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**Brownson RC, Proctor EK, Luke DA, Baumann AA, Staub M, Brown MT, and Johnson M. Building capacity for dissemination and implementation research: one university's experience. *Implementation Science*. 2017; 12(1):104.**

**<http://dx.doi.org/10.1186/s13012-017-0634-4> [open access]**

**Abstract:** BACKGROUND: While dissemination and implementation (D&I) science has grown rapidly, there is an ongoing need to understand how to build and sustain capacity in individuals and institutions conducting research. There are three inter-related domains for capacity building: people, settings, and activities. Since 2008, Washington University in St. Louis has dedicated significant attention and resources toward building D&I research capacity. This paper describes our process, challenges, and lessons with the goal of informing others who may have similar aims at their own institution. ACTIVITIES: An informal collaborative, the Washington University Network for Dissemination and Implementation Research (WUNDIR), began with a small group and now has 49 regular members. Attendees represent a wide variety of settings and content areas and meet every 6 weeks for half-day sessions. A logic model organizes WUNDIR inputs, activities, and outcomes. A mixed-methods evaluation showed that the network has led to new professional connections and enhanced skills (e.g., grant and publication development). As one of four, ongoing, formal programs, the Dissemination and Implementation Research Core (DIRC) was our first major component of D&I infrastructure. DIRC's mission is to accelerate the public health impact of clinical and health services research by increasing the engagement of investigators in later stages of translational research. The aims of DIRC are to advance D&I science and to develop and equip researchers with tools for D&I research. As a second formal component, the Washington

University Institute for Public Health has provided significant support for D&I research through pilot projects and a small grants program. In a third set of formal programs, two R25 training grants (one in mental health and one in cancer) support post-doctoral scholars for intensive training and mentoring in D&I science. Finally, our team coordinates closely with D&I functions within research centers across the university. We share a series of challenges and potential solutions. CONCLUSION: Our experience in developing D&I research at Washington University in St. Louis shows how significant capacity can be built in a relatively short period of time. Many of our ideas and ingredients for success can be replicated, tailored, and improved upon by others

**Farholm A, Halvari H, Niemiec CP, Williams GC, and Deci EL. Changes in return to work among patients in vocational rehabilitation: a self-determination theory perspective. Disability & Rehabilitation. 2017; 39(20):2039-2046.**

<http://dx.doi.org/10.1080/09638288.2016.1215559>

Abstract: PURPOSE: The aim of the current study was to examine whether patient perceptions of autonomy support from the treatment team in a vocational rehabilitation program will be associated with change (increase) in need satisfaction, autonomous motivation, perceived competence, well-being, physical activity, and return to work (RTW), and whether the self-determination theory (SDT) Model of Health Behavior will provide adequate fit to the data. METHOD: A total of 90 participants were enrolled in a longitudinal study and completed measures at four time points over 15 months. RESULTS: Participants reported increases in all variables, and in general these changes were maintained at six weeks post-rehabilitation and at 15 months post-baseline. As well, the SDT Model of Health Behavior provided adequate fit to the data. CONCLUSIONS: These results underscore the importance of health care practitioners' providing support for their patients' autonomy, competence, and relatedness to improve well-being, physical activity, and RTW in the context of vocational rehabilitation. Implications for Rehabilitation Vocational rehabilitation that emphasizes physical activity is associated with increases in patients' well-being, physical activity, and return to work (RTW). It is important for health care practitioners to provide support for their patients' autonomy, competence, and relatedness in the context of vocational rehabilitation, as doing so is associated with increases in patients' autonomous motivation, perceived competence, and psychosocial outcomes

**Gunduz M and Laitinen H. A 10-step safety management framework for construction small and medium-sized enterprises. International Journal of Occupational Safety & Ergonomics. 2017; 23(3):353-359.**

<http://dx.doi.org/10.1080/10803548.2016.1200258>

Abstract: It is of great importance to develop an occupational health and safety management system (OHS MS) to form a systemized approach to improve health and safety. It is a known fact that thousands of accidents and injuries occur in the construction industry. Most of these accidents occur in small and

medium-sized enterprises (SMEs). This article provides a 10-step user-friendly OHS MS for the construction industry. A quantitative OHS MS indexing method is also introduced in the article. The practical application of the system to real SMEs and its promising results are also presented

**Laberge M, Tondoux A, Camire TF, and MacEachen E. Occupational health and safety in a vocational training program: how gender impacts teachers' strategies and power relationships = Sante et securite des stagiaires dans un programme de formation professionnelle: Impact du genre sur les strategies et rapports de pouvoir. New Solutions. 2017; [Epub ahead of print].**

<http://dx.doi.org/10.1177/1048291117725720>

Abstract: In Quebec (Canada), the Work-Oriented Training Path, a work-study program, prepares students who are having difficulty at school for the job market. Occupational health and safety is an important part of their training. This article aims to analyze the impact of gender on the interpersonal dynamics among teachers, trainees, and key actors from the businesses involved. This article also looks at the influence of gender on teachers' strategies and capacity to act regarding occupational health and safety. Using a work activity analysis lens, a multiple case-study analysis of teachers' work activity was carried out. The findings show that gendered social relationships create a specific supervisory context that influences occupational health and safety training. Solutions aimed at reducing the negative impact of gender-associated prejudice on work injury prevention include training for teachers, attention to work organization at the schools, and the creation of cohesive teachers' work teams. Resume Au Quebec, le Parcours de formation axee sur l'emploi (WOTP), un programme en alternance, offre une preparation au marche du travail aux eleves en difficultes scolaires. La sante et la securite du travail (SST) est un enjeu important de la formation. L'article vise a analyser l'impact du genre dans la dynamique relationnelle entre les enseignant.es, leurs eleves et les interlocuteurs des entreprises impliquees, et son influence sur les strategies et la capacite d'agir des enseignant.es en matiere de SST. Une analyse de cas multiples basee sur l'analyse ergonomique de l'activite des enseignants a ete menee. Les resultats montrent que les relations sociales de genre determinent un contexte specifique de supervision qui influence la formation a la SST. La formation des enseignant.es, l'organisation scolaire et la creation de collectifs enseignants cohesifs sont des pistes de solution pour reduire l'effet negatif des prejuges lies au genre influencant la prevention des lesions professionnelles

**Lin MY, Barbir A, and Dennerlein JT. Evaluating biomechanics of user-selected sitting and standing computer workstation. Applied Ergonomics. 2017; 65:382-388.**

<http://dx.doi.org/10.1016/j.apergo.2017.04.006>

Abstract: A standing computer workstation has now become a popular modern work place intervention to reduce sedentary behavior at work. However, user's

interaction related to a standing computer workstation and its differences with a sitting workstation need to be understood to assist in developing recommendations for use and set up. The study compared the differences in upper extremity posture and muscle activity between user-selected sitting and standing workstation setups. Twenty participants (10 females, 10 males) volunteered for the study. 3-D posture, surface electromyography, and user-reported discomfort were measured while completing simulated tasks with each participant's self-selected workstation setups. Sitting computer workstation associated with more non-neutral shoulder postures and greater shoulder muscle activity, while standing computer workstation induced greater wrist adduction angle and greater extensor carpi radialis muscle activity. Sitting computer workstation also associated with greater shoulder abduction postural variation (90th-10th percentile) while standing computer workstation associated with greater variation for shoulder rotation and wrist extension. Users reported similar overall discomfort levels within the first 10 min of work but had more than twice as much discomfort while standing than sitting after 45 min; with most discomfort reported in the low back for standing and shoulder for sitting. These different measures provide understanding in users' different interactions with sitting and standing and by alternating between the two configurations in short bouts may be a way of changing the loading pattern on the upper extremity

**Lu L, Megahed FM, Sesek RF, and Cavuoto LA. A survey of the prevalence of fatigue, its precursors and individual coping mechanisms among U.S. manufacturing workers. *Applied Ergonomics*. 2017; 65:139-151.**

<http://dx.doi.org/10.1016/j.apergo.2017.06.004>

Abstract: Advanced manufacturing has resulted in significant changes on the shop-floor, influencing work demands and the working environment. The corresponding safety-related effects, including fatigue, have not been captured on an industry-wide scale. This paper presents results of a survey of U.S. manufacturing workers for the: prevalence of fatigue, its root causes and significant factors, and adopted individual fatigue coping methods. The responses from 451 manufacturing employees were analyzed using descriptive data analysis, bivariate analysis and Market Basket Analysis. 57.9% of respondents indicated that they were somewhat fatigued during the past week. They reported the ankles/feet, lower back and eyes were frequently affected body parts and a lack of sleep, work stress and shift schedule were top selected root causes for fatigue. In order to respond to fatigue when it is present, respondents reported coping by drinking caffeinated drinks, stretching/doing exercises and talking with coworkers. Frequent combinations of fatigue causes and individual coping methods were identified. These results may inform the design of fatigue monitoring and mitigation strategies and future research related to fatigue development

**Martinez-Fiestas M, Rodriguez-Garzon I, Delgado-Padial A, and Lucas-Ruiz V. Analysis of perceived risk among construction workers: a cross-cultural**

**study and reflection on the Hofstede model. *International Journal of Occupational Safety & Ergonomics*. 2017; 23(3):307-317.**

<http://dx.doi.org/10.1080/10803548.2016.1198621>

Abstract: This article presents a cross-cultural study on perceived risk in the construction industry. Worker samples from three different countries were studied: Spain, Peru and Nicaragua. The main goal was to explain how construction workers perceive their occupational hazard and to analyze how this is related to their national culture. The model used to measure perceived risk was the psychometric paradigm. The results show three very similar profiles, indicating that risk perception is independent of nationality. A cultural analysis was conducted using the Hofstede model. The results of this analysis and the relation to perceived risk showed that risk perception in construction is independent of national culture. Finally, a multiple lineal regression analysis was conducted to determine what qualitative attributes could predict the global quantitative size of risk perception. All of the findings have important implications regarding the management of safety in the workplace

**Moody L, Saunders J, Leber M, Wojcik-Augustyniak M, Szajczyk M, and Rebernik N. An exploratory study of barriers to inclusion in the European workplace. *Disability & Rehabilitation*. 2017; 39(20):2047-2054.**

<http://dx.doi.org/10.1080/09638288.2016.1217072>

Abstract: BACKGROUND: The European Disability Strategy (2010-2020) seeks to significantly raise the proportion of people with disabilities working in the open labour market. The ERGO WORK project is a collaboration of academic and industrial partners in six European countries, focused on understanding and tackling barriers to workplace inclusion for workers with disabilities. METHODS: This study sought to explore the perceptions and needs of stakeholders in terms of workplace adaptation to the needs of employees with disabilities. An exploratory online survey was completed by 480 participants across six countries. RESULTS: The analysis suggests that workplaces could be further improved to meet the needs of employees with considerable scope for training within companies to raise awareness about employees' needs, employers' obligations and workplace adaptation. CONCLUSIONS: This snapshot suggests there is still a gap between intent and reality in workplace inclusion and further strategies are needed to improve the opportunities for employees with disabilities. The paper argues that ergonomics may have a key role to play in tackling these challenges and adapting the workplace environment and job design to suit the needs of individual employees. Implications for rehabilitation This study suggests there is considerable scope for workplace adaptation and improvements to meet the needs of employees with disabilities. Employers need and want further specialist practitioner guidance to facilitate workplace inclusion and support adaptation to individual needs. Organisations would benefit from training to raise awareness about potential solutions and approaches that would support more widespread employment of people with disabilities

**Podgorski D, Majchrzycka K, Dabrowska A, Gralewicz G, and Okrasa M. Towards a conceptual framework of OSH risk management in smart working environments based on smart PPE, ambient intelligence and the Internet of Things technologies. International Journal of Occupational Safety & Ergonomics. 2017; 23(1):1-20.**

<http://dx.doi.org/10.1080/10803548.2016.1214431>

Abstract: Recent developments in domains of ambient intelligence (Aml), Internet of Things, cyber-physical systems (CPS), ubiquitous/pervasive computing, etc., have led to numerous attempts to apply ICT solutions in the occupational safety and health (OSH) area. A literature review reveals a wide range of examples of smart materials, smart personal protective equipment and other Aml applications that have been developed to improve workers' safety and health. Because the use of these solutions modifies work methods, increases complexity of production processes and introduces high dynamism into thus created smart working environments (SWE), a new conceptual framework for dynamic OSH management in SWE is called for. A proposed framework is based on a new paradigm of OSH risk management consisting of real-time risk assessment and the capacity to monitor the risk level of each worker individually. A rationale for context-based reasoning in SWE and a respective model of the SWE-dedicated CPS are also proposed

**Pussegoda K, Turner L, Garritty C, Mayhew A, Skidmore B, Stevens A, Boutron I, Sarkis-Onofre R, Bjerre LM, Hrobjartsson A, Altman DG, and Moher D. Systematic review adherence to methodological or reporting quality. Systematic Reviews. 2017; 6(1):131.**

<http://dx.doi.org/10.1186/s13643-017-0527-2> [open access]

Abstract: BACKGROUND: Guidelines for assessing methodological and reporting quality of systematic reviews (SRs) were developed to contribute to implementing evidence-based health care and the reduction of research waste. As SRs assessing a cohort of SRs is becoming more prevalent in the literature and with the increased uptake of SR evidence for decision-making, methodological quality and standard of reporting of SRs is of interest. The objective of this study is to evaluate SR adherence to the Quality of Reporting of Meta-analyses (QUOROM) and PRISMA reporting guidelines and the A Measurement Tool to Assess Systematic Reviews (AMSTAR) and Overview Quality Assessment Questionnaire (OQAQ) quality assessment tools as evaluated in methodological overviews. METHODS: The Cochrane Library, MEDLINE(R), and EMBASE(R) databases were searched from January 1990 to October 2014. Title and abstract screening and full-text screening were conducted independently by two reviewers. Reports assessing the quality or reporting of a cohort of SRs of interventions using PRISMA, QUOROM, OQAQ, or AMSTAR were included. All results are reported as frequencies and percentages of reports and SRs respectively. RESULTS: Of the 20,765 independent records retrieved from electronic searching, 1189 reports were reviewed for eligibility at full text, of which 56 reports (5371 SRs in total)

evaluating the PRISMA, QUOROM, AMSTAR, and/or OQAQ tools were included. Notable items include the following: of the SRs using PRISMA, over 85% (1532/1741) provided a rationale for the review and less than 6% (102/1741) provided protocol information. For reports using QUOROM, only 9% (40/449) of SRs provided a trial flow diagram. However, 90% (402/449) described the explicit clinical problem and review rationale in the introduction section. Of reports using AMSTAR, 30% (534/1794) used duplicate study selection and data extraction. Conversely, 80% (1439/1794) of SRs provided study characteristics of included studies. In terms of OQAQ, 37% (499/1367) of the SRs assessed risk of bias (validity) in the included studies, while 80% (1112/1387) reported the criteria for study selection. **CONCLUSIONS:** Although reporting guidelines and quality assessment tools exist, reporting and methodological quality of SRs are inconsistent. Mechanisms to improve adherence to established reporting guidelines and methodological assessment tools are needed to improve the quality of SRs

**Riel J, Saint-Charles J, and Messing K. Women's occupational health: resisting when we can = Sante des femmes au travail: mobiliser quand c'est encore possible. New Solutions. 2017; [Epub ahead of print].**

<http://dx.doi.org/10.1177/1048291117724562>

**Abstract:** The continuing worldwide struggle for decent working conditions is under intense economic, social, and political pressures. Women are particularly affected by these pressures because of their still-tenuous position in the service sector, in lowprestige, low-paid occupations. In addition, their occupational health issues are often overlooked or minimized. Nevertheless, women continue to struggle, as individuals and collectively. This issue describes a number of instances where women in the Quebec labor movement have attempted to reconcile equality concerns with protecting their own health. There are successes, failures, and puzzles. **Resume** La lutte mondiale pour des conditions de travail decentes subit d'intenses pressions economiques, sociales et politiques. Les femmes sont particulierement touchees par ces pressions a cause de leur situation encore fragile dans le secteur des services, dans des professions de faible prestige et salaire. De plus, leurs besoins en sante au travail sont souvent minimisees ou ignorees. Toutefois, les femmes continuent a resister, individuellement et collectivement. Ce numero decrit un certain nombre d'exemples ou des travailleuses militantes ont tente de concilier leurs revendications d'egalite et d'acces au travail avec leur besoin de proteger leur sante

**Rose U, Schiel S, Schroder H, Kleudgen M, Tophoven S, Rauch A, Freude G, and Muller G. The Study on Mental Health at Work: design and sampling. Scandinavian Journal of Public Health. 2017; 45(6):584-594.**

<http://dx.doi.org/10.1177/1403494817707123>

**Abstract:** **AIMS:** The Study on Mental Health at Work (S-MGA) generates the first nationwide representative survey enabling the exploration of the relationship

between working conditions, mental health and functioning. This paper describes the study design, sampling procedures and data collection, and presents a summary of the sample characteristics. **METHODS:** S-MGA is a representative study of German employees aged 31-60 years subject to social security contributions. The sample was drawn from the employment register based on a two-stage cluster sampling procedure. Firstly, 206 municipalities were randomly selected from a pool of 12,227 municipalities in Germany. Secondly, 13,590 addresses were drawn from the selected municipalities for the purpose of conducting 4500 face-to-face interviews. The questionnaire covers psychosocial working and employment conditions, measures of mental health, work ability and functioning. Data from personal interviews were combined with employment histories from register data. Descriptive statistics of socio-demographic characteristics and logistic regressions analyses were used for comparing population, gross sample and respondents. **RESULTS:** In total, 4511 face-to-face interviews were conducted. A test for sampling bias revealed that individuals in older cohorts participated more often, while individuals with an unknown educational level, residing in major cities or with a non-German ethnic background were slightly underrepresented. **CONCLUSIONS:** There is no indication of major deviations in characteristics between the basic population and the sample of respondents. Hence, S-MGA provides representative data for research on work and health, designed as a cohort study with plans to rerun the survey 5 years after the first assessment

**Sarrett J. Interviews, disclosures, and misperceptions: autistic adults' perspectives on employment related challenges. Disability Studies Quarterly. 2017; 37(2):1-21.**

<http://dsq-sds.org/article/view/5524/4652>

**Wagner G, Nussbaumer-Streit B, Greimel J, Ciapponi A, and Gartlehner G. Trading certainty for speed - how much uncertainty are decisionmakers and guideline developers willing to accept when using rapid reviews: an international survey. BMC Medical Research Methodology. 2017; 17(1):121.**

<http://dx.doi.org/10.1186/s12874-017-0406-5> [open access]

**Abstract:** **BACKGROUND:** Decisionmakers and guideline developers demand rapid syntheses of the evidence when time sensitive evidence-informed decisions are required. A potential trade-off of such rapid reviews is that their results can have less reliability than results of systematic reviews that can lead to an increased risk of making incorrect decisions or recommendations. We sought to determine how much incremental uncertainty about the correctness of an answer guideline developers and health policy decisionmakers are willing to accept in exchange for a rapid evidence-synthesis. **METHODS:** Employing a purposive sample, we conducted an international web-based, anonymous survey of decisionmakers and guideline developers. Based on a clinical treatment, a public health, and a clinical prevention scenario, participants indicated the maximum risk of getting an incorrect answer from a rapid review that they would

be willing to accept. We carefully reviewed data and performed descriptive statistical analyses. **RESULTS:** In total, 325 (58.5%) of 556 participants completed our survey and were eligible for analysis. The median acceptable incremental risk for getting an incorrect answer from a rapid review across all three scenarios was 10.0% (interquartile range [IQR] 5.0-15.0). Acceptable risks were similar for the clinical treatment (n = 313, median 10.0% [IQR 5.0-15.0]) and the public health scenarios (n = 320, median 10.0% [IQR 5.0-15.0]) and lower for the clinical prevention scenario (n = 312, median 6.5% [IQR 5.0-10.5]). **CONCLUSIONS:** Findings suggest that decisionmakers are willing to accept some trade-off in validity in exchange for a rapid review. Nevertheless, they expect the validity of rapid reviews to come close to that of systematic reviews