

IWH Research Alert
April 21, 2017

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***Corp N, Jordan JL, Hayden JA, Irvin E, Parker R, Smith A, and Van Der Windt DA. Protocol: a systematic review of studies developing and/or evaluating search strategies to identify prognosis studies. *Systematic Reviews*. 2017; 6:88.**

<http://dx.doi.org/10.1186/s13643-017-0482-y> [open access]

Abstract:

Background Prognosis research is on the rise, its importance recognised because chronic health conditions and diseases are increasingly common and costly. Prognosis systematic reviews are needed to collate and synthesise these research findings, especially to help inform effective clinical decision-making and healthcare policy. A detailed, comprehensive search strategy is central to any systematic review. However, within prognosis research, this is challenging due to poor reporting and inconsistent use of available indexing terms in electronic databases. Whilst many published search filters exist for finding clinical trials, this is not the case for prognosis studies.

This systematic review aims to identify and compare existing methodological filters developed and evaluated to identify prognosis studies of any of the three main types: overall prognosis, prognostic factors, and prognostic [risk prediction] models.

Methods Primary studies reporting the development and/or evaluation of methodological search filters to retrieve any type of prognosis study will be included in this systematic review. Multiple electronic bibliographic databases will be searched, grey literature will be sought from relevant organisations and websites, experts will be contacted, and citation tracking of key papers and reference list checking of all included papers will be undertaken. Titles will be screened by one person, and abstracts and full articles will be reviewed for inclusion independently by two reviewers. Data extraction and quality assessment will also be undertaken independently by two reviewers with

disagreements resolved by discussion or by a third reviewer if necessary. Filters' characteristics and performance metrics reported in the included studies will be extracted and tabulated. To enable comparisons, filters will be grouped according to database, platform, type of prognosis study, and type of filter for which it was intended. Discussion This systematic review will identify all existing validated prognosis search filters and synthesise evidence about their applicability and performance. These findings will identify if current filters provide a proficient means of searching electronic bibliographic databases or if further prognosis filters are needed and can feasibly be developed for systematic searches of prognosis studies.

Bayram M, Ungan MC, and Ardic K. The relationships between OHS prevention costs, safety performance, employee satisfaction and accident costs. International Journal of Occupational Safety & Ergonomics. 2017; 23(2):285-296.

<http://dx.doi.org/10.1080/10803548.2016.1226607>

Abstract: Little is known about the costs of safety. A literature review conducted for this study indicates there is a lack of survey-based research dealing with the effects of occupational health and safety (OHS) prevention costs. To close this gap in the literature, this study investigates the interwoven relationships between OHS prevention costs, employee satisfaction, OHS performance and accident costs. Data were collected from 159 OHS management system 18001-certified firms operating in Turkey and analyzed through structural equation modeling. The findings indicate that OHS prevention costs have a significant positive effect on safety performance, employee satisfaction and accident costs savings; employee satisfaction has a significant positive effect on accident costs savings; and occupational safety performance has a significant positive effect on employee satisfaction and accident costs savings. Also, the results indicate that safety performance and employee satisfaction leverage the relationship between prevention costs and accident costs

Beck B, Billing DC, and Carr AJ. Developing physical and physiological employment standards: translation of job analysis findings to assessments and performance standards: a systematic review. International Journal of Industrial Ergonomics. 2016; 56:9-16.

<http://dx.doi.org/10.1016/j.ergon.2016.08.006>

Carpenter CS, McClellan CB, and Rees DI. Economic conditions, illicit drug use, and substance use disorders in the United States. Journal of Health Economics. 2017; 52:63-73.

<http://dx.doi.org/10.1016/j.jhealeco.2016.12.009>

Abstract: We provide the first analysis of the relationship between economic conditions and the use of illicit drugs other than marijuana. Drawing on US data from 2002 to 2015, we find mixed evidence on the cyclical nature of illicit drug use. However, we find robust evidence that economic downturns lead to increases in the intensity of prescription pain reliever use as well as increases in clinically relevant substance use disorders involving

opioids. These effects are concentrated among working-age white males with low educational attainment. We conclude that policymakers should consider devoting more, not fewer, resources to treating substance use disorders during economic downturns

Carrillo-Castrillo JA, Trillo-Cabello AF, and Rubio-Romero JC. Construction accidents: identification of the main associations between causes, mechanisms and stages of the construction process. *International Journal of Occupational Safety & Ergonomics*. 2017; 23(2):240-250.

<http://dx.doi.org/10.1080/10803548.2016.1245507>

Abstract: OBJECTIVE: To identify the most frequent causes of accidents in the construction sector in order to help safety practitioners in the task of prioritizing preventive actions depending on the stage of construction. METHODS: Official accident investigation reports are analysed. A causation pattern is identified with the proportion of causes in each of the different possible groups of causes. RESULTS: Significant associations of the types of causes with accident mechanisms and construction stages have been identified. CONCLUSIONS: Significant differences have been found in accident causation depending on the mechanism of the accident and the construction stage ongoing. These results should be used to prioritize preventive actions to combat the most likely causes for each accident mechanism and construction stage

Ekboir J, Blundo Canto G, and Sette C. Knowing what research organizations actually do, with whom, where, how and for what purpose: monitoring research portfolios and collaborations. *Evaluation and Program Planning*. 2017; 61:64-75.

<http://dx.doi.org/10.1016/j.evalprogplan.2016.12.002> [open access]

Gragnano A, Miglioretti M, Frings-Dresen MH, and De Boer AG. Adjustment between work demands and health needs: development of the work-health balance questionnaire. *Rehabilitation Psychology*. 2017; [Epub ahead of print].

<http://dx.doi.org/10.1037/rep0000121>

Abstract: PURPOSE: This study presented the construct of Work-Health Balance (WHB) and the design and validation of the Work-Health Balance Questionnaire (WHBq). More and more workers have a long-standing health problem or disability (LSHPD). The management of health needs and work demands is crucial for the quality of working life and work retention of these workers. However, no instrument exists measuring this process. The WHBq assesses key factors in the process of adjusting between health needs and work demands. METHOD: We tested the reliability and validity of 38 items with cross-sectional data from a sample of 321 Italian workers (mean age = 45 +/- 11 years) using exploratory factor analysis (EFA), Rasch analyses, and the correlations with other relevant variables. RESULTS: The instrument ultimately consisted of 17 items that reliably measured three factors: work-health incompatibility, health climate, and external support. These dimensions were associated with well-being in the workplace, dysfunctional behaviors at work, and general psychological health. A higher level on the WHB index was associated with lower levels of presenteeism, emotional exhaustion,

workaholism, and psychological distress and with higher levels of job satisfaction and work engagement, supporting the construct validity of the instrument. CONCLUSION: The WHBq shows good psychometric characteristics and strong and theoretically consistent relationships with important and well-known variables. These results make the WHBq a promising tool in the study and management of health of employees, especially for the work continuation of employees returning to work with LSHPD. (PsycINFO Database Record

Holm A, Hogelund J, Gortz M, Rasmussen KS, and Houlberg HS. Employment effects of active labor market programs for sick-listed workers. Journal of Health Economics. 2017; 52:33-44.

<http://dx.doi.org/10.1016/j.jhealeco.2017.01.006>

Abstract: We use register data of 88,948 sick-listed workers in Denmark over the period 2008-2011 to investigate the effect of active labor market programs on the duration until returning to non-subsidized employment and the duration of this employment. To identify causal treatment effects, we exploit over-time variation in the use of active labor market programs in 98 job centers and time-to-event. We find that ordinary education and subsidized job training have significant positive employment effects. Subsidized job training has a large, positive effect on the transition into employment but no effect on the subsequent employment duration. In contrast, ordinary education has a positive effect on employment duration but no effect on the transition into employment. The latter effect is the result of two opposing effects, a large positive effect of having completed education and a large negative lock-in effect, with low re-employment chances during program participation

Jacobs M and Pienaar J. Stress, coping and safety compliance in a multinational gold mining company. International Journal of Occupational Safety & Ergonomics. 2017; 23(2):152-161.

<http://dx.doi.org/10.1080/10803548.2016.1263476>

Abstract: The primary objective of this study was to investigate the relationship of work stress, consisting of role stressors and job insecurity, with safety compliance at work. A secondary objective was to test for the possible moderating effect of individual employees' coping behaviour between experienced work stress and job insecurity, and their safety compliance. A cross-sectional survey design was used (n = 771). An electronic survey, with a biographical questionnaire and scales on role conflict, role ambiguity, role overload, job insecurity, coping and safety compliance at work, was administered. The results indicated that specific aspects of work stress, notably role conflict, role ambiguity and quantitative job insecurity, and of coping, namely an avoidance style and changing the situation, were important in understanding safety compliance. A moderating effect of avoidance coping was also found

Lazaridis K, Jovanovic J, Jovanovic J, Sarac I, and Jovanovic S. The impact of occupational stress factors on temporary work disability related to arterial

hypertension and its complications. International Journal of Occupational Safety & Ergonomics. 2017; 23(2):259-266.

<http://dx.doi.org/10.1080/10803548.2016.1179524>

Abstract: AIM: To determine which specific groups of occupational stress factors influence the duration of temporary work disability related to arterial hypertension and joint complications/co-morbidities. METHODOLOGY: Workers (n = 1398; 1009 in the exposed group, 389 in the control group) with arterial hypertension who worked at one workplace for a minimum of 10 years were divided into 10 subgroups, depending on the presence of joint complications/co-morbidities. The intensity of seven groups of occupational stress factors, the total score of Occupational Stress Index (OSI) and the average number of lost working days during 1 year were analysed. RESULTS: The number of lost working days due to arterial hypertension and joint complications/co-morbidities was significantly higher in the exposed group. In all subgroups of the exposed group there was a high correlation between the number of lost working days and the total OSI score. Specific occupational stress factors were associated with specific complications: High Demands with chronic myocardial infarction, Strictness with cerebral haemorrhage, Conflict/Uncertainty with cerebral infarction, Extrinsic Time Pressure with acute myocardial infarction, and Avoidance/Symbolic Aversiveness with non-insulin-dependent diabetes. CONCLUSION: There are specific groups of occupational stress factors which can influence the duration of work disability associated with certain complications and co-morbidities of arterial hypertension

Salminen S, Perttula P, Ratilainen H, and Kuosma E. The effect of demographic factors on occupational injuries. International Journal of Occupational Safety & Ergonomics. 2017; 23(2):225-228.

<http://dx.doi.org/10.1080/10803548.2016.1247604>

Abstract: OBJECTIVES: In Finland about 120,000 occupational injuries occur annually, the cost of which is over EUR 2 billion per year. This is why it is reasonable to analyze the effect of demographic factors like gender, age, tenure and mother tongue on occupational injuries. METHODS: The participants consisted of 1681 employees from four Finnish companies, who reported their injuries from the last 3 years. RESULTS: Gender or mother tongue did not associate with injury involvement. Employees younger than 25 years of age were more often involved in injuries than employees aged over 55 (odds ratio [OR] = 2.69, 95% confidence interval [CI] [1.70, 4.23]). Employees with 2-10 years of experience in the company had a higher injury frequency than both novice and very experienced employees (OR = 2.01, 95% CI [1.60, 2.52]). CONCLUSIONS: This study showed that age was a more important factor in injury involvement than gender, tenure or mother tongue. However, age was closely related to experience in the company. Prevention measures in the companies should thus focus on novice employees

Schneider B, Gonzalez-Roma V, Ostroff C, and West MA. Organizational climate and culture: reflections on the history of the constructs in the Journal of Applied Psychology. Journal of Applied Psychology. 2017; 102(3):468-482.

<http://dx.doi.org/10.1037/apl0000090>

Abstract: We review the literature on organizational climate and culture paying specific attention to articles published in the Journal of Applied Psychology (JAP) since its first volume in 1917. The article traces the history of the 2 constructs though JAP has been far more important for climate than culture research. We distinguish 4 main periods: the pre-1971 era, with pioneering work on exploring conceptualization and operationalizations of the climate construct; the 1971-1985 era, with foundational work on aggregation issues, outcome-focused climates (on safety and service) and early writings on culture; the 1986-1999 era, characterized by solidification of a focused climate approach to understanding organizational processes (justice, discrimination) and outcomes (safety, service) and the beginnings of survey approaches to culture; and the 2000-2014 era, characterized by multilevel work on climate, climate strength, demonstrated validity for a climate approach to outcomes and processes, and the relationship between leadership and climate and culture. We summarize and comment on the major theory and research achievements in each period, showing trends observed in the literature and how JAP has contributed greatly to moving research on these constructs, especially climate, forward. We also recommend directions for future research given the current state of knowledge. (PsycINFO Database Record

Selander J. Is employer-based disability management necessary in a social-democratic welfare state like Sweden? International Journal of Disability Management. 2016; 11(e4):1-6.

<http://dx.doi.org/10.1017/idm.2016.3>

Spiegel T, Wittek R, and Steverink N. What are the pathways linking the disclosure of a degenerative eye condition in the workplace and wellbeing? A mixed methods approach. International Journal of Disability Management. 2016; 11(e3):1-12.

<http://dx.doi.org/10.1017/idm.2016.2>

Yeom JH, Sim CS, Lee J, Yun SH, Park SJ, Yoo CI, and Sung JH. Effect of shift work on hypertension: cross sectional study. Annals of Occupational and Environmental Medicine. 2017; 29:11.

<http://dx.doi.org/10.1186/s40557-017-0166-z> [open access]

Abstract: BACKGROUND: The need of efficient resource management and full-time accessibility to resources has increased with the development of industry, resulting in the increase of shift workers. Previous researches of past decades show that there are various health effects on shift workers. However, the definition and the form of shift work have varied from each research and occupational harmful factors except for shift work have not been excluded completely in previous researches. Therefore, in this research, we tried to find out the effect of shift work focusing on the hypertension. To complement previously mentioned weakness of other researches, we performed our research on participants to whom we could minimize other risk factors excluding shift work. METHODS: This research examined 1,953 petrochemical plant male workers (shift

work 1,075, day worker 878) who did medical checkup from 1st Jan. 2014 to 31st Dec. 2014 in a general hospital located in Ulsan, based on their medical records and questionnaires. With the questionnaire, we found out their basic information including age, social status, occupational history, and we took their physical measurements. RESULTS: Compared to day workers, shift workers' odds ratio of developing hypertension was 1.31 (95% CI 0.98-1.75). After adjusting confounding variables, adjusted odds ratio for entire subjects was 1.51 (95% CI 1.11-2.06). Also, for subjects who were in continuous service for over 20 years, odds ratio was 1.51 (95% CI 1.08-2.11). CONCLUSIONS: Shift workers had a higher chance of hypertension than day workers do. Particularly, the longer the workers work continuously, the risk of hypertension getting higher

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