

IWH Research Alert
January 11, 2019

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***Bonaccio S, Connelly CE, Fisher SL, Gellatly IR, Gignac MAM, and Jetha A. Beyond managing research partnerships: partnered research as an integrated methodological approach. *Industrial and Organizational Psychology*. 2018; 11(4):613-619.
<https://doi.org/10.1017/iop.2018.123>**

***Gilbert Ouimet M, Smith PM, Brisson CS, Duchaine C, and Mustard C. Psychosocial work factors and diabetes: what is known and what is left to know? *Journal of Diabetes, Metabolic Disorders & Control*. 2018; 5(4):138-139.
<https://doi.org/10.15406/jdmdc.2018.05.00152> [open access]**

***Samano-Rios ML, Ijaz S, Ruotsalainen J, Breslin FC, Gummesson K, and Verbeek J. Occupational safety and health interventions to protect young workers from hazardous work: a scoping review. *Safety Science*. 2019; 113:389-403.
<https://doi.org/10.1016/j.ssci.2018.11.024>**

***Yanar B, Lay M, and Smith PM. The interplay between supervisor safety support and occupational health and safety vulnerability on work injury. *Safety and Health at Work*. 2018; [epub ahead of print].
<https://doi.org/10.1016/j.shaw.2018.11.001> [open access]**

Abstract: Background Workers exposed to hazards without adequate protections are at greater risk of injury and illness. Supervisor activities have also been associated with injury risk. We examined the interplay between supervisor safety support and occupational health and safety (OHS) vulnerability on workplace

injury and illness. **Methods** A survey was administered to 2,390 workers employed for more than 15 hrs/week in workplaces with at least five employees who had a direct supervisor. We examined the combined effects of hazard exposure with inadequate protection (OHS vulnerability) and supervisor support on workplace injury and illness, using additive interactions in log-binomial regression models. **Results** OHS vulnerability and lack of supervisor support independently increased the likelihood of physical injuries at work. Crude and adjusted models showed that the risk of physical injury was at least 3.5 times higher among those experiencing both OHS vulnerability and a lack of supervisor support than individuals without OHS vulnerability and with a supportive direct supervisor. Workers who experienced vulnerability were at less risk if they had a supervisor who was supportive. **Conclusion** In workplaces where workers experience one or more types of OHS vulnerability, having a supportive supervisor may play an important role in reducing the risk of injury and protecting workers

Aasdahl L and Fimland MS. Is there really a "golden hour" for work disability interventions? A narrative review. *Disability and Rehabilitation*. 2019; [epub ahead of print].

<https://doi.org/10.1080/09638288.2018.1503735>

Abstract: The subacute phase of low back pain has been termed as the "golden hour" to intervene to prevent work disability. This notion is based on the literature up to 2001 and is limited to back pain. In this narrative review, we examined whether the current literature indicate an optimal time for return to work (RTW) interventions. We considered randomized controlled trials published from 1997 to April 2018 assessing effects of occupational rehabilitation interventions for musculoskeletal complaints (15 included), mental health disorders (9 included) or a combination of the two (1 included). We examined participants' sick leave duration at inclusion and the interventions' effects on RTW. Most studies reporting an effect on RTW included participants with musculoskeletal complaints in the subacute phase, supporting that this phase could be a beneficial time to start RTW-interventions. However, recent studies suggest that RTW-interventions also can be effective for workers with longer sick leave durations. Our interpretation is that there might not be a limited time window or "golden hour" for work disability interventions, but rather a question about what type of intervention is right at what time and for whom. However, more research is needed. Particularly, we need more high-quality studies on the effects of RTW-interventions for sick listed individuals with mental health disorders. **Implications for rehabilitation** The subacute phase of low back pain has been termed the "golden hour" for work disability prevention. Recent evidence suggests there is a wider time-window for effective interventions, both for musculoskeletal- and common mental disorders. A stepped-care approach, starting with simpler low-cost interventions (e.g., brief reassuring interventions), before considering more comprehensive interventions (e.g., multimodal rehabilitation), could facilitate return to work and avoid excessive treatment

Aasdahl L, Foldal VS, Standal MI, Hagen R, Johnsen R, Solbjor M, et al. Motivational interviewing in long-term sickness absence: study protocol of a randomized controlled trial followed by qualitative and economic studies. BMC Public Health. 2018; 18(1):756.

<https://doi.org/10.1186/s12889-018-5686-0> [open access]

Abstract: BACKGROUND: Motivational interviewing (MI), mainly used and shown effective in health care (substance abuse, smoking cessation, increasing exercise and other life style changes), is a collaborative conversation (style) about change that could be useful for individuals having problems related to return to work (RTW). The aim of this paper is to describe the design of a randomized controlled trial evaluating the effect of MI on RTW among sick listed persons compared to usual care, in a social security setting. METHODS: The study is a randomized controlled trial with parallel group design. Individuals between 18 and 60 years who have been sick listed for more than 7 weeks, with a current sick leave status of 50-100%, are identified in the Norwegian National Social Security System and invited to participate in the study. Exclusion criteria are no employment and pregnancy. Included participants are randomly assigned to the MI intervention or one of two control groups. The MI intervention consists of two MI sessions offered by caseworkers at the Norwegian Labor and Welfare Service (NAV), while the comparative arms consist of a usual care group and a group that receives two extra sessions without MI content (to control for attentional bias). The primary outcome measure is the total number of sickness absence days during 12 months after inclusion, obtained from national registers. Secondary outcomes include time until full sustainable return to work, health-related quality of life and mental health status. In addition, a health economic evaluation, a feasibility/process evaluation and qualitative studies will be performed as part of the study. DISCUSSION: A previous study has suggested an effect of MI on RTW for sick listed workers with musculoskeletal complaints. The present study will evaluate the effect of MI for all sick listed workers, regardless of diagnosis. The knowledge from this study will potentially be important for policy makers, clinicians and other professionals' practical work. TRIAL REGISTRATION: ClinicalTrials.gov: NCT03212118 (registered July 11, 2017)

Benaim C, Blaser S, Leger B, Vuistiner P, and Luthi F. "Minimal clinically important difference" estimates of 6 commonly-used performance tests in patients with chronic musculoskeletal pain completing a work-related multidisciplinary rehabilitation program. BMC Musculoskeletal Disorders. 2019; 20(1):16.

<https://doi.org/10.1186/s12891-018-2382-2> [open access]

Abstract: BACKGROUND: Functional tests are widely used to measure performance in patients with chronic musculoskeletal pain. Our objective was to determine the Minimal Clinically Important Differences (MCID) for the 6-min walk test (6MWT), the Steep Ramp Test (SRT), the 1-min stair climbing test (1MSCT), the sit-to-stand test (STS), the Jamar dynamometer test (JAM) and the lumbar

Progressive Isoinertial Lifting Evaluation (PILE) in chronic musculoskeletal pain patients. **METHODS:** A single-center prospective observational study was conducted in a rehabilitation center. Patients with upper-limb, lower-limb or neck/back lesions were included over a period of 21 months. We used the anchor-based method as a reference method, supplemented by the distribution-based and opinion-based approaches, to determine the MCIDs. **RESULTS:** 838 chronic musculoskeletal pain patients were included. The estimation method and the lesion location had a significant influence on the results. MCIDs were estimated at +75m and +60m for the 6MWT (lower-limb and neck/back lesions, respectively), +18 steps for the 1MSCT (lower-limb and neck/back lesions) and +6kg for the JAM (upper limb lesions). The anchor-based method could not provide valid estimations for the three other scales, but distribution and opinion-based methods provided rough values of MCIDs for the SRT (+39w to +61w), the STS (-5 sec to -7 sec) and the PILE (+4kg to +7kg). **CONCLUSION:** The above MCID estimations for the 6MWT, 1MSCT and JAM can be used in chronic musculoskeletal pain patients participating in vocational multidisciplinary rehabilitation programs or in therapeutic trials. The use of specific anchors might give better estimations of MCIDs for the three other scales in future research

Bittle S, Chen A, and Hebert J. Work-related deaths in Canada. Labour. 2018; 82:159-187.

<https://doi.org/10.1353/lt.2018.0039>

Chen W and Mehdi T. Assessing job quality in Canada: a multidimensional approach. Analytical Studies Branch research paper series [Catalogue no. 11F0019M, no. 412]. Ottawa: Statistics Canada; 2018.

<https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2018412-eng.pdf>

Colley RC, Butler G, Garriguet D, Prince SA, and Roberts KC. Comparison of self-reported and accelerometer-measured physical activity in Canadian adults. Health Reports. 2018; 29(12):3-15.

<https://www150.statcan.gc.ca/n1/en/pub/82-003-x/2018012/article/00001-eng.pdf?st=5x3Af3DV>

Dobbins M, Traynor RL, Workentine S, Yousefi-Nooraie R, and Yost J. Impact of an organization-wide knowledge translation strategy to support evidence-informed public health decision making. BMC Public Health. 2018; 18(1):1412.

<https://doi.org/10.1186/s12889-018-6317-5> [open access]

Abstract: BACKGROUND: The public health sector is moving toward adopting evidence-informed decision making into practice, but effort is still required to effectively develop capacity and promote contextual factors that advance and sustain it. This paper describes the impact of an organization-wide knowledge translation intervention delivered by knowledge brokers on evidence-informed decision making knowledge, skills and behaviour. **METHODS:** A case study design was implemented with the intervention and data collection tailored to the

unique needs of each case (health department). A knowledge broker provided training workshops and mentored small groups through a seven step process of evidence-informed decision making. The intervention was delivered over 22 months; data related to evidence-informed decision making knowledge, skills and behaviour were collected at baseline and follow-up. Mixed effects regression models were developed to assess the impact of involvement in the intervention on the evidence-informed decision making outcomes. RESULTS: Data from a total of 606 health department staff were collected during baseline: 207 (33%) staff from Case A, 304 (28%) from Case B, and 95 (47%) from Case C. There were a total of 804 participants at follow-up: 258 (42%) from Case A, 391 from Case B (37%), and 155 (50%) from Case C. Statistically significant increases in knowledge and skills were observed overall, and in all three health departments. An increase in evidence-informed decision making behaviour was observed among those intensively involved in the intervention from all cases (statistically significant in Case A). The organizational characteristics of strategic priority, leadership, readiness, and choice of staff emerged as important factors in the change process. CONCLUSIONS: Knowledge brokering is a promising organizational knowledge translation intervention to support evidence-informed decision making. The intervention appeared to have the greatest impact on those who became actively engaged with the knowledge broker in the intervention. Active participation in face-to-face training activities with a knowledge broker, focused specifically on evidence-informed decision making skill development, led to the greatest impact on associated behaviours, knowledge, and skills. Several organizational factors emerged as integral to success of the knowledge translation intervention

Hange D and Moyser M. Harassment in Canadian workplaces. Insights on Canadian Society. 2018 Dec:1-19.

<https://www150.statcan.gc.ca/n1/pub/75-006-x/2018001/article/54982-eng.pdf>

Holtermann A, Mathiassen SE, and Straker L. Promoting health and physical capacity during productive work: the Goldilocks Principle. Scandinavian Journal of Work, Environment & Health. 2019; 45(1):90-97.

<https://doi.org/10.5271/sjweh.3754> [open access]

Abstract: Objectives In spite of preventive efforts, organizations and employees face several challenges related to working life and occupational health, such as a substantial prevalence of musculoskeletal disorders, social inequality in health and physical capacity, multi-morbidity, an obesity epidemic and an aging workforce. We argue that a new approach to occupational ergonomics and health is required, going beyond prevention of harm caused by work. We propose the "Goldilocks Principle" for how productive work can be designed to promote health and physical capacity. Methods Physical (in)activity profoundly influences health and physical capacity, with effects depending on the extent and temporal structure of the (in)activity. Like the porridge, chair and bed that needed to be

"just right" for Goldilocks in the The Three Bears fairytale, physical activity during productive work needs to be "just right" for promoting rather than deteriorating health and capacity. In many jobs, physical activity is, however, either too much/high/frequent or too little/low/infrequent to give positive biomechanical and cardiometabolic stimuli. Results This paper presents the rationale, concept, development, application and prospects of the Goldilocks Principle for how productive work can be designed to promote health and physical capacity. Conclusions We envision a great potential to promote health and physical capacity by designing productive work according to the Goldilocks Principle, thus leading to benefits with respect to the current challenges related to working life and occupational health for society, organizations and employees

Honeycutt T, Sevak P, and Levere M. Many hands make employment work: collaborations between VR agencies and workforce development boards to provide work-based learning experiences [Research brief]. *Mathematica Policy Research*; 2018.

[doi unavailable as of Jan 11, 2019]

Kennedy CE, Fonner VA, Armstrong KA, Denison JA, Yeh PT, O'Reilly KR, et al. The Evidence Project risk of bias tool: assessing study rigor for both randomized and non-randomized intervention studies. *Systematic Reviews*. 2019; 8(1):3.

<https://doi.org/10.1186/s13643-018-0925-0> [open access]

Abstract: BACKGROUND: Different tools exist for assessing risk of bias of intervention studies for systematic reviews. We present a tool for assessing risk of bias across both randomized and non-randomized study designs. The tool was developed by the Evidence Project, which conducts systematic reviews and meta-analyses of behavioral interventions for HIV in low- and middle-income countries. METHODS: We present the eight items of the tool and describe considerations for each and for the tool as a whole. We then evaluate reliability of the tool by presenting inter-rater reliability for 125 selected studies from seven published reviews, calculating a kappa for each individual item and a weighted kappa for the total count of items. RESULTS: The tool includes eight items, each of which is rated as being present (yes) or not present (no) and, for some items, not applicable or not reported. The items include (1) cohort, (2) control or comparison group, (3) pre-post intervention data, (4) random assignment of participants to the intervention, (5) random selection of participants for assessment, (6) follow-up rate of 80% or more, (7) comparison groups equivalent on sociodemographics, and (8) comparison groups equivalent at baseline on outcome measures. Together, items (1)-(3) summarize the study design, while the remaining items consider other common elements of study rigor. Inter-rater reliability was moderate to substantial for all items, ranging from 0.41 to 0.80 (median kappa = 0.66). Agreement between raters on the total count of items endorsed was also substantial (kappaw = 0.66). CONCLUSIONS: Strengths of the tool include its applicability to a range of study designs, from randomized

trials to various types of observational and quasi-experimental studies. It is relatively easy to use and interpret and can be applied to a range of review topics without adaptation, facilitating comparability across reviews. Limitations include the lack of potentially relevant items measured in other tools and potential threats to validity of some items. To date, the tool has been applied in over 30 reviews. We believe it is a practical option for assessing risk of bias in systematic reviews of interventions that include a range of study designs

Moullin JC, Dickson KS, Stadnick NA, Rabin B, and Aarons GA. Systematic review of the Exploration, Preparation, Implementation, Sustainment (EPIS) framework. *Implementation Science*. 2019; 14(1):1.

<https://doi.org/10.1186/s13012-018-0842-6> [open access]

Abstract: BACKGROUND: Effective implementation of evidence-based practices (EBPs) remains a significant challenge. Numerous existing models and frameworks identify key factors and processes to facilitate implementation. However, there is a need to better understand how individual models and frameworks are applied in research projects, how they can support the implementation process, and how they might advance implementation science. This systematic review examines and describes the research application of a widely used implementation framework, the Exploration, Preparation, Implementation, Sustainment (EPIS) framework. METHODS: A systematic literature review was performed to identify and evaluate the use of the EPIS framework in implementation efforts. Citation searches in PubMed, Scopus, PsycINFO, ERIC, Web of Science, Social Sciences Index, and Google Scholar databases were undertaken. Data extraction included the objective, language, country, setting, sector, EBP, study design, methodology, level(s) of data collection, unit(s) of analysis, use of EPIS (i.e., purpose), implementation factors and processes, EPIS stages, implementation strategy, implementation outcomes, and overall depth of EPIS use (rated on a 1-5 scale). RESULTS: In total, 762 full-text articles were screened by four reviewers, resulting in inclusion of 67 articles, representing 49 unique research projects. All included projects were conducted in public sector settings. The majority of projects (73%) investigated the implementation of a specific EBP. The majority of projects (90%) examined inner context factors, 57% examined outer context factors, 37% examined innovation factors, and 31% bridging factors (i.e., factors that cross or link the outer system and inner organizational context). On average, projects measured EPIS factors across two of the EPIS phases ($M = 2.02$), with the most frequent phase being Implementation (73%). On average, the overall depth of EPIS inclusion was moderate (2.8 out of 5). CONCLUSION: This systematic review enumerated multiple settings and ways the EPIS framework has been applied in implementation research projects, and summarized promising characteristics and strengths of the framework, illustrated with examples. Recommendations for future use include more precise operationalization of factors, increased depth and breadth of application, development of aligned measures, and broadening of

user networks. Additional resources supporting the operationalization of EPIS are available

van der Noordt M, van der Pas S, van Tilburg TG, van den Hout A, and Jh Deeg D. Changes in working life expectancy with disability in the Netherlands, 1992-2016. *Scandinavian Journal of Work, Environment & Health*. 2019; 45(1):73-81.

<https://doi.org/10.5271/sjweh.3765> [open access]

Abstract: Objectives Like other western countries, the Netherlands has abolished early retirement schemes and is currently increasing the statutory retirement age. It is likely that also older workers with disabilities will be required to work longer. We examine the change in working life expectancy (WLE) with disability of older workers by comparing data from three periods: 1992-1996, 2002-2006 and 2012-2016. Methods Data are from the Longitudinal Aging Study Amsterdam (LASA). Respondents aged 55-65 with a paid job at baseline were included (N=1074). Disability was measured using the Global Activity Limitations Indicator (GALI). First, a continuous-time three-state survival model was created. Second, WLE with and without disability were estimated using MSM and ELECT in R. The modifying effects of gender and educational level were examined. Results Among those initially in paid employment, total WLE increased over 20 years. For example at age 58, total WLE increased from 3.7 to 5.5 years. WLE with disability at age 58 increased from 0.8 to 1.5 years. There was no difference in WLE with disability between male and female workers or low- and highly educated workers. Conclusions Between the 1990s and the 2010s, subsequent generations of older workers with disabilities have extended their working lives. The findings emphasize the importance of workplace interventions that facilitate older workers with disabilities to maintain well-being and work ability. In addition, the question arises whether current exit routes out of the workforce are still adequate

Reme SE, Monstad K, Fyhn T, Sveinsdottir V, Lovvik C, Lie SA, et al. A randomized controlled multicenter trial of individual placement and support for patients with moderate-to-severe mental illness. *Scandinavian Journal of Work, Environment & Health*. 2019; 45(1):33-41.

<https://doi.org/10.5271/sjweh.3753> [open access]

Abstract: Objectives The aim of this study was to evaluate the effectiveness of individual placement and support (IPS) for people struggling with work participation due to moderate-to-severe mental illness. The study was conducted in Norway, a setting characterized by a comprehensive welfare system and strong employment protection legislation. Methods A randomized controlled multicenter trial including 410 participants was conducted. The intervention group received IPS according to the IPS manual. The control group received high-quality usual care. The main outcome was competitive employment at 12- and 18-months follow-up, based on objective registry data. Changes in mental health and health-related quality of life were secondary outcomes. Results At 12-months

follow-up, 36.6% of participants in the IPS group and 27.1% of participants in the control group were in competitive employment, while the difference was slightly higher (37.4% versus 27.1%) at 18-months follow-up. Furthermore, IPS yielded positive effects on all the secondary outcomes compared to the control group (all $P < 0.05$). Conclusions The IPS model of supported employment was superior to high-quality usual care on both vocational and non-vocational outcomes for people with moderate-to-severe mental illness, even in a policy context characterized by high job security and a comprehensive welfare system

Ross-White A, Godfrey CM, Sears KA, and Wilson R. Predatory publications in evidence syntheses. Journal of the Medical Library Association. 2019; 107(1):57-61.

<https://doi.org/10.5195/jmla.2019.491> [open access]

Abstract: Objectives: The number of predatory journals is increasing in the scholarly communication realm. These journals use questionable business practices, minimal or no peer review, or limited editorial oversight and, thus, publish articles below a minimally accepted standard of quality. These publications have the potential to alter the results of knowledge syntheses. The objective of this study was to determine the degree to which articles published by a major predatory publisher in the health and biomedical sciences are cited in systematic reviews. Methods: The authors downloaded citations of articles published by a known predatory publisher. Using forward reference searching in Google Scholar, we examined whether these publications were cited in systematic reviews. Results: The selected predatory publisher published 459 journals in the health and biomedical sciences. Sixty-two of these journal titles had published a total of 120 articles that were cited by at least 1 systematic review, with a total of 157 systematic reviews citing an article from 1 of these predatory journals. Discussion: Systematic review authors should be vigilant for predatory journals that can appear to be legitimate. To reduce the risk of including articles from predatory journals in knowledge syntheses, systematic reviewers should use a checklist to ensure a measure of quality control for included papers and be aware that Google Scholar and PubMed do not provide the same level of quality control as other bibliographic databases

*IWH authored publications.