

ABSTRACT

DIFFERENCES IN *SCREEN TIME*, POSTURAL HABITS, AND BODY MASS INDEX BETWEEN MEDICAL STUDENTS WITH AND WITHOUT FORWARD HEAD POSTURE

By

MUHAMMAD DAFA ANANTA

Background: Increased use of digital devices is associated with changes in posture that contribute to an increase in forward head posture (FHP). Excessive *screen time* and poor postural habits can decrease the craniovertebral angle (CVA), while body mass index (BMI) also has an effect, with overweight and obese groups showing lower CVA. The study was conducted to examine the differences in *screen time*, postural habits, and BMI between students with FHP and those without FHP.

Method: This observational analytical study with a Cross-Sectional design involved 93 students from the Medical Education Study Program at the University of Lampung. FHP was assessed using CVA photogrammetric analysis. *Screen time* was obtained from device monitoring features, postural habits were measured using the Q-BAPHYP questionnaire, and BMI was calculated based on weight and height. Comparisons between groups were performed using the Independent T-Test or Mann-Whitney U test according to the normality of the data distribution.

Results: The Independent T-Test for the FHP group showed a higher average *Screen time* than the non-FHP group ($742,56 \pm 168,45$ minutes and $703,72 \pm 208,42$ minutes; $p = 0,035$). The Mann-Whitney U test for the FHP group also showed a higher median BMI than the non-FHP group ($29,09 \pm 6,85$ kg/m² and $21,97 \pm 3,79$ kg/m²; $p < 0,001$). The Independent T-Test for the FHP group showed a lower mean postural habit score than the non-FHP group ($13,11 \pm 11,36$ and $9,77 \pm 13,37$; $p = 0,218$).

Conclusion: There was a difference in *screen time* duration and body mass index between medical students with and without forward head posture, while postural habit scores showed no difference.

Keywords: Craniovertebral Angle; Forward Head Posture; Postural Habits; *Screen time*.

ABSTRAK

PERBEDAAN *SCREEN TIME*, KEBIASAAN POSTURAL, DAN INDEKS MASSA TUBUH ANTARA MAHASISWA PENDIDIKAN DOKTER DENGAN DAN TANPA FORWARD HEAD POSTURE

Oleh

Muhammad Dafa Ananta

Latar Belakang: Peningkatan penggunaan perangkat digital dikaitkan dengan perubahan pola postur yang berkontribusi terhadap meningkatnya kejadian forward head posture (FHP). *Screen time* berlebihan dan kebiasaan postural buruk dapat menurunkan craniovertebral angle (CVA), sementara indeks massa tubuh (IMT) turut berpengaruh, di mana kelompok overweight dan obesitas menunjukkan CVA lebih rendah. Penelitian dilakukan untuk melihat perbedaan *screen time*, kebiasaan postural, dan IMT antara mahasiswa FHP dan tidak FHP.

Metode: Penelitian analitik observasional dengan desain Cross-Sectional ini melibatkan 93 mahasiswa Program Studi Pendidikan Dokter Universitas Lampung. FHP dinilai menggunakan analisis fotogrametri CVA. *Screen time* diperoleh dari fitur pemantauan perangkat, kebiasaan postural diukur menggunakan kuesioner Q-BAPHYP, dan IMT dihitung berdasarkan berat dan tinggi badan. Perbandingan antar kelompok dilakukan menggunakan uji Independent T-Test atau Mann-Whitney U sesuai dengan normalitas distribusi data.

Hasil: Uji Independent T-Test kelompok FHP menunjukkan rerata *screen time* lebih tinggi dari kelompok tidak FHP ($742,56 \pm 168,45$ menit dan $703,72 \pm 208,42$ menit; $p = 0,035$). Uji Mann-Whitney U kelompok FHP juga menunjukkan nilai median IMT lebih tinggi dari kelompok tidak FHP ($29,09 \pm 6,85$ kg/m² dan $21,97 \pm 3,79$ kg/m²; $p < 0,001$). Uji Independent T-Test kelompok FHP menunjukkan rerata skor kebiasaan postural lebih rendah dari kelompok tidak FHP ($13,11 \pm 11,36$ dan $9,77 \pm 13,37$; $p = 0,218$).

Simpulan: Terdapat perbedaan durasi *screen time* dan indeks massa tubuh antara mahasiswa Pendidikan Dokter dengan dan tanpa forward head posture, sedangkan skor kebiasaan postural tidak menunjukkan perbedaan.

Kata Kunci: Craniovertebral Angle; *Forward Head Posture*; Kebiasaan Postural; *Screen time*.