How can we help employees with chronic diseases to stay at work: a review of interventions aimed at job retention and based on an empowerment perspective

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CRD summary
The review concluded that there was some evidence that vocational rehabilitation interventions were effective. But, evidence was weak due to short follow up and lack of control groups. The authors' cautious conclusion appeared reasonable, but was based on a small number of low-quality studies. That and the lack of reporting of review methods means the potential for bias is unclear.

Authors' objectives
To determine the feasibility and effectiveness of vocational rehabilitation interventions aimed at job retention for employees with chronic diseases.

Searching
MEDLINE, EMBASE, CINAHL and PsycINFO databases were searched from 1988 to March 2004 for articles in English, German, French or Dutch. Search terms were reported. Reference lists of selected articles were scanned and experts contacted for additional studies.

Study selection
Experimental studies evaluating interventions aimed at job retention using methods of solving work-related problems using an empowerment perspective and directed at employees with chronic illnesses were eligible for inclusion. Empowerment perspective was defined as offering knowledge and skills to participants to enable them to adopt an active attitude to defining and solving problems. Chronic illnesses could include diabetes mellitus, rheumatic diseases, hearing disorders (excluding deafness), multiple sclerosis, inflammatory bowel disease, epilepsy, chronic kidney failure, chronic obstructive pulmonary disease (COPD) and asthma. Studies evaluating diseases with dominant psychosocial aspects such as low back pain were excluded.

All interventions included in the review offered education combined with counselling, assessment or training. Some studies were directed at psychological and social consequences of diseases for function at work. Others offered practical solutions for work-related problems. The number of individual sessions varied from one to several and the number of group program meetings varied from four to 10. The setting of the included studies varied and included outpatient clinics, community health centres, vocational rehabilitation organisation or patient organisations. Participants in the included studies were employees with rheumatic diseases, diabetes, multiple sclerosis, chronic kidney failure, hearing impairment, visual impairment or blindness. Outcomes assessed included feasibility of intervention, employment status, physical and psychological health and use of hearing aids.

The authors stated neither how papers were selected for the review nor how many reviewers conducted the selection (although they reported that if there was any doubt about inclusion of a study, the last author also screened the abstract).

Assessment of study quality
Validity was assessed using the following criteria: pre-test and/or post-test measurement, use of control group, sample size, follow-up period and relevant outcome measures. The authors reported neither how the validity assessment was conducted nor how many reviewers performed the assessment.

Data extraction
Data were extracted on outcome measurements and effectiveness. The authors reported neither how data were extracted nor how many reviewers performed the data extraction.

Methods of synthesis
Studies were combined in a narrative synthesis with additional data presented in tables.
Results of the review

Nine studies (n=810) were included in the review: four randomised controlled trials; two studies were semi- or non-randomised design; and three studies had no control group. Four studies used only post-test measurement. Follow-up varied from eight weeks to 48 months.

Employment status was reported as being positively influenced by vocational rehabilitation interventions in four out of five studies.

Participants who underwent vocational rehabilitation interventions reported a greater improvement in self efficacy and more requests and meetings with employers than the control group in one study. One study without a control group reported greater use of hearing aids and increased awareness and self confidence after the intervention.

Improvement of psychological outcomes was greater for participants who underwent vocational rehabilitation interventions than controls in two of three studies. Employees with diabetes reported improved metabolic control in the intervention group compared to control group in one study. However, participants with occupational hearing impairments reported no improvement in experience of disability in one study without a control group. Participants in two studies without control groups reported greater self-confidence after the intervention period.

Positive results that related to the feasibility of intervention programmes for hearing impaired workers and their spouses (one study), a comprehensive group meeting program for arthritis or rheumatic disease patients (one study) and an individual job retention program for multiple sclerosis (one study) were reported.

Authors’ conclusions

There was some evidence that vocational rehabilitation interventions that included training in requesting work adaptations and feelings of self confidence or self efficacy in dealing with work-related problems were effective. But, evidence was weak due to short follow up and lack of control groups. More rigorous evaluation was required.

CRD commentary

The review question and inclusion criteria were broadly defined. Several relevant sources were searched and some attempts were made to reduce language and publication biases. Methods used to select studies, assess validity and extract data were not described and so it was unknown whether efforts were made to reduce reviewer error and bias. Methodological characteristics pertinent to study quality were recorded. In view of the differences between studies, a narrative synthesis was appropriate. The authors appropriately discussed limitations of the evidence. The authors’ cautious conclusion appeared reasonable, however, it was based on a small number of low quality studies and a lack of reporting of review methods meant the potential for bias was unclear.

Implications of the review for practice and research

Practice: The authors stated that medical and nursing specialists needed to pay more attention to the work-related problems of patients and to cooperate with employment or vocational rehabilitation specialists, particularly with relation to recruitment procedures for vocational rehabilitation interventions.

Research: The authors stated that future robust research was needed and should address theoretical aspects of interventions, evaluate job retention, behavioural and psychological measures and include a long follow-up.

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