SOP-06: The effects of neck posture and duration of computer usage on musculoskeletal pain among computer-using office workers in selected Regional Secretariat Offices

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Introduction: Musculoskeletal (MSK) pain is associated with the rapidly increasing use of computers in occupational settings. Bad posture and prolonged computer use may lead to increased postural load resulting in MSK pain. We investigated the effects of neck posture and the duration of computer usage on MSK pain among computer-using office workers.

Methods: A descriptive cross-sectional study was carried out among 198 office workers aged 20-65 years using computers daily in two selected Regional Secretariat Offices in Matara District. The prevalence of MSK pain was assessed using self-administered Brief Pain Inventory Questionnaire and Nordic Musculoskeletal Questionnaire. Posture of the neck was recorded using photogrammetry and the angles of neck were calculated with image J software. Independent sample t-test and Pearson's correlation were used to assess significance of the difference at α=0.05.

Results: The mean age was 39 years (SD=7.47) and 78% (n=154) were females. Majority (68.2%) had MSK pain during the last 24 hours, and 69.7% had pain in any joint for more than 3 months. Back pain was the most frequent MSK pain in the previous 24 hours and more than 3 months, while neck pain was the second. The mean degrees of head flexion, neck flexion and cranio-cervical angles were 75.92 (SD=11.25), 51.59 (SD=12.89) and 154.86 (SD=12.42), respectively. The mean duration of computer usage per day was 3.58 (SD=2.05) hours. Neck angles were not associated with MSK pain, but the duration of computer usage per day was associated with MSK pain in the previous 24 hours (t=3.25; p=0.02). MSK pain did not show significant correlations with age (r=-0.02; p=0.78).

Conclusions: MSK pain was common among computer-using office workers, while back pain was the most prevalent. However, neck posture angles and age were not related to pain. The duration of computer usage was significantly associated with MSK pain. Measures should be taken to reduce MSK pain by taking into consideration the associated factors.

Keywords: musculoskeletal pain, neck posture, computer worker

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