

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 participants 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 2 (uncertain level), 47.12% of tasks located 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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