

IWH Research Alert
June 2, 2017

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Bowman D, McGann M, Kimberley H, and Biggs S. 'Rusty, invisible and threatening': ageing, capital and employability. *Work, Employment & Society*. 2017; 31(3):465-482.

<http://dx.doi.org/10.1177/0950017016645732>

Chandler MD, Bunn TL, and Slavova S. Narrative and quantitative analyses of workers' compensation-covered injuries in short-haul vs. long-haul trucking. *International Journal of Injury Control and Safety Promotion*. 2017; 24(1):120-130.

<http://dx.doi.org/10.1080/17457300.2016.1170041>

Abstract: Trucking remains one of the most dangerous industries in the U.S. Study aims were to (1) identify differences in worker injury types; (2) describe typical injury scenarios; and (3) recommend injury control measures, in short-haul vs. long-haul trucking. Narrative text analyses of Kentucky short-haul and long-haul trucking workers' compensation first reports of injury were performed. A higher percentage of lifting and cranking injuries were identified in short-haul trucking compared with long-haul trucking that had a higher percentage of securing/opening/closing/adjusting injuries that involved tarping, trailer door handling, and cab slippage. In contrast, a higher proportion of short-haul trucking injury scenarios involved roadway departures and rear-end collisions. Study findings can be used to inform intrastate vs. interstate trucking injury prevention control strategies such as an enhanced driver safety training and safe freight

handling in short-haul trucking, and tarping, trailer safety, and cab safety in long-haul trucking

Chmiel N, Laurent J, and Hansez I. Employee perspectives on safety citizenship behaviors and safety violations. *Safety Science*. 2017; 93:96-107.

<http://dx.doi.org/10.1016/j.ssci.2016.11.014>

Forteza FJ, Carretero-Gomez JM, and Sese A. Occupational risks, accidents on sites and economic performance of construction firms. *Safety Science*. 2017; 94:61-76.

<http://dx.doi.org/10.1016/j.ssci.2017.01.003>

Gopang MA, Nebhwani M, Khatri A, and Marri HB. An assessment of occupational health and safety measures and performance of SMEs: an empirical investigation. *Safety Science*. 2017; 93:127-133.

<http://dx.doi.org/10.1016/j.ssci.2016.11.024>

Huang YH, Lee J, Chen Z, Perry M, Cheung JH, and Wang M. An item-response theory approach to safety climate measurement: The Liberty Mutual Safety Climate Short Scales. *Accident Analysis & Prevention*. 2017; 103:96-104.

<http://dx.doi.org/10.1016/j.aap.2017.03.015> [open access]

Abstract: Zohar and Luria's (2005) safety climate (SC) scale, measuring organization- and group- level SC each with 16 items, is widely used in research and practice. To improve the utility of the SC scale, we shortened the original full-length SC scales. Item response theory (IRT) analysis was conducted using a sample of 29,179 frontline workers from various industries. Based on graded response models, we shortened the original scales in two ways: (1) selecting items with above-average discriminating ability (i.e. offering more than 6.25% of the original total scale information), resulting in 8-item organization-level and 11-item group-level SC scales; and (2) selecting the most informative items that together retain at least 30% of original scale information, resulting in 4-item organization-level and 4-item group-level SC scales. All four shortened scales had acceptable reliability (≥ 0.89) and high correlations (≥ 0.95) with the original scale scores. The shortened scales will be valuable for academic research and practical survey implementation in improving occupational safety

Kramer DM, Haynes E, Holness DL, Strahlendorf P, Kushner R, and Tenkate T. Sun Safety at Work Canada: baseline evaluation of outdoor workplaces recruited to participate in a sun safety knowledge transfer and exchange intervention. *Safety Science*. 2017; 96:172-182.

<http://dx.doi.org/10.1016/j.ssci.2017.03.011>

Lucyk K and McLaren L. Taking stock of the social determinants of health: a scoping review. *PLoS ONE*. 2017; 12(5):e0177306.

<http://dx.doi.org/10.1371/journal.pone.0177306> [open access]

Abstract: BACKGROUND: In recent decades, the social determinants of health (SDOH) has gained increasing prominence as a foundational concept for population and public health in academic literature and policy documents, internationally. However, alongside its widespread dissemination, and in light of multiple conceptual models, lists, and frameworks, some dilution and confusion is apparent. This scoping review represents an attempt to take stock of SDOH literature in the context of contemporary population and public health.

METHODS: We conducted a scoping review to synthesize and map SDOH literature, informed by the methods of Arksey and O'Malley (2005). We searched 5 academic and 3 grey literature databases for "social determinants of health" and "population health" or "public health" or "health promotion," published 2004-2014. We also conducted a search on "inequity" or "inequality" or "disparity" or "social gradient" and "Canada" to ensure that we captured articles where this language was used to discuss the SDOH. We included articles that discussed SDOH in depth, either explicitly or in implicit but nuanced ways. We hand-searched reference lists to further identify relevant articles. **FINDINGS:** Our synthesis of 108 articles showed wide variation by study setting, target audience, and geographic scope, with most articles published in an academic setting, by Canadian authors, for policy-maker audiences. SDOH were communicated by authors as a list, model, or story; each with strengths and weaknesses. Thematic analysis identified one theme: health equity as an overarching and binding concept to the SDOH. Health equity was understood in different ways with implications for action on the SDOH. **CONCLUSIONS:** Among the vast SDOH literature, there is a need to identify and clearly articulate the essence and implications of the SDOH concept. We recommend that authors be intentional in their efforts to present and discuss SDOH to ensure that they speak to its foundational concept of health equity

Nilsen W, Skipstein A, Ostby KA, and Mykletun A. Examination of the double burden hypothesis-a systematic review of work-family conflict and sickness absence. European Journal of Public Health. 2017; 27(3):465-471. <http://dx.doi.org/10.1093/eurpub/ckx054> [open access]

Abstract: Background: Women consistently have higher sickness absence than men. The double-burden hypothesis suggests this is due to higher work-family burden in women than men. The current study aimed to systematically review prospective studies of work-family conflict and subsequent sickness absence. A systematic search was conducted in the electronic databases Medline, PsycINFO, and Embase with subject heading terms and keywords with no language or time restrictions. Two reviewers independently screened abstracts and read full-texts with pre-defined inclusion and exclusion criteria. Eight included studies (n = 40 856 respondents) measure perceived work-family conflict and subsequent sickness absence. We found moderate evidence for a positive relationship between work-family conflict and subsequent sickness absence, and that women experience higher levels of work-family conflict than

men. Work-family conflict is associated with later sickness absence, and work-family conflict is more common for women than for men. This indicates that work-family conflict may contribute to the gender gap in sick leave. However, further studies are needed to confirm whether this relationship is causal

Powell A, Davies H, and Nutley S. Missing in action? The role of the knowledge mobilisation literature in developing knowledge mobilisation practices. Evidence & Policy. 2017; 13(2):201-223.

<http://dx.doi.org/10.1332/174426416X14534671325644>

Probst TM, Petitta L, and Barbaranelli C. Comparing recall vs. recognition measures of accident under-reporting: a two-country examination. Accident Analysis & Prevention. 2017; 106:1-9.

<http://dx.doi.org/10.1016/j.aap.2017.05.006>

Abstract: A growing body of research suggests that national injury surveillance data significantly underestimate the true number of non-fatal occupational injuries due to employee under-reporting of workplace accidents. Given the importance of accurately measuring such under-reporting, the purpose of the current research was to examine the psychometric properties of two different techniques used to operationalize accident under-reporting, one using a free recall methodology and the other a recognition-based approach. Moreover, in order to assess the cross-cultural generalizability of these under-reporting measures, we replicated our psychometric analyses in the United States (N=440) and Italy (N=592). Across both countries, the results suggest that both measures exhibited similar patterns of relationships with known antecedents, including job insecurity, production pressure, safety compliance, and safety reporting attitudes. However, the recall measures had more severe violations of normality and were less correlated with self-report workplace injuries. Considerations, implications, and recommendations for using these different types of accident measures are discussed

Saunders S, Nedelec B, and MacEachen E. Work remains meaningful despite time out of the workplace and chronic pain. Disability and Rehabilitation. 2017; [Epub ahead of print].

<http://dx.doi.org/10.1080/09638288.2017.1327986>

Abstract: PURPOSE: Although work has been found to be meaningful and a source of motivation to return to work in certain disabled populations, it was unclear if this was also true for people experiencing a long period of unemployment and job loss due to a musculoskeletal injury. Therefore, the aim of this phenomenological study was to explore the meaning of work for those with chronic work disability due to a musculoskeletal injury. METHOD: The data from 27 interviews, conducted with 9 participants, was analyzed using the Empirical Phenomenological Psychological method. RESULTS: Work remained central to the lives of the participants and aligned with previous valued work outcomes and goals regardless of the amount of time away from work. These findings point to the importance of recognizing the ongoing centrality of work for those with

chronic work disability and the importance of tapping into work values and beliefs to provide workers with the motivation needed to get past physical and systemic barriers to return to work. **CONCLUSIONS:** This study shows that a shift in focus back to meaning not only has benefits for people with chronic work disability, but for occupational therapists in their ability to make a unique and effective contribution to the field of work disability. Implications for rehabilitation The chronic work disabled population remains one of the most challenging to return to work. Reflection on the meaning of work provides motivation needed for clients to overcome barriers to work including chronic pain. Exploring meaning is not difficult or time consuming in vocational rehabilitation

Shendell DG, Milich LJ, Apostolico AA, Patti AA, and Kelly S. Comparing online and in-person delivery formats of the OSHA 10-hour general industry health and safety training for young workers. *New Solutions*. 2017; 27(1):92-106.

<http://dx.doi.org/10.1177/1048291117697109>

Abstract: Seven school districts or comprehensive high schools were enrolled in online OSHA 10-hour General Industry or Construction health and safety training via CareerSafe to determine the feasibility of online training for students, given limited resources for in-person trainings. A two-campus school district was analyzed comparing OSHA 10 for General Industry across in-person, supervisor-level teachers as authorized trainers, and online course formats. The online training courses were completed by 86 of 91 students, while another 53 of 57 students completed in-person training. Both groups completed identical OSHA-approved quizzes for "Introduction to OSHA," the initial 2-h module consistently provided in OSHA 10 courses across topics and formats. Results indicated teacher supervision was critical, and girls had higher online course completion rates, overall quiz scores, and never failed. Though both cohorts passed, in-person had significantly higher scores than online; both struggled with two questions. Online OSHA 10 for General Industry can be an efficient learning tool for students when limited resources prevent widespread availability of in-person courses

Tappura S, Nenonen N, and Kivisto-Rahnasto J. Managers' viewpoint on factors influencing their commitment to safety: an empirical investigation in five Finnish industrial organisations. *Safety Science*. 2017; 96:52-61.

<http://dx.doi.org/10.1016/j.ssci.2017.03.007>

Werniuk M and Morissette R. Canadian youth and full-time work: a slower transition. *Canadian Megatrends*. 2017; 2017004:1-4.

<http://www.statcan.gc.ca/pub/11-630-x/11-630-x2017004-eng.htm>

Wiberg M, Marklund S, and Alexanderson K. Transitions between compensated work disability, joblessness, and self-sufficiency: a cohort study 1997-2010 of those jobless in 1995. *Population Research and Policy Review*. 2017; 36(1):85-107.

<http://dx.doi.org/10.1007/s11113-016-9412-2> [open access]

Abstract: Associations between unemployment, work, and disability have been researched in many studies. The findings are often based on cross-sectional data and single outcomes. The present study analysed multiple outcomes over a period of 15 years among long-term unemployed individuals. Based on all individuals aged 20-40 living in Sweden in 1995, prospective cohort analyses were conducted. Individual annual labour market proximity 1995-2010 was estimated and categorised into three mutually exclusive categories: "Jobless", "Self-sufficient" (i.e. main income from work), or "Disabled". Individuals in the category "Jobless" (n = 638,622) in 1995 constituted the study population. Using autoregressive multinomial logistic regression, transitions between the three states during 1997-2010 were analysed. Socio-economic factors, previous inpatient care, and national unemployment rates in different time periods were included in the regression models. Among those "Jobless" in 1995, 17 % were also "Jobless" in 2010, while 10 % were "Disabled" and 61 % "Self-sufficient". The transitions were stable over time periods for transitions into "Self-sufficient" and "Disabled" but less so for "Jobless". Previous state was the best predictor of subsequent state. "Jobless" individuals with previous morbidity had a higher transition probability into "Disabled" and a lower transition probability into "Self-sufficient". The transition rates into "Self-sufficient" were higher in periods with lower unemployment levels. The study supports the interpretation that return to work was affected both by the individuals' previous health status and by the national unemployment level. Transition from being "Jobless" into "Disability" may be influenced by previous ill health and by negative health effects of being "Jobless"

Willis C, Riley B, Lewis M, Stockton L, and Yessis J. Guidance for organisational strategy on knowledge to action from conceptual frameworks and practice. Evidence & Policy. 2017; 13(2):317-341.

<http://dx.doi.org/10.1332/174426416X14609194878495>