

The effect of use digital devices on eyes during COVID-19 period

Abdulrahman A. Almuhawwis

King Saud bin Abdulaziz University for Health Sciences (KSAU-HS), Saudi Arabia

Background: A substantial increase in using digital devices was observed among the population due to staying at home as a result of the quarantine during the coronavirus pandemic. Consequently, ocular symptoms appeared due to spending several hours of screen time per day.

Objective: The current study aimed to assess the impact of excessive use of digital devices during the pandemic of coronavirus among the Saudi population.

Methods: A community-based cross-sectional study was carried out from November 2020 to January 2021 among the Saudi population. Data were collected by using Ocular Surface Disease Index (OSDI) questionnaires for the assessment of symptoms related to dry eye and their effect on vision. A logistic regression model was used to evaluate the association between the risk factors and the symptoms of dry eye. SPSS 22nd edition was used, any p-value <0.05 was considered significant.

Results: Out of 1573 participants, 93.8% used mobile, 42.4% experienced uncomfortable sensitivity to the light. There were 49.15% of the participants who showed that none of the time they felt blurry vision, 54.8% did not report double vision, and 30.5% who felt a headache recently after quarantine. About 48% of the participants did not have any ocular symptoms, while 52% had dry eye symptoms (mild 22.3%, moderate 13.7%, and severe 15.9%). When the logistic regression model of risk factors associated with severe symptoms of dry eye was applied, wearing a contact lens was the most significant variable ($p < 0.0001$) [Figure 1].

Conclusion: Dry eye symptoms increased during the quarantine, which indicated that the digital device users need to learn more about the preventive measures from practitioners in eye healthcare. More studies are warranted to assess the impact of digital device usage on all age groups starting from children up to the elderly population.

Keywords: Coronavirus lockdown, Dry eye symptoms, Digital devices, Quarantine, Ocular Surface Disease Index [OSDI], Digital eye strain.

Biography

Abdulrahman A. Almuhawwis is practiced Optometrist with many years of experience performing examinations and diagnosis of eye diseases and disorders. He is a skillful in preparing prescriptions for eyeglasses and contact lenses, maintaining strong commitment to accuracy. He versed at forging and cultivating productive relationships with clients, achieving high levels of satisfaction, retention and referrals.

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