

Written evidence submitted by The Centre for Development, Evaluation, Complexity and Implementation in Public Health Improvement (DECIPHer), Cardiff University

Our organisation

The Centre for Development, Evaluation, Complexity and Implementation in Public Health Improvement (DECIPHer) is a public health research centre of excellence. The team is made up of investigators drawn from the School of Social Sciences and School of Medicine at Cardiff University and Public Health Wales. DECIPHer research tackles public health issues such as mental health and wellbeing, positive social relationships, diet and nutrition, physical activity and tobacco, alcohol and drugs, with a particular focus on developing and evaluating multi-level system approaches that will have an impact on the health and wellbeing of children and young people. DECIPHer has chosen to submit evidence on this topic as understanding more about the association between screen time and children and young people's mental health and wellbeing is hugely important and evidence generated via our research-policy-practice infrastructure, School Health Research Network (SHRN), (<https://www.shrn.org.uk/>) can add to this debate now and provide opportunities for future monitoring and evaluation activities.

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?

The last decade has seen the internet, mobile devices, and social media use grow exponentially. A report by the UK's telecommunications regulator Ofcom (2022) details that 99% of 12- to 15 year olds in the UK are connected to the internet and 91% use social media. These high levels of digital media use have led to concerns about whether time spent on digital media is related to poor negative health outcomes among adolescents (Marino et al., 2018). A growing body of research has found an association between screen time, particularly time spent on social media, and lower levels of mental well-being. A recent systematic review and meta-analysis showed that increased duration of screen time had a small but significant correlation with greater externalizing and internalizing problems in children under 13 years old (Eirich et al., 2022). A similar systematic review of literature in the adolescent population showed that excessive screen time in adolescents seems to be associated with mental health problems (Santos et al., 2023). However, all reviews have flagged heterogeneity of study findings and suggested that additional studies are needed to clarify elements such as the screen content.

While there is a small but significant association between screen time and poorer mental health and wellbeing, there so appear to be some benefits too. For example, social media can increase friendship quality (Valkenburg & Peter, 2011), help expand friendship groups (D'Rozario, 2020) and form and maintain social capital (Ifinedo, 2016), all associated with better wellbeing. In addition, a meta-analysis from Boulianne & Theocharis (2020) found positive associations between digital media use and political engagement.

School Health Research Network (SHRN)

SHRN was established in 2013 with funding from the Medical Research Council as a partnership between Welsh Government, Public Health Wales, Cancer Research UK, the Wales Institute of Social and Economic Research and Data (WISERD) and Cardiff University. It continues to be supported by

Welsh Government and school membership now includes all maintained secondary schools in Wales. Every two years, SHRN's Student Health and Wellbeing (SHW) survey generates high quality health and wellbeing data for schools, local authorities, Welsh Government, and other national stakeholders. This data is used to inform both local and national health surveillance, action planning, and evaluation activities aimed at improving young people's health and wellbeing in Wales.

In 2021/22, 123,204 11-16-year-olds from 202 schools (95%) completed the SHW survey (representing over 70% of eligible students across Wales), making it one of the largest adolescent health surveys in Europe (Page et al 2023). The SHW survey collects data on aspects of adolescent physical and mental health, as well as relationships with family, peers and school. Measures include indicators of social media use via the Social Media Disorder Scale and screen time, as well as validated mental health and wellbeing measures (e.g., Strengths and Difficulties Questionnaire, short Warwick-Edinburgh Mental Well-being Scale). Every four years, the SHW survey embeds the World Health Organisation supported Health Behaviour in School-aged Children (HBSC) survey, enabling international comparisons of measures across Europe and North America.

SHRN Research

More nuanced than just 'screen time': Who young people are engaging with matters

Our own research draws on data from a subsample of students (N = 38,736) who took part in the School Health Research Network (SHRN) 2019 Student Health and Well-being (SHW) Survey (Page et al., 2021). We explored whether there was a relationship between who adolescents were communicating with online and their wellbeing, as well as whether this association was different for girls and boys (Anthony et al., 2023). When exploring these relationships, we also considered other possible related factors, including passive social media use, friendship quality, and cyberbullying.

Our findings showed that students are highly engaged on social networking sites, and these sites are used to communicate with existing friendship groups and develop virtual friendships. 81.5% of students reported connecting online with their closest friends at least once a day, while 34.9% reported online communication with virtual friends (i.e. friendships made online). 12.5% of students reported at least one instance of cyberbullying.

Frequent online communication with best friends and wider friendship groups was associated with better wellbeing for both boys and girls. However, frequent online contact with virtual friends (made online) was associated with poorer wellbeing, and this was more pronounced for girls than boys.

Our findings suggest that the relationship between online communication and wellbeing in adolescents appears to be a nuanced one. Online communication with friends may be beneficial for the wellbeing of some young people, but detrimental for others. A key factor in this relationship appears to be who young people are communicating with on social media. Communication with existing friendship groups was associated with better wellbeing in this study. By contrast, frequent online communication with virtual friends was associated with poorer wellbeing, particularly for girls.

Underserved populations

In addition to National data, CASCADE (Children's Social Care Research and Development Centre) and DECIPHer researchers have also examined online communication with groups of potentially vulnerable adolescents, such as children and young people who have experienced care (Roberts et al.). The research found that higher numbers of young people in care were involved in online

experiences associated with lower wellbeing scores i.e. cyberbullying, sharing explicit images, problematic social media use and regular contact with friends made 'online'. Young people in care were also less likely to be regularly in contact with close friends and their wider peer group, experiences associated with better wellbeing.

Moving forward

SHRN's time series of population data provides opportunities for low-cost policy monitoring and evaluation at scale. The size and scale of the SHW survey sample enables consideration of policy reach and impact, as well as broader health inequalities, across geographic and demographic subgroups, including minoritized / seldom heard populations (e.g., Gypsy, Roma, and Traveller ethnic groups). Capacity for longitudinal and data linkage research are now in place in the SHW survey, meaning young people's health and attainment can be monitored as they move through adolescence and the determinants of physical and mental health better understood, including the long-term health and educational impacts of COVID-19 on young people in Wales.

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October 2023