Exploring the longitudinal impact of social media on adolescent mental health: Findings from the UK Longitudinal Household Study

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HAVE SMARTPHONES DESTROYED A GENERATION?

More comfortable online than out partying, post-Millennials are safer, physically, than adolescents have ever been. But they’re on the brink of a mental health crisis.

By Joan M. Troppe

Schools fight soaring mental health crisis

In the first part of a special series, we hear from health leaders about the growing crisis among our young people.

Referrals to children and young people’s mental health services on the rise

April 2017 to October 2021, England

Source: NHS Digital
Background

• Social media use has been linked with common mental health disorders in young people

• Limited longitudinal evidence to establish causal link (Keles et al., 2020; Marino et al., 2018)

• Concern about the role social media might play in making mental health problems worse

• Need to understand this relationship to inform interventions.
Aims

1. Understand the longitudinal relationship between social media use and mental health

2. The mediating role of important factors related to mental health
   • Self-esteem
   • Social connectedness
Research Questions

1. What is the relationship between social media use at age 12-13 and mental health two years later?

2. Do feelings of social connectedness and self-esteem mediate the relationship?
Methods

3,228 10-15 year olds from Understanding Society youth questionnaire (waves 1-10).

Outcome: Mental health 14-15 – SDQ Total Difficulties

Exposure: Number of hours spent on social media 12-13

Mediators: Self-esteem 13-14,
Social connectedness 13-14

Covariates: Age, sex, ethnicity, year they took part in the survey, mother and household data

Multilevel linear regression – does social media use at age 12-13 predict mental health at age 14-15

Path analysis - structural equation modelling investigated the mediation pathways
Results - regression

Spending 7 or more hours on social media vs none, mental health problems increased by 3.87 ($p=0.02$, 95% CI, 0.71-7.03)

Attenuated after adjusting for covariates

Poorer mental health at 12-13 and taking part in the survey later were stronger predictors of mental health at 14-15
Results – mediation

Confounders: mental health, sex, ethnicity, year took part in survey, mother’s marital status & highest qualification, number employed in household, household income at age 12-13

- Social media use age 12-13
  - Self-esteem age 13-14
    - Social connectedness age 13-14
    - Mental health age 14-15

\[ \beta = -0.10^* \]
\[ \beta = -6.80^{**} \]
\[ \beta = 0.33 \]
Limitations

<table>
<thead>
<tr>
<th>Measures</th>
<th>Sample size</th>
<th>Generalizability</th>
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<tbody>
<tr>
<td>• Self-reported</td>
<td>• Relatively small</td>
<td>• Specific age and time points</td>
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<td>• Validity</td>
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Conclusions

• Little evidence to suggest a causal relationship between social media use and mental health

• Reducing time spent on social media alone may not improve mental health

• Consider the role of self-esteem
Thank you for listening
Please contact me here

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