

IWH Research Alert
May 26, 2017

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***Breslin FC, Lay AM, Jetha A, and Smith P. Examining occupational health and safety vulnerability among Canadian workers with disabilities. *Disability & Rehabilitation*. 2017; [epub ahead of print].**
<http://dx.doi.org/10.1080/09638288.2017.1327985>

Adams EJ, Chalkley AE, Esliger DW, and Sherar LB. Evaluation of the implementation of a whole-workplace walking programme using the RE-AIM framework. *BMC Public Health*. 2017; 17(1):466.
<http://dx.doi.org/10.1186/s12889-017-4376-7> [open access]

Abstract: BACKGROUND: Promoting walking for the journey to/from work and during the working day is one potential approach to increase physical activity in adults. Walking Works was a practice-led, whole-workplace walking programme delivered by employees (walking champions). This study aimed to evaluate the implementation of Walking Works using the RE-AIM framework and provide recommendations for future delivery of whole-workplace walking programmes. METHODS: Two cross sectional surveys were conducted; 1544 (28%) employees completed the baseline survey and 918 employees (21%) completed the follow-up survey. Effectiveness was assessed using baseline and follow-up data; reach, implementation and maintenance were assessed using follow-up data only. For categorical data, Chi square tests were conducted to assess differences between surveys or groups. Continuous data were analysed to test for significant differences using a Mann-Whitney U test. Telephone interviews were conducted with the lead organisation co-ordinator, eight walking champions and three business representatives at follow-up. Interviews were transcribed verbatim and analysed to identify key themes related to adoption, implementation and maintenance. RESULTS:

Adoption: Five workplaces participated in Walking Works. Reach: 480 (52.3%) employees were aware of activities and 221 (24.1%) participated. IMPLEMENTATION: A variety of walking activities were delivered. Some programme components were not delivered as planned which was partly due to barriers in using walking champions to deliver activities. These included the walking champions' capacity, skills, support needs, ability to engage senior management, and the number and type of activities they could deliver. Other barriers included lack of management support, difficulties communicating information about activities and challenges embedding the programme into normal business activities. Effectiveness: No significant changes in walking to/from work or walking during the working day were observed. Maintenance: Plans to continue activities were mainly dependent on identifying continued funding. CONCLUSIONS: RE-AIM provided a useful framework for evaluating Walking Works. No changes in walking behaviour were observed. This may have been due to barriers in using walking champions to deliver activities, programme components not being delivered as intended, the types of activities delivered, or lack of awareness and participation by employees. Recommendations are provided for researchers and practitioners implementing future whole-workplace walking programmes

Boydell K, Dew A, Hodgins M, Bundy A, Gallego G, Iljadica A, Lincoln M, Pignatiello A, Teshima J, and Willis D. Deliberative dialogues between policy makers and researchers in Canada and Australia. Journal of Disability Policy Studies. 2017; 28(1):13-22.
<http://dx.doi.org/10.1177/1044207317694840>

Caskey J and Ozel NB. Earnings expectations and employee safety. Journal of Accounting and Economics. 2017; 63:121-141.
<http://dx.doi.org/10.1016/j.jacceco.2016.12.002>

Danielsson L, Bertilsson M, Holmgren K, and Hensing G. Working in dissonance: experiences of work instability in workers with common mental disorders. BMC Public Health. 2017; 17(1):472.
<http://dx.doi.org/10.1186/s12889-017-4388-3> [open access]

Abstract: BACKGROUND: Common mental disorders have a negative impact on work functioning, but less is known about the process when the functioning starts to destabilize. This study explores experiences of work instability in workers with common mental disorders. METHODS: A grounded theory study using a theoretical sampling frame, individual in-depth interviews and a constant comparative analysis conducted by a multidisciplinary research team. The sample involved 27 workers with common mental disorders, currently working full or part time, or being on sick leave not more than 6 months. They were women and men of different ages, representing different occupations and illness severity. RESULTS: A general process of work instability was conceptualized by the core category Working in dissonance: captured in a bubble inside the work stream. The workers described that their ordinary fluency at work was disturbed. They distanced themselves from other people at and outside work, which helped them to regain their flow but simultaneously made them feel isolated. Four

categories described sub-processes of the dissonance: Working out of rhythm, Working in discomfort, Working disconnected and Working in a no man's land. CONCLUSIONS: The experience of work instability in CMDs was conceptualized as "working in dissonance", suggesting a multifaceted dissonance at work, characterized by a sense of being caught up, as if in a bubble. Focusing on how the worker can re-enter their flow at work when experiencing dissonance is a new approach to explore in occupational and clinical settings

Hallman DM, Birk JM, and Holtermann A. Objectively measured physical activity and 12-month trajectories of neck-shoulder pain in workers: A prospective study in DPHACTO. *Scandinavian Journal of Public Health*. 2017; 45(3):288-298.

<http://dx.doi.org/10.1177/1403494816688376>

Abstract: AIMS: This study aimed to investigate the association between objectively measured physical activity at work and leisure and the intensity (mean level and time course) of neck-shoulder pain (NSP) over 12 months among male and female blue collar workers. METHODS: Data were obtained from 625 blue collar workers from the Danish cohort DPHACTO. Physical activity was measured objectively at baseline using accelerometers. The percentage of time spent in physical activity (walking, climbing stairs, running and cycling) was calculated for both work and leisure time. Longitudinal data on the intensity of NSP (numerical rating scale 0-10) were collected using text messages every fourth week over 12 months. Linear mixed models were used to investigate the associations between occupational physical activity (OPA) and leisure time physical activity (LTPA) and the trajectories of the intensity of NSP, adjusted for individual, biomechanical and psychosocial factors, and baseline pain. RESULTS: OPA was not associated with the mean intensity of NSP over 12 months. LTPA was negatively associated with the mean intensity of NSP both among men ($B=-0.71$, 95% CI -1.31 to -0.11) and women ($B=-0.85$, 95% CI -1.57 to -0.13). Sex interactions on the 12-month trajectories of NSP showed that higher physical activity was associated with a slower reduction in NSP among men for OPA only ($B=0.03$, 95% CI 0.01-0.05) and women for LTPA only ($B=0.05$, 95% CI 0.00-0.09). CONCLUSIONS: We found that more time in LTPA was associated with a lower overall intensity of NSP over 12 months among blue collar workers. However, depending on sex and domain, high physical activity had an unfavourable effect on the course of NSP over 12 months

Harris K, Krygsman S, Waschenko J, and Laliberte RD. Ageism and the Older Worker: A Scoping Review. *Gerontologist*. 2017; [epub ahead of print].

<http://dx.doi.org/10.1093/geront/gnw194>

Abstract: PURPOSE OF THE STUDY: Given the policy shifts toward extended work lives, it is critically important to address barriers that older workers may face in attaining and maintaining satisfactory work. This article presents a scoping review of research addressing ageism and its implications for the employment experiences and opportunities of older workers. DESIGN AND METHODS: The five-step scoping review process outlined by Arksey and O'Malley was followed. The data set included 43 research articles. RESULTS: The majority of articles were cross-sectional quantitative

surveys, and various types of study participants (older workers, human resource personnel/manager, employers, younger workers, undergraduate students) were included. Four main themes, representing key research emphases, were identified: stereotypes and perceptions of older workers; intended behavior toward older workers; reported behavior toward older workers; and older workers' negotiation of ageism. IMPLICATIONS: Existing research provides a foundational evidence base for the existence of ageist stereotypes and perceptions about older workers and has begun to demonstrate implications in relation to intended behaviors and, to a lesser extent, actual behaviors toward older workers. A few studies have explored how aging workers attempt to negotiate ageism. Further research that extends beyond cross-sectional surveys is required to achieve more complex understandings of the implications of ageism and inform policies and practices that work against ageism

Hutting N, Oswald W, Staal JB, Engels JA, Nouwens E, van-der Sanden MW, and Heerkens YF. Physical therapists and importance of work participation in patients with musculoskeletal disorders: a focus group study. BMC Musculoskeletal Disorders. 2017; 18(1):196.

<http://dx.doi.org/10.1186/s12891-017-1546-9> [open access]

Abstract: BACKGROUND: Musculoskeletal disorders are a major health problem resulting in negative effects on wellbeing and substantial costs to society. Work participation is associated with positive benefits for both mental and physical health. Potentially, generalist physical therapists (GPTs) can play an important role in reducing absenteeism, presenteeism and associated costs in patients with musculoskeletal disorders. However, work participation is often insufficiently addressed within generalist physical therapy practice (GPTP). Therefore, this study evaluates whether GPTs take work participation into account as a determining factor in patients with musculoskeletal disorders, and how this might be improved. METHODS: This qualitative study consisted of seven focus groups involving 30 participants: 21 GPTs and 9 occupational physical therapists (OPTs). Based on an interview guide, participants were asked how they integrate work participation within their practice, how they collaborate with other professionals, and how GPTs can improve integration of the patient's work within their practice. RESULTS: Although participants recognized the importance of work participation, they mentioned that the integration of this item in their GPTP could be improved. Generally, GPTs place insufficient priority on work participation. Moreover, there is a lack of cooperation between the generalist physical therapist and (other) occupational healthcare providers (including OPTs), and the borderlines/differences between generalist physical therapy and occupational health physical therapy were sometimes unclear. GPTs showed a lack of knowledge and a need for additional information about several important work-related factors (e.g. work content, physical and psychosocial working conditions, terms of employment). CONCLUSIONS: Although a patient's work is important, GPTs take insufficient account of work participation as a determining factor in the treatment of patients with musculoskeletal disorders. GPTs often lack specific knowledge about work-related factors, and there is insufficient cooperation between OPTs and other occupational healthcare providers. The

integration of work participation within GPTP, and the cooperation between GPTs and other occupational healthcare providers, show room for improvement

Jamieson SD and Tuckey MR. Mindfulness interventions in the workplace: A critique of the current state of the literature. Journal of Occupational Health Psychology. 2017; 22(2):180-193.

<http://dx.doi.org/10.1037/ocp0000048>

Abstract: There is growing research interest regarding the significance of mindfulness in the workplace. Within this body of knowledge, research investigating the effects of mindfulness interventions on employee health and well-being has strong practical implications for organizations. A sound understanding of the current state of the workplace mindfulness intervention literature will help inform the suitability of these interventions within the workplace domain, and how to improve the conduct and communication of intervention-oriented research. Accordingly, in this article, we systematically review 40 published articles of mindfulness interventions in the workplace to identify ways in which these interventions could be improved, and how to overcome methodological concerns that threaten study validity. Studies selected for review were published peer-reviewed, primary empirical research studies written in English, with a focus on a workplace mindfulness intervention. We discuss a range of issues evident within this body of literature, including conceptualizations of mindfulness; the adaptation of protocols to work settings; internal validity in relation to random allocation and control conditions; the use of manipulation checks; attrition, adherence, acceptability, and maintenance of interventions; utilizing objective cognitive measures; examining organizational and well-being outcomes; and establishing boundary conditions. Overall, this review provides a resource to inform scholars to advance this line of inquiry and practitioners who are considering implementing a mindfulness intervention for employees. (PsycINFO Database Record).

Knottnerus JA and Tugwell P. Evidence-based medicine: achievements and prospects [editorial]. Journal of Clinical Epidemiology. 2017; 84:1-2.

<http://dx.doi.org/10.1016/j.jclinepi.2017.02.006>

Kothari A and Wathen CN. Integrated knowledge translation: digging deeper, moving forward. Journal of Epidemiology & Community Health. 2017; 71(6):619-623.

<http://dx.doi.org/10.1136/jech-2016-208490>

Abstract: BACKGROUND: Integrated knowledge translation has risen in popularity as a solution to the underuse of research in policy and practice settings. It engages knowledge users-policymakers, practitioners, patients/consumers or their advocates, and members of the wider public-in mutually beneficial research that can involve the joint development of research questions, data collection, analysis and dissemination of findings. Knowledge that is co-produced has a better chance of being implemented. DISCUSSION: The purpose of this paper is to update developments in the field of integrated knowledge translation through a deeper analysis of the approach in practice-oriented and policy-oriented health research. We present collaborative models

that fall outside the scope of integrated knowledge translation, but then explore consensus-based approaches and networks as alternate sites of knowledge co-production. We discuss the need to advance the field through the development, or use, of data collection and interpretation tools that creatively engage knowledge users in the research process. Most importantly, conceptually relevant outcomes need to be identified, including ones that focus on team transformation through the co-production of knowledge. CONCLUSIONS: We explore some of these challenges and benefits in detail to help researchers understand what integrated knowledge translation means, and whether the approach's potential added value is worth the investment of time, energy and other resources

Nolan C and Gleeson CI. The transition to employment: the perspectives of students and graduates with disabilities. *Scandinavian Journal of Disability Research*. 2017; 19(3):230-244.

<http://dx.doi.org/10.1080/15017419.2016.1240102>

Ostrovsky Y. Doing as well as one's parents? Tracking recent changes in absolute income mobility in Canada. *Economic Insights*. 2017; 73:1-6.

<http://www.statcan.gc.ca/pub/11-626-x/11-626-x2017073-eng.htm>

Puig-Ribera A, Bort-Roig J, Gine-Garriga M, Gonzalez-Suarez AM, Martinez-Lemos I, Fortuno J, Martori JC, Munoz-Ortiz L, Mila R, Gilson ND, and McKenna J. Impact of a workplace 'sit less, move more' program on efficiency-related outcomes of office employees. *BMC Public Health*. 2017; 17(1):455.

<http://dx.doi.org/10.1186/s12889-017-4367-8> [open access]

Abstract: BACKGROUND: Few studies have examined the impact of 'sit less, move more' interventions on workplace performance. This study assessed the short and mid-term impacts of and patterns of change within, a 19-week workplace web-based intervention (Walk@WorkSpain; W@WS; 2010-11) on employees presenteeism, mental well-being and lost work performance. METHODS: A site randomised control trial recruited employees at six Spanish university campuses (n = 264; 42 +/- 10 years; 171 female), assigned by worksite and campus to an Intervention (IG; used W@WS; n = 129; 87 female) or an active Comparison group (A-CG; pedometer, paper diary and self-reported sitting time; n = 135; 84 female). A linear mixed model assessed changes between the baseline, ramping (8 weeks), maintenance (11 weeks) and follow-up (two months) phases for the IG versus A-CG on (i) % of lost work productivity (Work Limitations Questionnaire; WLQ); (ii) three scales for presenteeism (WLQ) assessing difficulty meeting scheduling demands (Time), performing cognitive and inter-personal tasks (Mental-Interpersonal) and decrements in meeting the quantity, quality and timeliness of completed work (Output); and (iii) mental well-being (Warwick-Edinburgh Mental Well-being Scale). T-tests assessed differences between groups for changes on the main outcomes. In the IG, a multivariate logistic regression model identified patterns of response according to baseline socio-demographic variables, physical activity and sitting time. RESULTS: There was a significant 2 (group) x 2 (program time points) interaction

for the Time ($F [3]=8.69$, $p = 0.005$), Mental-Interpersonal ($F [3]=10.01$, $p = 0.0185$), Output scales for presenteeism ($F [3]=8.56$, $p = 0.0357$), and for % of lost work performance ($F [3]=10.31$, $p = 0.0161$). Presenteeism and lost performance rose significantly in both groups across all study time points; after baseline performance was consistently better in the IG than in the A-CG. Better performance was linked to employees being more active (Time, $p = 0.041$) and younger (Mental-interpersonal, $p = 0.057$; Output, $p = 0.017$). Higher total sitting time during nonworking days (Mental-interpersonal, $p = 0.019$) and lower sitting time during workdays (WLQ Index, $p = 0.013$) also improved performance. CONCLUSION: Versus an active comparison condition, a 'sit less, move more' workplace intervention effectively reduced an array of markers of lost workday productivity. TRIAL REGISTRATION: NCT02960750 ; Date of registration: 07/11/2016

Suman A, Schaafsma FG, Bamarni J, Van Tulder MW, and Anema JR. A multimedia campaign to improve back beliefs in patients with non-specific low back pain: a process evaluation. BMC Musculoskeletal Disorders. 2017; 18(1):200.

<http://dx.doi.org/10.1186/s12891-017-1551-z> [open access]

Abstract: BACKGROUND: Low back pain (LBP) is one of the most prevalent and costly disorders worldwide. To reduce its burden in the Netherlands, implementation of a multidisciplinary guideline for LBP was supported by a multifaceted eHealth campaign for patients with LBP. The current study aims 1) to evaluate whether the implementation strategy was performed as planned; 2) to assess the feasibility, barriers and facilitators of the patient based eHealth campaign; 3) to gain insight into the satisfaction and experiences of patients with various ethnic backgrounds with the implementation strategy and to make a comparison between them; and 4) to explore the association between exposure to and satisfaction with the implementation strategy. METHODS: This process evaluation was performed using the Linnan and Steckler framework, and used a mixed methods approach for data collection and analysis. The relationship between satisfaction of patients and exposure to the strategy was statistically examined. Semi-structured interviews were analysed using qualitative data analysis methods. RESULTS: Two hundred and fourteen patients participated in the quantitative, and 44 in the qualitative analysis. Most were female and had a high level of education. Many patients did not use the campaign at all or only once, and those that did rated it as reasonable. Patient satisfaction with the campaign increased significantly with an increase in its use. Qualitative analysis showed that four main themes played a role in campaign rating and use: satisfaction with intervention components, perceived benefits of the intervention, usage of the intervention, and satisfaction with the medium used. CONCLUSION: This process evaluation showed that the eHealth campaign was used only by a small proportion of patients with non-specific LBP. It seemed that the campaign was offered to the patients too late, that the lay-out of the campaign did not meet patient needs, and that healthcare providers rarely discussed the campaign with their patients, while involvement of those providers seemed to improve trustworthiness of the campaign and increase its usage. It is important to invest effort into healthcare providers to motivate patients to use eHealth intervention and to tailor

strategies better to the needs of users. TRIAL REGISTRATION: Netherlands Trial Register (NTR): NTR4329 . Registered December 20th, 2013

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