

Written evidence submitted by Understanding Society, the UK Household Longitudinal Study, University of Essex

1. Introduction

1.1 Understanding Society, the UK Household Longitudinal Study, is a world-leading longitudinal survey of continuity and change in UK life. From an initial sample of around 40,000 households, the same people are invited to participate in annual surveys. Together with its predecessor, the British Household Panel Survey, the data now span 32 years.

1.2 Understanding Society is based at the Institute for Social and Economic Research at the University of Essex. It is an important part of CLOSER, a partnership of leading social and biomedical longitudinal population studies in the UK (www.closer.ac.uk).

1.3 Understanding Society is primarily funded by the Economic and Social Research Council, part of UK Research and Innovation, and has received funding from a number of government departments, devolved administrations and agencies. Anonymised data from the surveys are made available to registered researchers.

1.4 In each annual survey, adults (16 and over) are asked about different aspects of their life. In households where there are children under the age of 10, parents or carers answer a set of questions about the children in their care. Young people aged 10-15 complete a short questionnaire looking at different parts of their life, after their parent or carer has given permission for them to complete it.

1.5 We have identified research which uses Understanding Society data and is relevant to the committee's question:

- What is the current understanding of how screen time can support or impact children's wellbeing and mental health, including the use of social media?

2. Summary

- Early findings suggested high levels of social media use could harm children's wellbeing.
- However, more recent, extensive research says links between social media use and life satisfaction are "more nuanced than previously assumed".
- There may be specific points during adolescence when higher social media use predicts lower life satisfaction a year later, but it is difficult to say whether the relationship is causal.
- There are other developmental processes happening during adolescence, which also affect life satisfaction and its relationship to social media use.
- Moderate use of social media does not play an important role in shaping children's life satisfaction.
- Higher use is linked to lower happiness, especially for girls, but more research is needed to understand how technology is being used.
- Policy makers also need to consider demographics and the social fabric of the households in which children grow up.
- Prolonged use of social media may be linked to poor emotional health and increased behavioural difficulties, but moderate use is not, and may be good for social relationships (compared to no use).
- It is important to address high use, but not to stigmatise social media as negative.

- Other factors may explain adverse effects – such as ‘crowding out’, where internet use reduces time spent on other activities; or low self-esteem.
- Looking at more serious mental ill health, research shows little association between screen use and suicidal depression.
- Information about new digital media has not been collected for long, so firm conclusions about their links with mental health may be premature.
- Researchers have urged transparent and credible collaborations between scientists and technology companies.
- Understanding Society has researched linking survey and social media data – including the technical difficulties, and the ethical question of consent.

3. Early findings suggested negative effects of social media

3.1 This is a new field – the first research which used our data to examine social media use and children’s wellbeing was published in 2015.

3.2 In 2016, the Office for National Statistics used our data on children’s strengths and difficulties, and found “a clear association between longer time on social websites and higher total difficulties scores”.

3.3 In 2018, research suggested that high levels of social media interaction in early adolescence had implications for wellbeing in later adolescence, particularly for girls.

4. More recent research says social media use does not predict life satisfaction

4.1 However, a study in 2019 found that social media use is not itself a strong predictor of life satisfaction for teenagers.

4.2 It found that the effects of social media are “nuanced, small at best, reciprocal over time, gender specific, and contingent on analytic methods”.

4.3 There were some small trends over time in data provided by teenage girls.

4.4 Decreases in satisfaction with school, family, appearance and friends presaged increased social media use, and increases in social media use preceded decreases in satisfaction with school, family, and friends.

4.5 However, the effect sizes were small. 99.6% of the variability in adolescent girls’ life satisfaction were not connected to how much they used social media.

4.6 The researchers say the small effect sizes make the results not definitive, but “worthy of further exploration and replication”.

5. There are “developmental windows” of sensitivity to social media

5.1 Longitudinal analysis of over 17,000 people suggests there are “developmental windows of sensitivity” to social media in adolescence.

5.2 At these times, higher estimated social media use predicts a decrease in life satisfaction ratings one year later (and vice-versa: lower estimated social media use predicts an increase in life satisfaction ratings).

5.3 The results support previous research suggesting a relationship between social media use and life satisfaction, but the researchers say that limitations to the data (including that teenagers' answers are self-reported, not objective) make it difficult to say that there is a causal relationship.

5.4 The relationship between social media use and life satisfaction will also vary, potentially due to other developmental processes happening at the same time.

5.6 The windows of sensitivity will vary between people, influenced by other factors in their lives, and the types of social media they use.

5.7 Further research to understand the neurodevelopmental, pubertal, cognitive, and social changes during these developmental windows, and how they vary, could make it possible to intervene to address the negative consequences of social media while also promoting its positive uses.

6. Moderate use of social media is not problematic

6.1 Moderate use of social media does not play an important role in shaping children's life satisfaction.

6.2 Higher use was linked to lower levels of happiness, but was "not associated with worsening life satisfaction trajectories". In other words: those people's life satisfaction may have been lower anyway, and does not appear to be falling following higher social media use.

6.3 Higher levels of use is associated with lower levels of happiness, especially for girls but more research is needed to understand how this technology is being used.

6.4 As well as focusing on high levels of social media use, policy makers should also concentrate on particular demographic groupings and factors affecting the social fabric of the households in which children grow up.

7. High levels of social media use may be problematic

7.1 Long hours on social media are detrimental for adolescents' self-esteem and behaviours, especially for girls, but limited use has some moderate association with positive peer relationships.

7.2 Spending less than three hours a day on social media has no effect on most emotional and behavioural outcomes, and can have a positive impact on social relationships compared to no use.

7.3 Prolonged use of social media (more than 4 hours per day) is linked to poor emotional health and increased behavioural difficulties, and there are strong negative associations between very long hours on social media and increased emotional distress and worse behavioural outcomes, which continue for several years.

7.4 There is therefore some support for the Goldilocks Hypothesis, with the relationship between social media use and mental health and behavioural outcomes having both positive and negative associations, depending on the amount of social media use.

7.5 Parents, teachers and others could highlight the possible risks of extended hours of social media use, and put forward the potential positive benefits of a balanced approach, i.e. reducing time on social media in order to create more time for other activities.

7.6 High intensity of use (rather than the use of social media per se) is linked to adverse outcomes, so it is important to address this high use, but not to stigmatise social media as completely negative.

7.7 However, this research, too, emphasises the difficulty of proving a causal relationship between social media use and mental health.

8. Other factors may be important

8.1 Another study has shown that internet use is negatively associated with wellbeing. The strongest effect is for how children feel about their appearance, and the effects are worse for girls than boys.

8.2 Testing potential causal mechanisms, this research found support for the adverse effect of social media use – but also for the ‘crowding out’ hypothesis, where internet use reduces the time spent on other beneficial activities.

8.3 Different research found little evidence to suggest that more time spent on social media was associated with later mental health problems in UK adolescents. These researchers suggest that prevention strategies and interventions to improve mental health associated with social media use could consider the role of factors like self-esteem.

9. No link to suicide identified

9.1 Research using Understanding Society and the Florida Youth Risk Behavior Survey looked at “an observed increase in suicides in the United States among teenagers and preteens” to see if it could be attributed to increased social media use.

9.2 The Florida data showed “no patterns ... for any media to suggest that correlations between screen use and suicidal depression had increased over time”, and with our data “all effect sizes for the association between social media use and emotional problems were ... trivial”.

9.3 Social media can play a part in specific instances of youth suicide, especially where cyberbullying is involved, but “screens and social media use are unlikely to bear major responsibility for youth suicide trends”.

10. Results are still mixed on link between technology and mental health

10.1 Research examined changes in associations between technology engagement and mental health using three large, nationally representative studies: Monitoring the Future and Youth Risk Behavior Surveillance System in the US, and Understanding Society.

10.2 There was little evidence for increases in the associations between adolescents’ technology use and mental health.

11. Researchers need data from social media companies

11.1 Information about new digital media has been collected for a relatively short time, which means that drawing firm conclusions about changes in their associations with mental health may be premature.

11.2 Researchers have urged transparent and credible collaborations between scientists and technology companies.

11.3 Understanding Society has been investigating the possibilities of linking survey and social media data – including the technical difficulties of linkage, and the ethical question of consent.

References

3.2

Rachel Beardmore, Measuring National Well-being: Insights into children's mental health and well-being, Office for National Statistics, October 2015: <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuringnationalwellbeing/2015-10-20#social-media>

3.3

Cara Booker, Yvonne Kelly and Amanda Sacker, Gender differences in the associations between age trends of social media interaction and well-being among 10-15 year olds in the UK, *BMC Public Health*, 2018: <https://dx.doi.org/10.1186/s12889-018-5220-4>

4.

Amy Orben, Tobias Dienlin, and Andrew Przybylski, Social media's enduring effect on adolescent life satisfaction, *Proceedings of the National Academy of Sciences*, 2019: <https://doi.org/10.1073/pnas.1902058116>

5.

Amy Orben, Andrew Przybylski, Sarah-Jayne Blakemore and Rogier Kievit, Windows of developmental sensitivity to social media, *Nature Communications*, 2022: <https://doi.org/10.1038/s41467-022-29296-3>

6.

Liz Twigg, Craig Duncan, and Scott Weich, Is social media use associated with children's well-being? Results from the UK Household Longitudinal Study, *Adolescence*, 2020: <https://doi.org/10.1016/j.adolescence.2020.02.002>

7.

Paul McNamee, Silvia Mendolia, and Oleg Yerokhin, Social media use and emotional and behavioural outcomes in adolescence: Evidence from British longitudinal data, *Economics & Human Biology*, 2021: <https://doi.org/10.1016/j.ehb.2021.100992>

8.1-8.2

Emily McDool, Philip Powell, Jennifer Roberts, and Karl Taylor, Social Media Use and Children's Wellbeing, IZA Institute of Labor Economics Discussion Paper 10412: <https://www.iza.org/publications/dp/10412> (later published in *BMC Public Health*, 2018: <https://doi.org/10.1016/j.jhealeco.2019.102274>)

8.3

Ruth Plackett, Jessica Sheringham, and Jennifer Dykxhoorn, The Longitudinal Impact of Social Media Use on UK Adolescents' Mental Health: Longitudinal Observational Study, *Journal of Medical Internet Research*, 2023: <https://doi.org/10.2196/43213>

9.

Christopher Ferguson, Links between screen use and depressive symptoms in adolescents over 16 years: Is there evidence for increased harm?, *Developmental Science*, 2021: <https://doi.org/10.1111/desc.13008>

10 and 11

Matti Vuorre, Amy Orben, and Andrew Przybylski, There Is No Evidence That Associations Between Adolescents' Digital Technology Engagement and Mental Health Problems Have Increased, *Clinical Psychological Science*, 2021:
<https://doi.org/10.1177/2167702621994549>

11.3

Tarek Al Baghal, Linking survey and social media data, Understanding Society Working Paper, 2020:
<https://www.understandingsociety.ac.uk/research/publications/526035>

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