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Musculoskeletal disorders of the upper limbs: A scourge among nursing staff
A. Omrane (Dr), S. Kammoun (Dr), L. Bouzgarrou (Dr), I. Rassas (Dr), I. Allagui (Dr), A. Kriaei (Dr), M.A. Henchi (Prof), C. Amri (Prof), M. Akroud (Prof), N. Chaari (Prof)
Laboratoire de Médecine de Travail & d’Ergonomie, Faculté de Médecine de Monastir, Université de Monastir, Monastir, Tunisia
Département de Médecine du Travail et d’Ergonomie, Faculté de Médecine de Monastir, Université de Monastir
Corresponding author.
E-mail address: kammounsalfa@planet.tn (S. Kammoun)

Aims To assess the prevalence of musculoskeletal disorders of the upper limb (MSD-UL) among healthcare staff, to identify socio-occupational factors risk. And their impact on the work capacity.

Methods Cross-sectional study, conducted with a representative sample stratified according to age, gender and service ensuring the nursing function in one of two university hospitals in central Tunisia. Data of the survey concerned socio-professional characteristics, the index of work capacity (WAI) and integrates Nordic questionnaire MSD. The survey was completed by twelve manoeuvres of SALTSA, the protocol of early clinical MSD-UL screening.

Results The sample included 300, but only 239 forms were useable. The average age was 42.64 years ± 11.65 years, with a slight predominance of older workers over 45 years (53.9%) and the sex ratio was 1.06. Obesity involved more than 1/5 of the nurses (BMI > 30) and more than half (51.9%) did not practice any regular physical activity. Work capacity was considered “good” or “excellent” for 3/4 of caregivers. During the previous 12 months of investigation MSD of the shoulders were the most reported with a prevalence of 62.12% versus 43.34% MSD of the neck, 21.84% oft the elbow and 43.68% of the hands. MSD of the neck and shoulder were statistically correlated to the female gender, age > 45 years. The protocol SALTSA objectified painful movements of the shoulders in 62 nurses, epicondylitis and tendinitis of the wrist in 67.92% and carpal tunnel syndrome in 25 nurses. The average distance thumb-C7 as equal to 16.42 ± 5.91 cm and its increase was correlated with professional seniority. Moreover, the presence of some MSD significantly alter the working capacity, particularly MSD neck (P < 10-3), the right shoulder (P = 0.03), the left elbow (P = 0.03) and the right wrist (P = 0.01).

Conclusion MSD-UL are pathologies, which can be associated with heavy individual handicap and serious consequences for society, imposing multidisciplinary preventive strategy and management.

Keywords Musculoskeletal disorders; Work ability; Risk factors; Nursing staff

Disclosure of interest The authors have not supplied their declaration of conflict of interest.

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Evaluation of i-Préventive: Active prevention digital tool for musculoskeletal disorders among computer workers
C. Lanheirs a, b, B. Pereira (Dr) c, C. Maublant (Dr) c, G. Garde (Dr), E. Coudeyre (Prof) a
a Service de Médecine Physique et de Réadaptation, CHU Gabriel Montpied Clermont-Ferrand, Clermont-Ferrand, France
b Délégation à la recherche clinique et à l’innovation, CHU Gabriel Montpied Clermont-Ferrand
c Service Santé au Travail, Entreprise Michelin, Clermont-Ferrand
Corresponding author.
E-mail address: lanheirs.charlotte@gmail.com (C. Lanheirs)

Objective To evaluate the effects of a software program that stimulates extra breaks with a personalized self-program exercises form, on pain and/or function, among computer workers who have upper-limb musculoskeletal disorders with visual discomfort [1]. Methods A cluster randomized controlled trial was performed. Each group was composed of symptomatic and asymptomatic employees. We conducted a prospective feasibility study developed in two different sites of Michelin firm. Cluster randomization was used for office locations. The study lasted 5 months. The main outcome was the overall recovery from complaints after one-month intervention, using “the Nordic style questionnaire” and eye strain questionnaire [2].

Results 96 workers included in the intervention group, 79 in the control group. The most painful areas (VAS ≥ 2) are: neck (40%), upper back (18.8%), shoulders (15.7%). Concerning, the most painful anatomical area, the Nordic score significantly decreases after one month utilization in the intervention group (P = 0.038) versus control group (P = 0.59). After one-month utilization, in the intervention group, the painful area and visual discomfort symptoms number decrease (P = 0.02). After one month, the adhesion of the system is satisfactory (almost 60% of employees).

Discussion In the short-term, the active breaks use in the musculoskeletal disorders and eye strain treatment is effective using the software program. It is a numerical simple tool to use, which allows each worker to interact on areas of their choice by offering personalized exercises easily achievable on workplace.

Keywords Musculoskeletal diseases; Eyestrain; Computer work; Muscle stretching exercises; Rest; Application software program

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Effectiveness of an intervention program for management of shoulder disorders in industrial workers: A workplace study
G. Mitonneau (Dr)
Laboratoire de Physiologie de l’Exercice, Bourget-Du-Lac, France
E-mail address: gregoire.mitonneau@gmail.com

Introduction Shoulder work-related musculoskeletal disorders represent a major occupational health problem. The most common shoulder disorder described in the literature is the subacromial impingement syndrome. This pathomechanism is generally