# Written Testimony of Jacqueline Nesi, PhD Assistant Professor of Psychiatry and Human Behavior Brown University

# Before the House Energy and Commerce Committee Oversight and Investigations Subcommittee

"Americans in Need: Responding to the National Mental Health Crisis" February 17, 2022

Thank you Chair DeGette, Ranking Member Griffith, and members of the Subcommittee.

My name is Dr. Jacqueline Nesi, and I am a Clinical Psychologist and an Assistant Professor at Brown University. I study the impact of technology and social media use on adolescent mental health and development.

Our nation is facing a mental health crisis among youth. Between 2009 and 2019, the number of adolescents reporting depressive symptoms increased 40%<sup>1</sup>. From 2007 to 2018, the suicide rate in young people was up 57%, making it the second leading cause of death among adolescents<sup>2,3</sup>. The increase in suicide deaths was especially drastic among pre-teen girls (ages 10-14), with a four-fold increase between 1999 and 2017.<sup>4</sup> Youth of color have also been disproportionately affected. Black children under age 13 are nearly twice as likely to die by suicide than White children<sup>5</sup>, and suicide rates among Black youth have risen sharply in recent years.<sup>6</sup>

<sup>&</sup>lt;sup>1</sup> Centers for Disease Control and Prevention (2019). Youth Risk Behavior Surveillance. Retrieved from: https://www.cdc.gov/healthyyouth/data/yrbs/yrbs data summary and trends.htm

<sup>&</sup>lt;sup>2</sup> Centers for Disease Control and Prevention (2020). State Suicide Rates among Adolescents and Young Adults Ages 10-24: United States, 2000-2018. *National Vital Statistics Reports*. Retrieved from: https://www.cdc.gov/nchs/data/nvsr/nvsr69/nvsr-69-11-508.pdf

<sup>&</sup>lt;sup>3</sup> National Institute of Mental Health (2019). *Suicide*. Retrieved from: https://www.nimh.nih.gov/health/statistics/suicide

<sup>&</sup>lt;sup>4</sup> Centers for Disease Control and Prevention (2017). Youth Risk Behavior Surveillance System. Retrieved from: https://www.cdc.gov/healthyyouth/data/yrbs/pdf/2017/ss6708.pdf

<sup>&</sup>lt;sup>5</sup> Bridge, J.A., et al., (2018). Age-related racial disparity in suicide rates among US youths from 2001 through 2015. *JAMA Pediatrics*.

<sup>&</sup>lt;sup>6</sup> Sheftall, A. H., Vakil, F., Ruch, D. A., Boyd, R. C., Lindsey, M. A., & Bridge, J. A. (2021). Black Youth Suicide: Investigation of Current Trends and Precipitating Circumstances. *Journal of the American Academy of Child & Adolescent Psychiatry*.

Mental health concerns have only intensified since the start of the COVID-19 pandemic. For youth ages 12 to 17, mental health-related emergency room visits increased 31% between April and October 2020.<sup>7</sup> According to parent reports, 1 in 3 teen girls and 1 in 5 teen boys have experienced new or worsening symptoms of depression or anxiety during the pandemic.<sup>8</sup> Nearly half of teens report that the pandemic has increased their levels of stress.<sup>9</sup>

Youth are struggling with their mental health. These rising rates of mental health concerns have coincided with another trend: the widespread adoption of social media sites. Today, nearly 97% of teens use social media platforms like TikTok, Instagram, YouTube, and Snapchat. Digital media use has further increased during the pandemic, with recent estimates suggesting that adolescents now spend an average of seven hours per day using screens. Technology, including smartphones and social media, is a pervasive element of adolescents' lives—representing a primary vehicle for communication, education, and development. Its influence has only become more apparent as the pandemic has reshaped our society.

These co-occurring trends—of increasing digital media use and rising mental health diagnoses—have led to concerns about a potential link. Is social media use causing mental health problems? Unfortunately, the current state of the research does not provide a simple, definitive answer.

What we know is that the relationship between social media use and mental health is complex, and social media use affects individuals differently. We also know that serious mental health concerns like depression, anxiety, and suicidality are the result of a complicated interplay of genetic, developmental, and social factors, and cannot be attributed to a single cause. Social

<sup>&</sup>lt;sup>7</sup> Leeb, R. T., Bitsko, R. H., Radhakrishnan, L., Martinez, P., Njai, R., Holland, K. M. (2020). Mental Health–Related Emergency Department Visits Among Children Aged <18 Years During the COVID-19 Pandemic — United States, January 1–October 17, 2020. *Morbidity and Mortality Weekly Report*, *69*(45), 1675-1680.

<sup>&</sup>lt;sup>8</sup> C.S. Mott Children's Hospital (2021). National Poll on Children's Health. *Mott Poll Report*. Retrieved from: https://mottpoll.org/reports/how-pandemic-has-impacted-teen-mental-health

<sup>&</sup>lt;sup>9</sup> 43% of teens say the level of stress in their life has increased over the past year. American Psychological Association (APA). *Stress in America 2020: A national mental health crisis*. Retrieved from: https://www.apa.org/news/press/releases/stress/2020/report-october

<sup>&</sup>lt;sup>10</sup> Pew Research Center (2018). Teens, Social Media, and Technology 2018. Retrieved from: https://www.pewresearch.org/internet/20 18/05/31/teens-social-media-technology-2018/

<sup>&</sup>lt;sup>11</sup> Nagata, J.M., Cortez, C.A., & Cattle, C.J. (2022). Screen time use among US adolescents during the COVID-19 pandemic. *JAMA Pediatrics*.

media alone does not cause mental illness in teens. However, it certainly plays a central role in their mental health – in both positive and negative ways. Social media offers exciting opportunities and benefits for teens, but it also creates real risks and challenges, especially for those who are already vulnerable.

## Adolescence, Screen Time, and Social Media

Adolescence is a developmental period characterized by heightened sensitivity to social information, concern about social status, identity exploration, and the development of close relationships with peers. Social media is perfectly aligned with these developmental goals – with opportunities for frequent engagement with and feedback from peers, as well as for self-expression. Social media is especially appealing to youth in this age range.

For many years, research on the topic of social media use and adolescent mental health was largely focused on the time that teens were spending online. Many raised concerns that increased time on social media (or "screen time") was associated with risk for mental disorders. However, to date, this research suggests that *how much time* teens spend on social media is not reliably linked to mental health. Results of these studies have been mixed, and suggest that if there are any effects of time spent using social media on mental disorders like depression or suicide, such effects are small.

But does this mean that teens' use of social media is irrelevant when it comes to their mental health? It does not. Increasingly, researchers are investigating the *what* and the *who* of social media. That is, it has become clear that in order to understand the impact of social media on mental health, we need to understand what teens are doing online and which teens are especially vulnerable to the risks of using social media.

In terms of what teens are doing online, the research suggests benefits and risks. It is important to note here that social media is a fundamentally different environment than the offline world. Yes, the experiences young people have online reflect many of the same joys and challenges

teens have always faced. Yet on social media, these experiences—both positive and negative—are amplified. They happen more publicly, more quickly, more frequently, and at a larger scale.

## **Benefits of Social Media**

Social media offers adolescents opportunities for social connection, friendship, and creative expression. In a nationally representative survey, 81% of teens reported that social media allows them to feel more connected to their friends, and 68% reported that they have people who support them on social media through tough times. <sup>12</sup> Social media also offers critical opportunities for social support, especially among teens who may not readily have access to communities of supportive peers in their offline lives, such as LGBTQ youth.

It also creates important opportunities for education, awareness, and support, particularly for youth struggling with their mental health. In a recent study I conducted with over 400 adolescents with significant mental health concerns, the majority reported relying on social media for support or encouragement. A nationally representative survey conducted in 2020, in the midst of the ongoing COVID-19 pandemic, found that youth with depression were more likely than those without depression to say that social media was "very important" for helping them feel less alone. 4

#### Risks of Social Media

Despite these benefits, the potential risks of social media are significant. Social media provides quantifiable indicators of social status—likes, views, comments. Recent work suggests that receiving fewer likes leads to more negative emotions, and that youth with more negative

<sup>&</sup>lt;sup>12</sup> Pew Research Center (2018). Teens' Social Media Habits and Experiences. Retrieved from: https://www.pewresearch.org/internet/2018/11/28/teens-social-media-habits-and-experiences/

<sup>&</sup>lt;sup>13</sup> 57% of youth used social media for support or encouragement in the two weeks prior to hospital admission. Nesi, J., Wolff, J.C., & Hunt, J. (2019). Patterns of social media use among youth who are psychiatrically hospitalized. *Journal of the American Academy of Child and Adolescent Psychiatry*.

<sup>&</sup>lt;sup>14</sup> 28% of youth with moderate depressive symptoms versus 13% of youth without depressive symptoms. Common Sense Media (2021). Coping with COVID-19: How young people use digital media to manage their mental health. Retrieved from: https://www.commonsensemedia.org/research/coping-with-covid19-how-young-people-use-digital-media-to-manage-their-mental-health

responses to receiving few likes may be more likely to develop depressive symptoms over time. 15 Cybervictimization, or the experience of being bullied online, is associated with risk for a range of mental disorders, including depression and suicidal thoughts and behavior. 16,17 Furthermore, time spent using technology may displace other important activities—most critically, nighttime use of screens (i.e., cell phones and tablets) has been shown to interfere with sleep timing and quantity. 18

Recent studies suggest that hate speech on social media has increased in recent years, with the proportion of teens reporting exposure to online hate speech nearly doubling between 2018 and 2020. In 2020, the majority of youth of color—including 69% of Black youth and 67% of Latinx youth—reported "sometimes" or "often" encountering racist content online, and youth who experience or witness online racial discrimination are more likely to experience symptoms of anxiety, depression, and low self-esteem. Youth within other marginalized populations, including LGBTQ teens, are already at heightened risk for mental health concerns and 74% of these youth report "sometimes" or "often" encountering homophobic content online.

Body image concerns are another risk of social media, with a recent experiment showing that young women who were exposed to edited social media photos reported worse body image than those exposed to unedited photos.<sup>21</sup> Other studies have found that exposure to risky behaviors on social media, like alcohol or other substance use, may increase risk for engaging in these

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<sup>&</sup>lt;sup>15</sup> Lee, H.Y., Jamieson, J.P., Reis, H.T., Beevers, C.G., Josephs, R.A., Mullarkey, M.C., Obrien, J.M., & Yeager, D.S. (2020). Getting fewer "likes" than others on social media elicits emotional distress among victimized adolescents. *Child Development*.

<sup>&</sup>lt;sup>16</sup> Fisher, B.W., Gardella, J.H., & Teurbe-Tolon, A.R. (2016). Peer cybervictimization among adolescents and the associated internalizing and externalizing problems: A meta-analysis. *Journal of Youth and Adolescence* <sup>17</sup> Nesi, J. et al. (2021). Social media use and self-injurious thoughts and behavior: A systematic review and meta-analysis. *Clinical Psychology Review*.

<sup>&</sup>lt;sup>18</sup> Carter, B., Rees, P., Hale, L., Bhattacharjee, D., & Paradkar, M.S. (2016). Associations between portable screen-based media device access or use and sleep outcomes. *JAMA Pediatrics*.

<sup>&</sup>lt;sup>19</sup> Common Sense Media (2021). Coping with COVID-19: How young people use digital media to manage their mental health. Retrieved from: https://www.commonsensemedia.org/research/coping-with-covid19-how-young-people-use-digital-media-to-manage-their-mental-health

<sup>&</sup>lt;sup>20</sup> Tynes, B.M., English, D., Del Toro, J., Smith, N.A., Lozada, F.T., & Williams, D.R. (2020). Trajectories of online racial discrimination and psychological functioning among African American and Latino adolescents. *Child Development*.

<sup>&</sup>lt;sup>21</sup> Kleemans, M., Daalmans, S., Carbaat, I., & Anschutz, D. (2016). Picture perfect: The direct effect of manipulated Instagram photos on body image in adolescent girls. *Media Psychology*.

behaviors.<sup>22</sup> And although mental health information is readily available on social media, it is not always clear to youth whether that information is accurate or verified.

#### Social Media and Suicide-Related Content

When it comes to suicide risk, social media both creates new opportunities and new risks. Social support is a critical protective factor for suicidal thoughts and behavior, <sup>23</sup> and social media offers unprecedented opportunities to connect with others at any time of day, from any location. Recent research suggests that connecting with online friends may buffer the negative effects of peer victimization and stress. <sup>24</sup> Social media also offers youth access to resources and information about suicide risk, may reduce stigma, and can create opportunities for intervention when youth are in crisis.

Yet the risks of certain suicide-related content are profound. My recent study of almost 600 psychiatrically-hospitalized youth found that more than a quarter had viewed content (such as posts or photos from peers) related to self-injury or suicide on social media. Further studies indicate that exposure to such content can increase risk for self-harm over time. One mechanism by which this may occur is through suicide contagion—a phenomenon by which one suicide increases the chances of other suicides occurring among vulnerable individuals within a social group. In extreme cases, youth may even encounter messaging that encourages suicide or self-harm.

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<sup>&</sup>lt;sup>22</sup> Moreno, M., D'Angelo, J., & Whitehill, J. (2016). Social media and alcohol: Summary of research, intervention ideas and future study directions. *Media and Communication*.

<sup>&</sup>lt;sup>23</sup> Joiner, T.E., Ribeiro, J.D., & Silva, C. (2012). Nonsuicidal self-injury, suicidal behavior, and their co-occurrence as viewed through the lens of the interpersonal theory of suicide. *Current Directions in Psychological Science*.

<sup>&</sup>lt;sup>24</sup> Massing-Schaffer, M., Nesi, J. Telzer, E.H., Lindquist, K.A., Prinstein, M.J. (2020). Adolescent peer experiences and prospective suicidal ideation: The protective role of online-only friends. *Journal of Clinical Child & Adolescent Psychology*.

<sup>&</sup>lt;sup>25</sup> Nesi, J., Burke, T.A., Lawrence, H.R., MacPherson, H.A., Spirito, A., & Wolff, J.C. (2020). Online Self-Injury Activities among Psychiatrically Hospitalized Adolescents: Prevalence, Functions, and Perceived Consequences. *Research on Child and Adolescent Psychopathology*.

<sup>&</sup>lt;sup>26</sup> Arendt, F., Scheer, S., & Romer, D. (2019). Effects of exposure to self-harm on social media: Evidence form a two-wave panel study among young adults. *New Media & Society*.

<sup>&</sup>lt;sup>27</sup> Gould, M.S. (2006). Suicide and the media. *Annals of the New York Academy of Sciences*. Retrieved from: https://nyaspubs.onlinelibrary.wiley.com/doi/abs/10.1111/j.1749-6632.2001.tb05807.x

<sup>&</sup>lt;sup>28</sup> 14.8% of youth "looked at content (photos, posts, blogs) that encouraged suicide" in the two weeks prior to hospital admission. Nesi, J., Wolff, J.C., & Hunt, J. (2019). Patterns of social media use among youth who are psychiatrically hospitalized. *Journal of the American Academy of Child and Adolescent Psychiatry*.

In my research funded by the American Foundation for Suicide Prevention, I spoke to dozens of teens struggling with suicidal thoughts or a recent suicide attempt. Though these youth recognized potential benefits social media afforded them, they also noted real challenges. Some of these youth reported that, even if they try to avoid posts about suicide, they have difficulty doing so due to targeted algorithms and online communities of peers with similar symptoms.

If some suicide-related social media content provides critical benefits, and some causes significant harm, how do we determine which types of posts may be helpful versus harmful?

Guidelines on safe media reporting on suicide—those that limit the potential for copycat or contagion effects—have existed for years.<sup>29</sup> Recently, evidence-based guidelines have been developed specifically for *social* media.<sup>30</sup> These guidelines highlight that "safe" posts (or videos) about suicide should provide messages of hope and recovery, include links to resources, or indicate that suicide is preventable. In contrast, harmful posts about suicide are those that glamorize, sensationalize, or romanticize suicide; those that trivialize suicide or blame it on a single cause; those that describe suicide as desirable; and those that provide details about methods or locations of attempts.

#### **Conclusions**

Research has yet to reveal the lasting effects of the COVID-19 pandemic on adolescents' technology use, but as the pandemic makes social media an even more central feature of young people's lives, the risks and benefits of these platforms are likely to be further amplified. More research is urgently needed to determine exactly how, when, and for whom social media is more harmful than helpful. But one overarching conclusion can be drawn from the current body of work: social media is central to the mental health of young people.

<sup>&</sup>lt;sup>29</sup> Best practices and recommendations for reporting on suicide available at: https://reportingonsuicide.org/

<sup>&</sup>lt;sup>30</sup> Orygen Chatsafe campaign information available at: https://www.orygen.org.au/chatsafe

Addressing the youth mental health crisis must be a multifaceted effort, and ensuring access to preventive and treatment services is a key component. Nearly half of adolescents with a mental disorder do not receive needed treatment, with those numbers even higher among youth of color.<sup>31</sup> Improving access to mental health care—through mental health clinics and hospitals, schools, primary care facilities, and telehealth—is vital.

Helping youth use technology and social media in healthier ways must also play a role. Legislators, social media companies, researchers and other stakeholders must work together to make changes that best serve our youth. We can educate youth on the dangers of hate speech and bullying, and on how to access accurate mental health information and resources online. We can guide youth toward helpful and supportive content, and limit access to harmful content. We can help youth protect time for essential activities outside of screens—in-person socialization, exercise, sleep. We can provide youth more opportunities to personalize their social media experiences, and give parents the tools and education to ensure their child's safety and wellbeing.

Social media is not going away. It is a central component of adolescents' lives. In order to protect teens' mental health, our goal must be to maximize the benefits of social media while minimizing the risks.

<sup>&</sup>lt;sup>31</sup> Whitney, D.G. & Peterson, M.D. (2019). US National and State-Level Prevalence of Mental Health Disorders and Disparities of Mental Health Care Use in Children. *JAMA Pediatrics*.