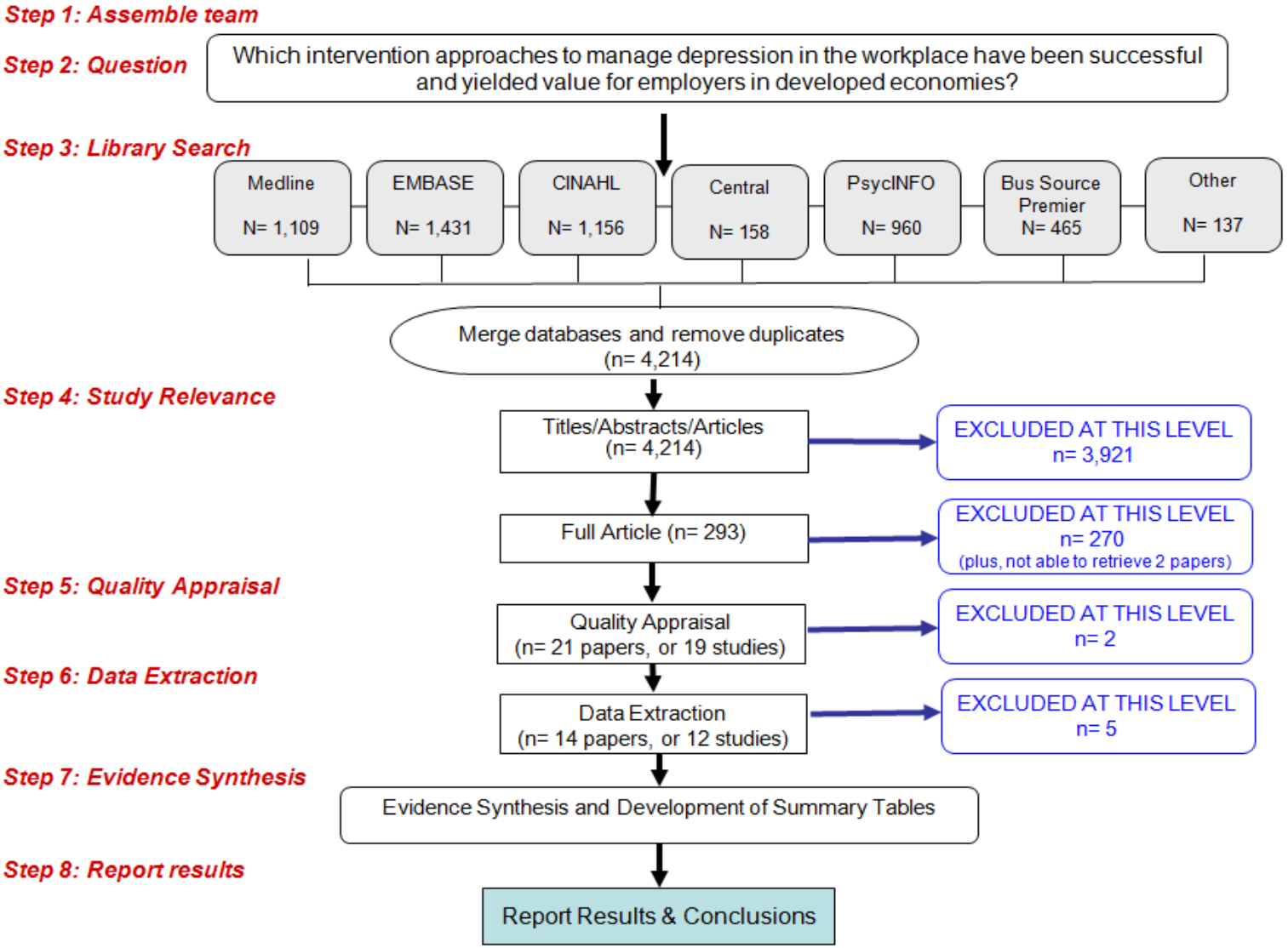
Work setting terms	Apprentice, Boss, branch, company, contractor, department, employee, employer, employment, facilities, factory, firm, Health services, hospital, industry, Institution, Isolation pay, labourer, Leader, Manager, office, operator, Organizational, personnel, plant, retail, Skilled trade, Staff, supervisor, team, Telecommunications, Unionized, Work, work environment, Work site, Worker, Working at home, workplace
Depression terms	Affective disorder, Affective symptoms, Depression, Depressive disorder, Depressive symptoms, Dysthymia, Mood disorder, Mood symptoms, Seasonal affective disorder (SAD)
Intervention terms	Access to care, Accommodation, acute stress management, Adjustment, Advocate, Affinity groups, Alternate duties, assessment and referral, Benefits, case management, chronic stress management, club membership, Coaching, Community services, Contracted ombuds services, Counselling, cultural resources, depression screening, Disability management programme, Diversity resources, EAP programmes, Early intervention, Education, education and training, E-learning, Embrace diversity, employee assistance program (EAP), employee satisfaction surveys, Employer resource groups, Engagement, Enhanced access, Fitness group, Flexible work, functional capacity assessments, Functionality, gardening, Grassroots, Gym membership, Health and wellness, health risk management, healthy workplace strategies, Horticulture, independent medical evaluations (IMEs), Inviting an organization in, Job control, job modification, Joint labour management initiatives, Long Term Disability (LTD) benefits, Management of individual, medical surveillance, mental health promotion, mental job analysis, Mentoring, modified duties, modified work, Modified work, nature, Occupational health services, organizational culture, Organizational policies and practices (OPPs), Pastoral care, Peer support, performance management, Pet therapy, Positive psychology, practice guidelines, Prayer room, preferred provider networks, Prevention, prevention for all, Promoting recovery, Psychological safety, Psychosocial risk factors, organizational culture, Quiet room, Quiet space, reflection room, Rehab, Reintegration, relapse prevention, resiliency training, Return to Work, Reward, second opinion, Self help, self-care programs, shared-care, shared-care, Short Term Disability (STD) benefits, spiritual care, Spirituality, Stay at Work, stress management, Support groups, Support options (support, in general) in small business, supportive leadership, supportive management, supportive supervision, task modification, time management, Training, Transitional/graduated return to work, Treatment support, Universal access, vocational rehabilitation, Wellness strategy, Work environment intervention, work re-organization, Workplace adjustment, Workplace intervention

Search Terms (part 2) ... continued

Outcome terms	Absenteeism, Accommodation, benefit duration, cost-effectiveness, Co-worker conflict, , Cultural shift, disability pension, Employee satisfaction, Engagement, job match, job turnover, labour force participation, long-term disability, lost time, lost workday, new employer, new job, presenteeism, productivity, Productivity ratio, reassignment, recovery, Reduced costs, Reduction in complaints, Reduction in harassment, reemployment, Remission, resilience, return on investment, return to work (RTW), short-term disability, sick leave, sickness absence, Stay at work, stigma, Successful stay at work, Supportive at-work solutions, Talent, time on benefit, unemployment, Vocational assessment, wage replacement, Wellness strategy, work ability, work absence, work adaption, work adjustment, work capacity, work disability, work functioning, work impairment, work limitations, work loss, work performance, work re-entry, Work reintegration, work resumption, Work retention, workers compensation, Work-life balance

The search terms were customized for each database used

Flowchart of Studies



Level 1: Titles and Abstracts (Distiller software)

- Population:

People of working age with depression

- Intervention:

An intervention to prevent further disability, manage depression or the rehabilitation of workers to promote stay-at-work (SAW), return-to-work (RTW), or reduction of job-related injuries

- Comparison:

A study with a comparison group

293 articles included and moved to Level 2: Full Article

Refid:1, Seale, G. S., Berges, I. M., Ottenbacher, K. J., and Ostir, G. V. (2010).
Change in positive emotion and recovery of functional status following stroke
Rehabilitation Psychology, 55(1), 33 -39
Level: 1.

OBJECTIVES: To investigate change in positive emotion over a 3-month follow-up period and determine whether this change is associated with recovery of functional status in persons with stroke.

DESIGN: A longitudinal study using information from the Stroke Recovery in Underserved Patients (SRUP) database. Positive emotion and functional status were assessed within 72 hours of discharge from an in-patient medical rehabilitation facility and at 3-month follow-up using established measurement instruments.

PARTICIPANTS: The study included 840 adults 55 years old or older with a first-time stroke and admitted to one of eleven in-patient medical rehabilitation facilities in the United States.

RESULTS: The mean age was 72.9 (SD = 9.52) years, 78.6% were non-Hispanic white and 51.7% were women. The average length of stay was 20.2 (SD =10.1) days and the most prevalent type of stroke was ischemic (75.0%). Positive emotion increased for 35.6% of the sample, decreased for 29.2%, and 35.2% reported no change. Increases in positive emotion change score compared to no change (b = -3.2, SE = 1.5, p = .032) or a decline (b = -8.9, SE = 1.4, p = or <.001) was significantly associated with improved functional status at the 3-month follow-up after adjusting for sociodemographic and clinical variables as well as depressive symptoms.

CONCLUSION: Positive emotion is a dynamic process and can change over time. In persons with stroke, increases in positive emotion over a 3-month period was

Submit Form and go to This Form - Next Reference or Skip to Next

Does the article describe...

Population

1. People of working age with depression?

- Yes
- (•) No
- Unsure

Note: we are excluding studies of people with serious mental disorders (e.g. bipolar disorder or schizophrenia), military personnel, veterans and elderly populations.

Intervention

2. An intervention to prevent further disability, manage depression or the rehabilitation of workers to promote stay-at-work (SAW), return-to-work (RTW) or reduction of job-related injuries?

- Yes
- (•) No
- Unsure

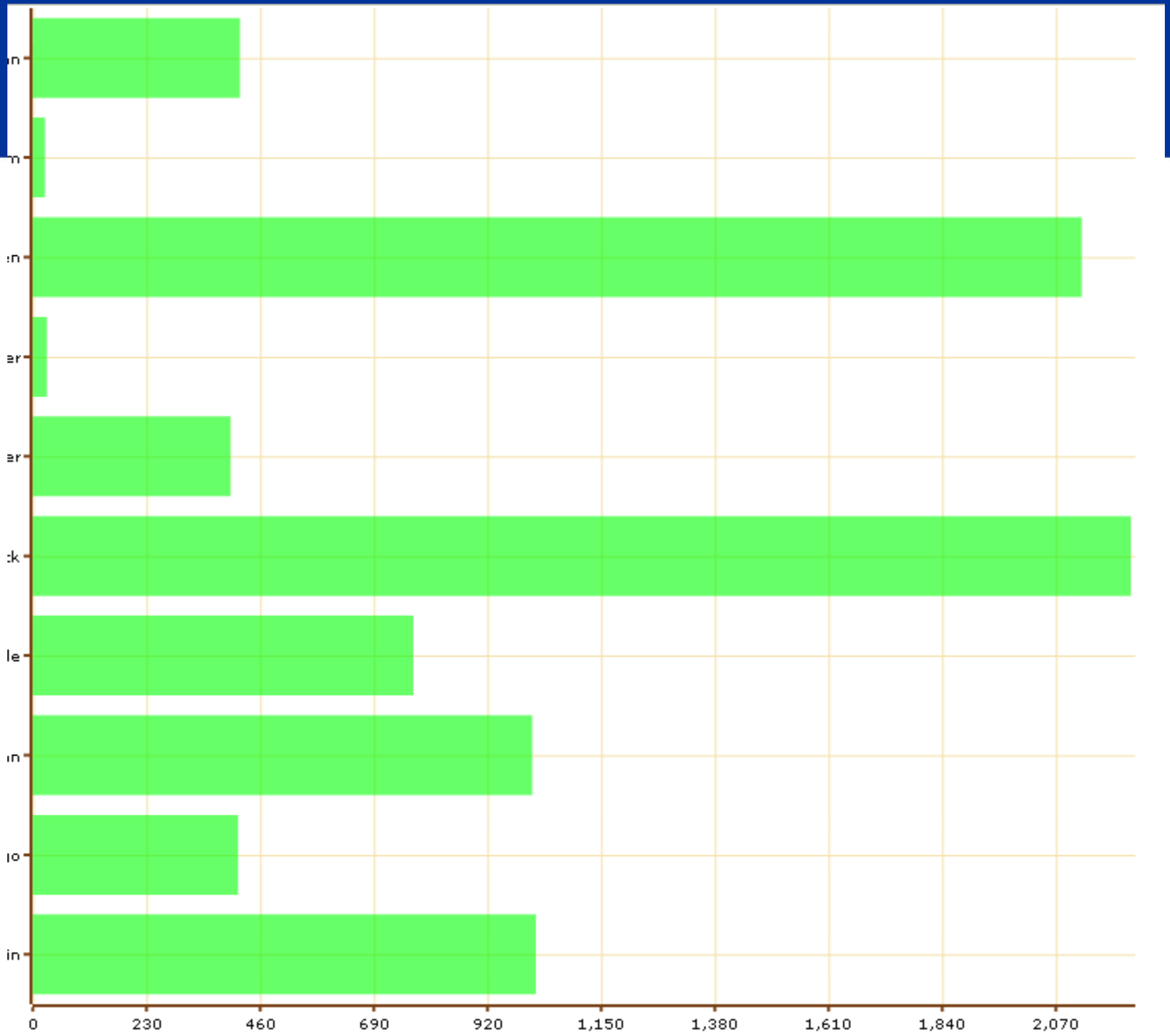
Clear Response

Comparison

3. A study with a comparison group?

- Yes
- No
- (•) Unsure

Clear Response


0
230
460
690
920
1,150
1,380
1,610
1,840
2,070

Level 2: Full Article (Distiller software)

- Population:

People of working age with depression

- Intervention:

An intervention to prevent further disability, manage depression or the rehabilitation of workers to promote stay-at-work (SAW), return-to-work (RTW), or reduction of job-related injuries

- Comparison:

A study with a comparison group

- Outcome:

Primary outcome(s) that are relevant to employers

- Other:

-Should the article be included for another purpose?

-Is this a review article on depression in the workplace?

-Are there other studies listed in the reference list that should be retrieved for consideration?

21 papers (19 studies) included and moved to Level 3: Quality Appraisal

Level 3: Quality Assessment (Distiller software)

1. Is the research question clearly stated?
2. Were comparison group(s) used?
3. Was an intervention allocation method performed adequately?
4. Was recruitment (or participation) rate reported and adequate?
5. Did the author(s) examine whether important differences existed between those who participated and those who did not?
6. Were pre-intervention (baseline) characteristics described and appropriately balanced?
7. Was loss to follow up (attrition) less than 35%?
8. Did the author(s) examine whether important differences existed between the remaining and drop-out participants after the intervention?
9. Was the intervention process adequately described to allow for replication?
10. Was there any potential for contamination and/or co-intervention?
11. Was compliance with the intervention in all groups described and adequate?
12. Were the instruments used to assess the outcomes valid and reliable?
13. Were the outcomes described at baseline and follow-up?
14. Was the length of follow-up three months or greater?
15. Was there adjustment for pre-intervention differences (if necessary)?
16. Were the statistical analyses appropriate?
17. Were all participants' outcomes analyzed by the groups to which they were originally allocated (intention-to-treat analysis)?
18. Was there a direct between-group comparison?

19 papers (12 studies) included and moved to Level 4: Data Extraction

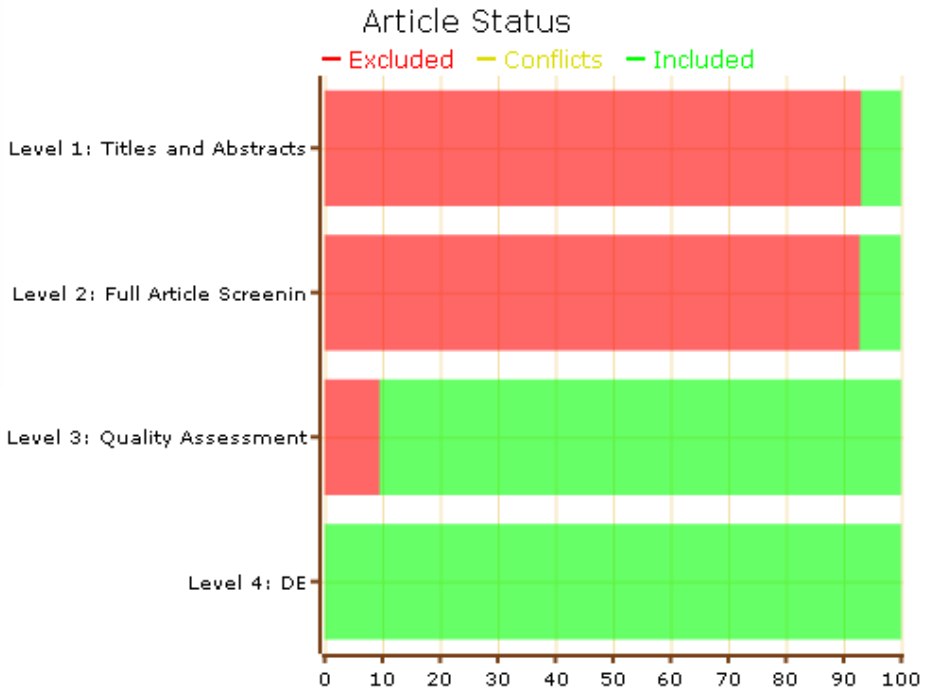
Level 4: Data Extraction (Distiller software)

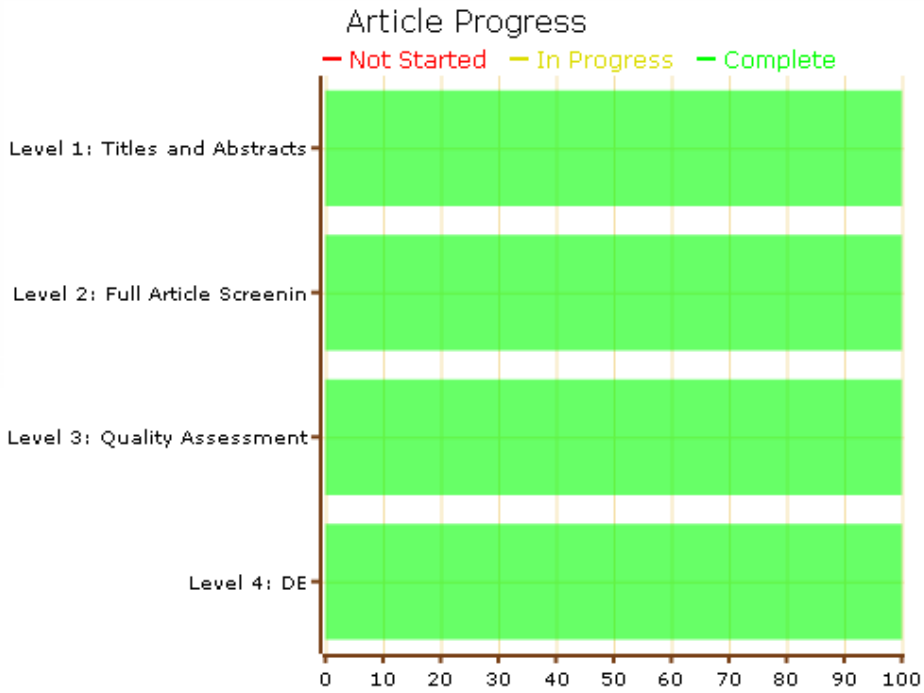
Data were extracted on:

- Year of study
- Jurisdiction
- Type of work setting
- Study design
- Source population
- Sample characteristics
- How the presence of depression was determined
- Length of follow-up
- Intervention characteristics
- Outcomes of interest to this review (productivity, sickness absence, health-related, and economic measures)
- Statistical analyses
- Covariates/confounders
- Study findings

14 papers (12 studies) included for Level 5: Evidence Synthesis

My Tasks | Project Progress





Level 5 Data Synthesis: Data Extraction Tables

- Tables
- Tables
- Tables
- Table headings are described in the following slides

Level 5, Evidence Synthesis

Table 1: Study Characteristics

First Author Year Country	Research Question	Study Design	Setting/ Workplace Setting	Inclusion Criteria	Exclusion Criteria

Level 5, Evidence Synthesis

Table 1: Study Characteristics

First Author Year Country	Research Question	Study Design	Setting/ Workplace Setting	Inclusion Criteria	Exclusion Criteria

Table 2: Intervention Characteristics

Author, Year	Nature of Intervention		Frequency of Intervention		Duration of Intervention		Follow-Up Period(s)	Loss to Follow-Up n (%)	
	Intervention Sample Size (n)	Control Sample Size (n)	Intervention	Control	Intervention	Control		I	C

Level 5, Evidence Synthesis

Table 1: Study Characteristics

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	Intervention Sample Size (n)	Control Sample Size (n)	Intervention	Control	Intervention	Control		I	C

Table 3: Depression Characteristics

Author, Year	Instrument(s) Used to Determine the Presence and Severity of Depression	Method of Instrument Administration	Depression Scores at Baseline Mean (SD)		% of Participants with Depression at Baseline	
			Intervention	Control	Intervention	Control

Level 5, Evidence Synthesis

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			Intervention	Control	Intervention	Control

Table 4: Participant Characteristics

Author, Year	Source Population	Job Title(s)	Sample Size n		Age Mean (SD)		% Female		Education Status (%)		% Working at Baseline	
			I	C	I	C	I	C	I	C	I	C

Level 5, Evidence Synthesis - Framework of work-related outcomes relevant to review stakeholders

Outcome Category	Prevention of Work Disability/Sickness Absence	Management of Work Disability/Sickness Absence	Work Functioning	Recurrence of Work Disability/ Sickness Absence
Relevant Study Population	Depressed workers, currently working and not on work disability leave/sickness absence	Depressed workers currently on work disability leave/sickness absence due to their depression	Depressed workers, currently working and not on work disability leave/sickness absence	Depressed workers who are currently working, but have had a prior episode of work disability/ sickness absence due to their depression
Among this study population, is there an effective intervention to:	Promote stay at work, promote job retention, or to prevent or reduce the number of casual sick leave days taken due to depression (e.g., use of vacation days or unpaid sick days) or paid sickness absence days?	Promote a return to work, to hasten a return to work, to prevent the transition from short-term work disability leave to long-term leave, or to prevent the transition from sickness absence to work disability?	Maintain or improve a worker's functioning both in terms of productivity and performance?	Prevent or reduce recurrences of work disability leave/ sickness absence due to depression?
Outcome Measures	- Number of casual sick leave days or vacation days - Number of paid sickness absence or sick leave days - Hours worked - Job retention - Transition to work disability leave	- Return to work - Duration on work disability leave/sickness absence - Transition from short-term disability to long-term disability - Transition from sickness absence to work disability	- Productivity and performance measures (e.g., Work Ability Index, Health and Work Performance questionnaire)	-Recurrence of work disability/ sickness absence - Number of work disability/ sickness absence recurrences - Duration of a recurrent work disability leave/ sickness absence

Level 5, Evidence Synthesis

Table 5: Categories of Primary and Secondary Outcomes of Interest to this Systematic Review

Author, Year	Primary Outcomes			Secondary Outcomes		Timing of Outcome Measurement
	Work Functioning	Work Disability & Recurrences of Work Disability	Economic Outcomes	Depression Outcomes	Other Outcomes	

Level 5, Evidence Synthesis

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Table 6: Studies with Economic Analyses - Main Results

Author, Year	CEA or CBA	Perspective	Time-Frame	Results Sensitive to Time-Frame	Main Economic Findings

Level 5, Evidence Synthesis

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Table 7: Studies with Economic Analyses - Additional Details

Author, Year	Costs Associated with Intervention Measured		Outcome Measures Monetized into a Dollar Figure	Inflation Adjustment	Did the Authors Calculate How Long it Would Take to Recoup Costs?	Discounting
	Direct Costs	Indirect Costs				

Level 5, Evidence Synthesis

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	Direct Costs	Indirect Costs				

Table 8: Main Findings

Author, Year	Final Statistical Analyses	Covariates/ Confounders Controlled for in Analyses	Main Findings

Author, Year	Final Statistical Analyses	Covariates/ Confounders Controlled for in Analyses	Main Findings
8. Schene, 2007	Cox regression analyses Generalized estimating equations Generalized linear model	For work stress: baseline score on the QOS For presence of major depression, depression severity, and working at least 2 days or 16 hours per week: baseline BDI score For time until any work resumption and total hours worked within each 6-month period: NR	**PRIMARY OUTCOMES** **Work Disability and Recurrences of Work Disability Outcomes:** 1. Time until any work resumption: Among patients not working at baseline, the mean number of days from baseline to any work resumption was significantly lower in the I (psychiatric treatment, plus OT) group (207 days) compared to the C (treatment as usual) group (299 days) (HR=2.71, 95%CI 1.16 to 6.29, p=0.01). 2. Total hours worked within each 6-month period up to 42 months: Over the first 18 months, individuals in I worked significantly more hours than those in C. Namely, between 7 and 12 months since baseline, the median number of hours worked was 261.75 for I and 0.85 for C (χ^2=4.13, p=0.042), while between 13 and 18 months, the median number of hours was 456.25 for I and 156.42 for C (χ^2=4.46, p=0.035). This trend continued from months 19 to 42, but for each 6-month period, the differences in median hours worked between the intervention groups was non-significant (months 19 to 24, 456.25 for I, 91.25 for C, χ^2=1.42, p=0.234; months 25 to 30, 397.58 for I, 0.0 for C, χ^2=0.44, p=0.509; months 31 to 36, 391.07 for I, 130.35 for C, χ^2=1.11, p=0.293; months 37 to 42, 404.10 for I, 0.0 for C, χ^2=0.62, p=0.431). 3. The proportion of working at least 2 days or 16 hours per week: From months 0 to 18, the proportion of patients working at least 2 days or 16 hours per week significantly increased in both groups (χ^2=15.81, p=0.001), from 9% in I and 11% in C in months 0 to 6, to 52% in I and 22% in C in months 13 to 18. From months 19 to 42 (p=0.387), further increases were small in both groups and by 42 months, 57% of the I group, 42% of the C group were working at least 2 days/16 hours per week. There was no significant difference between I and C in both months 0 to 18 (χ^2=6.27, p=0.099) and 19 to 42 (χ^2=3.12, p=0.374) **Economic Outcomes:** See Table 6

Use of GRADE in Cochrane Reviews

- **G**rades of **R**ecommendation, **A**ssessment, **D**evelopment and **E**valuation
- Originally developed for clinical practice guidelines
- Quality of evidence for outcomes

Determining the extent to which we are confident that an estimate of effect is correct

GRADE

Four grades of evidence:

- **High**: Further research is very unlikely to change our confidence in the estimate of effect
- **Moderate**: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
- **Low**: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
- **Very low**: Any estimate of effect is very uncertain.

More tables.... GRADE TABLES

Intervention*	Study Design	Risk of Bias	Consistency of Evidence	Directness of Population and Outcome	Precision of Evidence	Economic Benefit**	Final GRADE
	Randomized Controlled Trial						
	Initial GRADE: High ⊙⊙⊙⊙						

Intervention*	Study Design	Risk of Bias	Consistency of Evidence	Directness of Population and Outcome	Precision of Evidence	Economic Benefit**	Final GRADE
	Non-Randomized Study Initial GRADE: Low ⊙⊙OO						

Intervention*	Study Design	Risk of Bias	Consistency of Evidence	Directness of Population and Outcome	Precision of Evidence	Economic Benefit**	Final GRADE
	Non-Randomized Study	High					
	Initial GRADE: Low ⊙⊙○○	GRADE Adjustment: -2					

Intervention*	Study Design	Risk of Bias	Consistency of Evidence	Directness of Population and Outcome	Precision of Evidence	Economic Benefit**	Final GRADE
	Randomized Controlled Trial	High	Not Applicable	Population: yes[48] Outcome: yes[49]	Not Precise[50]	Not Applicable	⊙○○○
	Initial GRADE: High ⊙⊙⊙⊙	GRADE Adjustment: -2	GRADE Adjustment: 0	GRADE Adjustment: 0	GRADE Adjustment: -1	GRADE Adjustment: 0	

Table 15a: Prevention of work disability/sickness absence - Among workers currently working and not on work disability leave/sickness absence, which interventions for depression *significantly increase* the number of worked hours?†

Intervention*	Study Design	Risk of Bias	Consistency of Evidence	Directness of Population and Outcome	Precision of Evidence	Economic Benefit**	Final GRADE
In the short term							
Psychiatric treatment with adjuvant occupational therapy (Schene, 2007)[24]	Randomized Controlled Trial	High	Not Applicable	Population: no[25] Outcome: no[26]	Not Precise[27]	Yes[28]	⊙○○○
	Initial GRADE: High ⊙⊙⊙⊙	GRADE Adjustment: -2	GRADE Adjustment: 0	GRADE Adjustment: -2	GRADE Adjustment: -1	GRADE Adjustment: +1	
In the long term							
Psychiatric treatment with adjuvant occupational therapy (Schene, 2007)[29]	Randomized Controlled Trial	High	Not Applicable	Population: no[30] Outcome: no[31]	Not Precise[32]	Yes[33]	⊙○○○
	Initial GRADE: High ⊙⊙⊙⊙	GRADE Adjustment: -2	GRADE Adjustment: 0	GRADE Adjustment: -2	GRADE Adjustment: -1	GRADE Adjustment: +1	

More tables.... SOF TABLES

Summary of findings for the primary outcomes†

Interventions		*Primary Outcomes*								
		Prevention of Work Disability		*Management of Work Disability*		*Work Functioning*		*Recurrence of Work Disability*		*Economic Benefit*
		Short Term	*Long Term*	*Short Term*	*Long Term*	*Short Term*	*Long Term*	*Short Term*	*Long Term*	
Enhanced Psychiatric Care	Psychiatric treatment with adjunct occupational therapy (Schene, 2007)	+[164] ⊙○○○	+[165] ⊙○○○ =[166]	+[167] ⊙○○○	+[168] ⊙○○○ +[169] ⊙○○○ =[170]					+

Table 7: **Translation from summary of findings to key messages**

GRADE	Consistency	Terminology for Key Messages
High	Intervention is consistently better* than inactive control	Recommendation to implement the intervention
	Intervention is consistently inferior than inactive control**	Recommendation against implementation of the intervention
Moderate or Low	Intervention is consistently better than inactive control	Practice consideration or promising practice#
	Intervention is consistently inferior than inactive control	No recommendation. Need for more research
Very low	Intervention is consistently better or inferior than inactive control	No recommendation. Need for more research
Any	Findings are mixed*** or contradictory****	No recommendation. Need for more research

* **Consistently better:** When all the comparisons for primary outcomes demonstrated positive findings (i.e., in favour of the intervention group)
** **Consistently inferior:** When all the comparisons for primary outcomes demonstrated negative findings (i.e., in favour of the control group)
*** **Mixed findings**: When the comparisons for primary outcomes were a mix of positive and neutral (no difference between intervention and control) findings or a mix of negative and neutral findings

Key Message (example)

Enhanced psychiatric care

We found one small trial (n total= 62) conducted in the Netherlands that assessed the addition of occupational therapy to psychiatric care (with antidepressants, if indicated) (Schene et al.2007).

Key Message: No recommendation can be made for **enhanced psychiatric care with occupational therapy** because 1) the grade of the evidence to support this intervention is "very low" and 2) there were mixed findings (positive and neutral). We recommend that more research is conducted for this intervention.

Information relevant for future studies: There was only one study found to examine this intervention and was conducted in The Netherlands. There is a need to verify if this intervention is effective in other countries that have a different compensation system, specifically Ontario.

Results: Types of Studies

We included 26 publications which reported on 14 studies, however, two studies were of the same population, therefore, data was extracted from **12** distinct publications

Of these:

- 10 randomized controlled trials
- 2 non-randomized studies with a separate control group

Results: Country

- The Netherlands= 4 (33.3%)
- USA= 4 (33.3%)
- Canada= 1 (8.3%)
- Denmark= 1 (8.3%)
- Finland= 1 (8.3%)
- Japan= 1 (8.3%)

Results: Risk of Bias Table

Bias / Author, Year	Selection Bias	Attrition Bias	Performance Bias	Measurement Bias	Reporting Bias	Overall Risk Judgement
Blonk 2006						High
Dewa 2009						High
Smith 2002						High
Rebergen 2009a, 2009b						High
van der Feltz-Cornelis 2010						High
Schene 2007						High
Krogh 2009						High
Kawakami 1997						High
Knekt 2008a, 2008b						High
Lo Sasso 2006, Rost 2004						High
Wang 2007						High
Schoenbaum 2001						High

Results: Screening and Diagnosis of Depression

DSM-IV, and ICD-10 (Psychiatrist/Psychologist = Gold Standard)

A useful depression screening tool should be able to be used for screening and severity (and be valid, reliable, and easily administered)

Instrument	Administration	Screening	Severity	Studies
BECK DI	Self-report	+	+	Knekt 2008, Krogh 2009, Schene 2007
DASS	Self-report	+	+	Blonk 2006, Rebergen 2009
HADS	Self-report	+	+	Rebergen 2009
m-CESD	Self-report	+	+	Lo Sasso 2006, Smith 2002
PHQ-9	Self-report	+	+	van der Feltz-Cornelis, 2010
QIDS-SR	Self-report	+	+	Wang, 2007
Zung SRDS	Self-report	+	+	Kawakami 2007
K6	Self-report	+		Wang, 2007
SF-12	Self-report	+		Schoenbaum 2001
HAM-D	Interview		+	Knekt 2008, Krogh 2009
M-ADRS	Interview		+	Krogh 2009

Results: Type of Interventions

Interventions		Studies
Psychological interventions	Cognitive-behavioural therapy Cognitive-behavioural therapy plus workplace-focused technique Brief and resource-oriented solution-focused psychotherapy Short-term psychodynamic psychotherapy Long-term psychodynamic psychotherapy	Blonk 2006 Knekt 2008
Enhanced primary care by physicians and nurses	Enhanced care delivered by primary care physician and nurse	Lo Sasso 2006; Smith 2002
	QI program for improved psychotherapy with primary care clinicians QI program for improved access to medications with primary care clinicians	Schoenbaum, 2001
Enhanced psychiatric care	Psychiatric treatment with adjuvant occupational therapy	Schene 2007
Enhanced occupational physician role	Guideline-based care by occupational physician	Rebergen, 2009
	Occupational physicians with specialized training	van der Feltz, 2010
Systems integration and care management	Collaborative Mental Health Program (enhanced disability management)	Dewa 2009
	Telephone screening, outreach, and care management	Wang 2007
Exercises	Strength training; Aerobic training; Relaxation training	Krogh, 2009
Worksite intervention	Worksite stress reduction program	Kawakami 1997

Key Messages

No recommendation can be made for:

Enhanced primary care delivered by nurse or MD
Enhanced psychiatric care with occupational therapy
Enhanced occupational physician role
Psychological interventions

due to 1) “very low” grade evidence and
2) mixed findings (positive and neutral)

Key Messages

No recommendation can be made for:

Worksite stress reduction programs
Systems integration and care management

due to 1) “very low” grade evidence and
2) mixed findings (positive and neutral) (Systems integration)

Key Messages

No key messages can be derived for :

Exercise

because the only trial found did not have an inactive control group

Economic Results – Summary of Findings

Five studies in the review measured economic outcomes

Two studies adopted an employer perspective, with cost-benefit analyses

Two studies adopted the societal perspective, with cost-effectiveness analyses

One study adopted the societal and employer perspective, with cost-benefit analyses for both

Economic Results – Summary of Findings

Appraising strength of evidence from economic evaluations involves many of the same considerations as main results, e.g. risk of bias

However, economic outcomes may diverge from clinical or other outcomes (e.g., Schene et al. (2007))

Economic Results – Key Messages

Three interventions showed evidence of a net economic benefit to the employer:

- enhanced primary care
- enhanced occupational physician role
- system integration and care management

Three interventions showed evidence from a societal perspective of cost-effectiveness or net economic benefit:

- enhanced primary care
- enhanced occupational physician role
- psychiatric care enhanced by occupational therapy

Significance

After working with Stakeholders to develop a relevant question and framework, we found:

All studies included were judged to be at high risk of bias

Evidence for specific interventions was always based on data from one study, precluding examination of consistency and limiting precision

The populations included in studies were often not considered to be generalizable to the population of interest for this review

Significance

At best, we have identified the following interventions as recommended for future research:

- Enhanced primary care
- Enhanced psychiatric care
- Enhanced role for occupational physicians
- Psychological interventions
- Worksite stress reduction
- System integration and care management

Studies conducting economic analyses can improve relevance to the employer by including cost-benefit analyses from the employer perspective

Strengths and Weaknesses

Strengths include:	
	Multidisciplinary and international team
	Input from Canadian stakeholder group
Limitations:	
	Paucity and low quality of research evidence
Relevant unanswered questions:	Which interventions for depression are effective?
	When in the course of depression should interventions be administered?
	Are results generalizable to Ontario?
	Why did some positive results not persist?

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