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October 5, 2017

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Bakusic J, Lenderink A, Lambreghts C, Vandenbroeck S, Verbeek J, Curti S, Mattioli S, and Godderis L. Methodologies to identify work-related diseases: review of sentinel and alert approaches. European risk observatory literature review. Bilbao, Spain: European Agency for Safety and Health at Work; 2017.

<https://osha.europa.eu/en/tools-and-publications/publications/methodologies-identify-work-related-diseases-review-sentinel-and>

Benyamina Douma N, Cote C, and Lacasse A. Quebec serve and protect low back pain study: a web-based cross-sectional investigation of prevalence and functional impact among police officers. Spine. 2017; 42(19):1485-1493.

<http://dx.doi.org/10.1097/BRS.0000000000002136>

Abstract: STUDY DESIGN: Web-based cross-sectional study. OBJECTIVE: The aim of this study was to describe the prevalence and the burden of low back pain (LBP) and chronic low back pain (CLBP) among Quebec police officers. SUMMARY OF BACKGROUND DATA: Police officers have work-related factors associated with LBP, but chronicity and impacts of this condition have been little explored among this population. METHODS: Between May and October 2014, a web-based cross-sectional study was conducted among police officers working in the province of Quebec (Canada). Nine police organizations accepted to disseminate the email invitation to their members. The survey included the French-Canadian version of the Nordic Musculoskeletal Questionnaire and other items regarding functional impact of LBP and associated treatments. RESULTS: A total of 3589 police officers completed the questionnaire. Mean age was 38.5

+/- 8.7 years, 32.0% were women, and 67.4% reported being car-patrol officers. A majority reported LBP symptoms in the past 12 months (67.7%) and 96.5% of them perceived that presence of LBP was totally/partially linked to their work in the police force. Prevalence of CLBP among all responders was 28.7%. Police officers reporting CLBP, as compared to those reporting acute or subacute LBP symptoms in the past 12 months, were more likely to report LBP-related reduction of work activities (64.4% vs. 45.7%; $P < 0.001$) and more working days lost in the past 12 months (average of 11.9 +/- 43.5 vs. 1.5 +/- 9.8; $P < 0.001$). A greater proportion also reported LBP-related health care visits in the past 12 months (86.2% vs. 64.2%; $P < 0.001$) and current use of pain medications/complementary alternative medicines (90.1% vs. 69.7%; $P < 0.001$). CONCLUSION: CLBP is a frequent and burdensome condition among Quebec police officers. Our results underline the importance for police organizations to promote CLBP prevention and to implement workplace management programs. LEVEL OF EVIDENCE: 3

Berube ME, Poitras S, Bastien M, Laliberte LA, Lacharite A, and Gross DP. Strategies to translate knowledge related to common musculoskeletal conditions into physiotherapy practice: a systematic review. Physiotherapy. 2017; [epub ahead of print].

<http://dx.doi.org/10.1016/j.physio.2017.05.002>

Abstract: BACKGROUND: Many physiotherapists underuse evidence-based practice guidelines or recommendations when treating patients with musculoskeletal disorders, yet synthesis of knowledge translation interventions used within the field of physiotherapy fails to offer clear conclusions to guide the implementation of clinical practice guidelines. OBJECTIVES: To evaluate the effectiveness of various knowledge translation interventions used to implement changes in the practice of current physiotherapists treating common musculoskeletal issues. DATA SOURCES: A computerized literature search of MEDLINE, CINAHL and ProQuest of systematic reviews (from inception until May 2016) and primary research studies (from January 2010 until June 2016). STUDY SELECTION AND ELIGIBILITY CRITERIA: Eligibility criteria specified articles evaluating interventions for translating knowledge into physiotherapy practice. DATA EXTRACTION AND DATA SYNTHESIS: Two reviewers independently screened the titles and abstracts, reviewed full-text articles, performed data extraction, and performed quality assessment. Of a total of 13014 articles located and titles and abstracts screened, 34 studies met the inclusion criteria, including three overlapping publications, resulting in 31 individual studies. RESULTS: Knowledge translation interventions appear to have resulted in a positive change in physiotherapist beliefs, attitudes, skills and guideline awareness. However, no consistent improvement in clinical practice, patient and economic outcomes were observed. LIMITATIONS: The studies included had small sample sizes and low methodological quality. The heterogeneity of the studies was not conducive to pooling the data. CONCLUSIONS AND IMPLICATION OF KEY FINDINGS: The intensity and type

of knowledge translation intervention seem to have an effect on practice change. More research targeting financial, organizational and regulatory knowledge translation interventions is needed

La Brooy C and Kelaher M. The research-policy-deliberation nexus: a case study approach. Health Research Policy and Systems. 2017; 15(1):75.

<http://dx.doi.org/10.1186/s12961-017-0239-z> [open access]

Abstract: BACKGROUND: Decision-makers tend to make connections with researchers far too late in the game of public policy, expecting to find a retail store in which researchers are busy filling shop-front shelves with a comprehensive set of all possible relevant studies that a decision-maker might some day drop by to purchase. This linear type of relation between research and policy needs to be replaced by a more interactive model that facilitates both researchers obtaining a better understanding of policy processes and policymakers being more aware and involved in the conceptualisation and conduct of research. This paper explores the role of governance in facilitating the research-policy nexus, testing a typology of research utilisation based on Murray's (Soc Policy Society 10(4):459-70, 2011) analysis that considers various degrees of researcher-policymaker deliberation in decision-making processes. The projects were all part of various evaluation efforts carried out by the researchers to explore the use of governance in health promotion activities. METHODS: Three case studies were chosen to provide some specific examples that illustrate each level of Murray's typology. The examples involve intersectoral health promotion collaborations that combine evidence-based research in health policy initiatives with various levels of researcher involvement. For all three projects, interview data was collated in the same way, coded thematically and analysed to consider the relationship between researchers and policymakers. RESULTS: Comparing the three models and their applicability to health promotion interventions, it could be observed that all programmes demonstrated successful examples of research translation. Strong governance imperatives structuring relationships led to more successful outcomes, whereby research was successfully translated into a public policy initiative that also led to improved health outcomes. The key idea across all of these models was that strong governance arrangements mitigated some of the barriers evidenced by the varying degrees of deliberation and researcher involvement in processes. CONCLUSIONS: The paper demonstrates that successful research utilisation is related to strong governance agendas and that early and ongoing involvement of relevant decision-makers and researchers in the governance processes, that is both the conceptualisation and conduct of a study, tend to be the best predictors of success

Elsman EBM, van Rens GHMB, and van Nispen RMA. Impact of visual impairment on the lives of young adults in the Netherlands: a concept-mapping approach. Disability and Rehabilitation. 2017; 39(26):2607-2618.

<http://dx.doi.org/10.1080/09638288.2016.1236408>

Abstract: **PURPOSE:** While the impact of visual impairments on specific aspects of young adults' lives is well recognised, a systematic understanding of its impact on all life aspects is lacking. This study aims to provide an overview of life aspects affected by visual impairment in young adults (aged 18-25 years) using a concept-mapping approach. **METHOD:** Visually impaired young adults (n = 22) and rehabilitation professionals (n = 16) participated in online concept-mapping workshops (brainstorm procedure), to explore how having a visual impairment influences the lives of young adults. Statements were categorised based on similarity and importance. Using multidimensional scaling, concept maps were produced and interpreted. **RESULTS:** A total of 59 and 260 statements were generated by young adults and professionals, respectively, resulting in 99 individual statements after checking and deduplication. The combined concept map revealed 11 clusters: work, study, information and regulations, social skills, living independently, computer, social relationships, sport and activities, mobility, leisure time, and hobby. **CONCLUSIONS:** The concept maps provided useful insight into activities influenced by visual impairments in young adults, which can be used by rehabilitation centres to improve their services. This might help in goal setting, rehabilitation referral and successful transition to adult life, ultimately increasing participation and quality of life. Implications for rehabilitation Having a visual impairment affects various life-aspects related to participation, including activities related to work, study, social skills and relationships, activities of daily living, leisure time and mobility. Concept-mapping helped to identify the life aspects affected by low vision, and quantify these aspects in terms of importance according to young adults and low vision rehabilitation professionals. Low vision rehabilitation centres should focus on all life aspects found in this study when identifying the needs of young adults, as this might aid goal setting and rehabilitation referral, ultimately leading to more successful transitions, better participation and quality of life

Harris C, Switzer E, and Gower WS. The Diversity Partners Project: multi-systemic knowledge translation and business engagement strategies to improve employment of people with disabilities. Journal of Vocational Rehabilitation. 2017; 46(3):273-285.

<http://dx.doi.org/10.3233/JVR-170862> [open access]

Hasanzadeh S, Esmaeili B, and Dodd MD. Impact of construction workers' hazard identification skills on their visual attention. Journal of Construction Engineering and Management. 2017; 143(10):04017070.

[http://dx.doi.org/10.1061/\(ASCE\)CO.1943-7862.0001373](http://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001373)

Haufe S, Wiechmann K, Stein L, Kuck M, Smith A, Meineke S, Zirkelbach Y, Rodriguez DS, Drupp M, and Tegtbur U. Low-dose, non-supervised, health insurance initiated exercise for the treatment and prevention of chronic low back pain in employees. Results from a randomized controlled trial. PLoS ONE. 2017; 12(6):e0178585.

<http://dx.doi.org/10.1371/journal.pone.0178585> [open access]

Abstract: OBJECTIVE: Back pain is a major problem requiring pragmatic interventions, low in costs for health care providers and feasible for individuals to perform. Our objective was to test the effectiveness of a low-dose 5-month exercise intervention with small personnel investment on low back strength and self-perceived pain. **METHODS:** Two hundred twenty-six employees (age: 42.7+/-10.2 years) from three mid-size companies were randomized to 5-month non-supervised training at home (3 times/week for 20 minutes) or wait-list-control. Health insurance professionals instructed the participants on trunk exercises at the start and then supervised participants once a month. **RESULTS:** Muscle strength for back extension increased after the 5-month intervention with a significant between-group difference (mean 27.4 Newton [95%CI 2.2; 60.3]) favoring the exercise group ($p = 0.035$). Low back pain was reduced more in subjects after exercise than control (mean difference -0.74 cm [95%CI -1.17; -0.27], $p = 0.002$). No between-group differences were observed for back pain related disability and work ability. After stratified analysis only subjects with preexisting chronic low back pain showed a between-group difference (exercise versus controls) after the intervention in their strength for back extension (mean 55.7 Newton [95%CI 2.8; 108.5], $p = 0.039$), self-perceived pain (mean -1.42 cm [95%CI -2.32; -0.51], $p = 0.003$) and work ability (mean 2.1 points [95%CI 0.2; 4.0], $p = 0.032$). Significant between-group differences were not observed in subjects without low back pain: strength for back extension (mean 23.4 Newton [95%CI -11.2; 58.1], $p = 0.184$), self-perceived pain (mean -0.48 cm [95%CI -0.99; 0.04], $p = 0.067$) and work ability (mean -0.1 points [95%CI -0.9; 0.9], $p = 0.999$). An interaction between low back pain subgroups and the study intervention (exercise versus control) was exclusively observed for the work ability index ($p = 0.016$). **CONCLUSION:** In middle-aged employees a low-dose, non-supervised exercise program implemented over 20 weeks improved trunk muscle strength and low back pain, and in those with preexisting chronic low back pain improved work ability

Karakhan AA and Gambatese JA. Integrating worker health and safety into sustainable design and construction: designer and constructor perspectives. Journal of Construction Engineering and Management. 2017; 143(9):04017069.

[http://dx.doi.org/10.1061/\(ASCE\)CO.1943-7862.0001379](http://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001379)

Karlsson LE and Takahashi R. A resource for developing an evidence synthesis report for policy-making. Health evidence network synthesis report, no. 50. Copenhagen: WHO Regional Office for Europe; 2017.

http://www.euro.who.int/data/assets/pdf_file/0008/347930/HEN50-Web.pdf

Kuster AT, Dalsbo TK, Luong Thanh BY, Agarwal A, Durand-Moreau QV, and Kirkehei I. Computer-based versus in-person interventions for preventing and reducing stress in workers. Cochrane Database of Systematic Reviews. 2017; 8:CD011899.

<http://dx.doi.org/10.1002/14651858.CD011899.pub2>

Abstract: **BACKGROUND:** Chronic exposure to stress has been linked to several negative physiological and psychological health outcomes. Among employees, stress and its associated effects can also result in productivity losses and higher healthcare costs. In-person (face-to-face) and computer-based (web- and mobile-based) stress management interventions have been shown to be effective in reducing stress in employees compared to no intervention. However, it is unclear if one form of intervention delivery is more effective than the other. It is conceivable that computer-based interventions are more accessible, convenient, and cost-effective. **OBJECTIVES:** To compare the effects of computer-based interventions versus in-person interventions for preventing and reducing stress in workers. **SEARCH METHODS:** We searched CENTRAL, MEDLINE, PubMed, Embase, PsycINFO, NIOSHTIC, NIOSHTIC-2, HSELINE, CISDOC, and two trials registers up to February 2017. **SELECTION CRITERIA:** We included randomised controlled studies that compared the effectiveness of a computer-based stress management intervention (using any technique) with a face-to-face intervention that had the same content. We included studies that measured stress or burnout as an outcome, and used workers from any occupation as participants. **DATA COLLECTION AND ANALYSIS:** Three authors independently screened and selected 75 unique studies for full-text review from 3431 unique reports identified from the search. We excluded 73 studies based on full-text assessment. We included two studies. Two review authors independently extracted stress outcome data from the two included studies. We contacted study authors to gather additional data. We used standardised mean differences (SMDs) with 95% confidence intervals (CIs) to report study results. We did not perform meta-analyses due to variability in the primary outcome and considerable statistical heterogeneity. We used the GRADE approach to rate the quality of the evidence. **MAIN RESULTS:** Two studies met the inclusion criteria, including a total of 159 participants in the included arms of the studies (67 participants completed computer-based interventions; 92 participants completed in-person interventions). Workers were primarily white, Caucasian, middle-aged, and college-educated. Both studies delivered education about stress, its causes, and strategies to reduce stress (e.g. relaxation or mindfulness) via a computer in the computer-based arm, and via small group sessions in the in-person arm. Both studies measured stress using different scales at short-term follow-up only (less than one month). Due to considerable heterogeneity in the results, we could not pool the data, and we analysed the results of the studies separately. The SMD of stress levels in the computer-based intervention group was 0.81 standard deviations higher (95% CI 0.21 to 1.41) than the in-person group in one study, and 0.35 standard deviations lower (95% CI -0.76 to 0.05) than the in-person group in another study. We judged both studies as having a high risk of bias. **AUTHORS' CONCLUSIONS:** We found very low-quality evidence with conflicting results, when comparing the effectiveness of computer-based stress management interventions with in-person stress management interventions in employees. We could include only two studies with small sample sizes. We have

very little confidence in the effect estimates. It is very likely that future studies will change these conclusions

Langi FLFG and Balcazar FE. Risk factors for failure to enter vocational rehabilitation services among individuals with disabilities. Disability and Rehabilitation. 2017; 39(26):2640-2647.

<http://dx.doi.org/10.1080/09638288.2016.1236410>

Abstract: PURPOSE: To investigate the risk factors for failure of individuals with disabilities to enter the vocational rehabilitation (VR) programme, including the cases where they had been formally accepted but were yet to receive any service. METHODS: We used prospective cohort data from a Midwestern US state, and analysed 126,251 and 94,517 individuals, respectively, for acceptance and admission into VR services. Statistical analysis was conducted using Poisson regression models with robust variance estimator. RESULTS: Individuals with blind/visual disability, had prior history of employment, and who received public support tended to have lower risks of non-acceptance and non-admission. Being non-White, at higher education, ever/currently married, and with physical/orthopaedic disability appeared to increase the risks of both outcomes. The adjusted relative risk of non-acceptance was 0.58 (95% confidence interval: 0.52, 0.64) if the individuals had 4 or more functional limitations as compared with those with fewer limitations. This factor was not significant for VR admission. CONCLUSION: Disability factors, demographic determinants, and certain miscellaneous characteristics were associated with the risks of non-acceptance and non-admission into VR. Implications for Rehabilitation Individuals with disabilities are more likely to be unemployed than the population without disabilities, and they are thus more prone to adverse health effects of unemployment. Vocational rehabilitation (VR) is a proven intervention to improve employment outcomes among individuals with disabilities. Our study indicates that the complexity of the selection process for entering VR and various factors beyond disability may prevent individuals to benefit from the VR programme. Rehabilitation programme authorities need to monitor and simplify the selection process into VR services and, together with rehabilitation practitioners, promote a selection process that pays careful attention on the factors that are related to individual risk of failure for entering VR

McAnaney D and Wynne R. Approaches to occupational rehabilitation and return to work in four jurisdictions: a cross-national analysis from the perspective of the ISSA guidelines on return to work and reintegration. International Journal of Disability Management. 2017; 12(e2):1-16.

<http://dx.doi.org/10.1017/idm.2017.2>

Sibley KM, Roche PL, Bell CP, Temple B, and Wittmeier KDM. A descriptive qualitative examination of knowledge translation practice among health researchers in Manitoba, Canada. BMC Health Services Research. 2017; 17(1):627.

<http://dx.doi.org/10.1186/s12913-017-2573-9> [open access]

Abstract: **BACKGROUND:** The importance of effective translation of health research findings into action has been well recognized, but there is evidence to suggest that the practice of knowledge translation (KT) among health researchers is still evolving. Compared to research user stakeholders, researchers (knowledge producers) have been under-studied in this context. The goals of this study were to understand the experiences of health researchers in practicing KT in Manitoba, Canada, and identify their support needs to sustain and increase their participation in KT. **METHODS:** Qualitative semi-structured interviews were conducted with 26 researchers studying in biomedical; clinical; health systems and services; and social, cultural, environmental and population health research. Interview questions were open-ended and probed participants' understanding of KT, their experiences in practicing KT, barriers and facilitators to practicing KT, and their needs for KT practice support. **RESULTS:** KT was broadly conceptualized across participants. Participants described a range of KT practice experiences, most of which related to dissemination. Participants also expressed a number of negative emotions associated with the practice of KT. Many individual, logistical, and systemic or organizational barriers to practicing KT were identified, which included a lack of institutional support for KT in both academic and non-academic systems. Participants described the presence of good relationships with stakeholders as a critical facilitator for practicing KT. The most commonly identified needs for supporting KT practice were access to education and training, and access to resources to increase awareness and promotion of KT. While there were few major variations in response trends across most areas of health research, the responses of biomedical researchers suggested a unique KT context, reflected by distinct conceptualizations of KT (such as commercialization as a core component), experiences (including frustration and lack of support), and barriers to practicing KT (for example, intellectual property concerns). **CONCLUSIONS:** The major findings of this study were the continued variations in conceptualization of KT, and persisting support needs that span basic individual to comprehensive systemic change. Expanding the study to additional regions of Canada will present opportunities to compare and contrast the state of KT practice and its influencing factors

Wagner S, Harder H, Scott L, Buys N, Yu I, Geisen T, and et al. Canadian employee perspectives on disability management. International Journal of Disability Management. 2017; 12(e3):1-9.

<http://dx.doi.org/10.1017/idm.2017.3>

Wanberg J, Javernick-Will A, and Taylor JE. Mechanisms to initiate knowledge-sharing connections in communities of practice. Journal of Construction Engineering and Management. 2017; 143(11):04017085.

[http://dx.doi.org/10.1061/\(ASCE\)CO.1943-7862.0001399](http://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001399)

Xia N, Wang X, Griffin MA, Wu C, and Liu B. Do we see how they perceive risk? An integrated analysis of risk perception and its effect on workplace safety behavior. Accident Analysis & Prevention. 2017; 106:234-242.

<http://dx.doi.org/10.1016/j.aap.2017.06.010>

Abstract: While risk perception is a key factor influencing safety behavior, the academia lacks specific attention to the ways that workers perceive risk, and thus little is known about the mechanisms through which different risk perceptions influence safety behavior. Most previous research in the workplace safety domain argues that people tend to perceive risk based on rational formulations of risk criticality. However, individuals' emotions can be also useful in understanding their perceptions. Therefore, this research employs an integrated analysis concerning the rational and emotional perspectives. Specifically, it was expected that the identified three rational ways of perceiving risk, i.e., perceived probability, severity, and negative utility, would influence the direct emotional risk perception. Furthermore, these four risk perceptions were all expected to positively but differently influence safety behavior. The hypotheses were tested using a sample of 120 construction workers. It was found that all the three rational risk perceptions significantly influenced workers' direct perception of risk that is mainly based on emotions. Furthermore, safety behavior among workers relied mainly on emotional perception but not rational calculations of risk. This research contributes to workplace safety research by highlighting the importance of integrating the emotional assessment of risk, especially when workers' risk perception and behavior are concerned. Suggested avenues for improving safety behavior through improvement in risk perception include being aware of the possibility of different ways of perceiving risk, promoting experience sharing and accident simulation, and uncovering risk information