

**Screen Time and Mental Work in College Students During COVID-19: Implications for Occupational Therapy**

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**ABSTRACT**

Due to stay-at-home orders and remote learning, the COVID-19 crisis has led to increased *screen time* (ST) on phone/tv among college students. Prolonged ST can negatively impact *mental work* (MW), which encompasses the mental processes and efforts utilized when performing tasks requiring cognitive effort and attention. During this health crisis, *occupational therapists* (OTs) have been working with students to improve their mental well-being and cognitive function at school, through activities and exercises designed to enhance mental capacity. Longitudinal research is still needed to fully understand the extent of the relationship between ST and MW and identify interventions that can reduce the negative impacts of prolonged ST. **PURPOSE:** To explore changes in college students' MW in relation to total ST over the course of two months during the COVID-19 crisis. **METHODS:** In total, 135 undergraduates ( $m_{age} = 19.31$ ,  $SD = 0.97$ ; M = 59, F = 76) participated. MW scores were collected daily via O'Connor's Mental and Physical Energy and Fatigue Trait-State Scale over 67 days. A GAMLj mixed model with 3836 observations was used to analyze the data, modeling 67 waves (i.e., days) as latent variables in relation to total ST and sex. **RESULTS:** The final model of this study is:  $Mental\ Work = 3.48 - 0.06 * Waves - 0.45 * Total\ Screen\ Time + 0.46 * Sex$  (0 = Male, 1 = Female). On average, the expected MW for students on day 1 was 3.48. For every additional day, the MW was predicted to decrease by .06 units ( $F = 48.83$ ,  $p < .001$ ), and for every additional hour spent on ST, MW was predicted to decrease by .45 additional units ( $F = 85.41$ ,  $p < .001$ ). Female students were expected to perform .46 units better than males ( $F = 0.79$ ,  $p = .375$ ). Student variability accounted for 6% of the variation in MW ( $\sigma_{\mu}^2 = 4.43$ , LR  $\chi^2(1) = 98.11$ ,  $p < .001$ ). **CONCLUSION:** The results of this study suggested that prolonged ST negatively impacted MW performed by college students during the COVID-19 crisis. These findings are important for OTs as they provide insight into the potential incremental negative effects of ST over time and the need for interventions to reduce these impacts on students' mental well-being and cognitive function. Limitations include self-reported data. Further research is needed to investigate interventions and examine the effects of different screen-based activities on MW.