

# Quantifying the effectiveness of interventions for people with common health conditions in enabling them to stay in or return to work: A rapid evidence assessment

By Pauline Dibben, Geoffrey Wood, Rod Nicolson and Rachel O'Hara

## Background and method

This rapid evidence assessment examined evidence available on the effectiveness of health and work interventions to help people with common health conditions to stay in work or return to work (RTW). The evidence assessment was commissioned to inform policy development on how to sustain employment for those with common physical and mental health conditions (MHCs), and the perceived lack of clear evidence on employment outcomes. Building on previous evidence reviews, the objective was to understand the quantitative impact of such interventions, considering the latest available evidence (2008-11).

The methods used include quasi-systematic searches of the Swetswise, JSTOR, Emerald, and Cochrane databases (covering management and medical studies) using 14 keyword phrases. Due to the perceived significance of mental health problems, a follow-up search for studies on stress, distress and burnout was conducted. To be selected, studies had to: provide precise estimates of an intervention's effectiveness; include evidence from Britain or other countries, including those with strong reputations for workplace adjustments or interventions such as the Netherlands, Australia, Scandinavian countries, and the United States; and be published between 2005 and 2011 (although references to directly relevant work published before that time were included where appropriate). This strategy yielded 1,300 sources, but very few were robust studies that included measurable employment outcomes.

## Key findings

The review found that the evidence base on work-related interventions for people with common health conditions has not changed substantially since 2007 and studies generally lack robust quantification of employment outcomes and cost/benefit analysis of interventions. Additionally, relatively little quantitative evidence is apparent for interventions carried out in the UK.

Areas where there is a reasonably strong body of evidence, with positive effects, include: workplace-based interventions for those with musculoskeletal disorders (MSDs) particularly for low back pain (LBP); cognitive behavioural therapy (CBT), vocational rehabilitation and workplace rehabilitation for LBP; supported employment for people with severe MHCs; and psychological interventions for depression.

In general, there is some evidence of the benefits gained from coordination between rehabilitation professionals and the value of a case management approach among studies examining interventions for people with general health conditions.

The majority of studies on **musculoskeletal conditions** focus on LBP, with some evidence that a multidisciplinary approach including CBT and workplace-focused interventions are effective in terms of benefits and costs. Evidence on other interventions is either of low quantity, poor quality or inconclusive.

Studies looking at interventions for people with **cardio-respiratory illnesses** tend not to report occupational outcomes. Moreover, most relevant studies appear to focus on cardio, as opposed to respiratory, illness.

Little evidence exists on the effectiveness of interventions for employment outcomes among people with **mental illnesses**. Some studies address depression, with evidence indicating the positive effects of psychological/work-based interventions. Others cover distress/burnout/stress, but tend to focus on healthcare professionals, with generally weak quantity or quality of evidence.

The best available evidence for effect-size meta-analysis, synthesising findings from a number of studies, is that on musculoskeletal conditions (LBP) and multidisciplinary, workplace-based interventions. Here, a few recent studies provide evidence on the effectiveness of interventions for return to work. However, in order to provide strong evidence, it is important to separate out clients groups according to variables such as age and previous sickness levels.

## Musculoskeletal disorders

The review cites 102 studies on musculoskeletal conditions. Very few cover medical or clinical interventions. CBT tends to be incorporated into a broader multidisciplinary approach, but evidence suggests limited usefulness in terms of employment outcomes. Only one source emerged on vocational rehabilitation, and did not indicate positive effects. Four studies and two reviews surfaced in the area of workplace-based interventions, and indicated that such approaches might be effective in terms of cost effectiveness and employment outcomes. Finally, diverse studies covering minimal interventions show mixed evidence of outcomes. Positive evidence on job support and placement schemes was from Hong Kong, China. Therefore, transferability might be questionable.

The majority (48 of the 102 studies on MSDs that include measurement of employment outcomes) focus on LBP, covering:

- functional restoration/physical conditioning/work hardening programmes – evidence in this area is relatively weak and mixed and does not involve Randomised Control Trials (RCTs);

- graded activity/exercise – a larger number of studies are listed, but evidence often tends to be weak or points toward a lack of positive employment outcomes;
- manual therapy – a limited amount of evidence, but casting doubt on the value of this form of intervention, particularly after a longer time period;
- CBT – a number of studies include RCTs, and there is some evidence of positive effects;
- medical advice/education studies – some (not strong) evidence on the value of education;
- lumbar supports – limited available evidence suggests effective employment outcomes;
- vocational rehabilitation – a reasonable amount of evidence, mostly from Germany and Scandinavia, generally pointing toward the positive effect of such interventions; and
- workplace rehabilitation – a reasonable amount of recent evidence showing positive effects in terms of employment outcomes and cost effectiveness. However, evidence is mainly from the Netherlands, where employers have a greater responsibility for the return to work process.

A number of studies also emerged for a range of other specific MSDs:

- **Neck and back pain:** Limited evidence, but some positive evidence for rehabilitation. Evidence on early mobilisation is mixed and the value of CBT is questioned by the one study on this intervention. Available evidence is from Scandinavia.
- **Upper limb/extremities:** Interventions for upper limb disorders tend to be dominated by clinical/medical interventions, and the evidence for their effectiveness is mixed.
- **Lower limb/ankle:** Most studies are concerned with early mobilisation and exercise. Evidence for these generally seems to be positive. However, the evidence base is very weak.
- **Arthritis and rheumatism:** The evidence here is very weak, with limited and inconclusive evidence on clinical/medical interventions and rehabilitation.

- **Fibromyalgia, ankylosing spondylitis, and spinal cord injury/back surgery:** Limited evidence available.

## Cardio-respiratory conditions

There are very few studies on cardio-respiratory conditions, and none for respiratory illness. Evidence on clinical or medical interventions is very limited. Two studies give contrasting results for surgical interventions, with some support for psychological and medical advice, but a weak evidence base. Evidence on exercise is limited and contradictory. A number of studies on work-based interventions for cardio-respiratory conditions provide some support for early return to work and workplace rehabilitation. Some qualitative research suggests the potential value of social support at work.

## Mental health conditions

Mental illness is now the leading cause of both sickness absence and incapacity benefits in most high-income countries. A total of 41 studies emerged in this area, covering a broad range of conditions. For general MHCs, there is little evidence on clinical or medical interventions. Some evidence points toward the benefit of psychological interventions in relation to employment outcomes. However, the intervention type and health condition varies greatly, including those with brain injury, schizophrenia, and general psychological complaints. There is also a lack of evidence on workplace interventions for those with MHCs. Only two studies emerged on social interventions, with some indication of a possible reduction of sick leave.

There is some evidence for psychological/work-based interventions for those with depression but the evidence is quite diverse, including, for example, telephone-based interventions and occupational therapy. In addition, there is mixed evidence on the value of vocational rehabilitation for those with severe MHCs or brain injury and for placement support. However, a number of studies indicate positive evidence for supported employment.

There is often a blurring between the concepts of stress, distress, burnout, and the clinically diagnosed condition of depression. Many of these studies

focus on healthcare professionals. Clinicians tend to exclude analysis of stress and the research tends not to be robust. Thus, although a number of sources are cited in the evidence assessment, many are of dubious quality. The review generated a small number of studies showing employment outcomes as a result of psychological or stress management interventions. However, there is contradictory evidence on whether they are effective and most evidence points toward a lack of effect, particularly over the longer term. Indeed, RCT studies show that interventions have not been effective. In studies on distress, a number of interventions are covered but lack positive employment outcomes. There is limited evidence on interventions aimed at addressing burnout both in terms of quantity and quality of evidence.

## Effectiveness of interventions by industry, firm size and job type

Of the 154 studies cited, 34 refer to the industry where the research was undertaken, 26 indicate firm size explicitly or implicitly, and 69 refer to the job type of participants. The type of industry is generally only referred to when an intervention took place within a particular organisation, or was applied, for example, to a job type such as nursing assistants or home workers. Moreover, where studies focus on work rehabilitation or physical exercise/graded activity, the type of industry is more often mentioned. There is not sufficiently robust evidence to argue that a particular intervention may work best or most effectively in a particular industry since it is rare that comparisons between industry types are made. The job type of participants is more often referred to explicitly within studies than is the case for industry type or firm size. However, in over half of the cases (85/154) job type is not explicitly highlighted.

## Costs/benefits of interventions

Proving the economic case for investing in interventions is challenging, since many studies do not include quantitative data on the costs nor effect sizes for employment outcomes. Although

the evidence base is generally limited, more recent studies provide some evidence on the effectiveness of workplace-based interventions for return to work for those with LBP.

## Current gaps and weaknesses in evidence base

Several gaps in the evidence base on interventions to help people with common health conditions stay in work or return to work were identified. Quantitative data for employment outcomes is very limited, particularly that which includes costs or effect sizes. In this area, research on MHCs and cardio-respiratory conditions is very limited. Research often lacks acknowledgement of structural boundaries, and clarity on the concept of sustained employment. Few studies conducted within the UK context cover employment outcomes for those with physical or MHCs. Finally, researchers have tended to undertake meta-analyses without 'partitioning' the dataset, mixing those who show strong intervention

effects with those who do not. This has led to under-estimation of the optimal effectiveness of interventions.

## Priorities for future research

Areas where there is quantitative evidence available on the positive effects of interventions include: workplace-based interventions for people with MSDs (particularly LBP); CBT and vocational rehabilitation for LBP; and supported employment for those with MHCs. Importantly, researchers should provide richer analyses of their data, separating out variables such as age and previous sickness absence that are known to have a significant effect on treatment effectiveness. More generally, there should be further research within the UK context, and in particular, further studies on the employment outcomes of interventions for those with cardio-respiratory conditions, and also for MHCs, particularly for stress or burnout.

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Carol Beattie, Central Analysis Division, Department for Work and Pensions, Upper Ground Floor, Steel City House, West Street, Sheffield, S1 2GQ. Email: [Carol.Beattie1@dwp.gsi.gov.uk](mailto:Carol.Beattie1@dwp.gsi.gov.uk).