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**December 14, 2018**

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**\*Abma F, Bjorner JB, Amick BC, III, and Bultmann U. Two valid and reliable work role functioning questionnaire short versions were developed: WRFQ 5 and WRFQ 10. *Journal of Clinical Epidemiology*. 2019; 105:101-111.**

<https://doi.org/10.1016/j.jclinepi.2018.09.005>

Abstract: OBJECTIVE: The study aims to develop and validate short versions of the work role functioning questionnaire v2.0 (WRFQ) that retain the measurement properties of the full-length 27-item questionnaire. STUDY DESIGN AND SETTING: Six cross-sectional Dutch samples (N = 2,433) were used, containing data on gender, self-rated health, job type, and WRFQ scores. Indicators from classical test theory and item response theory methods were used along with evaluation of translatability and conceptual considerations to identify short version candidate items. To ensure content validity, the item selection was made within the five-factor structure established for the WRFQ- leading to a 5-item and a 10-item short version. Bland-Altman analyses of agreement and interclass correlations with the full WRFQ were used to establish the best scoring procedure. Discriminant validity was evaluated for the short versions and compared with the full-length 27-item version. RESULTS: Both short versions showed acceptable agreement with the full-length 27-item version using simple scoring procedures. Both also showed comparable or stronger validity than the full WRFQ in known group comparisons. CONCLUSION: Both short versions can be used to measure work role functioning in working samples with mixed clinical conditions and job types

**\*Macpherson RA, Koehoorn M, Fan J, Quirke W, Amick BC, III, Kraut A, et al. Do differences in work disability duration between men and women vary by province in Canada? *Journal of Occupational Rehabilitation*. 2018;**

[epub ahead of print].

<https://doi.org/10.1007/s10926-018-9819-1>

**Abstract:** Purpose Research has shown that there are important sex and gender-based differences in the work disability duration of men and women. This research is often limited to single jurisdictions, using different outcome measures, and therefore has limited generalisability of findings. This study examined if differences between work disability of men and women differed by province and by duration of work disability. **Methods** Cohorts of injured workers in the Canadian provinces of British Columbia (BC), Manitoba (MB) and Ontario (ON) were analysed using workers' compensation data for work-related injuries occurring between 2007 and 2011. Work disability duration was measured using cumulative days in receipt of disability benefits paid during one-year post-injury. Poisson models with restricted cubic splines tested whether differences between men and women in the likelihood of transitioning off disability benefits varied by duration of work disability in each province, adjusting for confounders. **Results** Men transitioned off disability benefits faster than women for claim durations of up to two to four months, after which women transitioned off disability benefits faster until ten months. Differences between men and women were consistent across all jurisdictions. For claims longer than ten months, men transitioned off work disability benefits faster than women in BC and ON, but there were no significant differences between men and women in MB. **Conclusions** Differences in the work disability duration between men and women vary by province and duration of work disability. Claims management processes need to be sensitive to differences that men and women face and the timing of interventions

**\*Sanger N, Shahid H, Dennis BB, Hudson J, Marsh D, Sanger S, Worster A, Teed R, Rieb L, Tugwell P, Hutton B, Shea B, Beaton D, et al. Identifying patient-important outcomes in medication-assisted treatment for opioid use disorder patients: a systematic review protocol. *BMJ Open*. 2018; 8(12):e025059.**

<https://doi.org/10.1136/bmjopen-2018-025059> [open access]

**Abstract:** INTRODUCTION: Illicit opioid use has become a national crisis in Canada, with over 65 000 people seeking treatment for opioid use disorder (OUD) in Ontario and British Columbia alone. Medication-assisted treatment (MAT) is a common treatment for OUD. There is substantial variability in treatment outcomes used to evaluate effectiveness of MAT, making it difficult to establish clinically and scientifically relevant treatment effect. Furthermore, patients are often excluded from the process of determining these outcomes. The primary objective of this review is to examine outcomes currently used to measure MAT effectiveness and to identify patient-relevant outcomes to enhance effectiveness of treatment options. This review refers to patient-important outcomes as those outcomes patients consider important to or markers of treatment success. **METHODS AND ANALYSIS:** MEDLINE, EMBASE, PsycINFO, Cumulative Index to Nursing and Allied Health Literature, Web of Science, Cochrane Library, Cochrane Clinical Trials Registry, National Institutes

for Health Clinical Trials Registry and WHO International Clinical Trials Registry Platform databases will be searched. We will search databases from inception to the date the search is ran. Studies of interest include those evaluating the effectiveness of MAT for patients with OUD, with or without consultation with patients regarding what they consider to be important as an indicator of treatment success. Results will be analysed using thematic analysis and qualitative analysis where possible. This will result in comprehensive synthesis of all outcomes and measures found related to OUD treatment effectiveness. ETHICS AND DISSEMINATION: We are collaborating with Canadian Addiction Treatment Centres which provide MAT to patients with OUD who will participate in disseminating study results. Dissemination strategies will involve sharing study results through workshops, presentations, peer-reviewed publications, study reports, community presentations and resources in primary care settings. PROSPERO REGISTRATION NUMBER: CRD42018095553

**Bindl UK, Unsworth KL, Gibson CB, and Stride CB. Job crafting revisited: implications of an extended framework for active changes at work. Journal of Applied Psychology. 2018; [epub ahead of print].**

<https://doi.org/10.1037/apl0000362>

Abstract: Employees often self-initiate changes to their jobs, a process referred to as job crafting, yet we know little about why and how they initiate such changes. In this paper, we introduce and test an extended framework for job crafting, incorporating individuals' needs and regulatory focus. Our theoretical model posits that individual needs provide employees with the motivation to engage in distinct job-crafting strategies-task, relationship, skill, and cognitive crafting-and that work-related regulatory focus will be associated with promotion- or prevention-oriented forms of these strategies. Across three independent studies and using distinct research designs (Study 1: N = 421 employees; Study 2: N = 144, using experience sampling data; Study 3: N = 388, using a lagged study design), our findings suggest that distinct job-crafting strategies, and their promotion- and prevention-oriented forms, can be meaningfully distinguished and that individual needs (for autonomy, competence, and relatedness) at work differentially shape job-crafting strategies. We also find that promotion- and prevention-oriented forms of job-crafting vary in their relationship with innovative work performance, and we find partial support for work-related regulatory focus strengthening the indirect effect of individual needs on innovative work performance via corresponding forms of job crafting. Our findings suggest that both individual needs and work-related regulatory focus are related to why and how employees will choose to craft their jobs, as well as to the consequences job crafting will have in organizations. (PsycINFO Database Record (c) 2018 APA, all rights reserved)

**Brignardello-Petersen R, Murad MH, Walter SD, McLeod S, Carrasco-Labra A, Rochweg B, et al. GRADE approach to rate the certainty from a network**

**meta-analysis: avoiding spurious judgments of imprecision in sparse networks. *Journal of Clinical Epidemiology*. 2019; 105:60-67.**

<https://doi.org/10.1016/j.jclinepi.2018.08.022>

Abstract: When direct and indirect estimates of treatment effects are coherent, network meta-analysis (NMA) estimates should have increased precision (narrower confidence or credible intervals compared with relying on direct estimates alone), a benefit of NMA. We have, however, observed cases of sparse networks in which combining direct and indirect estimates results in marked widening of the confidence intervals. In many cases, the assumption of common between-study heterogeneity across the network seems to be responsible for this counterintuitive result. Although the assumption of common between-study heterogeneity across paired comparisons may, in many cases, not be appropriate, it is required to ensure the feasibility of estimating NMA treatment effects. This is especially the case in sparse networks, in which data are insufficient to reliably estimate different variances across the network. The result, however, may be spuriously wide confidence intervals for some of the comparisons in the network (and, in the Grading of Recommendations Assessment, Development, and Evaluation approach, inappropriately low ratings of the certainty of the evidence through rating down for serious imprecision). Systematic reviewers should be aware of the problem and plan sensitivity analyses that produce intuitively sensible confidence intervals. These sensitivity analyses may include using informative priors for the between-study heterogeneity parameter in the Bayesian framework and the use of fixed effects models

**Campbell M, Katikireddi SV, Sowden A, and Thomson H. Lack of transparency in reporting narrative synthesis of quantitative data: a methodological assessment of systematic reviews. *Journal of Clinical Epidemiology*. 2019; 105:1-9.**

<https://doi.org/10.1016/j.jclinepi.2018.08.019> [open access]

Abstract: OBJECTIVE: To assess the adequacy of reporting and conduct of narrative synthesis of quantitative data (NS) in reviews evaluating the effectiveness of public health interventions. STUDY DESIGN AND SETTING: A retrospective comparison of a 20% (n = 474/2,372) random sample of public health systematic reviews from the McMaster Health Evidence database (January 2010-October 2015) to establish the proportion of reviews using NS. From those reviews using NS, 30% (n = 75/251) were randomly selected and data were extracted for detailed assessment of: reporting NS methods, management and investigation of heterogeneity, transparency of data presentation, and assessment of robustness of the synthesis. RESULTS: Most reviews used NS (56%, n = 251/446); meta-analysis was the primary method of synthesis for 44%. In the detailed assessment of NS, 95% (n = 71/75) did not describe NS methods; 43% (n = 32) did not provide transparent links between the synthesis data and the synthesis reported in the text; of 14 reviews that identified heterogeneity in direction of effect, only one investigated the

heterogeneity; and 36% (n = 27) did not reflect on limitations of the synthesis. CONCLUSION: NS methods are rarely reported in systematic reviews of public health interventions and many NS reviews lack transparency in how the data are presented and the conclusions are reached. This threatens the validity of much of the evidence synthesis used to support public health. Improved guidance on reporting and conduct of NS will contribute to improved utility of NS systematic reviews

**Harcombe H, Davie G, Wyeth E, Samaranayaka A, and Derrett S. Injury upon injury: a prospective cohort study examining subsequent injury claims in the 24 months following a substantial injury. Injury Prevention. 2018; 24(6):437-444.**

<https://doi.org/10.1136/injuryprev-2017-042467>

Abstract: OBJECTIVES: This study examines subsequent injuries reported to the Accident Compensation Corporation (ACC), New Zealand's universal no-fault injury insurer, in the 24 months following an ACC entitlement claim injury event. Specific aims were to determine the: (1) 12 and 24 month cumulative incidence of at least one ACC-reported subsequent injury (ACC-SUBS-Inj), (2) characteristics of participants with and without ACC-SUBS-Inj, (3) frequency of ACC-SUBS-Inj, (4) time periods in which people are at higher risk of ACC-SUBS-Inj and (5) types of ACC-SUBS-Inj. METHODS: Interview data collected directly from participants in the Prospective Outcomes of Injury Study (POIS) were combined with ACC-SUBS-Inj data from ACC and hospital discharge datasets. A subsequent injury was defined as any injury event resulting in an ACC claim within 24 months following the injury event for which participants were recruited to POIS (the sentinel injury). All ACC-SUBS-Inj were included irrespective of whether they were the same as the sentinel injury or not. RESULTS: Of 2856 participants, 58% (n=1653) experienced at least one ACC-SUBS-Inj in 24 months; 31% (n=888) had more than one ACC-SUBS-Inj. The time period of lowest risk of ACC-SUBS-Inj was the first 3 months following the sentinel injury event. Spine sprain/strain was the type of injury with the greatest number of ACC-SUBS-Inj claims per person. CONCLUSIONS: More than half of those with an ACC entitlement claim injury incurred further injury events that resulted in a claim in the following 24 months. Greater understanding of these subsequent injury events provides an avenue for injury prevention

**Kent KB, Goetzel RZ, Roemer EC, McCleary K, Henke RM, Head MA, et al. Developing two culture of health measurement tools: examining employers' efforts to influence population health inside and outside company walls. Journal of Occupational & Environmental Medicine. 2018; 60(12):1087-1097.**

<https://doi.org/10.1097/JOM.0000000000001438>

Abstract: OBJECTIVE: The aim of the study was to develop tools that quantify employers' investment in building cultures of health (COH)-inside and outside company walls. METHODS: Two COH instruments were developed through literature reviews and expert consultation. The first focused on internal culture of

health (COH-INT), that is, programs, policies, and attributes of the physical and social environments that support employees' health and well-being. The second focused on external culture of health (COH-EXT), that is, programs, policies, and environmental supports that promote communities' health. We administered these tools to 32 employers and examined instrument reliability, distribution of scores, and correlation between the two instruments. RESULTS: Both tools demonstrated adequate reliability. COH-EXT scores changed minimally over the 3-year study timeframe. There was little correlation between the COH-INT and COH-EXT scores. CONCLUSIONS: More research is needed to further develop and validate COH-EXT instruments

**Lynch JW and Rodell JB. Blend in or stand out? Interpersonal outcomes of managing concealable stigmas at work. Journal of Applied Psychology. 2018; 103(12):1307-1323.**

<https://doi.org/10.1037/apl0000342>

Abstract: In the workplace, employees must choose what personal information they share with others. Employees with concealable stigmas (e.g., sexual orientation, mental illness, and certain religious beliefs) face the added pressure of having to carefully manage information about a potential social liability. Yet it remains unclear how managing a concealable stigma may influence colleagues' perceptions and reactions. Using theory about impression management and social cognition, we investigated how employees strategically manage information about their concealable stigmas and the impact of these behaviors on colleague reactions. Based on a multiple-time, multiple-source study of 196 employees, we compared 4 specific strategies for managing concealable stigmas: assimilating, decategorizing, integrating, and confirming. Consistent with our theorizing, these strategies had unique effects in how they influenced the treatment that an employee received from others. These findings have implications for research about stigmas, social cognition, and impression management, as well as for practices focused on creating diverse and supportive work environments. (PsycINFO Database Record (c) 2018 APA, all rights reserved)

**Marcum JL, McHugh A, Foley M, Adams D, and Bonauto D. The economic effect of chronic comorbidities in carpal tunnel syndrome workers' compensation claimants, Washington State. Journal of Occupational & Environmental Medicine. 2018; 60(12):1128-1135.**

<https://doi.org/10.1097/JOM.0000000000001451>

Abstract: OBJECTIVE: Assess the effect of chronic comorbidities on hours and earnings recovery following a carpal tunnel syndrome (CTS) claim. METHODS: The hours and earnings profiles of Washington State workers' compensation claimants with CTS and controls, upper extremity fractures (UEF) claimants, were collected by linking to unemployment insurance data during 2007 to 2014. Chronic comorbidity status was determined from workers' compensation bills. RESULTS: More (43%) CTS claimants had diagnosed chronic comorbidities than

UEF (24%). CTS claimants and claimants with multiple chronic comorbidities had significantly higher odds of not working post injury and poorer hours and earnings recovery compared with UEF claimants and those with no chronic comorbidities. CONCLUSIONS: This research suggests that chronic conditions should be considered as barriers to return to work among injured workers

**Mariscal MA, Lopez-Perea EM, Garcia-Herrero S, Lopez-Garcia JR, and Herrera S. Data on the working population in Spain related to training, workplace conditions and accident rates. Data in Brief. 2018; 21:1810-1817. <https://doi.org/10.1016/j.dib.2018.10.175> [open access]**

Abstract: Obtaining data on worker accident rates is necessary in order to analyze the causes and variables involved in the occurrence of said accidents. The majority of these data, collected after the accident occurs, do not consider the employees working conditions. Here are presented the data on workplace accidents and the conditions of the workers by analyzing the generic data supplied as part of the 7th National Survey of Workplace Conditions (EWCS) in Spain, conducted in 2011. These data will yield the variables needed to determine if the information on workplace risks provided by the survey respondents has an appreciable effect on the occurrence of occupational accidents in the working population, and will also be used to explore other variables

**Martin S. The association between job flexibility and job satisfaction. Insights on Canadian Society. 2018; Dec:1-10 [Statistics Canada Catalogue no. 75-006-X]. <https://www150.statcan.gc.ca/n1/en/pub/75-006-x/2018001/article/54980-eng.pdf?st=5j4uENho>**

Abstract: This study explores the association between job flexibility and job satisfaction, for men and women aged 18 to 64, using data from the 2014 Longitudinal and International Study of Adults. Control over four aspects of job flexibility are considered: the order of work, how to do the work, the speed of work, and the hours of work.

**Ramalho-Pires de Almeida MA, Abalos-Medina GM, Villaverde-Gutierrez C, Gomes-de Lucena NM, Ferreira-Tomaz A, and Perez-Marmol JM. Effects of an ergonomic program on the quality of life and work performance of university staff with physical disabilities: a clinical trial with three-month follow-up. Disability and Health Journal. 2019; 12(1):58-64. <https://doi.org/10.1016/j.dhjo.2018.07.002>**

Abstract: BACKGROUND: Problems related to physical disability may have an extremely negative impact in the work environment, reducing productivity and contributing to health problems and a worsening quality of life. OBJECTIVE: To assess the effects of an ergonomic intervention program on the quality of life and the work performance of people with physical disabilities working in a university environment. METHODS: A pilot clinical trial with three-month follow-up was conducted at the Physiotherapy Clinic of the Federal University of Paraiba

(Brazil). Eight workers at the university took part in an ergonomic adjustment (using ErgoDis/IBV software) and physiotherapy program at their workplace for twelve weeks, in two 60-min sessions per week. The measuring instruments used were the WHOQoL-BREF questionnaire for quality of life and the Work Ability Index for work ability. A repeated-measures ANOVA analysis and Wilcoxon signed-rank test were also performed. RESULTS: Significant intra-group changes were observed in the QoL subscales for the physical dimension ( $F=5.487$ ,  $p=0.017$ ) and the environment dimension ( $F=7.510$ ,  $p=0.006$ ). The post-treatment analysis revealed significant changes for both the physical dimension ( $Z=-2.552$ ,  $p=0.011$ ) and the environment dimension ( $Z=-2.201$ ,  $p=0.028$ ). After the three-month follow-up period, only the environment dimension recorded a significant change ( $Z=-1.965$ ,  $p=0.049$ ). The effect sizes were large. Regarding work ability, the repeated-measures ANOVA analysis showed a significant time effect ( $F=5.067$ ,  $p=0.022$ ), with large pre-post treatment improvement ( $Z=-2.555$ ,  $p=0.011$ ,  $d=0.914$ ). CONCLUSIONS: The program based on ergonomic and physiotherapy program greatly enhanced the subjects' quality of life and work ability

**Stewart J and Schwartz S. Equal education, unequal jobs: college and university students with disabilities. *Industrial Relations*. 2018; 73(2):369-394.**

<https://doi.org/10.7202/1048575ar>

**Temple JB, Kelaher M, and Williams R. Discrimination and avoidance due to disability in Australia: evidence from a National Cross Sectional Survey. *BMC Public Health*. 2018; 18(1):1347.**

<https://doi.org/10.1186/s12889-018-6234-7> [open access]

Abstract: BACKGROUND: Across most high-income countries, populations are ageing. With this demographic change is an increase in the number of people living with disabilities. In this context, we sought to examine the prevalence of disability discrimination and disability avoidance in Australia, the demographic and health correlates of exclusion and the contexts in which disability discrimination and avoidance are experienced. METHODS: Utilising newly released measures from the 2015 ABS Survey of Disability, Ageing and Carers, we calculate the prevalence of people living with a disability who have experienced discrimination and engage in avoidance behaviours, and the contexts in which they occur. Logistic regression models were fitted to examine the correlates of discrimination and avoidance behaviours, once controls and complex survey design were accounted for. RESULTS: Approximately 9% (95% CI = 8.1, 9.2) of people with a disability experienced disability discrimination in 2015 and 31% (95% CI = 30.9, 32.9) engaged in avoidance behaviours because of their disability. With controls included, the prevalence of avoidance and discrimination declined with age, was higher for divorced people (versus married), the unemployed (versus employed) and was lower for people with lower levels of education (versus a degree) and those born overseas. Having a



psychosocial or physical disability significantly increased the odds of experiencing discrimination or avoidance, as did having an increasing number of long-term health conditions. We further find that disability discrimination and avoidance occurs in contexts critical to human capital, such as the workforce, education and healthcare. **CONCLUSIONS:** Despite protections in legislation and international accords, significant proportions of Australians with a disability experience discrimination or engage in avoidance behaviours in various settings with potentially important human capital implications. Recently, sectoral responses (eg., in education and the workplace) have been offered by Government reports, providing direction for future research and evaluation

**Trinderup JS, Fisker A, Juhl CB, and Petersen T. Fear avoidance beliefs as a predictor for long-term sick leave, disability and pain in patients with chronic low back pain. BMC Musculoskeletal Disorders. 2018; 19(1):431. <https://doi.org/10.1186/s12891-018-2351-9> [open access]**

**Abstract:** **BACKGROUND:** Subgrouping patients with chronic low back pain is recommended prior to selecting treatment strategy, and fear avoidance beliefs is a commonly addressed psychological factor used to help this subgrouping. The results of the predictive value of fear avoidance beliefs in patients with chronic low back pain in prognostic studies are, however, not in concordance. Therefore, the objective of this study was to examine the association between fear avoidance beliefs at baseline and unsuccessful outcome on sick leave, disability and pain at 12-month follow-up in patients with entirely chronic low back pain. **METHODS:** A secondary analysis of data from a randomised controlled trial. Patients with chronic low back pain (n = 559) completed questionnaires at baseline and after 12 months. Multiple logistic regression analyses were conducted to examine the association between fear avoidance beliefs and the outcomes sick leave, disability and pain. **RESULTS:** Higher fear avoidance beliefs about work at baseline were found to be significantly associated with still being on sick leave (OR 1.11; 95% CI 1.02-1.20) and having no reduction in pain (OR 1.04; 95% CI 1.01-1.08) after 12 months and may be associated with having no reduction in disability (OR 1.03; 95% CI 1.00-1.06) after 12 months (lower limit of 95% CI close to 1.00). Fear avoidance beliefs about physical activity were not found to be associated with the three outcomes. **CONCLUSIONS:** High fear avoidance beliefs about work are associated with continuous sick leave after 1 year in patients with chronic low back pain. This finding might assist clinicians in choosing targeted treatment strategies in subgroups of working patients with chronic low back pain

**Tsuno K, Kawachi I, Kawakami N, and Miyashita K. Workplace bullying and psychological distress: a longitudinal multilevel analysis among Japanese employees. Journal of Occupational & Environmental Medicine. 2018; 60(12):1067-1072.**

**<https://doi.org/10.1097/JOM.0000000000001433>**

**Abstract:** **OBJECTIVE:** We sought to investigate the contextual effect of

workplace bullying on subsequent individual psychological distress and intention to leave. **METHODS:** A longitudinal study was conducted among 3142 Japanese employees in the public sector. Both the baseline and follow-up questionnaires inquired about demographic and occupational characteristics, workplace bullying, psychological distress, and intention to leave. **RESULTS:** The results of three-level (individual-division-department) multilevel analyses revealed that division-level workplace bullying was associated with increased individual-level psychological distress after adjustment for individual experience of workplace bullying, while the association between individual experience of bullying and psychological distress was not statistically significant in the same model. **CONCLUSION:** The results of the current study suggest that the presence of bullying in the workplace can have a detrimental effect on employees' mental health even if they are not personally victimized

\*IWH authored publications.