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**March 10, 2017**

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**Anderson SP and Oakman J. Allied health professionals and work-related musculoskeletal disorders: a systematic review. *Safety and Health at Work*. 2016; 7(4):259-267.**

<http://dx.doi.org/10.1016/j.shaw.2016.04.001> [open access]

Abstract: Work-related musculoskeletal injuries and disorders (WMSD) are a significant issue in the health care sector. Allied Health professionals (AHP) in this sector are exposed to physical and psychosocial factors associated with increased risk of developing a WMSD. Clarification of relevant hazard and risk factors for AHP is needed to improve understanding and inform WMSD risk management. A systematic analysis of the literature was undertaken to determine prevalence and risk factors for WMSD in AHP. Databases of Ovid MEDLINE, CINAHL (EBSCO), EMBASE and the Cochrane Database of Systematic Reviews were reviewed. This quality of articles was low. Outcome measures were varied, with prevalence rates of WMSD reported from 28% to 96% over a one-year time period. The lower back was the most commonly affected body part. Relevant factors identified with the development of WMSD included inexperience in the role and area of employment. Future research needs to focus on undertaking high quality prospective studies to determine the factors associated with WMSD development in AHP

**Blair E. Strategic safety measures: seven key benefits. *Professional Safety*. 2017; 62(2):32-39.**

**[\[doi unavailable as of March 10, 2017\]](#)**

**Boschman JS, Brand T, Frings-Dresen MH, and van der Molen HF. Improving the assessment of occupational diseases by occupational physicians. Occupational Medicine. 2017; 67(1):13-19.**

<http://dx.doi.org/10.1093/occmed/kqw149>

Abstract: BACKGROUND: The prevention of occupational diseases is limited by a lack of insight into occupational exposure to risk. We developed a six-step approach to improve the diagnosis and reporting of occupational diseases and the selection of subsequent preventive actions by occupational physicians (OPs). AIMS: To evaluate the effect of the six-step approach on the transparency and quality of assessing occupational diseases and the usability of the six-step approach according to OPs and their satisfaction with it. METHODS: A randomized controlled trial. OPs in the control group used the standard information available. OPs in the intervention group used the six-step approach and accompanying educational materials. The actions and decisions of OPs in both groups were analysed using 17 performance indicators. To address the second issue, OPs used the six-step approach over 6 weeks and rated its usability and their satisfaction in relation to several aspects. RESULTS: The average score of the OPs in the intervention group (n = 110) was statistically significantly higher (11/17 performance indicators, 62% of the maximum score) than that of the OPs in the control group (n = 120, 5/17 performance indicators, 30% of the maximum score, P < 0.001). The usability aspects of the six-step approach had mean scores of 7 and 8. Mean satisfaction with the six-step approach was 8. CONCLUSIONS: The six-step approach resulted in better evidence-based and transparent decision-making about occupational diseases by OPs. Usability and satisfaction were rated as satisfactory by the OPs

**Epstein-Sher S, Jaffe DH, and Lahad A. Are they complying? Physicians' knowledge, attitudes, and readiness to change regarding low back pain treatment guideline adherence. Spine. 2017; 42(4):247-252.**

<http://dx.doi.org/10.1097/BRS.0000000000001714>

Abstract: STUDY DESIGN: Cross-sectional survey of 145 primary care practitioners (PCPs). OBJECTIVE: To examine low back pain (LBP) guideline knowledge, readiness to implement (RTI) these guidelines, and LBP attitudes and beliefs among Israeli PCPs and determine whether physician age, guideline familiarity, and medical specialty affect these variables. SUMMARY OF BACKGROUND DATA: LBP is a common condition managed primarily by PCPs. Little is known, however, about physician's LBP knowledge, attitudes, and beliefs and how these factors (knowledge, A&B) influence their practice behavior. Knowledge, attitudes, and beliefs of PCPs have been shown to influence the course of their patients' LBP, and guidelines were devised in an attempt to improve the effectiveness and quality of LBP care. Research worldwide and in Israel has shown that LBP guideline implementation is not yet optimal. METHODS: Participants completed a questionnaire. Variables were measured using a translated, validated version of the Health Care Providers' Pain and Impairment Relationship Scale; demographic and professional characteristics were analyzed for correlation with the outcome variables. RESULTS: The likelihood of PCPs having nonguideline-consistent attitudes and beliefs

(A&B) was greater among those older than 50 years ( $P < 0.05$ ). Family medicine specialists (family practitioners [FPs]) were more likely to have a high level of guideline knowledge as compared to nonfamily medicine specialists (general practitioners (83.8 vs. 61.9, respectively;  $P < 0.001$ ). Differences between FPs and general practitioners were also observed for the mean Health Care Providers' Pain and Impairment Relationship Scale score (34.6 vs. 41.1, respectively,  $P = 0.00$ ), indicating a higher consistency of attitudes and beliefs with guidelines among FPs. No significant association was found between PCPs' knowledge level and RTI the guidelines. CONCLUSION: The present study showed that PCPs, especially FPs, had high levels of LBP guideline knowledge, although RTI was limited. The need for greater exposure to and understanding of the importance of implementation of LBP guidelines is essential for future guideline adherence. LEVEL OF EVIDENCE: 3

**Faour M, Anderson JT, Haas AR, Percy R, Woods ST, Ahn UM, and Ahn NU. Return to work and multilevel versus single-level cervical fusion for radiculopathy in a workers' compensation setting. Spine. 2017; 42(2):E111-E116.**

<http://dx.doi.org/10.1097/BRS.0000000000001713>

Abstract: STUDY DESIGN: Retrospective comparative cohort study. OBJECTIVE: Examine the impact of multilevel fusion on return to work (RTW) status and compare RTW status after multi- versus single-level cervical fusion for patients with work-related injury. SUMMARY OF BACKGROUND DATA: Patients with work-related injuries in the workers' compensation systems have less favorable surgical outcomes. Cervical fusion provides a greater than 90% likelihood of relieving radiculopathy and stabilizing or improving myelopathy. However, more levels fused at index surgery are reportedly associated with poorer surgical outcomes than single-level fusion. METHODS: Data was collected from the Ohio Bureau of Workers' Compensation (BWC) between 1993 and 2011. The study population included patients who underwent cervical fusion for radiculopathy. Two groups were constructed (multilevel fusion [MLF] vs. single-level fusion [SLF]). Outcomes measures evaluated were: RTW criteria, RTW <1year, reoperation, surgical complication, disability, and legal litigation after surgery. RESULTS: After accounting for a number of independent variables in the regression model, multilevel fusion was a negative predictor of successful RTW status within 3-year follow-up after surgery (OR = 0.82, 95% CI: 0.70-0.95,  $P < 0.05$ ). RTW criteria were met 62.9% of SLF group compared with 54.8% of MLF group. The odds of having a stable RTW for MLF patients were 0.71% compared with the SLF patients (95% CI: 0.61-0.83;  $P: 0.0001$ ). At 1 year after surgery, RTW rate was 53.1% for the SLF group compared with 43.7% for the MLF group. The odds of RTW within 1 year after surgery for the MLF group were 0.69% compared with SLF patients (95% CI: 0.59-0.80;  $P: 0.0001$ ). Higher rate of disability after surgery was observed in the MLF group compared with the SLF group ( $P: 0.0001$ ) CONCLUSION.: Multilevel cervical fusion for radiculopathy was associated with poor return to work profile after surgery. Multilevel cervical fusion was associated with lower RTW rates, less likelihood of achieving stable return to work, and higher rate of disability after surgery. LEVEL OF EVIDENCE: 3

**Fisher KR and Purcal C. Policies to change attitudes to people with disabilities. Scandinavian Journal of Disability Research. 2017; 19(2):161-174.**  
<http://dx.doi.org/10.1080/15017419.2016.1222303>

**Fritz JM, Kim M, Magel JS, and Asche CV. Cost-effectiveness of primary care management with or without early physical therapy for acute low back pain: economic evaluation of a randomized clinical trial. Spine. 2017; 42(5):285-290.**  
<http://dx.doi.org/10.1097/BRS.0000000000001729>

Abstract: STUDY DESIGN: Economic evaluation of a randomized clinical trial. OBJECTIVE: Compare costs and cost-effectiveness of usual primary care management for patients with acute low back pain (LBP) with or without the addition of early physical therapy. SUMMARY OF BACKGROUND DATA: Low back pain is among the most common and costly conditions encountered in primary care. Early physical therapy after a new primary care consultation for acute LBP results in small clinical improvement but cost-effectiveness of a strategy of early physical therapy is unknown. METHODS: Economic evaluation was conducted alongside a randomized clinical trial of patients with acute, nonspecific LBP consulting a primary care provider. All patients received usual primary care management and education, and were randomly assigned to receive four sessions of physical therapy or usual care of delaying referral consideration to permit spontaneous recovery. Data were collected in a randomized trial involving 220 participants age 18 to 60 with LBP <16 days duration without red flags or signs of nerve root compression. The EuroQoL EQ-5D health states were collected at baseline and after 1-year and used to compute the quality adjusted life year (QALY) gained. Direct (health care utilization) and indirect (work absence or reduced productivity) costs related to LBP were collected monthly and valued using standard costs. The incremental cost-effectiveness ratio was computed as incremental total costs divided by incremental QALYs. RESULTS: Early physical therapy resulted in higher total 1-year costs (mean difference in adjusted total costs = \$580, 95% CI: \$175, \$984, P = 0.005) and better quality of life (mean difference in QALYs = 0.02, 95% CI: 0.005, 0.35, P = 0.008) after 1-year. The incremental cost-effectiveness ratio was \$32,058 (95% CI: \$10,629, \$151,161) per QALY. CONCLUSION: Our results support early physical therapy as cost-effective relative to usual primary care after 1 year for patients with acute, nonspecific LBP. LEVEL OF EVIDENCE: 2

**Gibbs BB, Kowalsky RJ, Perdomo SJ, Grier M, and Jakicic JM. Energy expenditure of deskwork when sitting, standing or alternating positions. Occupational Medicine. 2017; 67:121-127.**  
<http://dx.doi.org/10.1093/occmed/kqw115>

Abstract: BACKGROUND: Recent guidelines recommend accruing 2-4h of standing or light activity during the working day. Use of sit-stand desks could achieve this goal, but whether standing can meaningfully increase energy expenditure (EE) is unclear. AIMS: To study EE, heart rate, feelings and productivity during deskwork while sitting, standing or alternating positions. METHODS: We measured EE by indirect calorimetry in working

adults over three randomly ordered 60-min conditions while performing deskwork: continuous sitting (SIT), 30min of each standing and sitting (STAND-SIT) and continuous standing (STAND). We also assessed heart rate, productivity and self-reported energy, fatigue and pain. Linear mixed models compared minute-by-minute EE and heart rate across conditions. Non-parametric tests compared remaining outcomes across conditions. RESULTS: The study group comprised 18 working adults. Compared with SIT, STAND-SIT engendered an additional 5.5+/-12.4 kcal/h (7.8% increase) and STAND engendered an additional 8.2+/-15.9 kcal/h (11.5% increase) (both P < 0.001). Alternating positions to achieve the recommended 4h/day of standing could result in an additional 56.9 kcal/day for an 88.9kg man and 48.3 kcal/day for a 75.5kg woman. STAND-SIT and STAND also increased heart rate over SIT by 7.5+/-6.8 and 13.7+/-8.8 bpm, respectively (both P < 0.001). We observed no meaningful differences in feelings or productivity. CONCLUSIONS: Desk-based workers could increase EE without added discomfort by using a sit-stand desk. These findings inform future research on sit-stand desks as a part of workplace interventions to increase EE and potentially improve health

**Graves JA and Mishra P. The evolving dynamics of employer-sponsored health insurance: implications for workers, employers, and the Affordable Care Act. *Milbank Quarterly*. 2016; 94(4):736-767.**

<http://dx.doi.org/10.1111/1468-0009.12229>

**Hahne AJ, Ford JJ, Surkitt LD, Richards MC, Chan AY, Slater SL, and Taylor NF. Individualized physical therapy is cost-effective compared with guideline-based advice for people with low back disorders. *Spine*. 2017; 42(3):E169-E176.**

<http://dx.doi.org/10.1097/BRS.0000000000001734>

Abstract: STUDY DESIGN: A cost-utility analysis within a randomized controlled trial was conducted from the health care perspective. OBJECTIVE: The aim of this study was to determine whether individualized physical therapy incorporating advice is cost-effective relative to guideline-based advice alone for people with low back pain and/or referred leg pain (>=6 weeks, <=6 months duration of symptoms). SUMMARY OF BACKGROUND DATA: Low back disorders are a burdensome and costly condition across the world. Cost-effective treatments are needed to address the global burden attributable to this condition. METHODS: Three hundred participants were randomly allocated to receive either two sessions of guideline-based advice alone (n = 144), or 10 sessions of individualized physical therapy targeting pathoanatomical, psychosocial and neurophysiological factors, and incorporating advice (n = 156). Data relating to health care costs, health benefits (EuroQol-5D) and work absence were obtained from participants via questionnaires at 5, 10, 26, and 52-week follow-ups. RESULTS: Total health care costs were similar for both groups: mean difference \$27.03 [95% confidence interval (95% CI): -200.29 to 254.35]. Health benefits across the 12-month follow-up were significantly greater with individualized physical therapy: incremental quality-adjusted life years = 0.06 (95% CI: 0.02-0.10). The incremental cost-effectiveness ratio was \$422 per quality-adjusted life year gained. The probability that individualized

physical therapy was cost-effective reached 90% at a willingness-to-pay threshold of \$36,000. A saving of \$1995.51 (95% CI: 143.98-3847.03) per worker in income was realized in the individualized physical therapy group relative to the advice group. Sensitivity and subgroup analyses all revealed a dominant position for individualized physical therapy; hence, the base case analysis was the most conservative. CONCLUSION: Ten sessions of individualized physical therapy incorporating advice is cost-effective compared with two sessions of guideline-based advice alone for people with low back disorders. LEVEL OF EVIDENCE: 2

**Harma M, Koskinen A, Ropponen A, Puttonen S, Karhula K, Vahtera J, and Kivimaki M. Validity of self-reported exposure to shift work. Occupational and Environmental Medicine. 2017; 74(3):228-230.**

<http://dx.doi.org/10.1136/oemed-2016-103902>

Abstract: OBJECTIVE: To evaluate the validity of widely used questionnaire items on work schedule using objective registry data as reference. METHOD: A cohort study of hospital employees who responded to a self-administered questionnaire on work schedule in 2008, 2012 and 2014 and were linked to individual-level pay-roll-based records on work shifts. For predictive validity, leisure-time fatigue was assessed. RESULTS: According to the survey data in 2014 (n=8896), 55% of the day workers had at least 1 year of earlier shift work experience. 8% of the night shift workers changed to day work during the follow-up. Using pay-roll data as reference, questions on 'shift work with night shifts' and 'permanent night work' showed high sensitivity (96% and 90%) and specificity (92% and 97%). Self-reported 'regular day work' showed moderate sensitivity (73%), but high specificity (99%) and 'shift work without night shifts' showed low sensitivity (62%) and moderate specificity (87%). In multivariate logistic regression analysis, the age-adjusted, sex-adjusted and baseline fatigue-adjusted association between 'shift work without night shifts' and leisure-time fatigue was lower for self-reported compared with objective assessment (1.30, 95% CI 0.94 to 1.82, n=1707 vs 1.89, 95% CI 1.06 to 3.39, n=1627). In contrast, shift work with night shifts, compared with permanent day work, was similarly associated with fatigue in the two assessments (2.04, 95% CI 1.62 to 2.57, n=2311 vs 1.82, 95% CI 1.28 to 2.58, n=1804). CONCLUSIONS: The validity of self-reported assessment of shift work varies between work schedules. Exposure misclassification in self-reported data may contribute to bias towards the null in shift work without night shifts

**Huang YH, Jeffries S, Tolbert GDD, and Dainoff MJ. Safety climate: how can you measure it & why does it matter? Professional Safety. 2017; 62(1):28-35.**

**[doi unavailable as of March 10, 2017]**

**Heckman CJ, Kloss JD, Feskanich D, Culnan E, and Schernhammer ES. Associations among rotating night shift work, sleep and skin cancer in Nurses' Health Study II participants. Occupational and Environmental Medicine. 2017; 74(3):169-175.**

<http://dx.doi.org/10.1136/oemed-2016-103783>

**Abstract:** **BACKGROUND:** Night shift work and sleep duration have been associated with breast and other cancers. Results from the few prior studies of night shift work and skin cancer risk have been mixed and not fully accounted for other potentially important health-related variables (eg, sleep characteristics). This study evaluated the relationship between rotating night shift work and skin cancer risk and included additional skin cancer risk factors and sleep-related variables. **METHODS:** The current study used data from 74 323 Nurses' Health Study (NHS) II participants. Cox proportional hazards models were used to estimate multivariable-adjusted HRs and 95% CIs for skin cancers across categories of shift work and sleep duration. **RESULTS:** Over 10 years of follow-up, 4308 basal cell carcinoma (BCC), 334 squamous cell carcinoma (SCC) and 212 melanoma cases were identified. Longer duration of rotating night shifts was associated with a linear decline in risk of BCC (HR=0.93, 95% CI 0.90 to 0.97 per 5-year increase). Shift work was not significantly associated with either melanoma (HR=1.02, 95% CI 0.86 to 1.21) or SCC (HR=0.92, 95% CI 0.80 to 1.06). A short sleep duration ( $\leq 6$  hours per day) was associated with lower risks of melanoma (HR=0.68, 95% CI 0.46 to 0.98) and BCC (HR=0.93, 95% CI 0.86 to 1.00) compared with the most common report of 7 hours. SCC was not associated with duration of sleep (HR=0.94, 95% CI 0.83 to 1.06). **CONCLUSIONS:** Longer duration of rotating night shift work and shorter sleep duration were associated with lower risk of some skin cancers. Further research is needed to confirm and identify the mechanisms underlying these associations

**Lallukka T, Viikari-Juntura E, Viikari J, Kahonen M, Lehtimäki T, Raitakari OT, and Solovieva S. Early work-related physical exposures and low back pain in midlife: the Cardiovascular Risk in Young Finns Study. Occupational and Environmental Medicine. 2017; 74(3):163-168.**

<http://dx.doi.org/10.1136/oemed-2016-103727> [open access]

**Abstract:** **OBJECTIVE:** To examine whether heavy physical workload in young adulthood increases the risk of local and radiating low back pain (LBP) in midlife. **METHODS:** Longitudinal nationally representative Young Finns Study data among women (n=414) and men (n=324), aged 18-24 years in 1986 (baseline), were used. Physical heaviness of work was reported at baseline and follow-up (2007), and local and radiating LBP at follow-up. Covariates were age, smoking and body mass index. Logistic regression was used to examine the associations between physical heaviness of work and LBP. Additionally, the mediating effect of back pain at baseline was examined (the Sobel test). **RESULTS:** After adjustment for the covariates, and as compared with sedentary/light physical workload, heavy physical workload was associated with radiating LBP among women (OR 4.09, 95% CI 1.62 to 10.31) and men (OR 2.01, 95% CI 1.06 to 3.82). Among men, early back pain mediated the association (p value from the Sobel test=0.006). Among women, early exposure to physically heavy work showed the most consistent associations, while early and late exposures were associated with radiating and local LBP among men. Persistently heavy physical work was associated with radiating LBP among women and men. **CONCLUSIONS:** Physically heavy work at a young age can have a long-lasting effect on the risk of LBP, radiating LBP in particular.

These results highlight the need to consider early and persistent exposures to prevent the adverse consequences of physical workload for the low back

**Momsen AH, Stapelfeldt CM, Nielsen CV, Nielsen MB, Rugulies R, and Jensen C. Screening instruments for predicting return to work in long-term sickness absence. Occupational Medicine. 2017; 67(101-108).**

<http://dx.doi.org/10.1093/occmed/kqw093>

Abstract: **BACKGROUND:** Multiple somatic symptoms are common and may cause prolonged sickness absence (SA) and unsuccessful return to work (RTW). **AIMS:** To compare three instruments and their predictive and discriminative abilities regarding RTW. **METHODS:** A longitudinal cohort study of participants recruited from two municipal job centres, with at least 8 weeks of SA. The instruments used were the Symptom Check List of somatic distress (SCL-SOM) (score 0-48 points), the Bodily Distress Syndrome Questionnaire (BDSQ) (0-120 points) and the one-item self-rated health (SRH) (1-5 points). The instruments' predictive value was explored in a time-to-event analysis. Different cut-points were analysed to find the highest number of correctly classified RTW cases, identified in a register on public transfer payments. **RESULTS:** The study involved 305 subjects. The adjusted relative risk regarding prediction of RTW was 0.89 [95% confidence interval (CI) 0.83-0.95], 0.89 (95% CI 0.83-0.95) and 0.78 (95% CI 0.70-0.86) per 5-, 10- and 1-point increase in the SCL-SOM, BDSQ and SRH, respectively. After mutual adjustment for the three instruments, only the prediction of RTW from SRH remained statistically significant 0.81 (95% CI 0.72-0.92). The highest sensitivity (86%) was found by SRH at the cut-point  $\leq 5$ , at which 62% were correctly classified. **CONCLUSIONS:** All three instruments predicted RTW, but only SRH remained a significant predictor after adjustment for the SCL-SOM and BDSQ. The SRH provides an efficient alternative to more time-consuming instruments such as SCL-SOM or BDSQ for estimating the chances of RTW among sickness absentees

**Perlmutter AS, Conner SC, Savone M, Kim JH, Segura LE, and Martins SS. Is employment status in adults over 25 years old associated with nonmedical prescription opioid and stimulant use? Social Psychiatry and Psychiatric Epidemiology. 2017; 52:291-298.**

<http://dx.doi.org/10.1007/s00127-016-1312-6>

Abstract: **PURPOSE:** Nonmedical use of prescription opioid and stimulants (NMUPO and NMUPS, respectively) has declined in recent years, but remains an important public health problem. Evidence regarding their relationships with employment status remains unclear. We determined the relationship between employment status and NMUPO and NMUPS. **METHODS:** We analyzed a cross-sectional, nationally representative, weighted sample of 58,486 adults, ages 26 years and older, using combined 2011-2013 data from the National Survey on Drug Use and Health (NSDUH). We fit two crude and two adjusted multivariable logistic regression models to assess the relationship between our two different outcomes of interest: (1) past-year NMUPO and (2) past-year NMUPS, and our exposure of interest: employment status, categorized as (1) full time, (2) part time,



(3) unemployed, and (4) not in the workforce. Our adjusted models featured the following covariates: sex, race, age, marital status, and psychological distress, and other nonmedical use. RESULTS: Prevalence of NMUPO was higher than NMUPS (3.48 vs. 0.72%). Unemployed participants had the highest odds of NMUPO [aOR 1.45, 95% CI (1.15-1.82)], while those not in the workforce had the highest odds of NMUPS [aOR 1.71, 95% CI (1.22-2.37)]. Additionally, part-time and unemployed individuals had increased odds of NMUPS [aORs, 95% CI 1.59 (1.09-2.31) and 1.67 (1.11-2.37) respectively], while those not in the workforce had decreased odds of NMUPO [aOR 0.82, 95% CI (0.68-0.99)] relative to full-time participants. CONCLUSIONS: There is a need for adult prevention and deterrence programs that target nonmedical prescription drug use, especially among those unemployed or not in the workforce

**Platts LG, Head J, Stenholm S, Singh CH, Goldberg M, and Zins M. Physical occupational exposures and health expectancies in a French occupational cohort. Occupational and Environmental Medicine. 2017; 74(3):176-183.**

<http://dx.doi.org/10.1136/oemed-2016-103804> [open access]

Abstract: OBJECTIVES: To examine the relationships of strenuous and hazardous working conditions and rotating shifts that involve night working with life expectancy in good perceived health and life expectancy without chronic disease. METHODS: The sample contained male gas and electricity workers from the French GAZEL cohort (n=13 393). Six measures of physical working conditions were examined: Self-reports from 1989 and 1990 of ergonomic strain, physical danger, rotating shifts that involve night working and perceived physical strain; company records of workplace injuries and a job-exposure matrix of chemical exposures. Partial healthy life expectancies (age 50-75) relating to (1) self-rated health and (2) chronic health conditions, obtained from annual questionnaires (1989-2014) and company records, were estimated using multistate life tables. The analyses were adjusted for social class and occupational grade. RESULTS: Participants with physically strenuous jobs and who had experienced industrial injuries had shorter partial life expectancy. More physically demanding and dangerous work was associated with fewer years of life spent in good self-rated health and without chronic conditions, with the exception of shift work including nights, where the gradient was reversed. CONCLUSIONS: Strenuous and hazardous work may contribute to lost years of good health in later life, which has implications for individuals' quality of life as well as healthcare use and labour market participation

**Roche AM, Pidd K, Fischer JA, Lee N, Scarfe A, and Kostadinov V. Men, work, and mental health: a systematic review of depression in male-dominated industries and occupations. Safety and Health at Work. 2016; 7(4):268-283.**

<http://dx.doi.org/10.1016/j.shaw.2016.04.005> [open access]

Abstract: Among men, depression is often unrecognised and untreated. Men employed in male-dominated industries and occupations may be particularly vulnerable. However, efforts to develop tailored workplace interventions are hampered by lack of prevalence data. A systematic review of studies reporting prevalence rates for depression in male

dominated workforce groups was undertaken. Studies were included if they were published between 1

**Schouteten R. Predicting absenteeism: screening for work ability or burnout.**

**Occupational Medicine. 2017; 67(1):52-57.**

<http://dx.doi.org/10.1093/occmed/kqw161>

Abstract: BACKGROUND: In determining the predictors of occupational health problems, two factors can be distinguished: personal (work ability) factors and work-related factors (burnout, job characteristics). However, these risk factors are hardly ever combined and it is not clear whether burnout or work ability best predicts absenteeism. AIMS: To relate measures of work ability, burnout and job characteristics to absenteeism as the indicators of occupational health problems. METHODS: Survey data on work ability, burnout and job characteristics from a Dutch university were related to the absenteeism data from the university's occupational health and safety database in the year following the survey study. The survey contained the Work Ability Index (WAI), Utrecht Burnout Scale (UBOS) and seven job characteristics from the Questionnaire on Experience and Evaluation of Work (QEEW). RESULTS: There were 242 employees in the study group. Logistic regression analyses revealed that job characteristics did not predict absenteeism. Exceptional absenteeism was most consistently predicted by the WAI dimensions 'employees' own prognosis of work ability in two years from now' and 'mental resources/vitality' and the burnout dimension 'emotional exhaustion'. Other significant predictors of exceptional absenteeism frequency included estimated work impairment due to diseases (WAI) and feelings of depersonalization or emotional distance from the work (burnout). CONCLUSIONS: Absenteeism among university personnel was best predicted by a combination of work ability and burnout. As a result, measures to prevent absenteeism and health problems may best be aimed at improving an individual's work ability and/or preventing the occurrence of burnout

**Sundstrup E and Andersen LL. Hard physical work intensifies the occupational consequence of physician-diagnosed back disorder: prospective cohort study with register follow-up among 10,000 workers. International Journal of Rheumatology. 2017:1037051.**

<http://dx.doi.org/10.1155/2017/1037051> [open access]

Abstract: While musculoskeletal pain is common in the population, less is known about its labor market consequences in relation to physical activity at work. This study investigates whether hard physical work aggravates the consequences of back disorder. Using Cox regression analyses, we estimated the joint association of physical activity at work and physician-diagnosed back disorder in 2010 with the risk of register-based long-term sickness absence (LTSA) of at least 6 consecutive weeks during 2011-2012 among 9,544 employees from the general working population (Danish Work Environment Cohort Study). Control variables were age, gender, psychosocial work environment, smoking, leisure physical activity, BMI, depression, and mental health. At baseline, 19.4% experienced high low-back pain intensity ( $\geq 5$ , 0-9 scale) and 15.2% had

diagnosed back disorder. While high pain intensity was a general predictor for LTSA, physician-diagnosed back disorder was a stronger predictor among those with hard physical work (HR 2.23; 95% CI 1.68-2.96) compared with light work (HR 1.40; 95% CI 1.09-1.80). Similarly, physician-diagnosed back disorder with simultaneous high pain intensity predicted LTSA to a greater extent among those with hard physical work. In conclusion, the occupational consequence of physician-diagnosed back disorder on LTSA is greater among employees with hard physical work

**Virtanen P, Siukola A, Lipiainen L, Liukkonen V, Pentti J, and Vahtera J. Trajectory analyses of sickness absence among industrial and municipal employees. Occupational Medicine. 2017; 67:109-113.**

<http://dx.doi.org/10.1093/occmed/kqw104>

**Abstract:** BACKGROUND: Compared with the public sector, the private sector is more susceptible to changes in the economic environment and associated threats of downsizing, outsourcing and transfers of production. This might be assumed to be associated with more restrictive sickness absence practices. AIMS: To investigate whether this difference is reflected in higher sickness absence rates in the public sector and to explore the potential of trajectory analysis in researching such absences. METHODS: The sample consisted of industrial and municipal employees. Latent groups of differential sickness absence during a 6-year study period were searched with a two-response trajectory analysis that jointly captured the spells and the days. Multinomial logistic regressions were used to assess associations of the labour market sector with the set of trajectories obtained. RESULTS: There were 2207 industrial and 3477 municipal employees in the study group. The analysis assigned the employees to three trajectory groups, the 'low-level', 'middle-range' and 'high-range' groups. The relative risk ratios for the middle-range and the high-range trajectories of public sector employees were not higher after controlling for age, gender and occupational. CONCLUSIONS: In this study, the labour market sector was not a major independent determinant of sickness absence practices. Trajectory analysis can be recommended as a way to determine differential absence practices. The trajectory approach might help occupational health services to identify more accurately the employees who need support to maintain their work ability