Examining the Association Between Screen Time Exposure and Anxiety-Related Symptoms Among Adolescents

Name:

Institution Affiliation:

Course:

Instructor:

Date:

Chapter 5: Discussion

Evidence from the literature highlights excessive digital screen time (EDST) as one of the major factors contributing to the rising occurrence of diverse psychiatric conditions globally (Alsaigh et al., 2022; Nagata et al., 2024; Pieh et al., 2025). Although there are national guidelines and efforts to address the problem, EDST is still high among adolescents and is associated with increased feelings of loneliness, fear, worry, nervousness**,** and mood disorders (Alsaigh et al., 2022; Nagata et al., 2024). In addition, data from the National Institute of Mental Health (NIMH, 2025) indicates that approximately 31.9% of teenagers in the United States (US) are affected by anxiety-related disorders. Although the prevalence of anxiety is high among adolescents, the effect of EDST on exacerbating the incidence remains underexplored, as most researchers focus on the impact on depressive symptoms and overall mental health outcomes.

The purpose of this quantitative, cross-sectional study was to examine the association between higher screen time exposure and increased prevalence of anxiety-related symptoms among adolescents in the US. A cross-sectional, analytical design was utilized to investigate the relationship between the two variables using secondary data from the National Health Interview Survey for Teens (NHIS-Teen), conducted by the National Center for Health Statistics (NCHS) between July 2021 and December 2023. The researcher also used the social cognitive model as the theoretical framework for developing and analyzing the hypothesis that there is no significant association between screen time exposure, the independent variable (IV), and the prevalence of anxiety-related symptoms, the dependent variable (DV), among adolescents. This chapter contains (a) major findings, (b) interpretation and discussion, (c) implications for practice, and (d) a summary.

Major Findings

Secondary data retrieved from the NCHS were analyzed using descriptive and inferential statistics via the Statistical Package for Social Sciences (SPSS) software version 28. The descriptive analyses consisted of frequency and percentage summaries of participants' demographic information, such as race and gender. Pearson's correlation analysis was the most appropriate inferential test for analyzing the null hypothesis because it measures linear correlation between two continuous variables (Janse et al., 2021). However, the assumptions for the test, such as normal distribution and absence of outliers, were not met in the data. Therefore, the researcher conducted Spearman's rank coefficient test as the inferential analysis to measure the relationship between the IV and DV. The results showed a strong, positive association between the two variables that was statistically significant *(r*(109) = .549, $p < .001$). Consequently, the researcher rejected the null assumption and accepted the alternative hypothesis that there is a significant association between screen time exposure and the prevalence of anxiety-related symptoms among US adolescents.

Interpretation and Discussion

The results of this quantitative cross-sectional study showed that the amount of daily screen exposure is positively correlated with increased symptoms of anxiety among teenagers in the US. The results were consistent with diverse findings in the literature, including Alsaigh et al. (2022), Kerr et al. (2025), Mohd Saat et al. (2024), Tang et al. (2021), and Xu et al. (2025). For instance, Kerr et al. (2025) in their systematic review analysis found that approximately 50% of the reviewed studies reported positive associations between screen time and anxiety. The measures used to evaluate anxiety symptoms comprised validated tools such as the Depression Anxiety Stress Scale, the Diagnostic Statistical Manual Checklist, the Social Anxiety Scale for

Adolescents, the Generalized Anxiety Disorder (GAD) Scale 2, and the GAD-7. However, Kerr et al. (2025) highlighted that despite the high prevalence of EDST and anxiety disorders among adolescents, the role of social media screen use remains unclear and necessitates further research. Similarly, findings by Xu et al. (2025) indicated that increased use of digital devices was positively correlated with anxiety symptoms among teenagers ($\beta = 0.471$, 95% CI: 0.159-0.784) and that sleep duration had a partial mediating role between the two variables. The results indicated that sleep duration was a significant factor that influenced the impact of EDST on adolescents' feelings of worry, fear, and nervousness (Xu et al., 2025).

The outcomes of this cross-sectional study further aligned with Alsaigh et al.'s (2022) findings. The researchers observed a considerable correlation between screen time and the presence of anxiety-related conditions among teenagers ($n = 338$, 54%) (Alsaigh et al., 2022). The association was higher among individuals who spent excessive time on social networks and entertainment ($n = 410$; 65.5%) compared to those who did not. Similarly, Mohd Saat et al. (2024) showed that EDST had a direct, positive impact on adolescents' anxiety levels ($M = 0.134$, $\beta = 0.123$, $p < 0.01$) with indicators of poor sleep patterns due to factors such as nocturia and insomnia. Although Tang et al. (2021) found evidence to support the impact of increased screen time on anxiety and depression outcomes, the researchers emphasized the need for additional studies investigating the relationship between screen content and individual motivation. Examining the association is crucial to better understand how EDST impacts the occurrence of mental health symptoms among children and young adults. Overall, the literature findings are consistent with the study results, showing a positive relationship between excessive screen exposure and adolescent anxiety (Alsaigh et al., 2022; Kerr et al., 2025; Mohd Saat et al., 2024; Tang et al., 2021; Xu et al., 2025). However, the researchers also emphasize the need for

continued studies to investigate the factors that influence the association between the two variables.

Implications for Practice

The study findings showed a statistically significant association between excessive daily screentime and increased prevalence of anxiety-related symptoms among US teenagers. Consequently, the implications for practice are based on the outcomes obtained. First, nurses and physicians in psychiatric settings can incorporate EDST assessment as part of routine mental health care for reducing anxiety-related risk factors among adolescents (Alsaigh et al., 2022). Second, health providers can educate caregivers and parents on the importance of monitoring and regulating adolescents' screen time-related behaviors to prevent the associated outcomes, including social nervousness, increased worry, and sleep deprivation (Kerr et al., 2025; Mohd Saat et al., 2024). Third, clinicians can develop personalized treatment plans to gradually reduce daily digital device usage (<4 hours) among adolescents with high levels of anxiety symptoms (Schmidt-Persson et al., 2024). Fourth, community leaders can advocate for the implementation of school-based policies that promote children's self-efficacy in maintaining healthy screen habits (Mohd Saat et al., 2024). Fifth, the outcomes showed that the social cognitive theory can be applied as a theoretical model to influence positive behaviors among teenagers with EDST through motivation, positive affirmation, and self-assurance (Poluektova et al., 2023).

Implications for Future Research

The findings of this cross-sectional analytical study showed a statistically significant association between high screen time and anxiety symptoms, providing several implications for future research. The first implication is that longitudinal studies can be conducted to examine the causality of the variable associations. Establishing causal relationships can enable researchers to

determine suitable and effective interventions to reduce EDST and improve adolescents' mental health outcomes (Francisquini et al., 2024). The second implication is derived from the study population, which consisted of adolescents aged between 12 and 17 years. Future researchers can investigate the issue of excessive screen time among adults and other demographic groups to compare the impact on anxiety symptoms. The third implication is that additional studies should be focused on determining whether screen content mediates the association between EDST and the prevalence of anxiety disorder (Mohd Saat et al., 2024; Tang et al., 2021).

Summary

The purpose of this quantitative, cross-sectional study was to examine the association between higher screen time exposure and increased prevalence of anxiety-related symptoms among adolescents in the US. The main findings showed a strong and statistically positive correlation between the two variables ($r(109) = .549$, $p < .001$), which implied that excessive daily digital screen exposure elevated adolescents' anxiety symptoms. The results were consistent with evidence provided in existing literature, including Alsaigh et al. (2022), Kerr et al. (2025), Mohd Saat et al. (2024), Tang et al. (2021), and Xu et al. (2025). The findings have implications for practice and future research. In practice, EDST can be incorporated in the routine assessment of adolescents' mental health to reduce their risk of developing anxiety. In addition, health care providers can educate caregivers and parents on the importance of monitoring and regulating daily screen time. Also, community nurses can advocate for the implementation of school-based policies that promote self-efficacy practices to reduce excessive screen use among learners. The implications for future research include the need for conducting longitudinal studies to establish causal associations and investigating the role of screen content as a potential mediator in the association between EDST and the prevalence of anxiety disorders.

The next chapter will contain (a) recommendations, (b) contributions to practice, and (c) a conclusion.

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