

Stress responses bridge links between adolescents' digital media use and subsequent Depression and Suicidal ideation.

6. Internet and media

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Abstract text

Introduction: Depression is a public health problem among European children, adolescents, and young adults (ages 10-24 years). The prevalence of depressive disorders was estimated to 3% in the Global Burden of Disease Study 2019, ranking it the second most disabling health condition amongst European youth. Suicide is also a leading cause of death. This research examined the strength of longitudinal associations between adolescents' (aged 11-18 years) digital media use and risk of subsequently elevated depression. International public health recommendations for digital media use are discussed alongside theoretical frameworks to understand them.

Methods: This presentation summarizes three longitudinal studies with large samples. They utilized self-reported data based on validated psychometric scales. Final follow-up measurements took place four months post-baseline (European sample: $N > 1500$) or after twelve months (domestic sample: $N > 4500$). Statistical moderation effects were tested with linear regression and gamma regression. Multiple mediation pathway analyses were conducted through structural regression and structural equation modelling.

Results: There were no substantial gender differences in screen time, but girls had consistently higher depression levels than boys. Significant moderating and mediating longitudinal effects were found to have the common denominator of being a 'stress response'. Core results suggested that the link between screen use and depression was bridged by deteriorated sleep habits and coping styles during stress. Sleep mediation effects were clearly stronger for girls than boys, while coping effects were similar for girls and boys. Statistically significant interaction effects sizes were "small" by convention. Regarding coping, results have already been successfully replicated with suicidal ideation as dependent variable.

Discussion: Research is currently unable to establish causality between digital media use and subsequent depression, but this research supports commonly hypothesized, temporally sequential chain-of-events. Digital media seem to be a potential indirect cause of depression and suicidal ideation, enabled by stress responses with implications for psychological medicine.