

Sitting Posture, Computer Ergonomics, and Study-Related Health Problems among Undergraduate Medical Students

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Abstract

Online teaching-learning activities and the use of electronic devices have become mandatory elements of modern-day higher education, particularly during the COVID-19 pandemic. Prolonged sitting and working in front of electronic apparatus can cause musculoskeletal problems if the correct posture is not maintained. This study aimed to assess the sitting posture and computer ergonomic practices among undergraduate medical students to identify study-related health problems. In this descriptive cross-sectional survey, the practice of correct sitting posture and computer ergonomics and the study-related musculoskeletal health problems among medical students of Rajarata University of Sri Lanka were assessed using a self-administered online questionnaire. Of the total of 394 participants, the majority were females (n=285,72.34%) with a mean age of 23±1.3 years. Sitting is the commonest posture used by most of the participants (n=365,92.64%), while majority used laptops (n=284,72.08%) and smartphones (n=342,86.80%) for study activities. A chair with back support and no armrests or wheels was the most used chair type (n=214,54.31%). However, only 63 (16%) participants practiced correct posture when sitting. Though the recommended frequency of taking regular breaks during prolonged sitting should be every 20-30 minutes, most of the participants (n=236,59.9%) took breaks after 30 minutes of sitting. With regards to computer ergonomic practices, most of the students correctly kept their electronic devices on the study table (n=331,84.01%) and at the correct eye level (n=259,65.74%), while ~50% (n=196) of the participants kept the device at the recommended distance from eyes. Of the participants, 59.39% (n=234) had experienced pain/discomfort while studying. Though the association ($\chi^2=1.633$, $p=0.201$) between sitting posture and pain/discomfort was not statistically significant, 86.75% (n=203) of those who experienced pain/discomfort were practicing incorrect sitting posture. Lower back (n=137,58.55%), neck (n=118,50.43%), eye (n=102,43.59%) and shoulder (n=94,40.17%) pain were the most common discomforts reported. The higher amount of study-related health issues reported among the participants practicing incorrect sitting posture denotes the need of improved awareness of correct posture and computer ergonomics among students to reduce the risk of study-related health problems.

Keywords: *Computer ergonomics, sitting posture, study-related health problems*

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