

The Goldilocks Principle: Innovative work design for improved health

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Rationale:

The traditional ergonomics paradigm for work design aimed to protect the worker from injury and death while maintaining productivity. For physically demanding jobs risk of physical harm was reduced by decreasing exposure to physical demands, 'less is better'. Whilst this paradigm may have had some success in preventing musculoskeletal disorders, it is not useful for the increasing proportion of the workforce with sedentary occupations and it does not promote improvements in worker health nor promote sustained or increased physical capacity. More recently a workplace exercise paradigm has emerged which aims to increase worker physical capacity and health by encouraging workers to undertake exercise before, between or after work. Whilst this has been successful in some situations, it reduces productive or personal time, has inequality in availability and relies on individual worker motivation to exercise. It therefore has limited sustainability and reach.

The Goldilocks Principle, named after the fairytale of a girl finding too hot/big/hard porridge/chair/bed and then ones that were 'just right', requires work to be designed to have just the right type and timeline of productive tasks to promote health and maintain physical capacity. This symposium will describe the Principle in detail, elucidate it with practical work examples, outline its methodological and implementation challenges and highlight its potential to address significant 21st century global workforce issues including social health inequities, chronic lifestyle diseases and aging workforces.

Investigators:

Professor Leon Straker (Chair, Australia) has 30 years of research experience in the evaluation of physical work demands and work design interventions to improve ergonomics. Recently he has lead research on the emergent hazard of sedentary work.

Professor Andreas Holtermann (Denmark) is an experienced researcher in physical activity at work and leisure and health (the physical activity paradox), using workplace interventions, technical measurements and larger epidemiological studies.

Professor Svend Erik Mathiassen (Sweden) has a long-standing research interest in physical variation: how to measure variation; effects of different types of variation on performance, fatigue and disorders; and initiatives in working life promoting or impeding variation.

Doctor David Hallman (Sweden) is an early career researcher focussed on the role of physical activities and sedentary behaviour at work and leisure for musculoskeletal pain and cardiovascular regulation.

Doctor Nidhi Gupta (Denmark) is an early career investigator examining the effects of objectively measured sedentary behaviour and physical activity behaviours at work and leisure on a variety of health outcomes, like musculoskeletal pain, blood pressure and obesity, and comparing them with self-reported measures.

Presentations:

What is the Goldilocks Principle for work design?

What could good work designed according to the Goldilocks Principle look like?

Do we know how work designed according to the Goldilocks Principle should look?

What are the prospects and challenges of designing work according to the Goldilocks Principle?

Could work designed according to the Goldilocks Principle impact on population health and productivity?