Research review on rehabilitation and return to work

Summary
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Executive summary

This review is part of a project of the European Agency for Safety and Health at Work (EU-OSHA), initiated by the European Parliament, on the safety and health of older workers. The objective of the review is to provide an up-to-date summary of knowledge regarding vocational rehabilitation and return-to-work systems, programmes and interventions and their different components.

The challenge on rehabilitation and return to work

The European Union (EU) is currently confronted with an ageing workforce. Ageing is often accompanied by an increased risk of developing disorders, (chronic) diseases and other health issues, which can lead to functional limitations and disability at work. Chronic diseases, such as heart disease, stroke, cancer, diabetes and depression, are becoming increasingly prevalent within the ageing workforce (Varekamp and van Dijk, 2010). In addition, work-related health problems, such as musculoskeletal disorders (MSDs) and mental health conditions, are considered the primary causes of long-term sickness absence and disability retirement. However, non-fatal chronic diseases tend to receive less public health resources than other types of disorder (Andersson, 1999; Steenstra et al., 2005; EU-OSHA, 2010).

Both early disability retirement and long-term sickness absence are associated with high disability and sickness benefit costs (OECD, 2010). Sickness absence costs are shared among employers, individuals and the state (Black and Frost, 2011). The relative proportions depend on a number of factors, including national social systems and national recognition that a disease is work related.

Because of these high costs, it is crucial that work is designed in a way that helps to prevent the occurrence (or aggravation) of illnesses, and ensures that the work ability of older employees is maintained until retirement age. If prevention is not possible, many chronic diseases can be effectively managed through appropriate workplace adjustments, allowing for the return to work (RTW) of employees after periods of sickness absence.

Definitions of disabilities vary greatly in the literature, and currently there is no uniform understanding or concept across Europe. There is also considerable inconsistency in the language used to refer to (work) disability across European countries. A standardised definition is, however, a crucial foundation for the development of further policies and intervention strategies. The World Health Organization (WHO) International Classification of Functioning, Disability and Health (ICF) classifies a person’s functioning, activity limitations and participation restrictions, and the individual factors that influence them. The ICF describes functioning from three perspectives: the body, the person, and the societal perspectives (WHO, 2001). Despite being regarded as the international standard for describing and measuring health and disability, the ICF is insufficiently promoted as a comprehensive means of understanding disability (ENWHP, 2013).

The perspective on disability and RTW after sickness absence is evolving. Research has shown that a shift is needed — from focusing on only physical factors towards a more holistic framework that also takes account of contextual factors. There are two key models for the conceptualisation of disability, namely the biomedical model and the more recently described biopsychosocial model (Waddell and Burton, 2005; Schultz et al., 2007).

In the biomedical model, individuals who are unable to work are considered to have a medical diagnosis, and their illness is connected to a solely physical pathology. From this perspective, work disability is addressed either by pain relief or by curing the disability-causing disease. Contextual factors have no place in this model or in the associated RTW process. This model is therefore considered insufficient to explain conditions, such as chronic non-specific back pain, that do not have a clear physical pathology (Dunstan and Covic, 2006; Schultz et al., 2007).

On the other hand, the biopsychosocial model, upon which the ICF is based (WHO, 2001), integrates both biomedical and social perspectives, and the RTW process is considered to be influenced by interactions between the biological, psychological and social components of an individual’s work ability (Waddell and Burton, 2005). The ecological case management model, in line with the biopsychosocial...
model, also reflects the shift from disease and biomedical models towards person and environment models within RTW processes (Loisel et al., 2009).

This biopsychosocial and/or ecological model has had an important influence on the development of multidisciplinary approaches in rehabilitation programmes (Guzman et al., 2001; Stanos and Houle., 2006). More specifically, this model shifts the responsibility for rehabilitation outcomes from the healthcare provider–patient relationship to a more complex multi-player system influenced by different professional, legal, administrative and cultural (societal) interactions. Several stakeholders are involved in the RTW process, each with their own understanding of RTW and its desired outcomes.

One example of an operational, rather than theoretical, model is the Sherbrooke model, which takes a biopsychosocial perspective and is based on the principles of the ecological case management model (Loisel et al., 1997; Schultz et al., 2007). It can help with the development or testing of an intervention, programme, policy or practice, and it is used by rehabilitation and occupational health services. The main objective of the Sherbrooke model is an early RTW through the integration of the workplace into the treatment programme (Schultz et al., 2007).

There is a clear need for not only standardised definitions and models, but also evidence-based policies and practices on RTW. The development of a consistent conceptual framework could provide reliable criteria for identifying organisational barriers and facilitators and for establishing appropriate RTW strategies. This review focuses on the effectiveness of rehabilitation and RTW interventions and their associated success factors. Particular attention is paid to the following questions: (1) ‘What are the prerequisites for a successful system?’, (2) ‘What partnerships and cooperation are necessary across policy areas to achieve a successful strategy?’, and (3) ‘What kinds of support do employers need with regard to RTW, specifically, what are their occupational safety and health (OSH) needs?’.

**Methodology**

An assessment of the academic literature was carried out on relevant EU and research institutes’ websites. Further searches were undertaken to identify other grey literature, using Scirus and OpenGray. Searches were carried out based on a defined protocol. Relevant publications, including titles and abstracts (if available), were identified and details were stored in the RefWorks database. An initial screening of the titles and abstracts was carried out by two researchers, independently, using PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The full-text publications were obtained for those considered by both researchers to fit the inclusion criteria.

The focus of the analysis was on systematic reviews, meta-analyses, literature reviews, guidance and grey literature. Data were extracted from each of the included publications to summarise the evidence available.

**Effectiveness of rehabilitation and return-to-work interventions**

The evidence for the effectiveness of interventions is presented separately for MSDs (number of interventions reviewed (n) = 16), mental health problems (n = 5) and cancer (n = 1). Eight additional reviews, which cover different or unspecified disorders, were also included.

*Musculoskeletal disorders*

With regard to MSDs, previous research has consistently found the strongest scientific evidence of effectiveness for low back pain (LBP) programmes. More recent studies, however, show that the same results apply to a number of common MSDs, as most principles relate to communication and coordination among stakeholders, and the content of the RTW intervention rather than any disorder-specific action (Waddell et al., 2008).

Evidence shows that employer participation is important during the RTW process, with early contact between workers and their workplaces significantly reducing the duration of work disability (Franche et al., 2005; Tompa et al., 2008). Communication, cooperation and commonly agreed goals among the worker, the occupational health professionals (e.g. occupational health physician), the primary healthcare provider (e.g. general practitioner (GP)) and the workplace supervisors or employer are crucial for improving clinical and occupational health management and outcomes. Interventions that
include close collaboration among these different stakeholders seem to be more effective than those that do not (Waddell and Burton, 2001; Dunstan and Covic, 2006; Waddell et al., 2008; Carroll et al., 2010). RTW interventions are more effective if all players recognise their roles, take responsibility and communicate openly and positively (Franché et al., 2005; Bongers et al., 2006).

Reassurance by healthcare providers, along with encouragement to resume normal activities during the acute phase of disability, are important in establishing an early RTW. If necessary, duties can be initially modified and then gradually adjusted until the worker regains the full work ability. According to the literature, early RTW leads to shorter periods of work loss during the following year, although it is unclear whether or not this effect acts in isolation or in combination with other intervention components (Waddell et al., 2008).

Workers’ needs differ with the length of their sickness absence. Simple and inexpensive healthcare and workplace interventions (i.e. good clinical and workplace management and practice) in the early stages of sickness absence are effective at increasing RTW rates and reducing long-term disability. There is also strong evidence that structured vocational rehabilitation interventions are effective if they take place between 1 and 6 months after the onset of sickness absence. More complex biopsychosocial rehabilitation is required for more prolonged sickness absence (of > 6 months) (Frank et al., 1996, 1998; Waddell and Burton, 2004).

Various clinical treatments used to treat chronic LBP have been shown to produce some clinical improvement, but there is strong evidence to suggest that they are ineffective in aiding patients’ RTW. However, interventions with a workplace component (e.g. lighter or modified duties, accommodations in the workplace and work adjustments, including the improvement of work organisation) are more likely to reduce both short-term and long-term sickness absence and enhance RTW (Gabbay et al., 2011). There is also strong evidence that multidisciplinary interventions that address individual (including health) and workplace factors are a cost-effective means of improving occupational outcomes (Bongers et al., 2006).

Mental health problems

The literature on stress-related disorders and mental health is limited and chiefly addresses clinical outcomes, with little attention paid to social results. Although there is evidence that some medical and psychological treatments for anxiety and depression can improve symptoms and quality of life, there is as yet only limited evidence of their positive impact on work outcomes (Waddell et al., 2008).

Cancer

No significant conclusions can be drawn on the effect of RTW interventions for cancer patients, because of the limited nature of the relevant studies and evidence. Only one review was identified that focused on RTW or rehabilitation strategies for employees with cancer (Tammenga et al., 2010). The most frequently reported work-related components of the interventions included counselling about work or work-related subjects, vocational or occupational training, and workplace adjustments. Enhancing RTW or work retention were not important objectives in the context of this type of intervention.

Prerequisites for a successful system

Evidence points to the beneficial effects of work on health and well-being (ISSA, 2013). In addition, interventions that contain a workplace component (e.g. workplace accommodations or modified duties) appear to be more effective at reducing the duration of sickness absence and increasing RTW rates than interventions that do not have a workplace component. The sooner an intervention takes place, the more effective it is likely to be. In this context, this review has identified some key elements for establishing successful RTW processes at the national, intervention and organisational levels.

National level

At the national level, governments should move away from the deficit-oriented approach, towards a system that encourages clinicians and employers to focus on workers’ capabilities rather than their disabilities. This requires the establishment of national assessment systems for ‘disability’ (or ‘loss of work ability’), which focus on multiple aspects of an individual’s functioning, in accordance with the ICF
framework. In order to be effective, considerable guidance must be provided to healthcare professionals (ENWHP, 2013; The Work Foundation, 2013). Black and Frost (2011) also call for the establishment, at the national level, of independent authorities that would provide guidance on the most effective means of achieving successful RTW, particularly for complex cases or for workers who have been absent for a long time.

Working and staying at work has clear benefits for the individual and for society and should be rewarded. Incentives for workers and employers should be provided, with some researchers suggesting that governments should provide financial support for employers who invest in sickness absence management and RTW processes. Other suggestions for support at the national level include reducing the administrative burden for employers by simplifying the procedures that govern sickness absence and RTW (ILO, 2002; Black and Frost, 2011; ENWHP, 2013).

Early intervention for workers with chronic conditions is more cost-effective than paying long-term disability benefits, suggesting that a greater proportion of national health spending should be directed towards prevention and early intervention measures. In particular, the identification of those at risk of long-term sickness absence would provide a basis for action, and these at-risk individuals could then be referred to the appropriate professionals for intervention delivery.

**Intervention level**

Interventions should be tailored to each individual worker, the length of sickness absence and each specific situation. Thus, multidisciplinary interventions, based on the biopsychosocial model, that address individual (including health-related) and workplace factors have proven to be an effective approach. More specifically, the ‘stepped-care approach’, which takes into account the individual needs of workers and the barriers experienced during sickness absence, is an optimal framework. It proposes three levels of care, starting with simple, low-intensity, low-cost interventions, which will be adequate for most sick or injured workers, and provides progressively more intensive and structured interventions for those who need additional help to return to work (Lindstrom et al., 1992a).

Primary care management — particularly by GPs — plays an important role in the RTW process. Simple clinical management and reassurance for workers with mild conditions is often sufficient to achieve an early RTW. Health professionals should be encouraged and trained to consider RTW as a key clinical outcome (Waddell et al., 2008; The Work Foundation, 2013).

**Organisational level**

At the organisational level, RTW policies should be integrated into broader company policies for occupational safety and health, sickness absence management and disability management (Waddell et al., 2008). A number of workplace adjustments (including the provision of lighter or modified duties, accommodations at the work station and improvements in work organisation) have been found to reduce the duration of sickness absence and facilitate RTW (Weir and Nielson, 2001; Williams and Westmorland, 2002; Bongers et al., 2006; Tompa et al., 2008; Waddell et al., 2008; Carroll et al., 2010; Palmer et al., 2012).

While the literature on the RTW of workers with mental health problems is scarce and mainly focuses on clinical outcomes, there is a general consensus that organisational level interventions, characterised by improved communication, early contact with workers who are absent, agreed rehabilitation plans, flexibility in work organisation and RTW arrangements, are applicable to mental health problems. The evidence for improved work outcomes in these cases is limited; however, they represent good practice across the broader spectrum of sickness absence (Waddell et al., 2008).

**Partnerships and cooperation across policy areas for a successful strategy**

The prevention and mitigation of common health problems, such as mild or moderate MSDs, mental health problems and other conditions causing short- or long-term disability, should be prioritised as action areas in employment, OSH and health policies, ultimately leading to joined-up policy-making in these areas. The development of vocational rehabilitation mechanisms should also be integrated into broader government policies on health, employment and OSH.
Many public and private stakeholders are involved in the implementation of employment and health policies, often with different and/or concurrent priorities and budgets. Communication among all players and recognition of individual roles and responsibilities are crucial in facilitating the successful RTW of individuals. In particular, coordination mechanisms should be developed and implemented across the various public actors involved in the RTW process (e.g. social security bodies, employment agencies and health institutions) (The Work Foundation, 2013).

Support for employers for return to work processes, specifically with regard to aspects related to occupational safety and health

Employers have a key role in vocational rehabilitation and the re-integration of workers after sickness absence. To stimulate a proactive approach, governments should design policies and provide technical support to employers (and associated OSH and human resources (HR) staff) regarding the basic principles of good healthcare and workplace management.

In order to raise awareness of better sickness management and RTW policies in companies, governments should involve key stakeholders (i.e. unions, employers, insurers and health professionals) in developing business cases for vocational rehabilitation, thereby promoting better understanding and ownership of such multidisciplinary approaches.

Finally, effective and innovative workplace practices should be promoted and shared among organisations, particularly among small and medium-sized enterprises (SMEs), which may have limited resources to develop company-specific programmes (ENWHP, 2013; The Work Foundation, 2013).

Conclusions

MSDs and common mental health conditions should be prioritised in both employment and health policies, and in healthcare delivery, as the two most significant causes of sickness absence and early retirement linked to work disability. There is enough evidence to support the positive effects of several aspects of RTW and rehabilitation strategies for workers with MSDs. While it is assumed that the general principles for workers with MSDs are also applicable to other conditions, the effects of interventions that target mental health issues have been less researched to date.

Optimal RTW interventions should include the following factors:

- early healthcare interventions;
- reassurance and encouragement by healthcare professionals during the acute phase of disability;
- early contact between employer and employee;
- good communication and collaboration among all stakeholders;
- a multidisciplinary rehabilitation, that is, the application of the biopsychosocial approach, addressing health, individual factors and workplace factors, in situations of long-term sickness absence; and
- a combination of clinical interventions and workplace components.

Effective RTW interventions would be facilitated by:

- the integration of work outcomes as key measures in primary health care;
- the education of healthcare professionals on effective RTW interventions;
- a paradigm shift towards the use of the ‘fit note’, with relevant guidance and training provided for healthcare professionals;
- the inclusion of work outcomes in health policies, clinical guidelines, research and audits, in order to reinforce the importance of vocational rehabilitation to full health;
- the standardisation of disability definitions and assessment systems;
- the establishment of clear systems and strategies for effective communication and cooperation among stakeholders;
- clearly defined incentives for all stakeholders;
Research review on rehabilitation and return to work

- coordinated cross-government action (e.g. on employment and public health) and budgeting, with a clear focus on prevention and early intervention;
- the integration of vocational rehabilitation into organisational health and well-being strategies, as well as broader government policies on (occupational) health and employment;
- the education of employers on proactive approaches to RTW interventions; and the sharing of good workplace practices for and approaches to RTW, especially for SMEs.

References


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