

March 22, 2022

Vice Admiral Vivek H. Murthy, MD, MBA
Surgeon General
Office of the Surgeon General
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Dear Dr. Murthy:

Thank you for drawing attention to the current mental health crisis being experienced by today's youth. We, the undersigned organizations, are writing today to ask you to alert the public to an important related issue, the potentially adverse impact of social media usage on children and adolescent mental health. This issue 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. We ask for your consideration to create and distribute a public education campaign targeted at youth, their parents, and guardians to raise public awareness of this issue informed by science. A public education campaign from your office could include information about the specific dangers social media poses to adolescents, how parents can best navigate learning more about these dangers, how best to communicate the risks with their children, and ultimately how to educate their children on the best methods for using social media in a safe way.

Psychological scientists, in particular, are increasingly warning that the use of digital media platforms can exploit biological vulnerabilities among youth (Crone & Konijn, 2018; Wilmer & Chein, 2016). It has long been established that adolescence is associated with neurological changes that promote cravings for social attention, feedback, and status. Research demonstrates that digital media satisfies these cravings at a neural level, activating the same neural regions as drug addiction (De-Sola Gutiérrez et al., 2016; Griffiths et al., 2014; Kirby et al., 2020). We know that there are ways to beneficially use social media platforms, especially for those individuals seeking to buffer the impacts of negative life events, decrease feelings of isolation, gain a sense of purpose, and experience feelings of acceptance or being understood (Daine et al., 2013). And early evidence of technology-based mental health interventions also show promise at treating a range of problems (Galla et al., 2021; Myers et al., 2007; Nelson et al., 2017). But users of social media platforms remain uninformed and biologically susceptible to negative outcomes.

Young children are physiologically less able to resist temptations to remain online, research shows (Ang & Lee, 2017; Somerville & Casey, 2010). While brain regions associated with a desire for social interaction increase as children grow, full maturation typically does not occur until age 25, suggesting that pre-teen, or even early teenage use, could lead to at least a dozen years of physiologically unregulated digital media use. Individuals in this age range frequently use their time online to compare themselves to others and seek feedback regarding their own personal attributes and attitudes (Choukas-Bradley et al., 2020; Hawes et al., 2020; Nesi & Prinstein, 2015). Psychological science clearly demonstrates that exposure to this online content is associated with lower self-image and distorted body perceptions among young people. This exposure is associated with strong risk factors for eating disorders, unhealthy weight-management behaviors, and depression (Carrotte et al., 2015). Young people also are exposed to visual information online that promotes self-harm, including cutting and suicidal behavior (Whitlock et al., 2006).

Another area of concern among scientists is the heightened potential for peer influence facilitated by digital media platforms. This is exacerbated by the proliferation of misinformation and disinformation

campaigns that gain traction specifically due to the accessibility of digital media. Psychological science demonstrates that digital media creates the illusion that expressed opinions represent many others' beliefs and not just the thinking of an isolated user (Chen et al., 2016; Dong et al., 2011; L. Gao et al., 2020; Q. Gao et al., 2019; Nesi et al., 2017). Participation on digital media platforms changes how we think about what others think. Science demonstrates that this has created a powerful link between young people's Instagram exposure and their offline risk-taking behavior, such as excessive alcohol use (Cabrera-Nguyen et al., 2016; Curtis et al., 2018; Pegg et al., 2018).

Increased peer victimization and harassment, as well as more severe discrimination directed toward racial, ethnic, gender, and sexual minorities, represent another serious area of concern. Scientific findings have revealed more frequent and offensive forms of harassment directed toward youths online as compared with offline (Moreno et al., 2016; Tynes et al., 2008). Brain scans of adults and youths reveal that these forms of harassment activate the same regions of the brain that respond to physical pain and trigger a cascade of reactions that replicate physical assault and create physical and mental health damage (Cannon et al., 2007).

Finally, the lack of transparency into the inner workings, policies and measured impacts of these platforms must be addressed. The impact of social media algorithms on the user experience is woefully understudied due in large part to the lack of visibility by researchers into the data and how algorithms work (Epps-Darling et al., 2020; Bravo et al., 2019). Social media companies employing algorithms to display content to users should provide explanations on how these technologies work and how they might drive or reward certain types of posts or behavior. Data from algorithms, along with internal research should also be made public to allow researchers and policymakers to achieve a greater understanding of the impacts of social media on users, particularly children. Federal agencies should prioritize research into the impacts of social media and providing private researchers with grants and other support to ensure findings relating to these platforms are made broadly available.

In closing, there is a clear need for an education campaign that enhances the public's understanding of the potential harms posed by social media and encourages parents and children to educate themselves with evidence-informed suggestions for its appropriate use. At the same time, it is important to acknowledge social media's potential to provide children with a healthy space for convening and companionship. While we recognize the need for additional research in this area, the very real harms of social media are impacting our children today, and more must be done to communicate and mitigate the impacts of online social media use. The organizations below represent a wide range of scientific expertise and are standing by to assist your office in this critically needed effort.

For more information about the research presented here or to discuss further, please contact Corbin Evans, Senior Director of Congressional and Federal Relations at the American Psychological Association, at CEvans@APA.org.

Sincerely,

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