



CREATOR(S):

TITLE:

YEAR:

Original citation:

OpenAIR citation:

Copyright statement:

This work was distributed in the first instance by _____ and was originally presented at _____.

OpenAIR takedown statement:

Section 6 of the “Repository policy for OpenAIR @ RGU” (available from <http://www.rgu.ac.uk/staff-and-current-students/library/library-policies/repository-policies>) provides guidance on the criteria under which RGU will consider withdrawing material from OpenAIR. If you believe that this item is subject to any of these criteria, or for any other reason should not be held on OpenAIR, then please contact openair-help@rgu.ac.uk with the details of the item and the nature of your complaint.

This _____ is distributed under a CC _____ license.

The effectiveness of vocational rehabilitation on work participation for adults with musculoskeletal disorders: an umbrella review

Lyndsay Alexander, Kay Cooper & Dawn Mitchell

The Scottish Centre for Evidence-based Multi-Professional Practice: A JBI Centre of Excellence ,
Robert Gordon University, UK
School of Health Sciences, Robert Gordon University, UK

Background:

Musculoskeletal disorders (MSD) are a common problem for working adults and have a significant effect on functional ability, quality of life, medical costs and time off work.

Vocational rehabilitation (VR) has been identified as a solution to address the impact of MSD in working age adults with a significant number of systematic reviews on the topic.

Objective: To determine the effectiveness of VR on work participation in working age adults with MSD.

Research questions:

1. Is VR effective at improving work participation, reducing sickness absence and reducing disability due to MSD in working age adults?
2. Which types/modes of VR are most effective for improving work participation, reducing sickness absence and reducing disability due to MSD in working age adults?
3. Which MSD is VR most beneficial for?

Results:

Two reviewers independently reviewed all evidence for inclusion in the review and extracted data. All disagreements were resolved by discussion.

- 17 systematic reviews involving over 53,000 participants were included.
- The majority of reviews concerned low back pain (11), general MSD (3), neck/arm pain (2) and inflammatory arthritis (1), and were conducted in a range of settings.

• **VR is effective for improving work participation in working age adults with MSD**

• **VR is effective for low back pain, general MSD and inflammatory arthritis in terms of RTW**

• **Effective interventions included exercise-based interventions; workplace interventions; multi-disciplinary interventions and brief education across different MSD.**



Method:

This umbrella review was conducted using the Joanna Briggs Institute umbrella review methodology. Nine databases and eight websites were searched using an a-priori protocol.

Participants – This umbrella review included systematic reviews of VR involving working age adults (18 years and over) with MSD.

Intervention – Systematic reviews evaluating VR including interventions such as workplace interventions and/or interventions that assist return to work (RTW) such as physiotherapy, exercise, back schools, education and psychological/behavioural treatment.

Context - Work

Outcomes – Primary outcome was RTW , secondary outcomes were disability, pain, and quality of life.

Studies - Published and unpublished studies in English published between 2006-2016.

Primary outcome: Return to Work Summary of Evidence

Intervention	Effectiveness	LBP	General MSD	Neck/Arm	IA
Exercise	Effectiveness	High	Moderate	Moderate	
	GRADE	High	Moderate	Moderate	
Brief intervention (clinical setting)	Effectiveness	Moderate			
	GRADE	Moderate			
Back school	Effectiveness	Moderate			
	GRADE	Moderate			
MDT	Effectiveness	Moderate	Moderate		
	GRADE	Moderate	Moderate		
WI	Effectiveness	High	High	Moderate	
	GRADE	High	High	Moderate	
MSR	Effectiveness	Moderate			
	GRADE	Moderate			
Intense physical conditioning	Effectiveness	Moderate			
	GRADE	Moderate			
GA	Effectiveness	Moderate			
	GRADE	Moderate			
Multi-disciplinary back training	Effectiveness	Moderate			
	GRADE	Moderate			
Ergonomic	Effectiveness	Moderate		Moderate	
	GRADE	Moderate		Moderate	
Behavioural treatment	Effectiveness			Moderate	
	GRADE			Moderate	
Non-pharmacological	Effectiveness				Moderate
	GRADE				Moderate

Key: MSD = musculoskeletal disorders; IA= inflammatory arthritis; LBP = low back pain; MDT = multi-disciplinary treatment; WI = workplace interventions; MSR = multidisciplinary bio-psychosocial rehabilitation; GA = graded activity

■ The intervention is effective
■ There is no difference in the intervention (or a lack of evidence)
■ The intervention is detrimental or less effective than a comparator



Implications:

Practice – There is a need to ensure VR includes elements of exercise and workplace interventions with a multi-disciplinary focus to ensure improved work participation, reduced pain and disability for working age adults with MSD.

Research – There is a need to observe reporting guidelines for intervention studies to improve transparency of interventions, reduce heterogeneity and enable meta-analysis in systematic reviews.