

The Impact of Social Media on Child Development

Nebraska Family Impact Seminar Research Brief

Child and Family Translational Research Center at Boys Town National Research Hospital

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Center on Children, Families, and the Law at University of Nebraska-Lincoln

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This brief was created to provide policymakers with current research on the impact of social media on child development to help improve support for Nebraska children and families. It contains research information on social media use by children and teens, impact on child development, and potential risks. It also includes recommendations from research for families to increase safe use of social media and resources regarding current state and national social media legislation.

Social Media Use by Children and Teens

Over the last decade, the rapid rise in social media use has fundamentally reshaped how children and teens interact with peers, coinciding with critical phases of child development. The increase in social media use is due to smartphone access, with 94-95% of children and teens having smartphones compared to 74% in 2014-15.^{1,2} Social media is used by children and teens to direct message ("DM") and generate social media posts to communicate with friends and make new ones.^{1,3} In a recent study, *Instagram* and *Snapchat* were the most used social media platforms, ^{1,2,4} and watching online videos on *TikTok* and *YouTube* were the favorite online activities.⁴

Social media can have a positive effect on children and teens by providing them with someone to talk to, it can promote genuine connections and friendships, inspire them, and help them inspire others. The overall impact social media has on children and adolescent well-being depends upon their experiences, predispositions, the amount and content they consume, and the online groups with whom they interact. On average, teens engage with screens for 7.7 hours daily outside of school. Compared to middle- and higher-income children, those in lower-income households have similar access to smartphones, and report spending more time online. Although broadband access and adult usage can be less in rural areas, social media use by teens does not differ significantly by urban, suburban, or rural settings. 11,12

Social Media and Child Brain Development

Social media constitutes a new social context for teens that has consequences for neurobiological development and mental health. This is especially important during puberty when the brain is most vulnerable to psychosocial changes. During this developmental phase, teens are especially susceptible to social comparison and highly sensitive to peer social feedback. Social comparison, depending on the adolescent's similarity to friends, can be associated with unhealthy comparisons, such as envy, or positive comparisons, like motivation. Forthcoming work led by Picci et al. Mas made links between social comparison behaviors and potential vulnerabilities for teens' brain development during puberty. For example, teens who engage in more social comparison behaviors have less brain activity in regions important for high-level social cognition (e.g., prefrontal cortex). These patterns of brain activity are counter to the increasing activity that is expected during healthy brain development. Other brain imaging studies have found excessive social media use during development is related to accelerated thinning of the cortex and reductions of grey matter volume in brain areas important for basic sensory processing and those needed for complex cognition. Also problematic because there is growing evidence that faster development of the cortex can create risk for mental health disorders.

The technology behind social media can make it difficult for children and teens to limit their use. For example, Tyma¹⁷ describes how social media platforms have addictive algorithms designed to keep users online, increasing ad views and opportunity for collection of user information. These algorithms can also be used to boost sensationalized content, misinformation, and disinformation so users spend more time on the platform.¹⁸ Studies of people with high and problematic social media use have shown that social media addiction may change brain structures that are dense with oxytocin and dopamine receptors, in a similar way to someone with a substance use disorder or gambling addiction.¹⁹ Adolescents are especially susceptible to the addictive nature of social media because of their high sensitivity to rewards and social feedback, especially in peer contexts.¹⁸ For example, positive comments or "likes" on a youth's social media page could contribute to the addictive nature of a reward response more than they would for an adult.²⁰ In a sample of almost 1,500 teens, most reported having some level of addiction to social media, ¹ and that social media would be hard to give up.² Longitudinal studies show that problematic social media use, characterized by addiction-like behaviors, also predicts long-term increases in attention-deficit symptoms.^{21,22}

Social Media and Health, Mental Health, and Suicide

Social media can be a helpful resource, reach large numbers of children and teens, provide accessible and non-judgmental forums for sharing experiences, and aid in providing support.²³ Excessive social media use, however, can interfere with the time children spend with their family, on schoolwork, and sleep. Sleep is critically important for healthy child growth and development, and technology use at night, especially within the hour before bedtime, is associated with increased sleep difficulties such as poor quality of sleep and difficulty falling back to sleep. 6,24 Social media use by teens can also affect body image. In one study, 46% of youth said that social media use made them feel worse about their bodies. The association between social media and body image is strongest when children and teens make physical comparisons to others or obsess over their appearance online and the feedback on their appearance.^{6,19} Furthermore, the publicity that comes with social media can further complicate a teen's drive for approval. For example, an embarrassment online feels more permanent than if it just occurred in person. The constant and expected engagement with social content can also bring about "digital stress," approval anxiety, and fear of missing out (FOMO). 25 Social media intensifies these behaviors, which are associated with elevated depressive symptoms.^{26,27} For example, a meta-analysis of 143 studies found strong associations between social media use and heightened internalizing symptoms, such as anxiety and depression, in adolescents.²⁸ Excessive social media use has also been related to suicidal thoughts and behaviors.²⁹ Additionally, social media platforms can lack control over user behavior, assessment and response to suicide risk, and result in negative influence of others through contagion that can further the risk for suicidality.²³

Harassment, Exploitation, and Hate

In general, teens do not feel supported by the social media platforms they use. In one sample, three-quarters believed that social media platforms are not adequately addressing online harassment and bullying. Younger social media users, females, and LGBTQ+ youth report experiencing higher rates of online harassment. In another study, more than half of youth surveyed indicated online grooming was a common experience. One-third of minors ages 9-17 report experiencing a sexual interaction online and 25% said it was normal; 20% of children ages 9-12 and 25% of teens reported having a sexual interaction with an adult online. Rates of being solicited online were higher for LGBTQ+ youth. Approximately 80% of children and teens report they have experienced discrimination online. Black

and Hispanic youth spend more time online than their White peers,^{2,4} and rates of exposure to racially hateful content or language are especially prevalent among adolescent minority girls. Social media can also expose vulnerable youth to extreme and radical content and then serve as a reinforcer by providing easy access to like-minded groups that promote extremist and radicalized views and even terrorism.³³

Summary and Recommendations

Research conducted on the relationship between technology use and child well-being typically finds mixed results on whether it is harmful, neutral, or positive. Social media will continue to evolve with advancements in artificial intelligence and become more technologically sophisticated. As demonstrated in this research brief, social media has benefits and risks for children and families. Just like children are learning to navigate school environments and neighborhoods, they also are learning to navigate "digital communities." It is evident that the digital world will continue to have more influence in their lives. Policies are needed to equip children and families with digital literacy and education so they can maximize the benefits of social media, while adequately protecting themselves against targeted marketing, exploitation, manipulation, and disinformation. The following recommendations for ways families can improve the use of social media safely were collected from the research literature.

- Limit screen and TV use within the hour before bedtime so it doesn't affect the quality of sleep that is needed for growth and development and emotional functioning.²⁰
- Balance social media use and sleep schedules.²⁴ This could include keeping a media
 consumption journal to track what you're watching, listening to, or playing and how much time
 you spend engaged in those activities.¹⁷ (Most smartphones can do this now).
- Be mindful of how parental use of technology is affecting their child's use. For example, parents
 can model a balanced amount of screen time and avoid technology use when conversing with
 their children or others.⁶
- Parents should monitor how their own social media use affects their parenting. For example, new mothers have reported negative effects on their own emotional and mental well-being and felt less parental competence (i.e., less confident about their own parenting abilities) after viewing idealized motherhood posts on social media.^{34,35}
- Parents can find effective ways to help their children manage screen time. In one study, using screen time as a disciplinary/reward mechanism was associated with increased total screen time, compared to higher parental monitoring of screen use that was associated with lower total screen time and social media use.¹⁰
- Consider how technology serves as an emotional soothing method for children and teens and help them find alternatives. For example, parents can encourage non-technology related activities (e.g., exercise, art) that can replace technology use without directly saying screen time will be reduced.¹¹
- Have regular family conversations about technology to build digital literacy.¹¹
- Teach children how to increase privacy settings on their devices. For example, in early 2025, Instagram plans to implement their new "Teens Accounts" that will automatically be set to "Private" so only people who follow them can see their posts.³⁶
- Direct children and teens to trusted sites for support with mental health and suicidality such as: Your Life Your Voice (text VOICE to 20121); 988 Lifeline; the Boys Town Hotline (800-448-3000); Safe2Help (833-980-7233); Nebraska Family Helpline (888-866-8660).

- Teach moral development and human rights to promote shared values that help children counter hate, violence, and discrimination online.³⁷
- Create and encourage opportunities for children and teens to share concerns about solicitation, harassment, etc. Currently, youth are more likely to use the platform's reporting or blocking features rather than to tell a parent, adult, or friend that can help them cope with it.³¹
- In cases where children have been exploited (e.g., vulnerable photos online), let them know about available resources such as "Take It Down" by the *National Center for Missing and Exploited Children* which offers users free assistance in removing sexualized child content from the internet.³⁸

Resources for Policy Makers

State-level Legislation

- Multiple states have introduced or enacted bills which aim to reduce the harmful effects of social media on children.
 - o www.ncsl.org/technology-and-communication/social-media-and-children-2024-legislation
- California and New York recently signed laws focused on algorithms used by social media to curb addictive feeds.
 - https://www.nysenate.gov/newsroom/press-releases/2024/first-nation-legislation-limitingsocial-media-algorithmic-reach
 - o https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill id=202320240SB976
- A number of newly enacted state laws aimed at restricting a minor's use of social media or requiring impact assessments were blocked by federal courts based on First Amendment Freedom of Speech.
 - https://www.reuters.com/world/us/utah-law-restricting-youth-social-media-use-blocked-by-judge-2024-09-11/

Federal-level Legislation

- The **Platform Accountability and Transparency Act** is a bipartisan proposal designed to foster better understanding of the impact social media platforms have on children and families.
 - o https://www.congress.gov/bill/117th-congress/senate-bill/5339
- **1998 Children's Online Privacy Protection Act**. The Act imposes certain requirements on online services directed to children under age 13.
 - o https://www.ftc.gov/legal-library/browse/statutes/childrens-online-privacy-protection-act
- Age-Appropriate Design Code (UK Parliament) The Children's Code is a code of practice
 consistent with the Convention on the Rights of the Child and requires that online services be
 designed in "the best interests" of children.
 - o age-appropriate-design-a-code-of-practice-for-online-services-2-1.pdf

Other Resources

- <u>Social Media Reforms A Collaborative Review Google Docs</u> provides information on policy and platform fixes to make social media less harmful.
- Consensus Study Report. Social Media and Adolescent Health | The National Academies Press¹⁸
- American Academy of Pediatrics. <u>Center of Excellence on Social Media and Youth Mental Health</u>
- U.S. Department of Health and Human Services. <u>Kids Online Health and Safety Task Force</u> Announces Recommendations; Best Practices for Safe Internet Use | HHS.gov

Funding

The Nebraska Family Impact Seminar was made possible by a grant from the W.K. Kellogg Foundation (P-6015791-2023). The information shared does not reflect the opinions of the Kellogg Foundation.

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How to Cite this Research Brief

Tyler, P. M., Picci, G., Kirkpatrick, C. E., Tyma, A. W., Chupp, C. D., Vacek, M., Woodman, M., & Henningsen, C. (2024, November 22). *The impact of social media on child development* [Research Brief]. Nebraska Family Impact Seminar, Lincoln, NE, United States. Child and Family Translational Research Center at Boys Town National Research Hospital & Center on Children, Families, and the Law at University of Nebraska-Lincoln.

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