

Screen Use and Health in Young People

Introduction and background

The core objective of POST (Parliamentary Office of Science and Technology) is to supply impartial analysis to the UK Government by scanning the horizon, identifying literature and contextualising research evidence. This latest POST report looks at trends in screen use and the impact of screen use on young people's health. The comprehensive list of references at the end of the report provides a large number of links to recent research for anyone seeking to explore the issue further.

Key points

Background and overview

- A report by Taylor et al (2018) found that screen use starts as early as 6 months of age and that the amount of time children/young people spend using screens is increasing. Ofcom reports that the amount of time those aged 5–15 years spent online rose from an average of 9 hours per week in 2009 to 15 hours in 2018.
- Many parents view screen use as beneficial, with 70 per cent of 2,000 parents in a survey by the non-profit organisation Internet Matters agreeing that screen use is essential for their children's learning development. However, 47 per cent of parents in the survey also expressed concern about the effects of screen use on health.
- The 2019 Online Harms White Paper identified excessive screen time for children as an emerging concern, suggesting that it could have negative effects on physical and mental health.
- The 2019 Ofcom survey indicates that children aged 3–7 mainly use screens to watch television. Children aged 8–11 years tend to use screens to view YouTube, watch television and play games. Children aged 12–15 years mostly use screens for social media. Gaming, although increasingly popular amongst girls, is still more common among boys (48% versus 71% among 5–15 year-olds in 2019).
- According to Ofcom data, 21 per cent of children aged 8–11 years have a social media profile. This rises to 56 per cent at age 13 and 92 per cent at age 15. In 2019, the most popular social media and messaging platforms for children aged 12–15 were: Facebook (69% reported having a profile), Snapchat (68%), Instagram (66%), WhatsApp (62%), YouTube (47%), Pinterest (13%), TikTok (13%) and Twitch (5%).
- Screen time varies between children, with some groups of vulnerable children spending more time online than their peers. A recent study of nearly 3,000 children aged 10–16 found that more than half of young carers spent 5 or more hours online per day, often using screens as part of their caring.
- It must be borne in mind that studies in screen time are often based on an individual's assessment which may not be accurate.

Trends in screen use

- The number of different device types used by children, the types of activities undertaken, and time spent using screens have all increased in recent years. Screen use increased during school closures in 2020.
- A 2019 Ofcom survey found that 90 per cent of children aged 5–15 years use the internet, most commonly with tablets (68% of children aged 5–15 had ever used them to go online), mobile phones (55%), and laptops (55%). In terms of ownership, Ofcom research found that at age 9, 23 per cent of children own a smartphone. At age 10, 50 per cent own a smartphone and the percentage rises to 94 per cent at age 15.

Opportunities and risks associated with screen use

- Evidence suggests that screen use can positively support children/young people's educational, emotional and social development.



- In a 2018 survey of over 2,000 8–17 year-olds, 70 per cent said that being online helped them to understand what was happening in the world.
- Devices can be used to keep in contact with those who are geographically remote, including through social media and online forums based on shared interests. Online communities can be a particularly important way for young people from minority groups to connect.
- In a 2015 survey in the USA of over 1,000 young people aged 13–17 years, 83 per cent of respondents said that social media makes them feel more connected to their friends, and 68 per cent reported having received social support using digital technologies in challenging times.
- Social media is increasingly used by young people to engage online and organise protests offline, for example against gun violence, climate change or racial inequalities. The 2019 Ofcom survey reported an increase in older children using social media to support causes (12% in 2018 to 18% in 2019), with 9 per cent having signed an online petition.
- Along with the opportunities afforded by social media come a number of risks. The 2019 Ofcom survey showed that content risk is increasing; half of 12-15 year-olds reported having seen something 'hateful' about a particular group, compared to 34 per cent in 2016. In terms of conduct risk, research indicates that those who have a history of victimisation offline are more likely to be bullied and victimised online. Commercial risks arise when the child/young person is exposed to inappropriate commercial advertising, hidden costs or marketing schemes. Risks can include gambling or overspending on in-app purchases.
- Ofcom reports that fewer parents of 5–15-year-olds feel that the benefits of their child being online outweigh the risks compared with 5 years ago (65% in 2015 to 55% in 2019).
- Although concerns have been raised about screen use becoming addictive, there has been little evidence to support this claim.

Screen use and physical and mental health

- Screen use may support child development. For example, research has shown that children aged under 2 years can successfully interact via video chat with family members. Furthermore, devices may support early learning. A review of 42 studies on screen use and child language skills found that, although greater overall screen time among those aged 0–12 years was associated with poorer child language development, better quality of screen use (such as using screens for educational programs) was associated with improved language skills.
- A survey of over 700 parents of children aged 6–36 months also found an association between greater use of touchscreens and fine motor skills. However, it is not possible to prove causation. For example, children who have better fine motor skills may engage more with touchscreens, rather than the use of touchscreens improving motor skills.
- Increased parental screen use appears to be associated with fewer verbal and nonverbal interactions with the child. In studies where interactions between children (6 months to 6 years old) and parents (such as during mealtime or

teaching periods) were interrupted more regularly by parents using mobile phones, children showed more negative emotions and/or learned fewer new words.

Screen use and physical and mental health

- Researchers have found that higher television screen time is associated with being more likely to be overweight. However, it is difficult to establish causality as people who are less able to be physically active may spend more time watching television.
- There is limited research investigating the association between physical activity and screen use on devices other than televisions. A number of studies have shown that some screen use can increase physical activity, for example through playing games where one has to move around.
- Several studies have highlighted a relationship between screen use and the amount/quality of sleep. However, the root causes are unknown – they could include delayed bedtimes or the effects of light from screens.
- There is some evidence that reducing screen use prior to bedtime can improve sleep. A study with 63 young people aged 14–18 years found that they slept on average 21 minutes longer per night when they stopped using their smartphones one hour before going to bed.
- Evidence would appear to suggest that high levels of screen use have a detrimental effect on mental health. A 2019 review of 7 studies found increased screen use to be associated with higher levels of depressive symptoms. A UK study of the screen use of over 120,000 15 year-olds found no association between moderate screen use and wellbeing, although very high levels of usage were linked to slightly lower levels of wellbeing.
- Research on social media use indicates that passive usage is more likely to be linked with lower levels of wellbeing, while active usage is more likely to be associated with higher levels of wellbeing.

Guidance

- In contrast to other jurisdictions, guidance in the UK acknowledges the limited evidence base and does not set arbitrary limits for screen use, but rather recommends that parents negotiate limits according to individual need, the activities undertaken, and the extent to which screen use displaces other activities.
- Parents' influence on their child's screen use may be limited. For example, in the 2019 Ofcom study, 43 per cent of parents of 12–15-year-olds reported finding it difficult to control their child's screen time.

Education

- Researchers have highlighted the importance of fostering 'digital resilience' in children so that they are able to identify online risks and deal with and learn from difficult experiences online. In 2018, a survey of 6,500 children/young people found that 67 per cent of children aged 12 and under would welcome more education at school about online safety.

The full document can be downloaded from:

<https://post.parliament.uk/research-briefings/post-pn-0635/>

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