Screen Culture: A closer look at the impact of screen use on developmental outcomes

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**ABSTRACT**

Excessive screen time among adolescents has long been considered a potential risk factor for a host of negative physical, mental, and behavioral outcomes. There are important questions surrounding this association that remain unanswered. The temporal order of the association remains unestablished, as it is fully possible that preexisting physical, mental, and behavioral issues are causing excessive screen use. Similarly, selection bias remains possible, as influences that promote excessive screen use may also, simultaneously, impact negative physical health, mental health, and behavior. Finally, the developmental impact of increased screen time remains relatively unknown, as majority of existing studies are exclusively focused on adolescents. This study is aimed at examining these limitations more closely and offering some suggestions for future research that account for such limitations in more effective manner.

**Research Questions**

1. **Longitudinal Studies**: required for establishing temporal order, detecting reverse causation, and improving generalizability.
2. **Life Course Studies**: required for establishing effects of screen time across stages of the life course.
3. **Refined measurement**: required to move from self report studies and increase precision.
4. **Stable internal sources of influence**: required to identify other factors that may influence screen use and outcomes.

**Future Research**

- **Casual vs Selection Hypotheses**
  - **Causal Hypothesis**: Excessive screen time can promote a sedentary lifestyle, sleep problems, anxiety, impulsivity and behavioral problems.
  - **Selection Hypothesis**: Lifestyles that include increased screen time are also more likely to result in physical health, mental health, and behavioral problems.

**Visual representation of the causal (red lines) and selection (blue lines) hypotheses, as well as threats to validity (green).**

**Conclusion**

- There is a **consistent association** between screen time and various negative physical, mental health, and behavioral outcomes.
- **Threats to internal validity still persist** due to problems in establishing temporal order and the possibility of selection bias.
- **Age graded impact remains unknown**, as the majority of the screen time literature focuses only on adolescents.
- **More research is needed** to better understand observed associations.