### 135 PROGNOSTIC FACTORS FOR DURATION OF SICK LEAVE IN PATIENTS WITH CHRONIC LOW BACK PAIN, A SYSTEMATIC REVIEW

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Objectives If a worker hurts his/her back, many people want to know how long it will take before he/she returns to work (RTW). The worker wants to know because being off work can lead to insecurity and anxiety. The workplace wants to know whether it should make alternate work arrangements. Compensation agencies want to know, to guide intervention decisions for early and safe RTW. The objective of this review is to determine the factors that predict RTW from the sub-acute and chronic stage of a low back pain related episode of time away from work. The current review is an expansion of a review published in 2005 that examined the acute stage.

Methods A search of PubMed, EMBASE and PsycINFO from inception to February 2012 was conducted. Retrieved references will be screened for relevancy independently by two reviewers and when consensus cannot be reached a third reviewer will be consulted. Reviewers will not assess articles they are an author on. Quality appraisal and data extraction forms developed by the research team will be used. Analysis of the results will involve Levels of Evidence and, if possible, results will be pooled.

**Results** Of the 5027 references that were retrieved 117 relevant prognosis studies and 72 relevant intervention studies were found. Prognosis studies will be used to identify prognostic factors for RTW and intervention studies will be referred to in final reports as possible ways to address identified prognostic factors. The findings from this review will be used to create a handbook for clinicians involved in the RTW process and will be shared in four different workshops to various stakeholder groups.

Conclusions This review will provide insight into the factors that affect RTW among individuals at the sub-acute and chronic stages of time away from work due to low back pain.

### 136 CHRONIC WIDESPREAD PAIN (CWP) AND JOB SATISFACTION AMONG THE THREE WHEELER TAXI (TUK TUK) DRIVERS IN HIKKADUWA, SRI LANKA

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Objectives Three wheeler taxies are a very common mode of public transportation in Sri Lanka and other south Asian countries. These are three-wheeled vehicles with a cabin for drivers and passengers. In Sri Lanka these vehicles are commonly called "tuk-tuks". Working as a tuk tuk driver is an important source of employment for many Sri Lankan men. It has been reported that these drivers are commonly seeking medical care for chronic musculoskeletal pain. However this problem has not been studied systematically. Therefore, this research was carried out with the objective of study the CWP, other chronic joint pains and job satisfaction among the tuk tuk drivers in Hikkaduwa, Sri Lanka.

Methods This study was carried out among a sample of tuk tuk drivers, working in Hikkaduwa, Sri Lanka. Cluster sampling method was used to select the sample. A criterion given in the "Manchester Definition" for CWP was used for the identification of CWP. Data was collected using a self administered structured questionnaire.

**Results** Two hundred and twenty tuk tuk drivers were participated in the study. Mean age of drivers was 28.50 years with the range of 19 years to 77 years. Most (81.8%) had an education up to grade 10. Mean duration of work as tuk tuk driver is 6.7 years. 29.5% of drivers were found to have CWP. Shoulder pain was the most prevalent (22.7%) individual joint problem. Other reported problems include Back pain (20.0%) neck pain (18.6%), knee pain (15.9%) and wrist pain (11.4%). 47.7% drivers were satisfied about their job. Significantly higher proportion of drivers with CWP were unsatisfied about their job compared to drivers without CWP (P < 0.05).

Conclusion Almost 30% of tuk tuk drivers were found to have CWP. And drivers with CWP are less likely to be satisfied with their job.

# 137 CLINICAL AND OCCUPATIONAL PROFILE OF PROFESSIONAL DRIVERS FROM A SAMPLE IN SĆO PAULO, BRAZIL

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**Objectives** To identify the clinical and occupational profile of professional drivers, with emphasis on visual acuity, who participated in the "Comandos de Saúde" program performed at São Paulo, Brazil, from 2009 to 2011.

Methods We conducted a retrospective cross-sectional analysis using data collected from a sample of 787 drivers in eight different dates, from 2009 to 2011, from 'Comandos de Saúde' program of the Medicine School from São Paulo University.

**Results** 99.8% of the drivers were men, 53.6% had the age between 18 and 45 years. Regarding education 58.1% have not finished high school and 2% had a college degree. In assessing visual acuity, 10.4% of drivers were unable under the minimum criteria established by law and 2.1% had abnormal vision for colours.

**Discussion** The social profile and the findings related to visual acuity did not differ from the findings in other similar studies. It is known that visual acuity is one of the most important factors to driving safely, being an important issue to be addressed in occupational health evaluations from this workers.

**Conclusions** It is very important to the occupational health professionals regularly assess the health of professional drivers, with emphasis on visual acuity, which is the most important factor for their safety.

# 138 COMPUTER VISION SYNDROME (CVS) IN ADMINISTRATIVE PROFESSIONALS AND THE EVALUATION OF ERGONOMIC CONDITIONS OF THE WORKPLACE

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Introduction Computer vision syndrome (CVS) is the combination of vision and eye problems associated with the use of computers. The CVS may have a significant impact on visual comfort and also in occupational productivity of computer users. The symptoms may include eyestrain, headaches, ocular discomfort, dry eye, diplopia and blurred vision after long time computer use. This paper aims to identify the frequency of visual complaints in workers who usually use computer and evaluate ergonomics conditions in the workplace.

Methods Cross-sectional observational study performed in the administrative sector of an environmental sanitation company in the city of Santo André, southeastern of Brazil. The population was 31 computer using workers. They answered questionnaire about sociodemographic data, ergonomics knowledge and clinical complaints. It was assessed near visual acuity, using Jaeger table. Checklists for ergonomic evaluation and luminance mensuration were performed in the workplaces.

**Results** Most participantes were female (77.42%) and over 40 years old (54.84%). The median was five years at work. They reported breaks every two hours (48,4) and had knowledge about workstation ergonomic adjustments (80,6%). The ergonomic checklist to using computer workplace indicated a good ergonomic condition. The luminance mensurations were insufficient in 9.7% of the workstations. All of them have sufficient near acuity but visual correction was necessary for 80.6%. CVS complaints were reported by 45.2% of the participants.

**Conclusion** There are CVS cases in this population but there isn't problems as participants with bad visual acuity, low luminance of workstations or bad ergonomic workplace conditions. It's necessary to study others causes of CVS, such as psychosocial factors at work, to program policies for this problem. Eyes health is related with quality of life and productivity among workers. To establish regular occupational evaluations about ambiental conditions and workers health is indicated to earlier detection of problemas and implement adequate corrections.

#### 139 THE DETERMINANT OF OSH PERFORMANCE: A STUDY ON ERGONOMIC WORK SYSTEM

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The implementation of Occupational Safety and Health Act (OSHA) at work purposed to ensure security of the safety, health and welfare of persons as well as to protect other against risks. In Malaysia, numerous actions had been undertaken in increasing the level of awareness of OSH at work, yet, studies show that occurrence of safety and health related problem are crucial. This situation posed serious inconvenience in relation to productivity and performance. Studies claims that OSH awareness are still lack, and awareness on the importance of ergonomics in the workplace, such as issues on unhealthy work environments, excessive workloads and lack of participatory ergonomic proved one of the main causes of safety and health-related problems at work. Consequently, it will lead to negative financial and non-financial performance at work. Thus, study aims to examine the relationship between ergonomic work systems (EWS) and OSH performance, in particular, workplace accident and occupational stress. This study utilised the Work System and Balance Theory to examine the relationship between the variables, hence to strengthen the development of research framework. The study was based on a sample of 40 respondents from manufacturing sector located in Penang Malaysia. Data is collected through a questionnaire distributed that has three sections, which are questions about respondents' demography, EWS and OSH performance. The result shows that, most of workers are not aware on the issues related to workplace ergonomic. It also found that EWS were the main concern of workers that leads to workplace accident and occupational stress at work. Therefore, changes related in practicing OSH aspects at work such as altering work condition and environment, enforcing ergonomic aspects, implementing OSH training and safety culture, will help to ensure employee's safety and health would lead to a better organisational performance in the long run.

### 140 ERGONOMIC RISK FACTOR ASSESSMENT OF UPPER EXTREMITIES MUSCULOSKELETAL DISORDERS (UEMSDS) BY COMPREHENSIVE EXPOSURE INDEX (CEI) IN TEXTILE INDUSTRY

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Background & Objective (s) Upper extremities musculoskeletal disorders (UEMSDs) are referred as the most pervasive and significant problem in textile industries worldwide. Therefore, this study was conducted to assess the ergonomic risk factors of UEMSDs by Comprehensive Exposure Index (CEI) in a textile industry.

Materials & Methods 425 accidentally-sampled workers of Ghaemshahre textile industry (North of Iran) were studied in a cross-sectional study. A combined method including: Interviews (to gain workers' personal characteristics and understand job processes), Nordic Musculoskeletal Questionnaire (NMQ; to obtain UEMSDs pain symptoms and signs prevalence), Hierarchical Job Analysis (HJA; to analyse jobs before assessment) and Comprehensive Exposure Index (CEI; to assess the ergonomic risk factor of UEMSDs) were used and the gathered data were analysed.

**Results** Percentage pain symptoms in hand & fingers, wrist, forearm, elbow, arm, and shoulder were 83.61%, 78.28%, 71.39%, 57.09%, 41.22%, and 24.18% respectively. There were significant correlation between prevalence of hand & fingers musculoskeletal disorders with workers' age, job experience, and stature (p < 0.05). CEI revealed that 11.28% of tasks posed on level 1 (Safe level), 22.61% of tasks posed on level 3 (slight risk level), and 18.99% of tasks posed on level 4 (significant risk level). There were significant associations between CEI scores and pain symptoms prevalence of hand & fingers and wrists (P < 0.005).

**Discussion and Conclusions** Most repetitive tasks of textile industry feature ergonomic risk factors that can induce UEMSDs. The CEI model was found to be a sensitive model to assess the ergonomic risk factor causing UEMSDs in textile industries and any changes in exposure before and after ergonomic interventions.

### 141 PREVALENCE OF MUSCULOSKELETAL DISORDERS AMONG DENTAL PERSONNEL IN KHON KAEN PROVINCE, THAILAND

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