

health were associated with physical fatigue, but only higher muscular strength is associated with lower mental fatigue score ( $p=0.038$ ). In multivariate analysis, muscular strength and balance were independently associated with fatigued, OR of 0.94 (95% CI: 0.90 to 0.99) and 0.95 (95% CI: 0.92 to 0.99) respectively.

**Conclusion** Physical health and fatigue are related. Impact of physical health interventions on fatigue would require further studies.

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### COMPARING DISABILITY AND RETURN TO WORK OUTCOMES BETWEEN ALTERNATIVE AND TRADITIONAL WORKERS' COMPENSATION PROGRAMS

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**Introduction** In 1995, Minnesota, United States, passed legislation to allow for an alternative workers' compensation system and the Union Construction Workers' Compensation Program (UCWCP) was developed. Its goals include the use of pre-approved medical and rehabilitation providers, dispute resolution, and prioritising a quick and safe return to work. The aim of this study is to determine if differences in recovery-related outcomes exist between UCWCP and traditional workers' compensation programs (TWCP).

**Methods** Workers' compensation claim data for the period 2003–2016 were obtained from the Minnesota Department of Labour and Industry. Claims were classified as processed through UCWCP or TWCP. Outcomes for this study included: permanent partial disability (PPD) and Temporary Total Disability (TTD). The relative risk (RR) of incurring PPD and sustained TTD in UCWCP versus TWCP was calculated using log binomial regression. Ordered logistic regression models were utilised to calculate the odds of higher percentages of PPD in UCWCP. All estimates were adjusted for age, gender, and insurance carrier.

**Results** Of 33 682 claims, 3269 (9.7%) were processed through UCWCP. The mean claim durations for UCWCP and TWCP were 54 and 49 weeks, respectively. While UCWCP claims, versus TWCP, were associated with an increased risk of PPD (RR=1.2, 95% CI: 1.1 to 1.3), they had increased odds of lower percent PPD (Odds Ratio=1.2, 95% CI: 1.1 to 1.4). Sustained TTD was more likely in UCWCP compared to TWCP (RR=2.0, 95% CI: 1.4 to 3.0).

**Conclusions** While the increased risks of permanent partial and sustained temporary total disability ratings among UCWCP claims may reflect higher severity, the lower percentage of disability could result from improvements in access and quality of healthcare treatments. Further work will identify and control for relevant severity indicators.

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### SWIMMING AGAINST THE CURRENT: A META-ETHNOGRAPHY EXAMINING LIVING WITH ARTHRITIS AND BEING EMPLOYED

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**Introduction** Arthritis and related rheumatic conditions are common causes of work disability in Canada and the United States, with job loss ranging between 37%–60% within the first 10 years of diagnosis. As diagnosis commonly occurs between the ages of 30–60 years, the symptoms of pain, limited mobility, and fatigue can seriously disrupt and hinder work lives. While research has examined disability and work loss among persons with arthritis (PwA), little is known about what they do to maintain employment. Our goal was to understand how PwA experience employment and to use this information to build a model describing what they need to sustain employment.

**Methods** We searched published studies on arthritis and employment from six electronic databases (1980–2017) and bibliographical reviews using a combination of keywords related to arthritis, employment, and qualitative research. Our search yielded 748 articles, and after applying the inclusion criteria, 17 studies remained. Two reviewers independently reviewed, critically appraised, and extracted concepts from each study in chronological order.

**Result** Using a meta-ethnographic process, we identified seven themes highlighting the common issues experienced by PwA. Using these themes, we developed a process model that illustrates how individual factors (i.e., physical symptoms, self-awareness, meaning of work) influence work-sustainability strategies that are initially privately managed (i.e., personal adjustments, medical treatment, family support); however, when symptoms become too difficult to conceal, individuals will disclose their condition to their employer so that they can draw upon additional work-sustainability strategies (i.e., work accommodations, supervisor and co-worker support, insurers). Individuals engage in these strategies to maintain a 'non-ill' identity and remain in their current job for as long as possible.

**Discussion** Our findings will help rehabilitation specialists, employers, and researchers understand what PwA may need to sustain meaningful employment outcomes. Implications to workplace policies and practices are discussed.

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### A TAILORED WORK- RELATED SUPPORT INTERVENTION FOR GASTRO-INTESTINAL CANCER PATIENTS: INTERVENTION PROTOCOL

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**Introduction** The objective was to develop a tailored intervention for work-related problems to support gastro-intestinal (GI) cancer patients and to evaluate its cost-effectiveness compared with the usual care provided.

**Methods** We designed a multicentre randomised controlled trial with a follow-up time of twelve months. Included participants will be aged 18–63 years, diagnosed with a curative primary GI cancer and employed at time of diagnosis. The participants will be randomised to the intervention or to usual care.

The intervention group will receive tailored work-related support consisting of three face-to-face meetings. Based on the severity of their work-related problems, the intervention group will be divided into groups receiving three types of support (A, B or C). A different supportive healthcare professional will be available for each group: an oncological nurse (A), an oncological occupational physician (B) and a multidisciplinary team (C) that includes an oncological nurse, oncological occupational physician and treating oncologist/physician.

**Result** The work-related support intervention including vocational counselling and discussion of legal issues and disease-related and treatment-related factors that may affect work. Primary outcome measure is return to work (RTW), defined as the time to a partial or full RTW. Secondary outcomes are work ability, work limitations, quality of life, and direct and indirect costs. Outcomes are assessed with patient questionnaires at baseline and 3, 6, 9, and 12 months follow up.

**Discussion** The hypothesis is that tailored work-related support for GI cancer patients is more effective than usual care on RTW. The intervention is innovative in that it combines oncological and occupational care in a clinical setting, early in the cancer treatment process.

This study will contribute as a foundation for optimising future tailored work-related interventions in cancer care with the intention to implement the intervention if it has been shown effective.

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#### DEVELOPING A COMMUNICATION TOOL TO PROMOTE DISCUSSION AMONG STAKEHOLDERS IN WORK DISABILITY: A COLLABORATIVE APPROACH

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**Introduction** The involvement of stakeholders from outside academia is key to producing sustainability science. Several challenges need to be addressed in the development of a partnership between research and practice. Many stakeholders from different social systems are involved in disability management practice. They may not share the same understanding of the issues and solutions at stake, causing unbalanced problem ownership within the group. To help reduce this barrier, we sought to build a tool that would establish a common vocabulary between researchers and stakeholders.

**Methods** A multimethod approach was used. A set of definitions for key terms was developed with an advisory committee (researchers and stakeholders). A Web-based survey with closed and open questions was then used to assess the level of agreement with, first, the inclusion of these terms and then with their definitions. Terms whose inclusion had more than 70% agreement were retained. In cases of disagreement with a definition, participants suggested modifications. Terms whose definitions had less than 70% agreement were discussed in the next phase. Finally, a series of group consensus meetings were conducted to discuss the suggested modifications emerging from the survey and to determine the final definitions of the terms.

**Results** A total of 8 multidisciplinary researchers, 2 postdoctoral students, and 12 stakeholders representing patients,

employers, unions, healthcare professionals, and legal and insurance systems completed the survey and participated in the consensus groups. A consensus for inclusion ( $\geq 70\%$  of agreement) was reached for all 79 initially proposed terms. Of the 79 terms, 20 needed clarification ( $\leq 70\%$  of agreement). These were discussed in three consensus group meetings. At the end, a final version of the definitions of all 79 terms was produced.

**Discussion** This multimethod approach ensures the use of the same reference points, regardless of participants' different concerns.

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#### USING MOBILE TECHNOLOGY TO SUPPORT VOCATIONAL TRAINING FOR ADOLESCENTS WITH LEARNING DIFFICULTIES: A PILOT STUDY

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**Introduction** Adolescents with learning difficulties are at risk of leaving school without a qualifying certification. They may experience difficulties in entering the labour market. In Quebec (Canada), the *Work-Oriented Training Path* (WOTP) enables these young people to develop their employability by offering pre-work traineeships in actual companies. The aim of this pilot study was to develop an innovative intervention based on using technological aids to help students enrolled in the WOTP programs developing work skills.

**Methods** Eight teachers and fifteen students enrolled in the WOTP participated in a multiple case study. Teachers first attended a training workshop and were then asked to apply a method to conduct workplace analysis and technological aid allocation for two students. They were free to choose any applications. Each two months, a collective meeting was organised to share the various experimentations; the content of meetings was recorded and analysed. Additional data was collected along the study (log book, questionnaires, interviews). Data triangulation led to a portrait of utilisation barriers and facilitators. Findings were used to establish specifications for future intervention.

**Results** According to teachers, the principal needs of their students are related to spatial and temporal organisation, execution speed, motor skills, communication difficulties, and learning transfer in various contexts. Teachers mostly used simple, usual and free apps, like calendar, notes, alarm functions, checklists, and few more complex apps that required programming, as My video coach, Shadow Puppet, Explain Everything. The main difficulties with technological aids encountered by teachers concerned the relationship with traineeship companies, implementation time and the degree of involvement of students.

**Discussion** Two principal stakes emerged from this study. If they are to be used in workplaces, technologies must (1) be operative (i.e. useable and useful at the moment required), and (2) be used autonomously by students in workplace for subsequent mobilisation.