



Social Media and Adolescents

The potentially adverse impact of social media usage on children and adolescent mental health has acquired new urgency with the leak of Facebook's own research indicating that its executives are aware of the dangers that social media can pose to young children and teens. Congressional hearings, further leaks and analysis by news organizations, and research findings have all raised the profile of this issue. These issues are being brought forward at a time when children are amidst a mental health crisis likely worse than any before, with rising rates of diagnosed mental health issues and rising suicide rates among youth. The problems may exacerbate further as technologies continue to progress beyond current social media platforms, to involve virtual reality, augmented reality, and beyond.

Research on digital media's role in the life is still developing and will necessarily continue to develop as technologies change. Technology is advancing rapidly; the research process is comparably slow; access to data from digital media platforms and funding to conduct research in this area both have been lacking. The majority of research has been limited either by the use of self-reported assessments to measure digital media behavior and/or by the use of cross-sectional designs. And social media companies have restricted access to the data as well, further complicating the ability to determine causality regarding the effects of social media.

Several broad themes of this research literature are discussed below.

- **Adaptive Outcomes.** Emerging evidence suggests that digital media use may be associated with a variety of positive outcomes for youth, including greater access to social support (particularly for youth from minoritized backgrounds), opportunities to form and benefit from online only relationships, decreased feelings of isolation, particularly during COVID-19, and greater opportunities for civic engagement.
- **Missed Opportunities.** Evidence suggests that adolescents' use of social media is associated with lower engagement in alternate adaptive activities (e.g., reading) or those that promote health (e.g., exercise or sleep). Meta-analyses reveal that social media use is especially associated with disrupted sleep patterns among youth; related research reveals that disrupted sleep is associated with aberrant structural brain development among adolescents.
- **Social Comparisons.** Research suggests that youth are likely to engage in social comparisons on digital media and may be prone towards "upwards comparisons" due to the tendency for others to post idealized or modified images on their accounts. Social comparison and feedback-seeking behaviors online are linked to future depressive symptoms.
- **Online Discrimination/Cyberbullying.** Data reveal that youth are exposed to more frequent and more severe statements reflecting discrimination of racial, ethnic, sexual, or gender minoritized groups. Beyond the effects of exposure to in-person discrimination, these experiences are associated with higher levels of anxiety and depression. Similarly, many youth experience peer victimization through online platforms, and these experiences are associated with later adjustment difficulties.
- **Maladaptive Online Content.** Research reveals a remarkable number of sites, blogs, forums, or communities that encourage covert engagement in maladaptive behaviors, including activities consistent with both eating disorders and nonsuicidal self-injury. Research reveals that a large proportion of these sites are unmonitored, do not include trigger warnings, and offer online social sanctions or reprimands to posts that suggest safer or healthier alternate behaviors.
- **Heightened Peer Influence.** Research has revealed that adolescents' exposure to posts and post-reactions (i.e., likes, comments) are associated strongly with changes in adolescents' perception of injunctive norms (i.e., estimations of others' attitudes); these changes in norms are associated with changes in related behaviors among adolescents. For instance, "likes" to posts regarding excessive alcohol use predicted adolescents' own heavy episodic drinking.
- **Digital Stress.** Emerging evidence suggests that a majority of adolescents experience "digital stress" from constant notifications/alerts, expectations to be consistently available to others online, concerns regarding social approval online, "fear of missing out," and "connection overload." Digital stress is a longitudinal predictor of depressive symptoms among adolescents.
- **Effects of Brain Development.** Imaging research suggests that exposure to "likes" and favorable comments online is associated changes in neural activation, even in the context of threat or danger. For instance, in a simulated online community, exposure to images depicting dangerous, illegal, or unethical behavior was associated with reductions in prefrontal cortex activity (i.e., reflecting decreased inhibition) when images were accompanied by icons reflecting many "likes."

1. **Increase Research Funding:** While much is known about the impact of social media on children, there is a severe need for additional research on these impacts. Federal funding to support research is essential to ensure it is objective, open, and actionable.
2. **Provide Education:** Educating young users and their caregivers about how best to use the platforms to mitigate negative impacts is an essential intervention that can start today. A coalition of organizations have called on the Surgeon General to create and distribute relevant material.
3. **Provide Tools:** Requiring social media companies to provide youth with options to make changes to their social media settings can promote mental health by protecting their information, disabling features that are particularly addictive, and opting out of algorithms. Social media companies can also be required to set defaults to address harms.
4. **Display Warnings:** Social media companies should acknowledge known impacts of their platforms, providing warnings and resources to parents of young users, develop plans to mitigate known harms, and determine whether these warnings and plans were effective, with iterative updates based on these findings.
5. **Protect Marginalized and Minoritized Communities:** Social media is increasingly a host to discrimination and unfair treatment for individuals of color, the LGBTQ+ communities, and individuals with disabilities. More should be done by platforms to discourage, report, and reform this activity.
6. **Require a Response:** Social media companies must develop and publish internal response plans for troubling behavior or posts on their platform and evaluate the effectiveness of the responses. This reporting mechanism is essential to discouraging escalation and alert relevant authorities about potential harms resulting from online activity. Create dedicated channels to report harm on the platforms.
7. **Create accountability for social media harm to youth:** Social media platforms must be held accountable to prevent and mitigate harmful content, such as promotion of self-harm, suicide, eating disorders, substance use and sexual exploitation. Independent audits can assess risks and determine whether the platform is taking meaningful steps to prevent harm and these must be paired with enforcement actions when platforms fail to effectively mitigate harms to children.
8. **Increase Transparency:** Requiring access to data and processes internal to social media companies through new transparency and reporting requirements. This may require social media companies to set up new or more extensive data collecting regimes. User privacy must also be protected with increased data transparency.

- Cabrera-Nguyen, E. P., Cavazos-Rehg, P., Krauss, M., Bierut, J., & Moreno, M. A. (2016). Young adults' exposure to alcohol- and marijuana-related content on Twitter. *Journal of Studies on Alcohol and Drugs*, 77(2), 349–353. <https://doi.org/10.15288/jsad.2016.77.349>.
- Choukas-Bradley, S., Nesi, J., Widman, L., & Higgins, M. K. (2019). Camera-ready: Young women's appearance-related social media consciousness. *Psychology of Popular Media Culture*, 8(4), 473–481. <https://doi.org/10.1037/ppm0000196>.
- Curtis, B. L., Lookatch, S. J., Ramo, D. E., McKay, J. R., Feinn, R. S., & Kranzler, H. R. (2018). Meta-analysis of the association of alcohol-related social media use with alcohol consumption and alcohol-related problems in adolescents and young adults. *Alcoholism: Clinical and Experimental Research*, 42(6), 978–986. <https://doi.org/10.1111/acer.13642>.
- Galla, B. M., Choukas-Bradley, S., Fiore, H. M., & Esposito, M. V. (2021). Values-alignment messaging boosts adolescents' motivation to control social media use. *Child Development*, 92(5), 1717–1734. <https://doi.org/10.1111/cdev.13553>.
- Hale, L., Li, X., Hartstein, L. E., & LeBourgeois, M. K. (2019). Media use and sleep in teenagers: What do we know? *Current Sleep Medicine Reports*, 5(3), 128–134. <https://doi.org/10.1007/s40675-019-00146-x>.
- Hawes, T., Zimmer-Gembeck, M. J., & Campbell, S. M. (2020). Unique associations of social media use and online appearance preoccupation with depression, anxiety, and appearance rejection sensitivity. *Body Image*, 33, 66–76. <https://doi.org/10.1016/j.bodyim.2020.02.010>.
- Lenhart, A., Smith, A., Anderson, M., Duggan, M., Perrin, A., “Teens, Technology and Friendships.” Pew Research Center, August, 2015. <http://www.pewinternet.org/2015/08/06/teens-technology-and-friendships/>
- Lewis, S. P., Heath, N. L., Michal, N. J., & Duggan, J. M. (2012). Non-suicidal self-injury, youth, and the Internet: What mental health professionals need to know. *Child and Adolescent Psychiatry and Mental Health*, 6, Article 13. <https://doi.org/10.1186/1753-2000-6-13>
- Maheux AJ, Nesi J, Galla BM, Roberts SR, Choukas-Bradley S. #Grateful: Longitudinal Associations Between Adolescents' Social Media Use and Gratitude During the COVID-19 Pandemic. *J Res Adolesc*. 2021 Sep;31(3):734-747. doi: 10.1111/jora.12650. PMID: 34448294; PMCID: PMC8456851.
- Massing-Schaffer M, Nesi J, Telzer EH, Lindquist KA, Prinstein MJ. Adolescent Peer Experiences and Prospective Suicidal Ideation: The Protective Role of Online-Only Friendships. *J Clin Child Adolesc Psychol*. 2022 Jan-Feb;51(1):49-60. doi: 10.1080/15374416.2020.1750019. Epub 2020 Apr 23. PMID: 32324048.
- Nesi J, Prinstein MJ. Using Social Media for Social Comparison and Feedback-Seeking: Gender and Popularity Moderate Associations with Depressive Symptoms. *J Abnorm Child Psychol*. 2015 Nov;43(8):1427-1438. doi: 10.1007/s10802-015-0020-0. PMID: 25899879; PMCID: PMC5985443.
- Nesi J, Rothenberg WA, Hussong AM, Jackson KM. Friends' Alcohol-Related Social Networking Site Activity Predicts Escalations in Adolescent Drinking: Mediation by Peer Norms. *J Adolesc Health*. 2017 Jun;60(6):641-647. doi: 10.1016/j.jadohealth.2017.01.009. Epub 2017 Mar 18. PMID: 28325545; PMCID: PMC6402495.
- Pegg, K. J., O'Donnell, A. W., Lala, G., & Barber, B. L. (2018). The role of online social identity in the relationship between alcohol-related content on social networking sites and adolescent alcohol use. *Cyberpsychology, Behavior, and Social Networking*, 21(1), 50–55. <https://doi.org/10.1089/cyber.2016.0665>.
- Ralph, B. C. W., Thomson, D. R., Cheyne, J. A., & Smilek, D. (2013). Media multitasking and failures of attention in everyday life. *Psychological Research*, 1–9. <https://doi.org/10.1007/s00426-013-0523-7>.
- Steele RG, Hall JA, Christofferson JL. Conceptualizing Digital Stress in Adolescents and Young Adults: Toward the Development of an Empirically Based Model. *Clin Child Fam Psychol Rev*. 2020 Mar;23(1):15-26. doi: 10.1007/s10567-019-00300-5. PMID: 31392451.
- Telzer EH, Goldenberg D, Fuligni AJ, Lieberman MD, Gálvan A. Sleep variability in adolescence is associated with altered brain development. *Dev Cogn Neurosci*. 2015 Aug;14:16-22. doi: 10.1016/j.dcn.2015.05.007. Epub 2015 May 28. PMID: 26093368; PMCID: PMC4536158.