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Summary

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Arbetsmiljöarbete och effekter – en kunskapsöversikt

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Work environment improvements and effects – a literature review

This report addresses the question 'Do work-environment improvements have any effects?' The aim was to produce a summary of knowledge that includes the methodological problems of measuring and evaluating effects, as well as literature reviews of effects from work environment improvement efforts on musculoskeletal health, health promotion, and economy.

Results show that published literature reviews do not give unambiguous support for health benefits of interventions against musculoskeletal problems, when only studies using natural science criteria with experimental or quasi-experimental design are included. There are, on the other hand, many case studies in the so called 'grey' literature that report positive effects. Further, results show that health promotion interventions, and especially physical activity, have a positive effect on low back pain. Workplace interventions to increase physical activity are effective and lead to increased physical activity amongst employees. More studies are needed, however, at the organisational level.

There is some support for the profitability of work-environment investments at the organisational level; even though there are few studies and methodological problems. The review also indicates that the financial benefits come mostly from quality and productivity improvements and, to a lesser extent from reductions in costs related to sickness absenteeism.

While more recent literature reviews of the effects of health promotion interventions seem to show a stronger effect than older studies, comparisons of older versus more recent studies of interventions against musculoskeletal problems give a more ambiguous picture. Often, the focus of these reviews is on

study design with less priority on the quality of the interventions themselves.

Multifactorial interventions are particularly difficult to evaluate. At the same time, many studies and research reviews emphasise the need for multifactorial approaches as necessary for successful intervention.

Inclusion criteria in literature reviews that only consider experimental designs in organisational interventions exclude studies with good interventions that can't be evaluated with traditional experimental methods. Difficulties in proving the effectiveness of interventions depends on views of what constitutes good scientific quality in the studies. This shows a need for a critical examination of the assumptions used for knowledge generation in this area.

Conclusions are that work-environment improvement efforts have effects that are clear in some cases but are difficult to show in others. Effect evaluation poses large methodological challenges. These difficulties are considered to be an important cause of the lack of clear evidence, especially in the area of interventions against musculoskeletal problems. There is a need for new non-experimental research strategies that are suited to today's complex systems and an increased focus on practical, well conducted multifactorial interventions.

Key words: Intervention, health promotion, ergonomics, economy, methodology, research

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