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CMO report is unable to shed light on impact of screen time and social media on children's health

The government wants formal guidance for health professionals and parents on the impact on screen time and social media on children's health. But a new report from the UK's four Chief Medical Officers says more robust evidence is needed, reports **Nigel Hawkes**

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Is time spent on screens and social media a risk to children's health? In the latest report[1] to be published on this topic, England's chief medical officer (CMO) Sally Davies and her opposite numbers in the devolved nations conclude that the evidence base is currently insufficient to answer this, or to support guidelines on optimal amounts of screen use or online activities.

Instead, they repeat the advice already offered by the Royal College of Paediatrics and Child Health (RCPCH), which suggests families ask themselves if their screen time is out of control. Does it interfere with what your family wants to do? Does it interfere with sleep? Can you control snacking while online?

These are good questions, but what health secretary Matt Hancock wanted was more clear cut. "Unrestricted use of social media by younger children risks being damaging to their mental health," he told the *Observer*[2] last September. "So I have asked the chief medical officer to bring forward formal guidance on its use by children." Hancock also wanted guidance from the CMO about the minimum age children should be to access certain sites. He got neither.

No high quality reviews

Davies' dilemma is made clear by a recent report[3] commissioned from a team at the Institute of Education at University College London, which forms the basis for the CMOs' commentary. The team found 82 reviews of the evidence linking screen based activities to mental health and psychosocial outcomes. They covered areas such as problematic or addictive internet use, cyberbullying, gaming, and sexting.

Of the 78 primarily quantitative studies from which they finally distilled their conclusions, 33 were classified as low quality and 27 of medium quality. There wasn't a single review of the effects of gaming, sexting, or smartphone use that they could classify as high quality. Prospective studies were rare, there was a lack of longitudinal studies, and very few reviews used meta-analysis. "Key methodological weaknesses were identified across many of the reviews," the authors concluded.

This meant the CMOs were forced to offer advice without the quality of evidence normally demanded in medicine. Andrew Przybylski, director of research at Oxford Internet Institute, gives them credit, at least, for honesty. "To the authors' credit, the report acknowledges that much of what we think we know about the effects of technology on young people is hype and not solid or reliable science," he said. "In the absence of evidence, the CMO is quite clear that the report is making suggestions out of an abundance of caution."

Pete Etchells, reader in psychology and science communication at Bath Spa University, took a similar view. "We must be resistant to overgeneralising from anecdotal experience," he said. "The best research evidence we currently have suggests that although there may be associations between screen use and poorer mental wellbeing, these are incredibly small."

"Despite persistent news headlines claiming that screen time is fundamentally a harmful activity for children (and adults) to engage in, the report rightly acknowledges that there can also be beneficial effects, and that the current research evidence we have is not of sufficient quality to determine the direction of any causal links."

Industry code of conduct

Given this flimsy platform, there was only so much that the CMOs could say. The most substantive recommendation they make is that the technology industry should begin to take its responsibilities seriously. The government plans legislation aimed at controlling online abuse and bullying but in advance of that, the CMOs say the industry should establish a voluntary code of conduct for safeguarding children and young people accessing their sites.

Among steps that might be taken are effective age verification, controlling the type and appropriateness of advertising, and ensuring that harmful behaviours such as bullying and self harm are not normalised. The industry should also share data it holds in anonymised form with public sector researchers to improve the evidence base.

"Technology is an unavoidable aspect of modern life and technology companies have a duty of care," Davies said. "They must make more effort to keep their users safe from harm, particularly children and young people."

There is a precedent for this. In the US, the Comics Code Authority was established in 1954 at the height of a moral panic over horror comics. This was inspired by a best selling book, *Seduction of the Innocent,* by child psychologist Fredric Wertham, who alleged that comics were ruining the minds of America's youth.

Wertham lacked evidence—he had not actually read most of the comics he castigated and formed the erroneous impression that Batman and Robin were idealised homosexual partners—but he got results. The code banned references to drug abuse, insisted that good triumph over evil in comic book stories, and forbade the appearance of any gay characters or any mention of sex outside of dating or marriage. Eventually the panic abated and life went on.

Common sense

For doctors, the CMOs' report has nothing additional to offer beyond supporting recent advice from the RCPCH. The CMO's advice to parents goes no further than common sense but it was welcomed. Russell Viner, president of the RCPCH, said, "We suggest that parents make decisions about screen time based on their child's development and health, and whether they are getting enough exercise and sleep. It remains a question of balance, as it is when screen use gets in the way or restricts other activities that a child's wellbeing can be negatively impacted."

Shirley Cramer, chief executive of the Royal Society for Public Health, said, "It cannot be stressed enough that further research must be prioritised to improve our understanding of the relationship between screen use, in particular social media use, on our young people's mental health and wellbeing."

See also: BMJ Opinion. Screen time and social media: Interventions to protect our children's health. https://blogs.bmj.com/bmj/2019/02/07/screen-time-and-social-media-interventions-to-protect-our-childrens-health/

1   Department of Health and Social Care. UK CMO commentary on screen time and social media map of reviews. 7 February 2019. www.gov.uk/government/publications/uk-cmo-commentary-on-screen-time-and-social-media-map-of-reviews.
2   Helm T, Rawnsley A. Health chiefs to set social media time limits for young people. Guardian. 29 September 2018. www.theguardian.com/media/2018/sep/29/health-chief-set-social-media-time-limits-young-people.
3   Dickson K, Richardson M, Kwan I, et al. Screen-based activities and children and young people's mental health and psychosocial wellbeing: a systematic map of reviews. EPPI-Centre. January 2019. http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=3748.