

Nº 4

Boletín LADEP

Boletín Nº4 - 2º Cuatrimestre 2009

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Boletín Nº4 - 2º Cuatrimestre 2009 (Mayo - Agosto)

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- SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH
- AMERICAN JOURNAL OF INDUSTRIAL MEDICINE
- JOURNAL OF OCCUPATIONAL MEDICINE AND TOXICOLOGY

Artículo Nº1

Revista: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH - 2009;35(3):188-192

Título

Work characteristics as predictors of physiological recovery on weekends (Características del trabajo como predictores de recuperación fisiológica en fines de semana)

Autores

Berset M, Semmer NK, Elfering A, Amstad FT, Jacobshagen N

Objetivos

Objective. This study investigated whether work characteristics predict physiological recovery on a rest day. Specifically, we aimed to show that high demands and low control at work would lead to higher cortisol values and thus poor recovery on a rest day..

Métodos

Methods. A total of 69 individuals participated in this study. In addition to analyzing questionnaire responses, we measured salivary cortisol on two workdays and on a subsequent rest day (a Sunday). We used multiple regression analysis. We controlled for the workday cortisol level; results reflect the relative change in cortisol from workday to rest day. In addition, we controlled for gender, since this relates to cortisol levels at work.

Resultados

Results. We found that control at the workplace predicted cortisol levels on a rest day. Specifically, individuals with less job control had higher cortisol levels, and consequently poorer recovery on the rest day than those with more control. Neither job demands nor the interaction of demands and control predicted a change in cortisol levels from workday to rest day.

Conclusiones

Conclusion. The results indicated that a lack of control at work impairs physiological recovery on the weekend, one of the central recuperation periods. In light of the potential importance of incomplete recovery with respect to long-term ill health, it should be considered crucial to ensure job control at the workplace.

Referencias

Refers to the following texts of the Journal: 2004;30(2):129-138 2000;26(4):306-316 2006;32(6):482-492

Palabras Claves

Key terms. cortisol; job control; job demand; physiological recovery; stress; unwinding; weekend; work characteristic; work stress.

Artículo Nº2

Revista: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH - 2009;35(3):222-232

Título

Self-reported versus expert-assessed work-relatedness of pain in the neck, shoulder, and arm (Cuestionario de salud autopercebido frente a evaluación por expertos del dolor en cuello, hombro y brazo relacionado con el trabajo)

Autores

Mehlum IS, Veiersted KB, Wærsted M, Wergeland E, Kjuus H

Objetivos

Objective. The aim of this study was to compare self-reported work-relatedness of neck-shoulder and arm pain with experts' assessments based on specific criteria.

Métodos

Methods. A sample of 217 employed participants in the Oslo Health Study 2000-2001, aged 30, 40, and 45 years, who reported neck-shoulder or arm pain in the past month, underwent a health examination. A criteria document for evaluating the work-relatedness of upper-extremity musculoskeletal disorders was used to establish clinical diagnoses and assess the work-relatedness of pain with respect to the subject's present job. We measured agreement between the participants and experts on whether pain was related to work as observed agreement, positive and negative specific agreement, and kappa.

Resultados

Results. A major proportion of the cases were assessed as work-related, somewhat more frequently by self-report than when assessed by experts (80% versus 65% for neck-shoulder pain, and 78% versus 72% for arm pain, respectively). However, there was considerable disagreement as to which cases were work-related. The experts disagreed more frequently in cases that were reported as non-work-related (particularly for neck-shoulder pain and cases reported by men). Positive specific agreement was fairly high (76-85% in the total population), while negative specific agreement was lower (37-51%). Kappa values were also low (0.16-0.34).

Conclusiones

Conclusion. Compared with expert assessment, self-reporting did not seem to particularly exaggerate work-relatedness. Nevertheless, there was considerable disagreement, especially on cases assessed as non-work-related. However, agreement will depend on the case definitions and the criteria for work-relatedness used both by the participants and the experts.

Referencias

Refers to the following texts of the Journal: 2005;31(3):237-243 2007;33(3):165-191 2008;34(4):250-259 2001;27 suppl 1:1-102

Palabras Claves

Key terms. Agreement; arm; clinical diagnosis; expert-assessment; exposure; health examination; MSD; musculoskeletal disorder; neck; occupational health; pain; questionnaire; risk evaluation; self-assessment; shoulder; upper extremity; work-relatedness.

Artículo Nº3

Revista: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH - 2009;35(4):261-281

Título

Common prognostic factors of work disability among employees with a chronic somatic disease: a systematic review of cohort studies (Factores pronósticos comunes de incapacidad laboral entre trabajadores con una enfermedad somática crónica: una revisión sistemática de estudios de cohortes)

Autores

Detaille SI, Heerkens YF, Engels JA, van der Gulden JWJ, van Dijk FJH

Objetivos

Objectives. Based on prospective and retrospective disease cohort studies, the aim of this review was to determine common prognostic factors for work disability among employees with rheumatoid arthritis, asthma, chronic obstructive pulmonary disease, diabetes mellitus, and ischemic heart disease (IHD).

Métodos

Methods. A systematic literature search in Medline (1990-2008) and Embase (1990-2008) was carried out to identify relevant cohort studies using a well-defined list of inclusion and quality criteria.

Resultados

Results. We identified 43 relevant cohort studies with sufficient methodological quality (20 for rheumatoid arthritis, 3 for asthma and 20 for IHD). The common prognostic factors for work disability found in all the diseases were: perceived health complaints, limitation in daily physical activities caused by the disease (high versus low), heavy manual work, and female gender. The common positive prognostic factors for rheumatoid arthritis and IHD were age (high versus low) and sickness absence. The common negative factors for rheumatoid arthritis and IHD were education (high versus low) and ethnic origin (white versus non-white).

Conclusiones

Conclusions. As many prognostic factors for work disability are similar for employees with various chronic diseases, it is possible to detect high risk groups. This information supports the development and implementation of a general disability management intervention for employees suffering from a chronic disease to overcome health-related limitations at work.

Referencias

Refers to the following texts of the Journal: 2009;35(4):282-283 2003;29(2):134-142
The following article refers to this text: 2009;35(6):479-479

Palabras Claves

Key terms. Chronic disease; chronic somatic disease; cohort study; employee; occupational health; prognostic factor; review; risk factor; self-management; somatic disease; systematic review; work disability

Artículo Nº4

Revista: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH - 2009;35(4):301-308

Título

Self-reported productivity loss among workers with upper extremity disorders (Pérdida de productividad autopercebida entre trabajadores con alteraciones de extremidades superiores)

Autores

Martimo K-P, Shiri R, Miranda H, Ketola R, Varonen H, Viikari-Juntura E

Objetivos

Objectives. Upper extremity disorders (UED) are prevalent in working populations. This study investigates the prevalence, magnitude, and associated factors of on-the-job productivity loss among workers with UED.

Métodos

Methods. Workers with incipient upper extremity symptoms were invited to participate in our study after the disorder was verified by a physician and no immediate sick leave was required. Of the 177 eligible patients, 168 (95%) were included in the study. They were asked to describe their symptoms, personal characteristics, and work-related factors. Self-assessed productivity measured the impact of UED on the achieved work output.

Resultados

Results. Of the 168 participants, 56% reported a productivity loss; the average reduction thereof was 34%. Productivity loss was associated with pain intensity [odds ratio (OR) for the third tertile 2.8, 95% confidence interval (95% CI) 1.2-6.5], pain interference with work (OR for the third tertile 5.7, 95% CI 2.2-14.3) and fear-avoidance beliefs (OR 2.8, 95% CI 0.9-8.9). Pain interference with sleep was associated with productivity loss only among those aged 46 years or older, whereas high job strain showed an association with productivity loss only among workers aged 20-45 years. In the younger group, productivity loss was more associated with a combination of any two of the following three factors than the presence of only one: pain intensity, job strain, and physical loads at work.

Conclusiones

Conclusions. UED cause substantial loss of productivity at work. The most important associated factors are related to pain and its impact on work and sleep, but also to psychological aspects of pain and work. Our findings suggest that the factors associated with productivity loss differ in younger and older workers.

Referencias

Refers to the following texts of the Journal: 2008;34(6):411-419 2001;27 suppl 1:1-102 2008;34(6):420-429 2008;34(2):120-132 2005;31(5):367-374 2007;33(2):122-130

The following articles refer to this text: 2010;36(1):25-33 2010;36(1):1-2

Palabras Claves

Key terms. Ergonomics; fear-avoidance belief; MSD; musculoskeletal disorder; physical factor; presenteeism; productivity; productivity loss; psychosocial factor; self-assessment; self-report; upper extremity disorder; worker.

Artículo Nº5

Revista: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - 52:372-379, 2009

Título

Hospitalization in Winnipeg, Canada due to occupational disease: A pilot study (Hospitalización en Winnipeg por enfermedades laborales: un estudio piloto)

Autores

Allen G. Kraut

Objetivos

Objectives. The objectives of this study were to identify the extent of occupational exposures to hazardous substances amongst male medical inpatients and to determine the extent to which these exposures may have contributed to the development of medical conditions.

Métodos

Methods. A random sample of 297 male who were admitted from outside the hospital to the medical wards to a large tertiary care hospital, were between age 18-75 and could communicate in English completed an occupational history questionnaire. This information was merged with an inpatient database which contained patient demographics, admission diagnoses, and co-morbidity data. A specialist in occupational medicine and internal medicine determined whether the medical conditions the participants had were related to their exposures.

Resultados

Results. One individual had a condition causing admission that was related to his work and 12 others (4%) had a condition that was possibly related to their work which had caused symptoms. One additional individual was found to have asymptomatic asbestos related pleural fibrosis. Fourteen of 37 possible harmful occupational exposures were reported by more than 10% of the study participants. On average each participant reported 5.5 exposures.

Conclusiones

Conclusions. Occupational exposures to male medical inpatients are common. For 4.4% (13/297) of male admissions to the general medical wards from the emergency room occupational factors may have played a role in the development of medical conditions which led to admission or to major co-morbidities. Detailed occupational histories will likely lead to more suspected cases of work related medical admissions.

Palabras Claves

Key terms. Occupational diseases; epidemiology; inpatient medical wards; occupational exposures; Canada

Artículo Nº6

Revista: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - 52:447-454, 2009

Título

Frequency of work-related respiratory symptoms in workers without asthma (Frecuencia de síntomas respiratorios relacionados con el trabajo en trabajadores sin asma de una fundición)

Autores

Samah Chiry, Louis-Philippe Boulet, Johanne Lepage, Amélie Forget, Denis Bégin, Simone Chaboillez, Jean-Luc Malo, Michel Gérin, Catherine Lemiere.

Objetivos

Objectives. Clinicians are faced with subjects complaining of work-related respiratory symptoms (WRS) without any evidence of asthma. We sought to assess the prevalence of subjects with WRS without asthma in a cohort of workers referred for possible work-related asthma (WRA) as well as compare the characteristics and the work environment of subjects with WRS to subjects with WRA.

Métodos

Methods. A prospective observational study of workers referred for possible WRA over a 1-year period. Detailed medical and occupational questionnaires were administered. Pulmonary function tests as well as specific-inhalation challenges were performed.

Resultados

Results. One hundred twenty workers were investigated. Fifty-one had WRA while 69 had WRS. The type and the severity of the respiratory symptoms were similar in both groups, except for wheezing which was more frequently reported in subjects with WRA (32 (62.7%)) than in subjects with WRS (16 (23.2%)) ($P < 0.01$). Both the workers with WRS and WRA were mainly employed in the manufacturing sector (64.7% (WRA) and 71% (WRS)). At the time of the first assessment 64.7% of subjects with WRA and 56.5% with WRS had left their workplace because of their bothersome respiratory symptoms.

Conclusiones

Conclusions. Subjects with WRS without asthma represent a large proportion of the subjects assessed in clinics specialized in the field of WRA. Like subjects with WRA, the population with WRS is likely to represent a significant medical burden. The similarity of the symptoms between the WRA and the WRS groups emphasizes the need to perform a thorough and objective investigation to diagnose WRA.

Palabras Claves

Key terms. Asthma; occupational asthma; occupational exposure; occupational health; work-related asthma.

Artículo Nº7

Revista: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - 52:563-570, 2009

Título

Occupational blood exposure among unlicensed home care workers and home care registered nurses: Are they protected? (Exposición laboral sanguínea entre cuidadores a domicilio sin licencia y enfermeras de cuidados domiciliarios tituladas: ¿están protegidos?)

Autores

J. Lipscomb, PhD, RN, R. Sokas, K. McPhaul, B. Scharf, MSN, P. Barker, BS, A. Trinkoff, PhD, RN, C. Storr..

Introducción

Introduction. Little is known about the risk of blood exposure among personnel providing care to individual patients residing at home. The objective of this study was to document and compare blood exposure risks among unlicensed home care personal care assistants (PCAs) and home care registered nurses (RNs).

Métodos

Methods. PCAs self-completed surveys regarding blood and body fluid (BBF) contact in group settings (n = 980), while RNs completed mailed surveys (n = 794).

Resultados

Results. PCAs experience BBF contact in the course of providing care for home-based clients at a rate approximately 1/3 the rate experienced by RNs providing home care (8.1 and 26.7 per 100 full time equivalent (FTE), respectively), and the majority of PCA contact episodes did not involve direct sharps handling. However, for PCAs who performed work activities such as handling sharps and changing wound dressings, activities much more frequently performed by RNs, PCAs were at increased risk of injury when compared with RNs (OR = 7.4 vs. 1.4) and (OR = 6.3 vs. 2.5), respectively.

Conclusiones

Conclusions. Both PCAs and RNs reported exposures to sharps, blood, and body fluids in the home setting at rates that warrant additional training, prevention, and protection. PCAs appear to be at increased risk of injury when performing nursing-related activities for which they are inexperienced and/or lack training. Further efforts are needed to protect home care workers from blood exposure, namely by assuring coverage and enforcement of the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard [Occupational Safety and Health Administration. 1993. Frequently Asked Questions Concerning the Bloodborne Pathogens Standard. Available at: http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=21010#Scope..

Palabras Claves

Key terms. Home care; blood and body fluid contact; needlesticks; occupational health and safety; prevention.

Artículo Nº8

Revista: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE - 52:603-613, 2009

Título*Mortality among sheet metal workers participating in a medical screening program (Mortalidad entre trabajadores de laminado de metal participantes en un programa de cribado)***Autores**

John Dement, Laura Welch, Elizabeth Haile , Douglas Myers.

Introducción

Introduction. The Sheet Metal Occupational Health Institute Trust (SMOHIT) was formed in 1985 to examine the health hazards of the sheet metal industry in the U.S. and Canada through an asbestos disease screening program. A study of mortality patterns among screening program participants was undertaken.

Métodos

Methods. A cohort of 17,345 individuals with 20 or more years in the trade and who participated in the asbestos disease screening program were followed for vital status and causes of death between 1986 and 2004. Data from the screening program included chest X-ray results by International Labour Office (ILO) criteria and smoking history. Standardized mortality ratios (SMRs) by cause were generated using U.S. death rates and Cox proportional hazards models were used to investigate lung cancer risk relative to chest X-ray changes while controlling for smoking.

Resultados

Results. A significantly reduced SMR of 0.83 (95% CI = 0.80-0.85) was observed for all causes combined. Statistically significant excess mortality was observed for pleural cancers, mesothelioma, and asbestosis in the SMR analyses. Both lung cancer and COPD SMRs increased consistently and strongly with increasing ILO profusion score. In Cox models, which controlled for smoking, increased lung cancer risk was observed among workers with ILO scores of 0/1 (RR = 1.17, 95% CI = 0.89-1.54), with a strong trend for increasing lung cancer risk with increasing ILO profusion score >0/0.

Conclusiones

Conclusions. Sheet metal workers are at increased risk for asbestos-related diseases. This study contributes to the literature demonstrating asbestos-related diseases among workers with largely indirect exposures and supports an increased lung cancer risk among workers with low ILO profusion scores.

Palabras Claves

Key terms. Sheet metal worker; construction; trades; mortality; cancer; lung cancer.

Artículo Nº9

Revista: JOURNAL OF OCCUPATIONAL MEDICINE AND TOXICOLOGY - 2009, 4:9doi:10.1186/1745-6673-4-9

Título

Short term exposure to cooking fumes and pulmonary function (Exposición corta a humos de cocina y función pulmonar)

Autores

Sindre Svedahl, Kristin Svendsen, Torgunn Qvenild, Ann Kristin Sjaastad and Bjørn Hilt.

Introducción

Introduction. Exposure to cooking fumes may have different deleterious effects on the respiratory system. The aim of this study was to look at possible effects from inhalation of cooking fumes on pulmonary function.

Métodos

Methods. Two groups of 12 healthy volunteers (A and B) stayed in a model kitchen for two and four hours respectively, and were monitored with spirometry four times during twenty four hours, on one occasion without any exposure, and on another with exposure to controlled levels of cooking fumes.

Resultados

Results. The change in spirometric values during the day with exposure to cooking fumes, were not statistically significantly different from the changes during the day without exposure, with the exception of forced expiratory time (FET). The change in FET from entering the kitchen until six hours later, was significantly prolonged between the exposed and the unexposed day with a 15.7% increase on the exposed day, compared to a 3.2% decrease during the unexposed day (p-value = 0.03). The same tendency could be seen for FET measurements done immediately after the exposure and on the next morning, but this was not statistically significant.

Conclusiones

Conclusions. In our experimental setting, there seems to be minor short term spirometric effects, mainly affecting FET, from short term exposure to cooking fumes.