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***Jetha A, LaMontagne AD, Lilley R, Hogg-Johnson S, Sim M, and Smith P. Workplace social system and sustained return-to-work: a study of supervisor and co-worker supportiveness and injury reaction. *Journal of Occupational Rehabilitation*. 2017; [Epub ahead of print]. <http://dx.doi.org/10.1007/s10926-017-9724-z>**

Abstract: Objective To examine the impact of the social workplace system on sustained return-to-work (SRTW). Methods A random sample of workers' compensation claimants was recruited to complete a survey following claim acceptance (baseline), and 6 months later (time 2). SRTW, at baseline and time 2, was classified as those reporting being back at work for >28 days. Co-worker and supervisor support were assessed using five and seven items, respectively, and total scores were produced. A list of potential supervisory and co-worker reactions were presented to participants who were asked whether the reaction applied to them; response were coded as positive or non-positive. Demographic and injury characteristics, and work context factors were collected. Baseline and at time 2 multivariable models were conducted to examine the impact of supervisory and coworker support and injury reaction on SRTW. Results 551 (baseline) and 403 (time 2) participants from the overall cohort met study eligibility criteria. At baseline, 59% of all participants indicated SRTW; 70% reported SRTW at time 2. Participants reported moderate support from their supervisor (mean = 8.5 +/- 3.9; median = 8.2; range = 5-15) and co-workers (mean = 10.2 +/- 4.5; median = 10.3; range = 5-25). Over half reported a positive supervisor (59%) or co-worker injury reaction (71%). Multivariable models found that a positive supervisor injury reaction was significantly associated with SRTW at baseline (OR 2.3; 95% CI 1.4-3.9) and time 2 (OR 1.6; 95% CI 1.1-2.3).

Conclusions Promoting supervisor positivity towards an injured worker is an important organizational work disability management strategy

Anderson J, Williams AE, and Nester C. An explorative qualitative study to determine the footwear needs of workers in standing environments.

Journal of Foot and Ankle Research. 2017; 10:41.

<http://dx.doi.org/10.1186/s13047-017-0223-4> [open access]

Abstract: BACKGROUND: Many work places require standing for prolonged periods of time and are potentially damaging to health, with links to musculoskeletal disorders and acute trauma from workplace accidents. Footwear provides the only interaction between the body and the ground and therefore a potential means to impact musculoskeletal disorders. However, there is very limited research into the necessary design and development of footwear based on both the physical environmental constraints and the personal preference of the workers. Therefore, the purpose of this study was to explore workers needs for footwear in the 'standing' workplace in relation to MSD, symptoms, comfort and design. METHOD: Semi-structured interviews were conducted with participants from demanding work environments that require standing for high proportions of the working day. Thematic analysis was used to analyse the results and gain an exploratory understanding into the footwear needs of these workers. RESULTS: Interviews revealed the environmental demands and a very high percentage of musculoskeletal disorders, including day to day discomfort and chronic problems. It was identified that when designing work footwear for standing environments, the functionality of the shoe for the environment must be addressed, the sensations and symptoms of the workers taken into account to encourage adherence and the decision influencers should be met to encourage initial footwear choice. Meeting all these criteria could encourage the use of footwear with the correct safety features and comfort. Development of the correct footwear and increased education regarding foot health and footwear choice could help to reduce or improve the effect of the high number of musculoskeletal disorders repeatedly recorded in jobs that require prolonged periods of standing. CONCLUSION: This study provides a unique insight into the footwear needs of some workers in environments that require prolonged standing. This user based enquiry has provided information which is important to workplace footwear design

Burr H, Hasselhorn HM, Kersten N, Pohrt A, and Rugulies R. Does age modify the association between psychosocial factors at work and deterioration of self-rated health? Scandinavian Journal of Work, Environment & Health. 2017; 43(5):465-474.

<http://dx.doi.org/10.5271/sjweh.3648>

Abstract: Objectives Few epidemiological studies have examined whether associations of psychosocial working conditions with risk of poor health differ by age. Based on results from mostly cross-sectional studies, we test whether (i) psychosocial relational factors (social support) are more strongly associated with

declining health of older than younger employees and (ii) psychosocial job factors (workpace, influence, possibilities for development) are more strongly associated with declining health of younger than older employees. Methods We extracted two cohorts from the Danish Work Environment Cohort Study (DWECS): the 2000-2005 and 2005-2010 cohorts. The participating 5281 employees with good self-rated health (SRH) at baseline were observed in 6585 5-year time windows. Using log-binomial regression analyses, we analysed whether psychosocial factors at work predicted 5-year deterioration of SRH. Effect modification by age was estimated by calculating relative excess risk due to interaction (RERI). Results High workpace among men, low influence at work as well as low social support from colleagues among women, and low possibilities for development and low social support from supervisors among both genders predicted 5-year decline in SRH. Of the 20 interaction analyses, only 1 was statistically significant and in the opposite direction of what was hypothesized (higher risk for declining SRH among middle-aged men with low possibilities for development compared to the young men with high possibilities for development). Conclusions Psychosocial working conditions predicted decline in SRH in this 5-year follow-up study. The model did not support our hypotheses about modifying effects by age

Buyts N, Wagner S, Randall C, Harder H, Geisen T, Yu I, Hassler B, Howe C, and Fraess-Phillips A. Disability management and organizational culture in Australia and Canada. *Work*. 2017; 57(3):409-419.

<http://dx.doi.org/10.3233/WOR-172568>

Abstract: BACKGROUND: Organizational culture has received increasing attention in terms of its influence on workplace health and productivity, yet there has been little research on its relationship with employer-based disability programs. OBJECTIVE: This study explored the relationship between disability management and organizational culture in Australian and Canadian organizations. METHODS: Thematic analysis was conducted on data from semi-structured interviews with 16 employees, including injured workers, human resource managers and disability managers in two Australian and two Canadian large organizations. RESULTS: Seven themes were identified: 1. Consistency between espoused beliefs and artifacts in organization; 2. Genuineness of interest in well-being of injured worker; 3. Level of ongoing support of worker following injury; 4. Communication with injured workers; 5. Level of support from supervisors and co-workers; 6. Promptness in claims processing and covering medical costs and; 7. Focus on wellness and injury prevention. It was found that organizational culture may impact the delivery and perceived value of employer-based disability management programs. CONCLUSIONS: Given the potential relationship between organizational culture and disability management, employers should facilitate a positive workplace culture by ensuring consistency among underlying values, espoused values and actual treatment of employees, including injured workers

Campos-Fumero A, Delclos GL, Douphrate DI, Felknor SA, Vargas-Prada S, Serra C, Coggon D, and de Porrás DGR. Low back pain among office workers in three Spanish-speaking countries: findings from the CUPID study. *Injury Prevention*. 2017; 23(3):158-164.

<http://dx.doi.org/10.1136/injuryprev-2016-042091>

Abstract: OBJECTIVES: To assess the differences in the prevalence and incidence of low back pain (LBP) and associated disability among office workers in Costa Rica, Nicaragua and Spain. METHODS: Data were collected at baseline (n=947, 93% response) in November 2007 and at follow-up after 12 months (n=853, 90% response). Six outcome measures were examined: baseline prevalence of (1) LBP in the past 12 months, (2) LBP in the past month and (3) disabling LBP in the past month; and at follow-up: (4) incidence of new LBP in the past month, (5) new disabling LBP and (6) persistent LBP. Differences in prevalence by country were characterised by ORs with 95% CIs, before and after adjustment for covariates. RESULTS: Prevalence of LBP in the past month among office employees in Costa Rica (46.0%) and Nicaragua (44.2%) was higher than in Spain (33.6%). Incidence of new LBP was 37.0% in Nicaragua (OR=2.49; 95% CI 1.57 to 3.95), 14.9% in Costa Rica (OR=0.74; 95% CI 0.41 to 1.34) and 19.0% in Spain (reference). Incidence of new disabling LBP was higher in Nicaragua (17.2%; OR=2.49; 95% CI 1.43 to 4.34) and Costa Rica (13.6%; OR=1.89; 95% CI 1.03 to 3.48) than Spain (7.7%), while persistence of LBP was higher only in Nicaragua. CONCLUSIONS: Prevalence of LBP and disabling LBP was higher in Costa Rican and Nicaraguan office workers than in Spain, but the incidence was higher mainly in Nicaragua. Measured sociodemographic, job-related and health-related variables only partly explained the differences between countries, and further research is needed to explore reasons for the remaining differences

Dalgaard VL, Aschbacher K, Andersen JH, Glasscock DJ, Willert MV, Carstensen O, and Biering K. Return to work after work-related stress: a randomized controlled trial of a work-focused cognitive behavioral intervention. *Scandinavian Journal of Work, Environment & Health*. 2017; 43(5):436-446.

<http://dx.doi.org/10.5271/sjweh.3655>

Abstract: Objectives This study aimed to evaluate the effect of a stress management intervention (SMI) on lasting return to work (RTW) among patients with work-related stress complaints. Methods Sick leave departments from three local municipalities referred patients on sick leave with work-related adjustment disorders or mild depression to the Department of Occupational Medicine, Regional Hospital West Jutland. A 2x randomization procedure allocated patients into one of three groups: intervention (N=58), control A (which received a clinical assessment; N=56), or control B (no assessment; N=49). Treatment comprised individual work-focused cognitive behavioral therapy (CBT) with an optional workplace intervention. The outcome was time until lasting RTW (16 and 44 weeks follow-up) using register data. Results Median number of

weeks until lasting RTW was 15, 19, and 32 for the intervention group, control A, and control B respectively. However, for group B, clinical assessment was not part of the inclusion process, which may have introduced selection bias. In the fully-adjusted Cox regression model, the intervention group exhibited significantly faster lasting RTW at 44 weeks; hazard ratio (HR) 1.57 [95% confidence interval (95% CI) 1.01-2.44] relative to control group A, with a non-significant trend evident at 16 weeks; HR 1.70 (95% CI 0.94-3.10), when controlling for age, gender, occupation, sick leave during previous year, full or partial sick leave, and diagnosis. Unadjusted analyses remained directionally consistent but were reduced to marginal significance. Conclusions There was a tendency towards faster lasting RTW in the intervention group compared to control A, which received clinical assessment, in all analyses. The intervention group returned to work about 4 weeks earlier than control A, which could translate into substantial financial gains

Darvishi E, Khotanlou H, Khoubi J, Giahi O, and Mahdavi N. Prediction effects of personal, psychosocial, and occupational risk factors on low back pain severity using artificial neural networks approach in industrial workers. Journal of Manipulative and Physiological Therapeutics. 2017; [Epub ahead of print].

<http://dx.doi.org/10.1016/j.jmpt.2017.03.012>

Abstract: OBJECTIVES: This study aimed to provide an empirical model of predicting low back pain (LBP) by considering the occupational, personal, and psychological risk factor interactions in workers population employed in industrial units using an artificial neural networks approach. METHODS: A total of 92 workers with LBP as the case group and 68 healthy workers as a control group were selected in various industrial units with similar occupational conditions. The demographic information and personal, occupational, and psychosocial factors of the participants were collected via interview, related questionnaires, consultation with occupational medicine, and also the Rapid Entire Body Assessment worksheet and National Aeronautics and Space Administration Task Load Index software. Then, 16 risk factors for LBP were used as input variables to develop the prediction model. Networks with various multilayered structures were developed using MATLAB. RESULTS: The developed neural networks with 1 hidden layer and 26 neurons had the least error of classification in both training and testing phases. The mean of classification accuracy of the developed neural networks for the testing and training phase data were about 88% and 96%, respectively. In addition, the mean of classification accuracy of both training and testing data was 92%, indicating much better results compared with other methods. CONCLUSION: It appears that the prediction model using the neural network approach is more accurate compared with other applied methods. Because occupational LBP is usually untreatable, the results of prediction may be suitable for developing preventive strategies and corrective interventions

Dobbins M. Rapid review guidebook: steps for conducting a rapid review. Hamilton, ON: National Collaborating Centre for Methods and Tools; 2017. <http://www.nccmt.ca/uploads/media/media/0001/01/a816af720e4d587e13da6bb307df8c907a5dff9a.pdf>

Heuch I, Heuch I, Hagen K, and Zwart JA. Physical activity level at work and risk of chronic low back pain: a follow-up in the Nord-Trøndelag Health Study. PLoS ONE. 2017; 12(4):e0175086.

<http://dx.doi.org/10.1371/journal.pone.0175086> [open access]

Abstract: BACKGROUND: Physical activity in leisure time seems to reduce the risk of low back pain, but it is not known whether occupational activity, as recorded in a representative working population, produces a higher or lower risk. OBJECTIVE: To study associations between physical activity level at work and risk of chronic low back pain. METHODS: Associations were examined in a Norwegian prospective study using data from the HUNT2 and HUNT3 surveys carried out in the whole county of Nord-Trøndelag. Participants were 7580 women and 7335 men who supplied information about physical activity level at work. Levels considered were sedentary work, work involving walking but no heavy lifting, work involving walking and heavy lifting, and particularly strenuous physical work. Nobody in the cohort was affected by chronic low back pain at baseline. After 11 years, participants reported whether they suffered from chronic low back pain. Generalized linear modelling with adjustment for potential confounders was applied to assess associations with risk factors. RESULTS: In age-adjusted analyses both women and men showed statistically significant associations between physical activity at work and risk of chronic low back pain, suggesting positive relationships. For particularly strenuous physical work the relative risk of chronic low back pain was 1.30 (95% CI: 1.00-1.71) in women and 1.36 (95% CI 1.17-1.59) in men, compared to sedentary work. Women still showed a general association with activity level after adjustment for education, leisure time physical activity, BMI, smoking and occupational category. In men, the higher risk was only maintained for particularly strenuous work. CONCLUSION: In this cohort, women had a higher risk of chronic low back pain with work involving walking and heavy lifting or particularly strenuous work, compared to sedentary work. Men participating in particularly strenuous work also experienced a higher risk of chronic low back pain

Kothari A, McCutcheon C, and Graham ID. Defining integrated knowledge translation and moving forward: a response to recent commentaries. International Journal of Health Policy and Management. 2017; 6(5):299-300. <http://dx.doi.org/10.15171/ijhpm.2017.15> [open access]

Lindsay S, Cagliostro E, Albarico M, Srikanthan D, and Mortaji N. A systematic review of the role of gender in securing and maintaining employment among youth and young adults with disabilities. Journal of Occupational Rehabilitation. 2017; [Epub ahead of print]. <http://dx.doi.org/10.1007/s10926-017-9726-x>

Abstract: Purpose There is a critical need for gender-specific vocational supports for young adults with disabilities as they transition to employment. We conducted a systematic review to explore the role of gender in securing and maintaining employment. Methods Systematic searches of seven databases identified 48 studies meeting our inclusion criteria. Using a narrative synthesis approach, these studies were analyzed in terms of the characteristics of the participants, methodology, results, and quality of the evidence. Results Among the 48 studies, 112,473 participants (56% male), mean age (of the total sample) was 21, represented across ten countries. Twenty-one studies reported that young men with disabilities had better employment outcomes than women with disabilities. Eight studies showed that females with disabilities had better employment outcomes than males. Five studies reported that there were no gender differences in employment outcomes for youth with various disabilities. With regards to maintaining employment, men with disabilities often work more hours and have better wages compared to women with disabilities. There are several gender-related barriers and facilitators to maintaining employment including social supports and gender role expectations. Conclusions Our findings highlight that there is a critical need for gender-specific vocational supports for young adults with disabilities

Lopez-Arquillos A, Rubio-Romero JC, and Lopez-Arquillos C. Workers' medication as occupational risk at construction site with formworks. Work. 2017; 57(3):389-395.

<http://dx.doi.org/10.3233/WOR-172573>

Abstract: BACKGROUND: Accidents in the construction sector are a cause for concern. The influence of many different factors in construction accidents have been studied (age, company size, length of service, deviation, drugs or alcohol consumption, etc.) but the influence of medicinal substances in specific construction activities has not been evaluated until now. OBJECTIVE: The aim of the research presented here is to identify the effect of different medicinal substances on the occupational risk levels of construction activities with formworks. METHODS: An expert panel was selected in order to quantify the individual risk of each medication for each individual construction activity. RESULTS: Results showed that narcotics, antipsychotics, and hypnotics had the highest risk values, and the use of cranes and cutting materials were considered the most dangerous activities for a medicated worker. CONCLUSIONS: Data obtained in this research can help reduce the negative effects of the substances studied on the occupational safety of construction workers. A better knowledge of the risk levels according to the current capabilities of workers under the effects of medication is a powerful tool in planning safer construction activities

Magnusson Hanson LL, Madsen IE, Rugulies R, Peristera P, Westerlund H, and Descatha A. Temporal relationships between job strain and low-back pain. Scandinavian Journal of Work, Environment & Health. 2017; 43(5):396-404.

<http://dx.doi.org/10.5271/sjweh.3654>

Abstract: Objectives Psychosocial working conditions are suggested risk factors for low-back pain, but it is unclear whether these associations are causal. The present study examined whether there are lagged and bidirectional associations between job strain and low-back pain and further controlled for unmeasured time-invariant confounding. **Methods** The study was based on four biennial waves of data from the Swedish Longitudinal Occupational Survey of Health (SLOSH), including 3084 men and women. Cross-lagged analyses using structural equation modeling (SEM) were conducted on job strain, a combination of high job demands and low control, and any as well as low-back pain severity (how much any problems affected the respondents life). Analogous SEM (dynamic panel) models with fixed effects were also fitted to remove confounding from time-invariant factors (such as non-observed individual and environmental factors, eg, genetics, childhood conditions, personality). **Results** The SEM models indicated bidirectional associations between job strain and any back pain over a 2-year time lag ($\beta=0.21$ and 0.19 , $P<0.05$), when adjusting for a range of covariates. Job strain was also associated with an increase in low-back pain severity and vice versa. However, the SEM models with fixed-effects showed no statistically significant lagged relationships between job strain and any or low-back pain severity ($\beta=-0.05$ and $\beta=0.00$, respectively). **Conclusions** This study suggests that associations between job strain and low-back pain with a lag of years may be due to residual confounding by time invariant characteristics. Further studies are, however, needed to elucidate short-term relationships

Pekkala J, Blomgren J, Pietilainen O, Lahelma E, and Rahkonen O. Occupational class differences in diagnostic-specific sickness absence: a register-based study in the Finnish population, 2005-2014. BMC Public Health. 2017; 17(1):670.

<http://dx.doi.org/10.1186/s12889-017-4674-0> [open access]

Abstract: **BACKGROUND:** Musculoskeletal diseases and mental disorders are major causes of long-term sickness absence in Western countries. Although sickness absence is generally more common in lower occupational classes, little is known about class differences in diagnostic-specific absence over time. Focusing on Finland during 2005-2014, we therefore set out to examine the magnitude of and changes in absolute and relative occupational class differences in long-term sickness absence due to major diagnostic causes. **METHODS:** A 70-per-cent random sample of Finns aged 25-64 linked to register data on medically certified sickness absence (of over 10 working days) in 2005-2014 was retrieved from the Social Insurance Institution of Finland. Information on occupational class was obtained from Statistics Finland and linked to the data. The study focused on female ($n = 658,148-694,142$) and male ($n = 604,715-642,922$) upper and lower non-manual employees and manual workers. The age-standardised prevalence, the Slope Index of Inequality (SII) and the Relative Index of Inequality (RII) were calculated for each study year to facilitate examination of the class differences. **RESULTS:** The prevalence of each

diagnostic cause of sickness absence declined during the study period, the most common causes being musculoskeletal diseases, mental disorders and injuries. The prevalence of other causes under scrutiny was less than 1 % annually. By far the largest absolute and relative differences were in musculoskeletal diseases among both women and men. Moreover, the absolute differences in both genders ($p < 0.0001$) and the relative differences in men ($p < 0.0001$) narrowed over time as the prevalence declined most among manual workers. Both genders showed modest and stable occupational class differences in mental disorders. In the case of injuries, no major changes occurred in absolute differences but relative differences narrowed over time in men ($p < 0.0001$) due to a strong decline in prevalence among manual workers. Class differences in the other studied diagnostic causes under scrutiny appeared negligible. **CONCLUSIONS:** By far the largest occupational class differences in long-term sickness absence concerned musculoskeletal diseases, followed by injuries. The results highlight potential targets for preventive measures aimed at reducing sickness absence and narrowing class differences in the future

Sewdas R, de Wind A, van der Zwaan LGL, van der Borg WE, Steenbeek R, van der Beek AJ, and Boot CRL. Why older workers work beyond the retirement age: a qualitative study. BMC Public Health. 2017; 17(1):672. <http://dx.doi.org/10.1186/s12889-017-4675-z> [open access]

Abstract: **BACKGROUND:** The aims of the present study were to: 1) gain insight into reasons for working beyond the statutory retirement age from older workers' perspectives, and 2) explore how the domains of the research framework Study on Transitions in Employment, Ability and Motivation (STREAM) can be applied to working beyond retirement age. **METHODS:** A qualitative research design included individual interviews ($n = 15$) and three focus groups ($n = 18$ participants) conducted with older workers aged 65 years and older continuing in a paid job or self-employment. Interview participants were recruited from an existing STREAM cohort study. Focus group participants were recruited from companies and employment agencies. The data were subjected to thematic analysis. **RESULTS:** The most important motives for working beyond retirement age were maintaining daily routines and financial benefit. Good health and flexible work arrangements were mentioned as important preconditions. The themes emerging from the categorization of the motives and preconditions corresponded to the domains of health, work characteristics, skills and knowledge, and social and financial factors from the STREAM research framework. However, our analysis revealed one additional theme-purpose in life. **CONCLUSION:** This study offers important new insights into the various preconditions and motives that influence working beyond retirement age. In addition, the five domains of the STREAM research framework, including the additional domain of 'purpose in life', seem to be applicable to working beyond retirement age. This knowledge contributes to the development of work-related interventions that enhance older workers' motivation to prolong their working lives

Sundstrup E, Hansen AM, Mortensen EL, Poulsen OM, Clausen T, Rugulies R, Moller A, and Andersen LL. Cumulative occupational mechanical exposures during working life and risk of sickness absence and disability pension: prospective cohort study. Scandinavian Journal of Work, Environment & Health. 2017; 43(5):415-425.

<http://dx.doi.org/10.5271/sjweh.3663>

Abstract: Objectives The aim of this study was to determine the prospective association of cumulative mechanical exposure during working life with health-related labor market outcomes. Methods This prospective cohort study combines data from 5076 older workers (age 49-63 years) from the Copenhagen Aging and Midlife Biobank with a job exposure matrix and a national register containing information on social transfer payment. By coding individual job histories from the Danish version of ISCO-codes (International Standard Classification of Occupations), we calculated cumulative occupational mechanical exposures from a JEM for ton-years (lifting 1000 kg each day in one year), lifting-years (lifting loads weighing ≥ 20 kg > 10 times each day in one year), kneeling-years (kneeling for one hour each day in one year) and vibration-years (whole-body vibration for one hour each day in one year). Cox-regression analyses estimated the relative risk of register-based long-term sickness absence (LTSA) and disability pension with cumulative occupational mechanical exposures throughout working life. Analyses were censored for competing events and adjusted for multiple confounders. Results During the follow-up period, 970 persons (19.3%) had ≥ 1 episode of LTSA and 85 persons (1.7%) were granted a disability pension. Number of ton-, lifting- and kneeling-years showed an exposure-response association with increased risk of LTSA ($P < 0.0001$). In addition, both long term [≥ 20 years; hazard ratio (HR) 1.76 95% CI 1.39-2.22] and short term (< 10 years; HR 1.20 95% CI 1.02-1.41) exposure to kneeling work increased the risk of LTSA. Lifting-years, but not the other mechanical exposures, were associated with risk of disability pension (HR 1.75 95% CI 1.01-3.04). Conclusions Cumulative occupational mechanical exposures during working life - such as lifting and kneeling work - increased the risk of LTSA. Importantly, being exposed to lifting increased the risk of disability pension

Virtanen M, Oksanen T, Pentti J, Ervasti J, Head J, Stenholm S, Vahtera J, and Kivimaki M. Occupational class and working beyond the retirement age: a cohort study. Scandinavian Journal of Work, Environment & Health. 2017; 43(5):426-435.

<http://dx.doi.org/10.5271/sjweh.3645>

Abstract: Objectives The aim of this study was to examine occupational class differences in working more than six months beyond the mandatory retirement age and factors that may contribute to these differences. Methods The study comprised a prospective cohort study of a total of 5331 Finnish municipal employees (73% women) who were not on work disability pension and reached the age eligible for old-age pension in 2005-2011. Occupational class included four categories: managers and professionals, lower grade non-manual, skilled

manual, and elementary occupations. Survey responses while at work were linked to national health and pension registers. Results A total of 921 participants (17.3%) worked beyond the pensionable age. Compared with elementary workers, skilled manual workers had a similar probability [gender-adjusted risk ratio (RR) 0.95, 95% confidence interval (95% CI) 0.72-1.23] while lower grade non-manual workers had a 2.03-fold (95% CI 1.59-2.58), and managers and professionals had a 1.79-fold (95% CI 1.41-2.27) probability of working beyond the pensionable age. Adjustment for physical workload (32.0% in lower non-manual, 36.7% in managers and professionals), work time control (20.4% and 11.4%) and perceived work ability (16.5% and 29.1%) contributed to the largest attenuation for these associations. Analyses using a counterfactual approach suggested greater mediated effects for physical workload and work time control than those observed in traditional mediation analyses. Conclusions Employees with higher occupational classes are two times more likely to continue working beyond the retirement age compared to those with lower occupational classes. A large proportion of these differences were explained by having physically light job, better work time control, and better self-rated work ability among employees with high occupational class

Weiner BJ, Lewis CC, Stanick C, Powell BJ, Dorsey CN, Clary AS, Boynton MH, and Halko H. Psychometric assessment of three newly developed implementation outcome measures. *Implementation Science*. 2017; 12(1):108.

<http://dx.doi.org/10.1186/s13012-017-0635-3> [open access]

Abstract: BACKGROUND: Implementation outcome measures are essential for monitoring and evaluating the success of implementation efforts. Yet, currently available measures lack conceptual clarity and have largely unknown reliability and validity. This study developed and psychometrically assessed three new measures: the Acceptability of Intervention Measure (AIM), Intervention Appropriateness Measure (IAM), and Feasibility of Intervention Measure (FIM). **METHODS:** Thirty-six implementation scientists and 27 mental health professionals assigned 31 items to the constructs and rated their confidence in their assignments. The Wilcoxon one-sample signed rank test was used to assess substantive and discriminant content validity. Exploratory and confirmatory factor analysis (EFA and CFA) and Cronbach alphas were used to assess the validity of the conceptual model. Three hundred twenty-six mental health counselors read one of six randomly assigned vignettes depicting a therapist contemplating adopting an evidence-based practice (EBP). Participants used 15 items to rate the therapist's perceptions of the acceptability, appropriateness, and feasibility of adopting the EBP. CFA and Cronbach alphas were used to refine the scales, assess structural validity, and assess reliability. Analysis of variance (ANOVA) was used to assess known-groups validity. Finally, half of the counselors were randomly assigned to receive the same vignette and the other half the opposite vignette; and all were asked to re-rate acceptability, appropriateness, and feasibility. Pearson correlation coefficients were used to

assess test-retest reliability and linear regression to assess sensitivity to change. RESULTS: All but five items exhibited substantive and discriminant content validity. A trimmed CFA with five items per construct exhibited acceptable model fit (CFI = 0.98, RMSEA = 0.08) and high factor loadings (0.79 to 0.94). The alphas for 5-item scales were between 0.87 and 0.89. Scale refinement based on measure-specific CFAs and Cronbach alphas using vignette data produced 4-item scales (alpha's from 0.85 to 0.91). A three-factor CFA exhibited acceptable fit (CFI = 0.96, RMSEA = 0.08) and high factor loadings (0.75 to 0.89), indicating structural validity. ANOVA showed significant main effects, indicating known-groups validity. Test-retest reliability coefficients ranged from 0.73 to 0.88. Regression analysis indicated each measure was sensitive to change in both directions. CONCLUSIONS: The AIM, IAM, and FIM demonstrate promising psychometric properties. Predictive validity assessment is planned

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