IWH Research Alert
August 18, 2017

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***Dorland HF, Abma FI, Roelen CAM, Stewart RE, Amick BC, Ranchor AV, and Bultmann U. Work functioning trajectories in cancer patients: results from the longitudinal Work Life after Cancer (WOLICA) study. International Journal of Cancer. 2017; [Epub ahead of print].**
http://dx.doi.org/10.1002/ijc.30876

Abstract: More than 60% of cancer patients are able to work after cancer diagnosis. However, little is known about their functioning at work. Therefore, the aims of this study were to (1) identify work functioning trajectories in the year following return to work (RTW) in cancer patients and (2) examine baseline sociodemographic, health-related and work-related variables associated with work functioning trajectories. This longitudinal cohort study included 384 cancer patients who have returned to work after cancer diagnosis. Work functioning was measured at baseline, 3, 6, 9 and 12 months follow-up. Latent class growth modeling (LCGM) was used to identify work functioning trajectories. Associations of baseline variables with work functioning trajectories were examined using univariate and multivariate analyses. LCGM analyses with cancer patients who completed on at least three time points the Work Role Functioning Questionnaire (n = 324) identified three work functioning trajectories: "persistently high" (16% of the sample), "moderate to high" (54%) and "persistently low" work functioning (32%). Cancer patients with persistently high work functioning had less time between diagnosis and RTW and had less often a changed meaning of work, while cancer patients with persistently low work functioning reported more baseline cognitive symptoms compared to cancer patients in the other trajectories. This knowledge has implications for cancer care and guidance of cancer patients at work

Akkarakittichoke N and Janwantanakul P. Seat pressure distribution characteristics during 1 hour sitting in office workers with and without chronic low back pain. Safety and Health at Work. 2017; 8(2):212-219. http://dx.doi.org/10.1016/j.shaw.2016.10.005 [open access]
Abstract: BACKGROUND: Low back pain (LBP) is a major problem for office workers. Individuals adopting poor postures during prolonged sitting have a considerably increased risk of experiencing LBP. This study aimed to investigate seat pressure distribution characteristics, i.e., average pressure, peak pressure ratio, frequency of postural shift, and body perceived discomfort (BPD), during 1 hour of sitting among office workers with and without chronic LBP. METHODS: Forty-six participants (chronic LBP = 23, control = 23) typed a standardized text passage at a computer work station for an hour. A seat pressure mat device was used to collect the seat pressure distribution data. Body discomfort was assessed using the Body Perceived Discomfort scale. RESULTS: Office workers with chronic LBP sat significantly more asymmetrically than their healthy counterparts. During 1-hour sitting, all workers appeared to assume slumped sitting postures after 20 minutes of sitting. Healthy workers had significantly more frequent postural shifts than chronic LBP workers during prolonged sitting. CONCLUSION: Different sitting characteristics between healthy and chronic LBP participants during 1 hour of sitting were found, including symmetry of sitting posture and frequency of postural shift. Further research should examine the roles of these sitting characteristics on the development of LBP

Choe C and Baldwin ML. Duration of disability, job mismatch and employment outcomes. Applied Economics. 2017; 49(10):1001-1015. http://dx.doi.org/10.1080/00036846.2016.1210767

Ervasti J, Joensuu M, Pentti J, Oksanen T, Ahola K, Vahtera J, Kivimaki M, and Virtanen M. Prognostic factors for return to work after depression-related work disability: a systematic review and meta-analysis. Journal of Psychiatric Research. 2017; 95:28-36. http://dx.doi.org/10.1016/j.jpsychires.2017.07.024
Abstract: Knowledge about factors influencing return to work (RTW) after depression-related absence is highly relevant, but the evidence is scattered. We performed a systematic search of PubMed and Embase databases up to February 1, 2016 to retrieve cohort studies on the association between various predictive factors and return to work among employees with depression for review and meta-analysis. We also analyzed unpublished data from the Finnish Public Sector study. Most-adjusted estimates were pooled using fixed effects meta-analysis. Eleven published studies fulfilled the eligibility criteria, representing 22 358 person-observations from five different countries. With the additional unpublished data from the 14 101 person-observations from the Finnish Public Sector study, the total number of person-observations was 36 459. The pooled estimates were derived from 2 to 5 studies, with the number of

observations ranging from 260 to 26 348. Older age (pooled relative risk [RR] 0.95; 95% confidence interval [CI] 0.84-0.87), somatic comorbidity (RR = 0.80, 95% CI 0.77-0.83), psychiatric comorbidity (RR = 0.86, 95% CI 0.83-0.88) and more severe depression (RR = 0.96, 95% CI 0.94-0.98) were associated with a lower rate of return to work, and personality trait conscientiousness with higher (RR = 1.06, 95% CI 1.02-1.10) return to work. While older age and clinical factors predicted slower return, significant heterogeneity was observed between the studies. There is a dearth of observational studies on the predictors of RTW after depression. Future research should pay attention to quality aspects and particularly focus on the role of workplace and labor market factors as well as individual and clinical characteristics on RTW

Kulas JT, Robinson DH, Kellar DZ, and Smith JA. Nonresponse in organizational surveying: attitudinal distribution form and conditional response probabilities' impact on patterns of bias. Public Opinion Quarterly. 2017; 81(2):401-421.
http://dx.doi.org/10.1093/poq/nfw054

Lavin RA, Kalia N, Yuspeh L, Barry JA, Bernacki EJ, and Tao XG. Work enabling opioid management. Journal of Occupational & Environmental Medicine. 2017; 59(8):761-764.
http://dx.doi.org/10.1097/JOM.0000000000001080
Abstract: OBJECTIVE: This study describes the relationship between opioid prescribing and ability to work. METHODS: The opioid prescription patterns of 4994 claimants were studied. Three groups were constructed: 1) at least 3 consecutive months prescribed (chronic opioid therapy; COT); 2) less than 3 consecutive months prescribed (acute opioid therapy; AOT); and 3) no opioids prescribed. Variables included sex, age, daily morphine equivalent dose (MED), days opioids were prescribed, temporary total days (TTDs), and medical/indemnity/total costs. RESULTS: The COT versus AOT claimants had higher opioid costs ($8618 vs $94), longer TTD (636.2 vs 182.3), and average MED (66.8 vs 34.9). Only 2% of the COT cohort were not released to work. Fifty-seven percent of patients in the COT category (64 of 112) were released to work while still receiving opioids. CONCLUSION: COT does not preclude ability to work when prescribing within established guidelines

Mohammadfam I, Kamalinia M, Momeni M, Golmohammadi R, Hamidi Y, and Soltanian A. Evaluation of the quality of occupational health and safety management systems based on key performance indicators in certified organizations. Safety and Health at Work. 2017; 8(2):156-161.
http://dx.doi.org/10.1016/j.shaw.2016.09.001 [open access]
Abstract: BACKGROUND: Occupational Health and Safety Management Systems are becoming more widespread in organizations. Consequently, their effectiveness has become a core topic for researchers. This paper evaluates the performance of the Occupational Health and Safety Assessment Series 18001

specification in certified companies in Iran. METHODS: The evaluation is based on a comparison of specific criteria and indictors related to occupational health and safety management practices in three certified and three noncertified companies. RESULTS: Findings indicate that the performance of certified companies with respect to occupational health and safety management practices is significantly better than that of noncertified companies. CONCLUSION: Occupational Health and Safety Assessment Series 18001-certified companies have a better level of occupational health and safety; this supports the argument that Occupational Health and Safety Management Systems play an important strategic role in health and safety in the workplace

Soer R, Vroomen P, Stewart R, Coppes M, Stegeman P, Dijkstra P, and Reneman M. Factor analyses for the Orebro Musculoskeletal Pain Questionnaire for working and nonworking patients with chronic low back pain. Spine Journal. 2017; 17(4):603-609.
http://dx.doi.org/10.1016/j.spinee.2016.11.018 [open access]
Abstract: BACKGROUND CONTEXT: The Orebro Musculoskeletal Pain Questionnaire (OMPQ) has good psychometric properties to predict return to work in patients with acute low back pain. Although it is used in patients with chronic back pain and nonworkers, there is no evidence on the factor structure of the OMPQ in these populations. This is deemed an important prerequisite for future prediction studies. PURPOSE: This study aimed to analyze the factor structure of the OMPQ in working and nonworking patients with chronic back pain. STUDY DESIGN/SETTING: This is a cross-sectional study in a university-based spine center. PATIENT SAMPLE: The patient sample consists two cohorts of working and nonworking adult patients (>18 years) with specific and nonspecific chronic back pain. OUTCOME MEASURES: The Orebro Musculoskeletal Pain Questionnaire. METHODS: Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed in working (N=557) and nonworking (N=266) patients for three, four, five, and six factors identified in literature. A goodness of fit index was calculated by a chi-square. Root mean square error of approximation (RMSEA) was calculated, and the number of factors identified was based on RMSEA values <.05. A Tucker-Lewis index (TLI) and a normed fit index (NFI) >0.90 are considered to indicate acceptable fit. RESULTS: In working patients, a five-factor solution had the best fit (RMSEA<0.05; NFI and TLI >0.90), but substantial adaptations should be made to get proper fit (removal of the work-related items). In nonworking patients, a four-factor analysis had the best fit (RMSEA<0.05). For both samples, items related to duration could not fit in the overall model. CONCLUSIONS: Factor structure of the OMPQ was not confirmed in working and nonworking patients with chronic back pain. Substantial adaptations should be made to obtain a factor structure with acceptable fit

Sturgis P, Williams J, Brunton-Smith I, and Moore J. Fieldwork effort, response rate, and the distribution of survey outcomes: a multilevel meta-analysis. Public Opinion Quarterly. 2017; 81(2):523-542.
http://dx.doi.org/10.1093/poq/nfw055

Suman A, Bostick GP, Schopflocher D, Russell AS, Ferrari R, Battie MC, Hu R, Buchbinder R, and Gross DP. Long-term evaluation of a Canadian back pain mass media campaign. European Spine Journal. 2017; [Epub ahead of print].
http://dx.doi.org/10.1007/s00586-017-5249-6
Abstract: PURPOSE: This paper evaluates the long-term impact of a Canadian mass media campaign on general public beliefs about staying active when experiencing low back pain (LBP). METHODS: Changes in beliefs about staying active during an episode of LBP were studied using telephone and web-based surveys. Logistic regression analysis was used to investigate changes in beliefs over time and the effect of exposure to campaign messaging. RESULTS: The percentage of survey respondents agreeing that they should stay active through LBP increased annually from 58.9 to ~72.0%. Respondents reporting exposure to campaign messaging were statistically significantly more likely to agree with staying active than respondents who did not report exposure to campaign messaging (adjusted OR, 95% CI = 1.96, 1.73-2.21). CONCLUSION: The mass media campaign had continued impact on public LBP beliefs over the course of 7 years. Improvements over time were associated with exposure to campaign messaging

Taylor JA, Widman SA, James SJ, Green-McKenzie J, McGuire C, and Harris EJ. Time well spent: patient industry and occupation data collection in emergency departments. Journal of Occupational & Environmental Medicine. 2017; 59(8):742-745.
http://dx.doi.org/10.1097/JOM.0000000000001088 **[open access]**
Abstract: OBJECTIVE: No comprehensive national system tracking work-related diseases and injuries exists in the United States. Industry and occupation (I/O) are the missing data elements that would make existing healthcare data useful for occupational health. The authors previously petitioned the National Uniform Billing Committee (NUBC) to adopt I/O standards for states to consider during their healthcare data rulemaking processes. METHODS: The NUBC asked for a pilot study to ascertain the potential burden. The time and cost to ask I/O questions in two hospital emergency departments was evaluated. RESULTS: Asking four I/O questions required 48 seconds on average and cost between $520 and $623 per Registrar per year. The annual cost for the two hospitals to gather I/O on every patient was $4160 and $15,000. CONCLUSIONS: We conclude no undue burden compared with the estimated $250 billion cost of occupational illnesses and injuries

Tsuboi Y, Murata S, and Ono R. Is active commuting to work related to work performance among male office workers? Journal of Occupational & Environmental Medicine. 2017; 59(8):712-715.
http://dx.doi.org/10.1097/JOM.0000000000001064
Abstract: OBJECTIVE: This study aimed to elucidate the association between active commuting to work (ACW) and work performance among male office workers. METHODS: This cross-sectional study included 331 male office workers (age 44.0 +/- 11.5 years), with ACW assessed on a self-reported questionnaire and then categorized into non-ACW (0 to 19 minutes) and ACW (>/=20 minutes). Work performance [World Health Organization Health and Work Performance Questionnaire (HPQ)] was categorized as high (>/=50) and low (<50). Multiple logistic regression models were used to examine the association between ACW and HPQ. RESULTS: We found that 42.2% respondents adopted ACW. After adjusting for demographic data, lifestyle factors, and depressive symptoms, ACW was significantly associated with high HPQ (odds ratio: 2.43; 95% confidence interval: 1.30 to 4.54). CONCLUSIONS: In male office workers, ACW was independently associated with higher work performance

Verbeek J, Mischke C, Robinson R, Ijaz S, Kuijer P, Kievit A, Ojajarvi A, and Neuvonen K. Occupational exposure to knee loading and the risk of osteoarthritis of the knee: a systematic review and a dose-response meta-analysis. Safety and Health at Work. 2017; 8(2):130-142.
http://dx.doi.org/10.1016/j.shaw.2017.02.001 **[open access]**
Abstract: BACKGROUND: Osteoarthritis of the knee is considered to be related to knee straining activities at work. The objective of this review is to assess the exposure dose-response relation between kneeling or squatting, lifting, and climbing stairs at work, and knee osteoarthritis. METHODS: We included cohort and case-control studies. For each study that reported enough data, we calculated the odds ratio (OR) per 5,000 hours of cumulative kneeling and per 100,000 kg of cumulative lifting. We pooled these incremental ORs in a random effects meta-analysis. RESULTS: We included 15 studies (2 cohort and 13 case-control studies) of which nine assessed risks in more than two exposure categories. We considered all but one study at high risk of bias. The incremental OR per 5,000 hours of kneeling was 1.26 (95% confidence interval 1.17-1.35, 5 studies, moderate quality evidence) for a log-linear exposure dose-response model. For lifting, there was no exposure dose-response per 100,000 kg of lifetime lifting (OR 1.00, 95% confidence interval 1.00-1.01). For climbing, an exposure dose-response could not be calculated. CONCLUSION: There is moderate quality evidence that longer cumulative exposure to kneeling or squatting at work leads to a higher risk of osteoarthritis of the knee. For other exposure, there was no exposure dose-response or there were insufficient data to establish this. More reliable exposure measurements would increase the quality of the evidence

Wall K. Low income among persons with a disability in Canada. Insights on Canadian Society. 2017 August: 1-13.
http://www.statcan.gc.ca/pub/75-006-x/2017001/article/54854-eng.pdf

Wang L, Palmer AJ, Otahal P, Cocker F, and Sanderson K. Multimorbidity and health care service utilization in the Australian workforce: findings from the national health survey. Journal of Occupational & Environmental Medicine. 2017; 59(8):795-802.
http://dx.doi.org/10.1097/JOM.0000000000001089
Abstract: OBJECTIVES: The aim of this study was to understand the patterns of health care service utilization in employees with multimorbidity. METHODS: Data were obtained from the 2011 to 2012 cross-sectional Australian National Health Survey. Past-month health care service utilization was collected for each chronic condition from a pre-specified list. Descriptive, logistic, and Poisson regression analyses were used. The data were weighted to produce nationally representative estimates. RESULTS: Multimorbid employees with arthritis had higher adjusted arthritis-specific general practitioner (GP) visit rates [rate ratio (RR) = 1.7, 95% confidence interval (95% CI) = 1.1 to 2.2, P < 0.001] than employees with arthritis alone. Similarly, multimorbid employees with cardiovascular disease (CVD) had higher adjusted CVD-specific specialist visit rates (RR = 1.6, 95% CI = 1.1 to 2.5, P < 0.05) and 2.5 times (95% CI = 1.5 to 4.0, P < 0.001) more CVD-specific other health professional visits than employees with CVD alone. CONCLUSIONS: Given the increasing number of employees managing work and chronic illnesses, these findings have implications for health services and employers

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