### IWH Research Alert September 15, 2017

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\*Abma FI, Bultmann U, Amick III BC, Arends I, Dorland HF, Flach PA, van der Klink JJL, van de Ven HA, and Bjorner JB. The work role functioning questionnaire v2.0 showed consistent factor structure across six working samples. Journal of Occupational Rehabilitation. 2017; [epub ahead of print].

http://dx.doi.org/10.1007/s10926-017-9722-1

Abstract: Objective The Work Role Functioning Questionnaire v2.0 (WRFQ) is an outcome measure linking a persons' health to the ability to meet work demands in the twenty-first century. We aimed to examine the construct validity of the WRFQ in a heterogeneous set of working samples in the Netherlands with mixed clinical conditions and job types to evaluate the comparability of the scale structure. Methods Confirmatory factor and multi-group analyses were conducted in six cross-sectional working samples (total N = 2433) to evaluate and compare a five-factor model structure of the WRFQ (work scheduling demands, output demands, physical demands, mental and social demands, and flexibility demands). Model fit indices were calculated based on RMSEA </= 0.08 and CFI >/= 0.95. After fitting the five-factor model, the multidimensional structure of the instrument was evaluated across samples using a second order factor model. Results The factor structure was robust across samples and a multi-group model had adequate fit (RMSEA = 0.63, CFI = 0.972). In sample specific analyses, minor modifications were necessary in three samples (final RMSEA 0.055-0.080, final CFI between 0.955 and 0.989). Applying the previous first order specifications, a second order factor model had adequate fit in all samples. Conclusion A five-factor model of the WRFQ showed consistent structural validity across samples. A second order factor model showed adequate fit, but the

second order factor loadings varied across samples. Therefore subscale scores are recommended to compare across different clinical and working samples

\*McInnes JA, MacFarlane EM, Sim MR, and Smith P. The impact of sustained hot weather on risk of acute work-related injury in Melbourne, Australia. International Journal of Biometeorology. 2017; [epub ahead of print].

http://dx.doi.org/10.1007/s00484-017-1435-9

Abstract: It has been reported that weather-related high ambient temperature is associated with an increased risk of work-related injury. Understanding this relationship is important because work-related injuries are a major public health problem, and because projected climate changes will potentially expose workers to hot days, including consecutive hot days, more often. The aim of this study was to quantify the impact of exposure to sustained periods of hot weather on work-related injury risk for workers in Melbourne, Australia. A time-stratified case crossover study design was utilised to examine the association between two and three consecutive days and two and three consecutive nights of hot weather and the risk of work-related injury, using definitions of hot weather ranging from the 60th to the 95th percentile of daily maximum and minimum temperatures for the Melbourne metropolitan area, 2002-2012. Workers' compensation claim data was used to identify cases of acute work-related injury. Overall, two and three consecutive days of hot weather were associated with an increased risk of injury, with this effect becoming apparent at a daily maximum temperature of 27.6 degrees C (70th percentile). Three consecutive days of high but not extreme temperatures were associated with the strongest effect, with a 15% increased risk of injury (odds ratio 1.15, 95% confidence interval 1.01-1.30) observed when daily maximum temperature was >/=33.3 degrees C (90th percentile) for three consecutive days, compared to when it was not. At a threshold of 35.5 degrees C (95th percentile), there was no significant association between temperature and injury for either two or three consecutive days of heat. These findings suggest that warnings to minimise harm to workers from hot weather should be given. and prevention protocol initiated, when consecutive warm days of temperatures lower than extreme heat temperatures are forecast, and well before the upper ranges of ambient daytime temperatures are reached

Corbiere M, Negrini A, Durand MJ, St-Arnaud L, Briand C, Fassier JB, Loisel P, and Lachance JP. Development of the return-to-work obstacles and self-efficacy scale (ROSES) and validation with workers suffering from a common mental disorder or musculoskeletal disorder. Journal of Occupational Rehabilitation. 2017; 27(3):329-341.

http://dx.doi.org/10.1007/s10926-016-9661-2

Abstract: Introduction Common mental disorders (CMDs) and musculoskeletal disorders (MSDs) lead the list of causes for work absence in several countries. Current research is starting to look at workers on sick leave as a single population, regardless of the nature of the disease or accident. The purpose of

this study is to report the validation of the Return to Work Obstacles and Self-Efficacy Scale (ROSES) for people with MSDs and CMDs, based on the disability paradigm. Methods From a prospective design, the ROSES' reliability and validity were investigated in a Canadian sample of workers on sick leave due to MSDs (n = 206) and CMDs (n = 157). Results Exploratory and confirmatory factor analyses revealed that 46 items spread out on 10 conceptual dimensions (e.g., Fears of a relapse, Job demands, Difficult relation with the immediate supervisor), with satisfactory alpha coefficients and test-retest reliability for all subscales. Finally, several dimensions of ROSES also predict the participant's RTW within 6 months for MSDs (e.g., job demands), and CMDs (e.g., difficult relation with the immediate supervisor), even when adjusted by several variables (e.g., age, severity of symptoms). Apart from the job demands dimension, when the ROSES dimension is more external to the individual, only the perception of obstacles remains significant to predict RTW whereas it is the opposite result when the dimension is more internal (e.g., fears of a relapse). Conclusion The ROSES demonstrated satisfactory results regarding its validity and reliability with people having MSDs or CMDs, at the time of the return-to-work process

#### **Erratum**

Corbiere M, Negrini A, Durand MJ, St-Arnaud L, Briand C, Fassier JB, Loisel P, and Lachance JP. Erratum to: Development of the return-to-work obstacles and self-efficacy scale (ROSES) and validation with workers suffering from a common mental disorder or musculoskeletal disorder. Journal of Occupational Rehabilitation. 2017; 27(3):342.

http://dx.doi.org/10.1007/s10926-017-9718-x

Cornelissen PA, Van Hoof JJ, and De Jong MDT. Determinants of safety outcomes and performance: a systematic literature review of research in four high-risk industries. Journal of Safety Research. 2017; 62:127-141. http://dx.doi.org/10.1016/j.isr.2017.06.009

Abstract: INTRODUCTION: In spite of increasing governmental and organizational efforts, organizations still struggle to improve the safety of their employees as evidenced by the yearly 2.3 million work-related deaths worldwide. Occupational safety research is scattered and inaccessible, especially for practitioners. Through systematically reviewing the safety literature, this study aims to provide a comprehensive overview of behavioral and circumstantial factors that endanger or support employee safety. METHOD: A broad search on occupational safety literature using four online bibliographical databases yielded 27.527 articles. Through a systematic reviewing process 176 online articles were identified that met the inclusion criteria (e.g., original peer-reviewed research; conducted in selected high-risk industries; published between 1980-2016). Variables and the nature of their interrelationships (i.e., positive, negative, or nonsignificant) were extracted, and then grouped and classified through a process of bottom-up coding. RESULTS: The results indicate that safety

outcomes and performance prevail as dependent research areas, dependent on variables related to management & colleagues, work(place) characteristics & circumstances, employee demographics, climate & culture, and external factors. Consensus was found for five variables related to safety outcomes and seven variables related to performance, while there is debate about 31 other relationships. Last, 21 variables related to safety outcomes and performance appear understudied. CONCLUSIONS: The majority of safety research has focused on addressing negative safety outcomes and performance through variables related to others within the organization, the work(place) itself, employee demographics, and-to a lesser extent-climate & culture and external factors. PRACTICAL APPLICATIONS: This systematic literature review provides both scientists and safety practitioners an overview of the (under)studied behavioral and circumstantial factors related to occupational safety behavior. Scientists could use this overview to study gaps, and validate or falsify relationships. Safety practitioners could use the insights to evaluate organizational safety policies, and to further development of safety interventions

Crowe S, Turner S, Utley M, and Fulop NJ. Improving the production of applied health research findings: insights from a qualitative study of operational research. Implementation Science. 2017; 12(1):112. http://dx.doi.org/10.1186/s13012-017-0643-3 [open access] Abstract: BACKGROUND: Knowledge produced through applied health research is often of a form not readily accessible to or actionable by policymakers and practitioners, which hinders its implementation. Our aim was to identify research activities that can support the production of knowledge tailored to inform policy and practice. To do this, we studied an operational research approach to improving the production of applied health research findings. METHODS: A 2year qualitative study was conducted of the operational research contribution to a multidisciplinary applied health research project that was successful in rapidly informing national policy. Semi-structured interviews (n = 20) were conducted with all members of the project's research team and advisory group (patient and health professional representatives and academics). These were augmented by participant (> 150 h) and non-participant (> 15 h) observations focusing on the process and experience of attempting to support knowledge production. Data were analysed thematically using QSR NVivo software. RESULTS: Operational research performed a knowledge mediation role shaped by a problem-focused approach and an intent to perform those tasks necessary to producing readily implementable knowledge but outwith the remit of other disciplinary strands of the project. Three characteristics of the role were found to support this: engaging and incorporating different perspectives to improve services by capturing a range of health professional and patient views alongside quantitative and qualitative research evidence; rendering data meaningful by creating and presenting evidence in forms that are accessible to and engage different audiences, enabling them to make sense of it for practical use; and maintaining perceived objectivity and rigour by establishing credibility, perceived neutrality and

confidence in the robustness of the research in order to unite diverse professionals in thinking creatively about system-wide service improvement. CONCLUSIONS: Our study contributes useful empirical insights about knowledge mediation activities within multidisciplinary applied health research projects that support the generation of accessible, practice-relevant and actionable knowledge. Incorporating such activities, or a dedicated role, for mediating knowledge production within such projects could help to enhance the uptake of research findings into routine healthcare and warrants further consideration

## Forteza FJ, Carretero-Gomez JM, and Sese A. Effects of organizational complexity and resources on construction site risk. Journal of Safety Research. 2017; 62:185-198.

http://dx.doi.org/10.1016/j.jsr.2017.06.015

Abstract: INTRODUCTION: Our research is aimed at studying the relationship between risk level and organizational complexity and resources on constructions sites. Our general hypothesis is that site complexity increases risk, whereas more resources of the structure decrease risk. A Structural Equation Model (SEM) approach was adopted to validate our theoretical model. METHOD: To develop our study, 957 building sites in Spain were visited and assessed in 2003-2009. All needed data were obtained using a specific tool developed by the authors to assess site risk, structure and resources (Construction Sites Risk Assessment Tool, or CONSRAT). This tool operationalizes the variables to fit our model, specifically, via a site risk index (SRI) and 10 organizational variables. Our random sample is composed largely of small building sites with general high levels of risk, moderate complexity, and low resources on site. CONCLUSIONS: The model obtained adequate fit, and results showed empirical evidence that the factors of complexity and resources can be considered predictors of site risk level. PRACTICAL APPLICATIONS: Consequently, these results can help companies, managers of construction and regulators to identify which organizational aspects should be improved to prevent risks on sites and consequently accidents

### Givehchi S, Hemmativaghef E, and Hoveidi H. Association between safety leading indicators and safety climate levels. Journal of Safety Research. 2017; 62:23-32.

http://dx.doi.org/10.1016/j.jsr.2017.05.003

Abstract: OBJECTIVES: The aim of this study was to evaluate the association of leading indicators for occupational health and safety, particularly safety inspections and non-compliances, with safety climate levels. METHODS: Nordic Occupational Safety Climate Assessment Questionnaire was employed to evaluate safety climate in cross-sectional design. The geographically diverse population of the inspection body made it possible to conduct the survey across 10 provinces in Iran. 89 completed questionnaires were obtained with a response rate of 47%. Except for management safety justice, the internal consistency of

other six dimensions was found to be acceptable (alpha>/=0.7). RESULTS: Mean scores of dimensions ranged from 3.50 in trust in the efficacy of safety systems (SD=0.38) to 2.98 in workers' safety priority and risk non-acceptance (SD=0.47). Tukey HSD tests indicated a statistically significant difference of mean scores among groups undergoing different number of safety inspections and those receiving different number of non-compliances (p<0.05), with no significant differences based on safety training man-hours and sessions (p>0.05). Spearman's rank-order correlation showed no relationship between work experience and number of non-compliances (correlation coefficient=-0.04, p>0.05) and between safety training man-hours and number of non-compliances (correlation coefficient=-0.15, p>0.05). CONCLUSIONS: Our results indicate that safety climate levels are influenced by number of safety inspections and the resultant non-compliances. PRACTICAL APPLICATIONS: Findings suggest that safety non-compliances detected as a result of conducting safety inspections could be used to monitor the safety climate state. Establishing plans to conduct scheduled safety inspections and recording findings in the form of safety noncompliance and monitoring their trend could be used to monitor levels of safety climate

Karlsson EA, Liedberg GM, and Sandqvist JL. Initial evaluation of psychometric properties of a structured work task application for the Assessment of Work Performance in a constructed environment. Disability and Rehabilitation. 2017; [epub ahead of print]. http://dx.doi.org/10.1080/09638288.2017.1342279

Abstract: PURPOSE: The Swedish Social Insurance Administration has developed a new assessment tool for sickness insurance. This study is a part of the initial evaluation of the application, called the Assessment of Work Performance, Structured Activities, and focuses on evaluation of the psychometric properties of social validity, content validity, and utility. MATERIALS AND METHODS: This was a qualitative study using semi-structured telephone interviews with occupational therapists. A convenience sample was used and participants who fulfilled inclusion criteria (n = 15) were interviewed. Data were analyzed using content analysis with a directed approach. RESULTS: The results indicate that the application provides valuable information and that it is socially valid. Assessors found work tasks suitable for a diverse group of clients and reported that clients accepted the assessments. Improvements were suggested, for example, expanding the application with more work tasks. CONCLUSION: The instrument has benefits; however, further development is desired. The use of a constructed environment in assessments may be a necessary option to supplement a real environment. But depending on organizational factors such as time and other resources, the participants had different opportunities to do so. Further evaluations regarding ecological validity are essential to ensure that assessments are fair and realistic when using constructed environments. Implications for rehabilitation This study indicates that assessment in a constructed environment can provide a secure and protected

context for clients being assessed. Psychometric evaluations are a never-ending process and this assessment instrument needs further development. However, this initial evaluation provides guidance in development of the instrument but also what studies to give priority to. It is important to evaluate social validity in order to ensure that clients and assessors perceive assessment methods fair and meaningful. In this study, participants found the work tasks appropriate and usable when assessing their clients but client's perspective must also be included in following studies. This assessment instrument is the only activity-based assessment instrument within the Swedish Social Security Insurance. Psychometric evaluations are important since it affects so many individuals in Sweden

Nelissen PT, Hulsheger UR, van Ruitenbeek GM, and Zijlstra FR. Lending a helping hand at work: a multilevel investigation of prosocial motivation, inclusive climate and inclusive behavior. Journal of Occupational Rehabilitation. 2016; 27(3):467-476.

http://dx.doi.org/10.1007/s10926-016-9680-z

Abstract: Purpose People with disabilities often encounter difficulties at the workplace such as exclusion or unfair treatment. Researchers have therefore pointed to the need to focus on behavior that fosters inclusion as well as variables that are antecedents of such 'inclusive behavior'. Therefore the purpose of this study was to research the relationship between prosocial motivation, team inclusive climate and employee inclusive behavior. Method A survey was conducted among a sample of 282 paired employees and colleagues, which were nested in 84 teams. Employees self-rated prosocial motivation and team inclusive climate, their inclusive behavior was assessed by colleagues. Hypotheses were tested using multilevel random coefficient modeling. Results Employees who are prosocially motivated will display more inclusive behavior towards people with disabilities, and this relationship is moderated by team inclusive climate in such a way that the relationship is stronger when the inclusive climate is high. Conclusion This study shows that inclusive organizations, which value a diverse workforce, need to be aware of not only individual employee characteristics, but also team level climate to ensure the smooth integrations of people with disabilities into regular work teams

Peters SE, Coppieters MW, Ross M, and Johnston V. Perspectives from employers, insurers, lawyers and healthcare providers on factors that influence workers' return-to-work following surgery for non-traumatic upper extremity conditions. Journal of Occupational Rehabilitation. 2017; 27(3):343-358.

http://dx.doi.org/10.1007/s10926-016-9662-1

Abstract: PURPOSE: Return-to-work (RTW) stakeholders have varied roles and may therefore hold their own perspectives regarding factors that may influence outcomes. This study aimed to determine stakeholders' perspectives on factors influencing RTW following surgery for non-traumatic upper extremity conditions.

METHODS: A questionnaire was distributed to RTW stakeholders via gatekeeper organizations. Stakeholders rated 50 potential prognostic factors from 'not' to 'extremely' influential. Data were dichotomized to establish stakeholders' level of agreement. Disagreements between stakeholder groups were analyzed using chi 2. The relationship between stakeholder demographic variables and rating of a factor was determined via regression analysis. RESULTS: One thousand and eleven stakeholders completed the survey: healthcare providers (77.8 %); employer representatives (12.2 %); insurer representatives (6.8 %); and lawyers (3.2 %). Factors with the highest stakeholder agreement for influencing RTW were: self-efficacy (92.2 %); post-operative psychological status (91.8 %); supportive employer/supervisor (91.4 %); employer's willingness to accommodate job modifications (90.7 %); worker's recovery expectations (88.3 %); mood disorder diagnosis (86.6 %); post-operative pain level (86.4 %); and whether the job can be modified (86.3 %). Disagreements between stakeholder groups were found for 19 (36 %) factors. The strongest disagreements were for: age; gender; obesity; doctor's RTW recommendation; and presence of a RTW coordinator. Respondents' characteristics (e.g., age, workers' compensation jurisdiction, work experience, stakeholder group) were associated with factor rating. CONCLUSION: The factors stakeholders rated as having the greatest influence on RTW were predominately psychosocial and modifiable. These variables should be the focus of future research to determine prognostic factors for RTW for workers with upper extremity conditions, and to develop effective RTW interventions

# Cruz RF, Chong WK, and Grau D. The need for detailed gender-specific occupational safety analysis. Journal of Safety Research. 2017; 62:53-62. <a href="http://dx.doi.org/10.1016/j.jsr.2017.06.002">http://dx.doi.org/10.1016/j.jsr.2017.06.002</a>

Abstract: INTRODUCTION: The female work in population is growing in the United States, therefore the occupational health and safety entities must start to analyze gender-specific data related to every industry, especially to nontraditional occupations. Women working in nontraditional jobs are often exposed to extreme workplace hazards. These women have their safety and health threatened because there are no adequate policies to mitigate genderspecific risks such as discrimination and harassment. Employers tend to aggravate this situation because they often fail to provide proper reporting infrastructure and support. According to past studies, women suffered from workplace injuries and illnesses that were less prominent among men. Statistics also confirmed that men and women faced different levels of risks in distinct work environments. For example, the rates of workplace violence and murders by personal acquaintances were significantly higher among women. METHODS: In this paper, the authors analyze prior public data on fatal and nonfatal injuries to understand why we need to differentiate genders when analyzing occupational safety and health issues. RESULTS: The analyses confirmed that women dealt with unique workplace hazards compared to men. CONCLUSIONS: It is urgent that public agencies, such as the U.S. Department of Labor, record genderspecific data in details and by occupations and industries. PRACTICAL APPLICATION: The reader will become aware of the current lack - and need - of data and knowledge about injuries and illnesses separated by gender and industry. Finally, safety and health researchers are encouraged to investigate the gender-specific data in all industries and occupations, as soon as they become available

Schofield KE, Alexander BH, Gerberich SG, and MacLehose RF. Workers' compensation loss prevention representative contact and risk of lost-time injury in construction policyholders. Journal of Safety Research. 2017; 62:101-105.

http://dx.doi.org/10.1016/j.jsr.2017.06.012

Abstract: INTRODUCTION: Insurance loss prevention (LP) representatives have access and contact with businesses and employees to provide targeted safety and health resources. Construction firms, especially those smaller in size, are a high-risk population. This research evaluated the association between LP rep contact and risk for lost-time injuries in construction policyholders. METHODS: Workers' compensation data were utilized to track LP rep contact with policyholders and incidence of lost-time injury over time. Survival analysis with repeated events modeling calculated hazard ratios (HR) and 95% confidence intervals (CI). RESULTS: Compared no LP contact, one contact was associated with a 27% reduction of risk (HR=0.73, CI=0.65-0.82), two with a 41% (HR=0.59, CI=0.51-0.68), and three or more contacts with a 28% reduction of risk (HR=0.72, CI=0.65-0.81). CONCLUSIONS: LP reps appear to be a valuable partner in efforts to reduce injury burden. Their presence or contact with policyholders is consistent with reduction in overall incidence of lost-time injuries. PRACTICAL APPLICATIONS: Reduction in lost-time injuries, resulting in reduced workers' compensation costs for policyholders and insurance companies, builds a business-case for safety and injury prevention. LP reps are often a low or no-cost benefit for insurance policyholders and may be an important injury prevention resource for small firms and/or those with lack of safety resources and staff

Stafford L, Marston G, Chamorro-Koc M, Beatson A, and Drennan J. Why one size fits all approach to transition in Disability Employment Services hinders employability of young people with physical and neurological disabilities in Australia. Journal of Industrial Relations. 2017; [epub ahead of print].

http://dx.doi.org/10.1177/0022185617723379

Suman A, Schaafsma FG, Buchbinder R, Van Tulder MW, and Anema JR. Implementation of a multidisciplinary guideline for low back pain: process-evaluation among health care professionals. Journal of Occupational Rehabilitation. 2017; 27(3):422-433.

http://dx.doi.org/10.1007/s10926-016-9673-v

Abstract: Background To reduce the burden of low back pain (LBP) in the



Netherlands, a multidisciplinary guideline for LBP has been implemented in Dutch primary care using a multifaceted implementation strategy targeted at health care professionals (HCPs) and patients. The current paper describes the process evaluation of the implementation among HCPs. Methods The strategy aimed to improve multidisciplinary collaboration and communication, and consisted of 7 components. This process evaluation was performed using the Linnan and Steckler framework. Data were collected using a mixed methods approach of quantitative and qualitative data. Results 128 HCPs participated in the implementation study, of which 96 participated in quantitative and 21 participated in qualitative evaluation. Overall dose delivered for this study was 89 %, and the participants were satisfied with the strategy, mostly with the multidisciplinary approach, which contributed to the mutual understanding of each other's disciplines and perspectives. While the training sessions did not yield any new information, the strategy created awareness of the guideline and its recommendations, contributing to positively changing attitudes and aiding in improving guideline adherent behaviour. However, many barriers to implementation still exist, including personal and practical factors, confidence, dependence and distrust issues among the HCPs, as well as policy factors (e.g. reimbursement systems). Conclusions The data presented in this paper have shown that the strategy that was used to implement the guideline in a Dutch primary care setting was feasible, especially when using a multidisciplinary approach. However, identified barriers for implementation have been identified and should be addressed in future implementation

Trudel X, Milot A, Gilbert-Ouimet M, Duchaine C, Guenette L, Dalens V, and Brisson C. Effort-reward imbalance at work and the prevalence of unsuccessfully treated hypertension among white-collar workers. American Journal of Epidemiology. 2017; 186(4):456-462. http://dx.doi.org/10.1093/aje/kwx116

Abstract: We examined the association between effort-reward imbalance (ERI) exposure at work and unsuccessfully treated hypertension among white-collar workers from a large cohort in Quebec City, Canada. The study used a repeated cross-sectional design involving 3 waves of data collection (2000-2009). The study sample was composed of 474 workers treated for hypertension, accounting for 739 observations. At each observation, ERI was measured using validated scales, and ambulatory blood pressure (BP) was measured every 15 minutes during the working day. Unsuccessfully treated hypertension was defined as daytime ambulatory BP of at least 135/85 mm Hg and was further divided into masked and sustained hypertension. Adjusted prevalence ratios and 95% confidence intervals were estimated. Participants in the highest tertile of ERI exposure had a higher prevalence of unsuccessfully treated hypertension (prevalence ratio = 1.45, 95% confidence interval: 1.16, 1.81) after adjustment for gender, age, education, family history of cardiovascular diseases, body mass index, diabetes, smoking, sedentary behaviors, and alcohol intake. The present study supports the effect of adverse psychosocial work factors from the ERI

model on BP control in treated workers. Reducing these frequent exposures at work might lead to substantial benefits on BP control at the population level

Weerdesteijn KH, Schaafsma FG, van der Beek AJ, and Anema JR. Limitations to work-related functioning of people with persistent "medically unexplained" physical symptoms: a modified DELPHI study among physicians. Journal of Occupational Rehabilitation. 2017; 27(3):434-444. http://dx.doi.org/10.1007/s10926-016-9674-x

Abstract: Purpose The purpose of this study was to obtain consensus among physicians of several medical specialties on the level of limitations to workrelated functioning of people with persistent "medically unexplained" physical symptoms (PPS). Methods A modified Delphi study was conducted with 15 physicians of five different medical specialties. The study involved two email rounds and one meeting. In each round, the physicians prioritized the level of limitations in 78 work-related functioning items for four different PPS cases. These items were based on the Dutch Functional Ability List, national guidelines and scientific literature regarding the International Classification of Functioning. Results In all four cases, the physicians reached consensus on the level of limitations to work-related functioning in 49 items. The physicians reported the highest number and level of limitations for PPS of the back and lower extremities, but they reported hardly any limitations for PPS of the abdomen and genitals. For PPS of the head, they reported mainly limitations to personal and social functioning; for PPS of the neck, back and upper or lower extremities, they reported mainly limitations to dynamic movements and static postures. The physicians could not reach consensus on limitations in the category of working hours. Conclusion Physicians reached consensus on the level of limitations in a substantial part of work-related functioning items for PPS. There was a difference in the number and severity of limitations between different cases of PPS. The assessment of functioning seems to be based more on the specific impairment than on the disease

Yoshimoto T, Oka H, Katsuhira J, Fujii T, Masuda K, Tanaka S, and Matsudaira K. Prognostic psychosocial factors for disabling low back pain in Japanese hospital workers. PLoS ONE. 2017; 12(5):e0177908. <a href="http://dx.doi.org/10.1371/journal.pone.0177908">http://dx.doi.org/10.1371/journal.pone.0177908</a> [open access]

Abstract: BACKGROUND: Although the occupational health field has identified psychosocial factors as risk factors for low back pain that causes disability, the association between disabling low back pain and psychosocial factors has not been examined adequately in Japanese hospital workers. Therefore, this study examined the association between low back pain, which interfered with work, and psychosocial factors in Japanese hospital workers. METHOD: This cross-sectional study was conducted at a hospital in Japan. In total, 280 hospital workers were recruited from various occupational settings. Of these, 203 completed a self-administered questionnaire that included items concerning individual characteristics, severity of low back pain, fear-avoidance beliefs (Fear-

Avoidance Beliefs Questionnaire), somatic symptoms (Somatic Symptom Scale-8), psychological distress (K6), workaholism, and work-related psychosocial factors (response rate: 72.5%). Logistic regression was used to explore risk factors associated with disabling low back pain. RESULTS: Of the 203 participants who completed questionnaires, 36 (17.7%) reported low back pain that interfered with their work. Multivariate analyses with individual factors and occupations adjusted for showed statistically significant associations between disabling low back pain and fear-avoidance beliefs (adjusted odds ratio [OR]: 2.619, 95% confidence interval [CI]: 1.003-6.538], somatic symptoms (OR: 4.034, 95% CI: 1.819-9.337), and interpersonal stress at work (OR: 2.619, 95% CI: 1.067-6.224). CONCLUSIONS: Psychosocial factors, such as fear-avoidance beliefs, somatic symptoms, and interpersonal relationships at work, were important risk factors in low back pain that interfered with work in Japanese hospital workers. With respect to occupational health, consideration of psychosocial factors is required to reduce disability related to low back pain

\*IWH authored publications.