

# Parents & Professionals

## List of Social Media Harms for Minors

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This document is the work of the Online Harms Prevention work group at *The Screen Time Action Network at Fairplay*. Our perspective is unique because we are parents and professionals, many of whom have lost children to online harms. Our mission is to educate adults and youth on online harms that occur in social media apps, hold Big Tech accountable for their defective products and advocate for national standards to keep young people safe online.

For questions, please contact co-leaders

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The purpose of this document is to list the multitudes of online harms affecting children and teens and discuss contributing factors, risks and effects and suggested solutions. “Online harms” is defined as harmful business models and content (both physical and mental) found on social media platforms. The online harms listed are related to minors under the age of 18, but many times are also harmful to adults.

This document has two sections:

1. In Section One, we list **Universal Social Media Harms**, contributing factors, risks & effects and solutions. Solving these Universal Harms will mitigate many of the Specific Harms listed individually below.
2. In Section Two, we list **Specific Social Media Harms**, contributing factors and risks & effects. We will not continue to list the Universal Social Media Harms for each Specific Harm.

# List of Social Media Harms for Minors

## Section 1: Universal Social Media Harms

### Universal Contributing Factors:

- Algorithms without transparency or oversight
- Algorithms that spread posts based on salacious or outrageous content, not truth or common good
- Once you search for a topic, it's nearly impossible to change the Algorithm so it stops delivering that topic
- Limited and inconsistent federal and state standards and legislation in place
- Targeted advertising to minors
- Autoplay videos
- No platform transparency
- Platforms not abiding by their own guidelines
- Lack of social empathy behind a screen
- No oversight by independent sources or independent audits
- Limited education K-12 and for parents in media literacy/digital citizenship
- Parental controls that are useless or weak
- Limited ways to effectively supervise content as a parent
- No "Duty of Care"<sup>1</sup> required to minors
- Allowing access to content without having an account. Allowing links for content that can be sent to non-account holders. (There is no way to say "My child doesn't have TikTok" when they can access TikTok through a link or web browser without an account.)
- The process of reporting harmful content does not work
- The reporting process is difficult and not transparent
- Reported harmful content not taken down
- Reported accounts (drug dealers, CSAM) can create new accounts and come back to the platform easily
- Platforms are applying Terms of Service (TOS) inconsistently
- Social Contagion<sup>2</sup>
- COVID and lockdown contributed to excessive screen time and increased access to devices
- EdTech apps and Chromebooks
- Advertisers targeting kids with inappropriate and/or adult content (movies, products)
- Anonymity/anonymous apps (YOLO) leads to increased bullying and hate speech
- Emoji meanings, text codes & internet slang hides intent from parents<sup>3</sup>
- Persuasive design<sup>4</sup>
- Physical location - Allowing devices in private spaces, like a child's bedroom

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<sup>1</sup> **Definition:** A "Duty of Care" is a legal obligation requiring platforms to operate in the best interests of minors that use their products or services.

<sup>2</sup> **Definition:** Social contagion involves behavior, emotions, or conditions spreading spontaneously through a group or network.

<sup>3</sup> <https://www.bark.us/blog/drug-slang-emojis/>     <https://www.bark.us/blog/sexual-slang/>

<sup>4</sup> Persuasive design is an area of design practice that focuses on influencing human behavior through a product's or service's characteristics. Based on psychological and social theories, persuasive design is often used in e-commerce, organizational management, and public health. However, designers also tend to use it in any field requiring a target group's long-term engagement by encouraging continued custom.

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### Universal Risks and Effects:

- Depression<sup>5</sup>
- Anxiety<sup>6</sup>
- Isolation
- Peer influence (virtual vs real)
- Lack of risk taking in social situations
- Unhealthy relationships
- Lower self-esteem
- Stress
- Sleep deprivation<sup>7</sup>
- Isolation<sup>8</sup>
- Excessive time online
- Exposure to harmful content

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<sup>5</sup> **Depression:** Marciano, L., Schulz, P., Camerini, AL (2022), How do depression, duration of internet use and social connection in adolescence influence each other over time? An extension of the RI-CLPM including contextual factors, Computers in Human Behavior, Volume 136, 107390, ISSN 0747-5632, <https://doi.org/10.1016/j.chb.2022.107390>.  
Twenge, J M, Haidt, J., Blake, A. , McAllister, C., Lemon, H, Le Roy, A. (2021), Worldwide increases in adolescent loneliness, Journal of Adolescence, ISSN 0140-1971, <https://doi.org/10.1016/j.adolescence.2021.06.006> Paakkari L, Tynjälä J, Lahti H, Ojala K, Lyyra N. (2021, Feb 15) Problematic Social Media Use and Health among Adolescents. Int J Environ Res Public Health. 2021;18(4):1885. Published 2021 Feb 15. doi:10.3390/ijerph18041885

<sup>6</sup> Anxiety: Boyers, E., Afzali, M.H., Conrod, P., Temporal Associations of Screen Time and Anxiety Symptoms Among Adolescents (2019), The Canadian Journal of Psychiatry, <https://journals.sagepub.com/doi/abs/10.1177/0706743719885486?journalCode=cpab#>

<sup>7</sup> Woods, Heather & Scott, Holly. (2016). #Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. Journal of Adolescence. 51. 41-49. <https://onlinelibrary.wiley.com/doi/10.1016/j.adolescence.2016.05.008>

<sup>8</sup> **Isolation** Effects/Results: Twenge, J M, Haidt, J., Blake, A. , McAllister, C., Lack of Sleep, Obesity, Sleep Reference: Alonzo, R., Hussain, J., Stranges, S., Anderson, K., (2021) Interplay between social media use, sleep quality, and mental health in youth: A systematic review, Sleep Medicine Reviews, 56, 101414, SSN 1087-0792, <https://doi.org/10.1016/j.smr.2020.101414>. (<https://www.sciencedirect.com/science/article/pii/S108707922030157X>) Lemon, H, Le Roy, A. (2021), Worldwide increases in adolescent loneliness, Journal of Adolescence, ISSN 0140-1971, <https://doi.org/10.1016/j.adolescence.2021.06.006>

# List of Social Media Harms for Minors

## Section 2: Specific Social Media Harms

Specific Social Media Harm	Contributing Factors	Risks and Effects
<b>Sexual Exploitation of Minors</b>		
<b>Pornography<sup>9</sup></b>	<ul style="list-style-type: none"> <li>• Social acceptance</li> <li>• Desensitization</li> <li>• Easily accessible</li> <li>• Sexual texting codes, emojis</li> <li>• Fueled by the pornography industry, CSAM, teen porn</li> <li>• "Cyberflashing" (sending nudes)<sup>10</sup></li> <li>• Hashtag searches or websites that look innocent but give kids access to harmful content</li> </ul>	<ul style="list-style-type: none"> <li>• Relationships eroding due to porn influence</li> <li>• Normalizing sexual violence</li> <li>• Negative body image, sexual objectification of others<sup>11</sup></li> </ul>
<b>Revenge Porn<sup>12</sup></b>	<ul style="list-style-type: none"> <li>• Peer romantic relationships</li> <li>• Instant gratification</li> <li>• Ease of uploading images</li> <li>• Poor Content Moderation on platforms</li> </ul>	

<sup>9</sup> **References for Pornography/Sexting:** Giordano, A., Schmit, M., Clement, K., Potts, E., Graham, A. (2022). Pornography Use and Sexting Trends Among American Adolescents: Data to Inform School Counseling Programming and Practice. *Professional School Counseling*, 26. 2156759X2211372. 10.1177/2156759X221137287. Sexting: Chaudhary, P; Peskin, Me; Temple, J; Addy, R.; Baumler, E.; Ross, Shegog (2017) Sexting and mental health in Texas youth <https://eric.ed.gov/?id=EJ1188324>  
To better inform school counseling programming and practice, we assessed trends related to pornography use and sexting behaviors among adolescents. Approximately 53% of the sample had seen pornography, with an average age of 11.5 years old at first exposure. Almost 15% of adolescents had sent a sext and 24.3% had received a sext. The correlation between pornography use and sending a sext was significant. We discuss gender and racial differences and implications for school counselors  
Paul J. Wright, Debby Herbenick, Bryant Paul & Robert S. Tokunaga (2021) Exploratory Findings on U.S. Adolescents' Pornography Use, Dominant Behavior, and Sexual Satisfaction, *International Journal of Sexual Health*, 33:2, 222-228, DOI: 10.1080/19317611.2021.1888170

<sup>10</sup> **Cyberflashing:** <https://www.pewresearch.org/internet/2022/12/15/teens-and-cyberbullying-2022/>

<sup>11</sup> **Negative Body Image:** (Willis, et al (2022); teen dating violence (Rostad et al., 2019), influencing academic focus (Maas et al., 2022), legal consequences related to child pornography laws (Lee & Darcy 2021)

<sup>12</sup> **Revenge Porn:** Finkelhor, D., Turner, H., & Colburn, D. (2022). Prevalence of Online Sexual Offenses Against Children in the US. *JAMA network open*, 5(10), e2234471. <https://doi.org/10.1001/jamanetworkopen.2022.34471>

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<b>Child sexual abuse material (CSAM) / Child sex exploitation<sup>13</sup></b>	<ul style="list-style-type: none"> <li>Sexualization of children in society</li> <li>Trafficking</li> <li>Porn industry</li> <li>Hashtag searches that look innocent but give kids access to harmful content</li> </ul>	<ul style="list-style-type: none"> <li>CSAM is spread online</li> <li>Minors receive unsolicited obscene materials</li> <li>Child sexual molestation</li> <li>Child sex trafficking</li> <li>Encouragement of children to record sexual acts and share online</li> </ul>
<b>Sextortion<sup>14</sup></b>	<ul style="list-style-type: none"> <li>So much information is available to be used as blackmail material (oversharing)</li> <li>Devices in bedrooms late at night</li> <li>Vulnerability</li> <li>Desensitization</li> <li>Nudes common</li> </ul>	<ul style="list-style-type: none"> <li>Shame</li> <li>Money spent</li> </ul>
<b>Cyberflashing (non-consensual)</b>	<ul style="list-style-type: none"> <li>Airdrop/Nearby Share turned on</li> <li>Normalization of porn</li> </ul>	<ul style="list-style-type: none"> <li>Early unwanted exposure for child</li> <li>Crime for adults to receive</li> </ul>
<b>Sexting<sup>15</sup></b>	<ul style="list-style-type: none"> <li>Normalization of porn</li> <li>Peer pressure</li> <li>False norm that “everyone is doing it”</li> </ul>	<ul style="list-style-type: none"> <li>Early sexualization</li> </ul>

<sup>13</sup> **CSAM:** Finkelhor, D., Turner, H., & Colburn, D. (2022). Prevalence of Online Sexual Offenses Against Children in the US. JAMA network open, 5(10), e2234471. <https://doi.org/10.1001/jamanetworkopen.2022.34471>

Feb 14, 2023 Testimony to Senate Judiciary, Protecting Our Children Online. Testimony by John Pizzuro, Retired Commander, New Jersey State Police, current CEO of Raven <https://www.judiciary.senate.gov/imo/media/doc/2023-02-14%20-%20Testimony%20-%20Pizzuro.pdf> Quote from testimony, “These were not images of older teens sending photos of themselves to their boyfriends and girlfriends – we began to see images of 7, 8, and 9-year-olds in sexual poses. The online landscape is horrifying because offenders know this is where our children live, and they recognize there are not enough safeguards to keep them at bay.”

<sup>14</sup> **Sextortion References:** Patchin, Justin & Hinduja, Sameer. (2018). Sextortion Among Adolescents: Results From a National Survey of U.S. Youth. Sexual abuse : a journal of research and treatment. 32. 1079063218800469. 10.1177/1079063218800469.

<sup>15</sup>**Pornography/Sexting:** Giordano, A., Schmit, M., Clement, K., Potts, E., Graham, A. (2022). Pornography Use and Sexting Trends Among American Adolescents: Data to Inform School Counseling Programming and Practice. Professional School Counseling. 26. 2156759X2211372. 10.1177/2156759X221137287. To better inform school counseling programming and practice, we assessed trends related to pornography use and sexting behaviors among adolescents. Approximately 53% of the sample had seen pornography, with an average age of 11.5 years old at first exposure. Almost 15% of adolescents had sent a sext and 24.3% had received a sext. The correlation between pornography use and sending a sext was significant. We discuss gender and racial differences and implications for school counselors

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Specific Social Media Harm	Contributing Factors	Risks and Effects
<b>Human trafficking</b> <sup>16</sup>	<ul style="list-style-type: none"> <li>• Pornography industry<sup>17</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Human traffickers contact minors through messaging, often misrepresenting who they are</li> <li>• Minors offered "jobs" by traffickers</li> <li>• 55% of human trafficking survivors surveyed in 2018 reported that they were recruited via text, website or app<sup>18</sup></li> </ul>
<b>Targeting and Manipulation of Minors</b>		
<b>Persuasive and manipulative design</b>	<ul style="list-style-type: none"> <li>• Platforms incentivize users to keep coming back and create opportunities to analyze user's behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Screen addiction</li> <li>• Quantified popularity (number of likes)</li> <li>• Algorithms promote posts with more "likes"</li> <li>• Dopamine rush;</li> <li>• Reduced "likes" results in decreased feelings of self-worth, which can lead to depression<sup>19</sup></li> </ul>
<b>Lack of privacy protection:</b> Data mining/harvesting, trickery (using polls, etc. to gain personal info)	<ul style="list-style-type: none"> <li>• Location settings on apps</li> <li>• Tracking (browser, touch-based microphone and camera access)</li> <li>• Easy access to personal information online</li> <li>• Instant gratification</li> </ul>	<ul style="list-style-type: none"> <li>• Identity theft or impersonation</li> <li>• Trafficking</li> <li>• Violation</li> <li>• Targeted advertising</li> <li>• Doxing: sharing addresses and personal identifiable information</li> </ul>
<b>Online marketing to minors</b>	<ul style="list-style-type: none"> <li>• Influencers</li> <li>• Real money spent on virtual</li> <li>• Rewards (Robux)</li> </ul>	<ul style="list-style-type: none"> <li>• Obsessive materialism</li> <li>• Encouraging children to self brand, affecting self-esteem, self worth<sup>20</sup></li> </ul>

<sup>16</sup> **Statistics from U.S. Department of Health and Human Services:** "51,667 substantive reports via phone calls, texts, webchats, emails, or online tips have been reported to the National Human Trafficking Hotline in just one year alone. An analysis of these reports identified 10,583 situations of #trafficking with 16,658 individual/unique victims of #trafficking" <https://cblcc.acf.hhs.gov/shareable-media/human-trafficking-prevention-month-social-media-resources/>

<sup>17</sup> **Porn Industry:** <https://www.google.com/url?q=https://fightthenewdrug.org&sa=D&source=docs&ust=1675059138957037&usg=AOvVaw1i5nNCTPhlpnKoHVjld7HH>

<sup>18</sup> **Human Trafficking:** [https://www.thorn.org/wp-content/uploads/2018/06/Thorn\\_Survivor\\_Insights\\_061118.pdf](https://www.thorn.org/wp-content/uploads/2018/06/Thorn_Survivor_Insights_061118.pdf)[https://www.thorn.org/wp-content/uploads/2018/06/Thorn\\_Survivor\\_Insights\\_061118.pdf](https://www.thorn.org/wp-content/uploads/2018/06/Thorn_Survivor_Insights_061118.pdf)

<sup>19</sup> **Reduced likes:** Lee, Hae Yeon & Jamieson, Jeremy & Reis, Harry & Beevers, Christopher & Josephs, Robert & Mullarkey, Michael & O'Brien, Joseph & Yeager, David. (2020). Getting Fewer "Likes" Than Others on Social Media Elicits Emotional Distress Among Victimized Adolescents. Child development. 91. 10.1111/cdev.13422.

<sup>20</sup> **Self brand:** <https://www.consumingkids.com/index.php/publications/books> "Who's Raising the Kids" by Susan Linn.

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		<ul style="list-style-type: none"> <li>• Trains children to highly value wealth and possessions vs. interpersonal relationships, spiritual values</li> <li>• Negatively influences childrens' relationships</li> <li>• By the time a child reaches 13, online advertising firms have an average of 72 million data points about them<sup>21</sup></li> </ul>
<p><b>Child and adult influencers</b></p>	<ul style="list-style-type: none"> <li>• Adolescent, underdeveloped brain being offered content</li> </ul>	<ul style="list-style-type: none"> <li>• Advertisers unaware that their ad revenue is funding harms online</li> <li>• Negative behaviors</li> <li>• Attitude with parents</li> <li>• Marketing to minors</li> </ul>
<p><b>Online gaming addiction</b></p>	<ul style="list-style-type: none"> <li>• Devices in bedrooms (isolated)</li> <li>• Influencers</li> <li>• Marketing to kids</li> <li>• Built to be addictive</li> <li>• Gamification- rewards to log in every day or at a certain time leading to excessive use</li> <li>• Peer pressure</li> <li>• FOMO</li> <li>• Social norm for boys</li> <li>• Online community</li> </ul>	<ul style="list-style-type: none"> <li>• Grooming hate groups via online games</li> <li>• Lower grades/academic achievement</li> <li>• Weaker parent-child bond and weaker sibling bond (more generally weaker relationships with both family and friends which also leads to lower resiliency)</li> <li>• Under-developed social skills and lower confidence</li> <li>• Decreased motivation for real world pursuits</li> <li>• Materialistic values</li> <li>• Sexualization / exposure to over-sexualized content (pornography was mentioned, but it goes far beyond porn - a lot of tv shows, movies and ads are drenched in sex)</li> <li>• Sedentary lifestyle and poorer diet (influenced by ads, which runs the online world), which contributes to</li> </ul>

<sup>21</sup> **Data Points:** <https://www.washingtonpost.com/technology/2022/06/09/apps-kids-privacy/> according to SuperAwesomeSource: Geoffrey Fowler, Washington Post

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		<p>obesity/metabolic disease, which have many negative health consequences</p> <ul style="list-style-type: none"> <li>● Dissociative disorders</li> <li>● Censorship of information that later turns out to be correct and shutting down of public debate on consequential topics</li> <li>● Creation of echo chambers</li> <li>● Dopamine hits</li> <li>● Advertisers unaware that their ad revenue is funding harms online</li> </ul>
<p><b>Screen addiction<sup>22</sup></b></p>	<ul style="list-style-type: none"> <li>● "For you" feed (also sends emails to nudge you back to the app)</li> <li>● Snap streaks</li> <li>● Unlimited time on apps</li> <li>● Easy clicks (apps on desktop)</li> <li>● Multiple devices to access internet/apps</li> </ul>	<ul style="list-style-type: none"> <li>● Excessive screen time affecting the body- weight gain, myopia, tech neck</li> <li>● Snap streaks create pressure to continue</li> <li>● Reduced academic performance</li> <li>● Sleep deprivation</li> <li>● Loneliness</li> </ul>

<sup>22</sup> **Screen Addiction for "Effects/Results":** Khatcherian, E., Zullino, D., De Leo, D., & Achab, S. (2022). Feelings of Loneliness: Understanding the Risk of Suicidal Ideation in Adolescents with Internet Addiction. A Theoretical Model to Answer to a Systematic Literature Review, without Results. *International journal of environmental research and public health*, 19(4), 2012. <https://doi.org/10.3390/ijerph19042012>

- van Duin, C.; Heinz, A.; Willems, H. (2021, Nov) Predictors of Problematic Social Media Use in a Nationally Representative Sample of Adolescents in Luxembourg. *Int. J. Environ. Res. Public Health* 2021, 18, 11878. <https://doi.org/10.3390/ijerph182211878>
- Paakkari L, Tynjälä J, Lahti H, Ojala K, Lyyra N. (2021, Feb 15) Problematic Social Media Use and Health among Adolescents. *Int J Environ Res Public Health*. 2021;18(4):1885. Published 2021 Feb 15. doi:10.3390/ijerph18041885
- EU Kids Online (2020), EU Kids Online, Survey Results from 19 Countries, <https://childhub.org/en/series-of-child-protection-materials/eu-kids-online>
- Maartje Boer, Regina J.J.M. van den Eijnden, Meyran Boniel-Nissim, Suzy-Lai Wong, Joanna C. Inchley, Petr Badura, Wendy M. Craig, Inese Gobina, Dorota Kleszczewska, Helena J. Klanšček, Gonneke W.J.M. Stevens, Adolescents' Intense and Problematic Social Media Use and Their Well-Being in 29 Countries, *Journal of Adolescent Health*, Volume 66, Issue 6, Supplement, 2020, Pages S89-S99, ISSN 1054-139X, <https://doi.org/10.1016/j.jadohealth.2020.02.014>. (<https://www.sciencedirect.com/science/article/pii/S1054139X20300835>)
- Rahardjo, W., & Mulyani, I. (2020). Instagram addiction in teenagers: The role of type D personality, self-esteem, and fear of missing out. *Psychology*, DOI:10.21580/PJPP.V5I1.4916
- Pan, P. Y., & Yeh, C. B. (2018). Internet Addiction among Adolescents May Predict Self-Harm/Suicidal Behavior: A Prospective Study. *The Journal of Pediatrics*, 197, 262–267. <https://doi.org/10.1016/j.jpeds.2018.01.046>
- The internet helps to expand adolescents' social networks and relieve their emotional distress. It may also lead to addiction, an excessive or compulsive internet usage characterized by a loss of personal control (2), which results in poor mental health or other maladaptive behaviors (3).
- From: Du Gang, Lyu Houchao (2021), Future Expectations and Internet Addiction Among Adolescents: The Roles of Intolerance of Uncertainty and Perceived Social Support, *Frontiers in Psychiatry*, 12, DOI=10.3389/fpsy.2021.727106, <https://www.frontiersin.org/articles/10.3389/fpsy.2021.727106>
- Cited references (2, 3): Young KS. Internet addiction: the emergence of a new clinical disorder. *CyberPsychol Behav.* (1998) 1:237–44. doi: 10.1089/cpb.1998.1.237
- Ciarrochi J, Parker P, Sahdra B, Marshall S, Jackson C, Gloster AT, et al. The development of compulsive Internet use and mental health: a four-year study of adolescence. *Dev Psychol.* (2016) 52:272–83. doi: 10.1037/dev0000070



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	<ul style="list-style-type: none"> <li>Autoplay</li> <li>Excessive app alerts/notifications on likes (quantified popularity)</li> </ul>	<ul style="list-style-type: none"> <li>Changes in the young brain<sup>23</sup></li> <li>Increased youth suicide<sup>24</sup></li> <li>Radical changes in healthy socialization</li> </ul>
<b>Disinformation / Misinformation</b>	<ul style="list-style-type: none"> <li>Highly emotional posts, many of which are inaccurate, are prioritized by many platforms' algorithmic recommendation systems</li> <li>Relying on users to verify accuracy of posts vs. platform trust &amp; safety personnel</li> </ul>	<ul style="list-style-type: none"> <li>Advertisers unaware that their ad revenue is funding harms online</li> <li>Normalization of Eating Disorders</li> <li>Teens may refuse needed medical treatments based upon false information</li> </ul>
<b>Extremist Recruiting<sup>25</sup>:</b> Terrorist recruiting / gang recruiting	<ul style="list-style-type: none"> <li>Lack of accountability</li> <li>Easy access to an audience</li> <li>Vulnerability</li> <li>Loneliness/need for belonging</li> </ul>	<ul style="list-style-type: none"> <li>Spreading terrorism and radicalization</li> </ul>

<sup>23</sup> **Physical Brain Changes (young children and teens) related to exposure to digital and online products, brain harm from online product and digital product use:**

- Martin P. Paulus, Lindsay M. Squeglia, Kara Bagot, Joanna Jacobus, Rayus Kuplicki, Florence J. Breslin, Jerzy Bodurka, Amanda Sheffield Morris, Wesley K. Thompson, Hauke Bartsch, Susan F. Tapert, (2019) **Screen media activity and brain structure in youth: Evidence for diverse structural correlation networks from the ABCD study**, *Neuroimage*, 185, 140-153
- John Hutton, MS, MD, Johanthan Dudley, PhD, Tzipi Howowitz-Kraus, PhD, Tom DeWitt, MD, Scott K Holland PhD (2019) **Associations between screen based-media use and brain white matter integrity in preschool-aged children**, *JAMA Pediatr.* 2020;174(1):e193869. doi:10.1001/jamapediatrics.2019.3869
- Hutton, J.S., Dudley, J., DeWitt, T. *et al.* (2022) **Associations between digital media use and brain surface structural measures in preschool-aged children**. *Sci Rep* 12, 19095 (2022). <https://doi.org/10.1038/s41598-022-20922-0> "At a minimum, findings in the current study involving visual areas are consistent with those in the ABCD study, suggesting that relationships between higher media use and brain structure begin to manifest in early childhood and may become more extensive over time." Hutton *et al*

<sup>24</sup> **Suicide relationship with Digital screen media use:** Jonathan Chu, Kyle T. Ganson, Fiona C. Baker, Alexander Testa, Dylan B. Jackson, Stuart B. Murray, Jason M. Nagata (2023)

**Screen time and suicidal behaviors among U.S. children 9–11 years old: A prospective cohort study**, *Prevention Medicine*, 169: 107452  
<https://www.sciencedirect.com/science/article/pii/S0091743523000324#bb0160>

<sup>25</sup> **Reference for Extremist Recruiting:** " Building Networks & Addressing Harm: A Community Guide to Online Youth Radicalization Resources for Trusted Adults, Mentors & Community Leaders, <https://www.splcenter.org/sites/default/files/splc-peril-addressing-harm-community-guide.pdf>

<https://www.bbc.com/news/world-us-canada-49363958>

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<b>Negative Social Impacts / Peer Influence On Minors</b>		
<b>Cyberbullying</b> <sup>26</sup>	<ul style="list-style-type: none"> <li>• Apps that allow anonymous profiles or anonymity</li> <li>• Devices provide constant access to bullying</li> <li>• Disappearing messages and photos</li> <li>• Lower human empathy</li> <li>• Lack of real-time moderators</li> <li>• Online harassment<sup>27</sup></li> <li>• Doxing/Sharing addresses and personal identifiable information<sup>28</sup></li> <li>• Increase in cyberbullying and "cyberflashing" (sending nudes)<sup>29</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Suicidality<sup>30</sup></li> <li>• Easy access for predators</li> <li>• Predatory behavior can develop</li> <li>• No accountability for actions</li> </ul>
<b>Dangerous social media challenges:</b> e.g. Tide Pod challenge, blackout challenge, etc. <sup>31</sup>	<ul style="list-style-type: none"> <li>• Algorithms</li> <li>• "Likes"</li> <li>• Peer pressure</li> <li>• Unlimited sharing/viral popularity</li> <li>• Teens developmentally choose thrill</li> </ul>	<ul style="list-style-type: none"> <li>• Self harm</li> <li>• Early exposure to violent content</li> <li>• Serious illness</li> <li>• Accidental death</li> </ul>

<sup>26</sup> **Cyberbullying:** Teens and Cyberbullying 2022, Pew Research Center US Teens aged 13-17 reported:

- 46% experienced cyberbullying
- 22% had false rumors spread about them
- 17% received explicit images they didn't ask for
- 15% report being constantly asked where they are; what they are doing or who they are with by someone other than a parent
- 10% reported receiving physical threats
- 7% reported having explicit images of them shared without their consent
- Older teen girls stand out for experiencing multiple types of cyberbullying behaviors

<sup>27</sup> **Online Harassment:** <https://www.pewresearch.org/internet/2021/01/13/the-state-of-online-harassment/>

<sup>28</sup> **Doxing:** [https://cyberbullying.org/cyberbullying\\_fact\\_sheet.pdf](https://cyberbullying.org/cyberbullying_fact_sheet.pdf)

<sup>29</sup> **Cyberflashing:** <https://www.pewresearch.org/internet/2022/12/15/teens-and-cyberbullying-2022/>

<sup>30</sup> **Suicidality:**

- Arnon S, Brunstein Klomek A, Visoki E, et al. (2022), Association of Cyberbullying Experiences and Perpetration With Suicidality in Early Adolescence (2022). JAMA Netw Open. 2022;5(6):e2218746. doi:10.1001/jamanetworkopen.2022.18746
- Amanda L. Giordano, Prosek, E. A. & Watson, J.C. (2021). Understanding Adolescent Cyberbullies: Exploring Social Media Addiction and Psychological Factors, Journal of Child and Adolescent Counseling, 7 (1), 10.1080/23727810.2020.1835420, <https://www.tandfonline.com/doi/abs/10.1080/23727810.2020.1835420?journalCode=ucac20>
- 2022 JAMA Network Open study, found that cyberbullying was the #1 cause of suicidal ideations in adolescents aged 10-13 years old.

<sup>31</sup> **Social Media Challenges:** Minhaj, F. Leonard, J. (2021) <https://www.contemporarypediatrics.com/view/dangers-of-the-tiktok-benadryl-challenge>. Atherton, R., (2020) <https://adc.bmj.com/content/106/5/517>

## List of Social Media Harms for Minors

Specific Social Media Harm	Contributing Factors	Risks and Effects
	<ul style="list-style-type: none"> <li>● seeking activities; curiosity</li> <li>● Hashtag searches that look innocent but give kids access to harmful content</li> <li>● False sense of safety after viewing many videos</li> </ul>	
<p><b>Selling illegal street and prescription drugs on social media</b></p>	<ul style="list-style-type: none"> <li>● No national policy</li> <li>● Platforms don't turn over criminal activity to local authorities</li> <li>● Disappearing messages</li> <li>● New accounts can be created for repeat offenders</li> <li>● Hashtag searches that look innocent but give kids access to harmful content</li> </ul>	<ul style="list-style-type: none"> <li>● Drug addiction</li> <li>● Drug trafficker recruitment of child or teen</li> <li>● Accidental death</li> <li>● Advertisers unaware that their ad revenue is funding harms online</li> </ul>
<p><b>Catfishing:</b> Online Impersonation</p>	<ul style="list-style-type: none"> <li>● Easy access to profiles and personal information</li> <li>● Hard to fact check</li> </ul>	<ul style="list-style-type: none"> <li>● Shame</li> <li>● Loss of money</li> </ul>
<p><b>Rumor spreading / reputation slander:</b> Gossip Accounts / "Spill the Tea" / Brigading<sup>32</sup></p>	<ul style="list-style-type: none"> <li>● Having phones in schools</li> <li>● Instant gratification</li> </ul>	<ul style="list-style-type: none"> <li>● Anxiety for targeted individuals</li> <li>● Depression in targeted individuals</li> </ul>
<p><b>Gaslighting:</b> Convincing one to believe they are wrong</p>	<ul style="list-style-type: none"> <li>● Teens lack real-life experience and naively believe information from trusted others</li> <li>● Teens' immaturity</li> </ul>	<ul style="list-style-type: none"> <li>● Online radicalization, e.g. encouraged to join terrorist/gang/hate groups</li> <li>● Teens not obtaining needed medical care</li> <li>● Teens believing that sexual situations without consent are normal</li> </ul>

<sup>32</sup> **Rumor Spreading:** Teens and Cyberbullying 2022, Pew Research Center US Teens aged 13-17 reported: -22% had false rumors spread about them -Older teen girls stand out for experiencing multiple types of cyberbullying behaviors

## List of Social Media Harms for Minors

Specific Social Media Harm	Contributing Factors	Risks and Effects
<b>Negative Personal Influence on Minors</b>		
<b>Suicidal ideation content</b> <sup>33</sup>	<ul style="list-style-type: none"> <li>Rabbit holes deliver more salacious content</li> <li>Continuous exposure to repeated content</li> <li>“Pro” suicide groups</li> <li>Hashtag searches that look innocent but give kids access to harmful content</li> </ul>	<ul style="list-style-type: none"> <li>Normalizes suicide over time</li> <li>Teens developmentally choose thrill seeking activities; curiosity</li> </ul>
<b>Self harm</b> <sup>34</sup> : The act of purposely hurting oneself as an emotional coping mechanism	<ul style="list-style-type: none"> <li>Amazon marketing self harm and suicide kits</li> <li>Hashtag searches that look innocent but give kids access to harmful content</li> </ul>	<ul style="list-style-type: none"> <li>Medical complications from skin cutting; burning or head banging</li> <li>Self injuries such as skin cutting, burning, head banging, hair pulling, etc</li> </ul>

### <sup>33</sup> Effects/Results - Suicidal Ideation:

- Nesi, J., Burke, T. A., Bettis, A. H., Kudinova, A. Y., Thompson, E. C., MacPherson, H. A., Fox, K. A., Lawrence, H. R., Thomas, S. A., Wolff, J. C., Altemus, M. K., Soriano, S., & Liu, R. T. (2021). Social media use and self-injurious thoughts and behaviors: A systematic review and meta-analysis. *Clinical psychology review*, 87, 102038. <https://doi.org/10.1016/j.cpr.2021.102038> <https://pubmed.ncbi.nlm.nih.gov/34034038/>
- Coyne, S.M., Hurst, J.L., Dyer, W.J. et al. Suicide Risk in Emerging Adulthood: Associations with Screen Time over 10 years. *J Youth Adolescence* (2021). <https://doi.org/10.1007/s10964-020-01389-6>
- Maartje Boer, Regina J.J.M. van den Eijnden, Meyran Boniel-Nissim, Suzy-Lai Wong, Joanna C. Inchley, Petr Badura, Wendy M. Craig, Inese Gobina, Dorota Kleszczewska, Helena J. Klanšček, Gonneke W.J.M. Stevens, Adolescents' Intense and Problematic Social Media Use and Their Well-Being in 29 Countries, *Journal of Adolescent Health*, Volume 66, Issue 6, Supplement, 2020, Pages S89-S99, ISSN 1054-139X, <https://doi.org/10.1016/j.jadohealth.2020.02.014>. (<https://www.sciencedirect.com/science/article>)
- Abi-Jaoude, E., Karline Treurnicht Naylor, K. & Pignatiello, A. (2020), Smartphones, social media use and youth mental health, *Canadian Medical Association Journal*, 192 (6) E136-E141; DOI: <https://doi.org/10.1503/cmaj>, <https://www.cmaj.ca/content/192/6/E136>
- Royal Society of Public Health, U.K., All Party Parliamentary Group on Social Media and Young People's Mental Health and Wellbeing Inquiry: "Managing the Impact of Social Media on Young People's Mental Health and Wellbeing" (2019) #NewFilters study, <https://www.rsph.org.uk/static/uploaded/23180e2a-e6b8-4e8d-9e3da2a300525c98.pdf>

### <sup>34</sup> Self Harm Effects/Results:

- Giordano, A., Lundeen, L., Wester, K., Lee, J., Vickers, S., Schmit, M., Kim, I. K. (2022). Nonsuicidal Self-Injury on Instagram: Examining Hashtag Trends, *International Journal for the Advancement of Counseling*, [https://www.researchgate.net/publication/354941736\\_Nonsuicidal\\_Self-Injury\\_on\\_Instagram\\_Examining\\_Hashtag\\_Trends](https://www.researchgate.net/publication/354941736_Nonsuicidal_Self-Injury_on_Instagram_Examining_Hashtag_Trends)
- Haidt, J., & Twenge, J. (2021). Adolescent mood disorders since 2010: A collaborative review. Unpublished manuscript, New York University. Accessed at: <https://docs.google.com/document>
- Nesi, J., Burke, T., Lawrence, H., MacPherson, H., Spirito, A., Wolff, J. (2021), Online Self-Injury Activities among Psychiatrically Hospitalized Adolescents: Prevalence, Functions, and Perceived Consequences, *Research on Child and Adolescent Psychopathology*. 49. 10.1007/s10802-020-00734-4, [https://www.researchgate.net/publication/348278178\\_Online\\_Self-Injury\\_Activities\\_among\\_Psychiatrically\\_Hospitalized\\_Adolescents\\_Prevalence\\_Functions\\_and\\_Perceived\\_Consequences](https://www.researchgate.net/publication/348278178_Online_Self-Injury_Activities_among_Psychiatrically_Hospitalized_Adolescents_Prevalence_Functions_and_Perceived_Consequences)
- Nesi, J., Burke, T. A., Bettis, A. H., Kudinova, A. Y., Thompson, E. C., MacPherson, H. A., Fox, K. A., Lawrence, H. R., Thomas, S. A., Wolff, J. C., Altemus, M. K., Soriano, S., & Liu, R. T. (2021). Social media use and self-injurious thoughts and behaviors: A systematic review and meta-analysis. *Clinical psychology review*, 87, 102038. <https://doi.org/10.1016/j.cpr.2021.102038> <https://pubmed.ncbi.nlm.nih.gov/34034038/>
- Amanda Marchant A, Hawton K, Stewart A, Montgomery P, Singaravelu V, Lloyd, K, Purdy N., Daine K, John A (2017). A systematic review of the relationship between internet use, self-harm and suicidal behaviour in young people: The good, the bad and the unknown, *PLOS*, <https://doi.org/10.1371/journal.pone.0181722>

## List of Social Media Harms for Minors

Specific Social Media Harm	Contributing Factors	Risks and Effects
	<ul style="list-style-type: none"> <li>Exposure to harmful personal photos and coaching<sup>35</sup></li> <li>“Pro” self harm groups</li> </ul>	
<b>Eating disorders / body dysmorphia</b> <sup>36</sup>	<ul style="list-style-type: none"> <li>Unrealistic and unattainable body images</li> <li>Filters to change bodies and faces</li> <li>Influencers</li> <li>Health and beauty industry marketing to children</li> <li>Hashtag searches that look innocent but give kids access to harmful content</li> </ul>	<ul style="list-style-type: none"> <li>Lowered Self esteem</li> <li>Depression</li> <li>Anxiety</li> <li>Advertisers unaware that their ad revenue is funding harms online</li> </ul>

### Notes and References:

1) **Definition:** A “Duty of Care” is a legal obligation requiring platforms to operate in the best interests of minors that use their products or services

2) **Definition:** Social Contagion involves behavior, emotions, or conditions spreading spontaneously through a group or network

3) **Source:** <https://www.bark.us/blog/drug-slang-emojis/> <https://www.bark.us/blog/sexual-slang/>

4) **Definition:** Persuasive design is an area of design practice that focuses on influencing human behavior through a product’s or service’s characteristics. Based on psychological and social theories, persuasive design is often used in e-commerce, organizational management, and public health. However, designers also tend to use it in any field requiring a target group’s long-term engagement by encouraging continued custom.

#### <sup>35</sup> **Exposure / Coaching:**

- Giordano, et al (2020) surveyed 94 licensed clinicians, 30.9% of the sample reported that at least some of their clients who self injured, utilized the internet to share Non-Suicidal Self Injury (NSSI) images
- Giordano, Amanda & Lundeen, Lindsay & Wester, Kelly & Lee, Jaewoo & Vickers, Samuel & Schmit, Michael & Kim, In Kee. (2022). Nonsuicidal Self-Injury on Instagram: Examining Hashtag Trends. International Journal for the Advancement of Counselling. 44. 10.1007/s10447-021-09451-z. Conclusions. Pictures of NSSI are frequently posted on Instagram. Social reinforcement might play a role in the posting of more severe NSSI pictures. Social media platforms need to take appropriate measures for preventing online social contagion.
- Brown, R., Fischer, T., Goldwich, A., Keller, F., Young, R., & Plener, P. (2018). #cutting: Non-suicidal self-injury (NSSI) on Instagram. Psychological Medicine, 48(2), 337-346. doi:10.1017/S0033291717001751

#### <sup>36</sup> **Eating disorders/Body Dysmorphia Effects/Results:** Fairplay Study Designing for Disorder, April 2022,

[https://fairplayforkids.org/wp-content/uploads/2022/04/designing\\_for\\_disorder.pdf?eType=EmailBlastContent&eld=ec346b0d-3a84-4f12-b071-a72549987438](https://fairplayforkids.org/wp-content/uploads/2022/04/designing_for_disorder.pdf?eType=EmailBlastContent&eld=ec346b0d-3a84-4f12-b071-a72549987438)

Saul, J., Rodgers, R. F., & Saul, M. (2022). Adolescent Eating Disorder Risk and the Social Online World: An Update. Child and adolescent psychiatric clinics of North America, 31(1), 167–177. <https://doi.org/10.1016/j.chc.2021.09.004>

Randomized Controlled Study Documenting Adolescent girls' perception of filtered photographs as "normal body images."

Kleemans, K., Daalmans, S., Ilana Carbaat, I., Anschutz, D., (2018) Picture Perfect: The Direct Effect of Manipulated Instagram Photos on Body Image in Adolescent Girls, Media Psychology, 21:1, 93-110, DOI: 10.1080/15213269.2016.1257392, <https://www.tandfonline.com/doi/full/10.1080/15213269.2016.1257392>

Wilksch, S. M., O’Shea, A., Ho, P., Byrne, S., & Wade, T. D. (2020). The relationship between social media use and disordered eating in young adolescents. The International journal of eating disorders, 53(1), 96–106. <https://doi.org/10.1002/eat.23198>

Sowles, S. J., McLeary, M., Optican, A., Cahn, E., Krauss, M. J., Fitzsimmons-Craft, E. E., Wilfley, D. E., & Cavazos-Rehg, P. A. (2018). A content analysis of an online pro-eating disorder community on Reddit. Body image, 24, 137–144. <https://doi.org/10.1016/j.bodyim.2018.01.001>

## List of Social Media Harms for Minors

### 5) Depression:

Marciano, L., Schulz, P., Camerini, AL (2022), How do depression, duration of internet use and social connection in adolescence influence each other over time? An extension of the RI-CLPM including contextual factors. Computers in Human Behavior, Volume 136, 107390, ISSN 0747-5632, <https://doi.org/10.1016/j.chb.2022.107390>.

Twenge, J M, Haidt, J., Blake, A., McAllister, C., Lemon, H, Le Roy, A. (2021), Worldwide increases in adolescent loneliness, Journal of Adolescence, ISSN 0140-1971, <https://doi.org/10.1016/j.adolescence.2021.06.006>

Paakkari L, Tynjälä J, Lahti H, Ojala K, Lyyra N. (2021, Feb 15) Problematic Social Media Use and Health among Adolescents. Int J Environ Res Public Health. 2021;18(4):1885. Published 2021 Feb 15. doi:10.3390/ijerph18041885

### 6) Anxiety:

Boyers, E., Afzali, M.H., Conrod, P., Temporal Associations of Screen Time and Anxiety Symptoms Among Adolescents (2019), The Canadian Journal of Psychiatry, <https://journals.sagepub.com/doi/abs/10.1177/0706743719885486?journalCode=cpab#>

Woods, Heather & Scott, Holly. (2016). #Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. Journal of Adolescence. 51. 41-49. 10.1016/j.adolescence.2016.05.008./

### 7) Isolation Effects/Results:

Twenge, J M, Haidt, J., Blake, A. ,McAllister, C.,

Lack of Sleep, Obesity, Sleep Reference:

Alonzo, R., Hussain, J., Stranges, S., Anderson, K., (2021) Interplay between social media use, sleep quality, and mental health in youth: A systematic review, Sleep Medicine Reviews, 56, 101414, SSN 1087-0792, <https://doi.org/10.1016/j.smrv.2020.101414>.,(<https://www.sciencedirect.com/science/article/pii/S108707922030157X>)

Lemon, H, Le Roy, A. (2021), Worldwide increases in adolescent loneliness, Journal of Adolescence, ISSN 0140-1971, <https://doi.org/10.1016/j.adolescence.2021.06.006>

### 8) US Design Code:

<https://www.designedwithkidsinmind.us/how-bad-design-harms-kids/>

### 9) Cyberbullying:

Teens and Cyberbullying 2022, Pew Research

Center <https://www.pewresearch.org/internet/2022/12/15/teens-and-cyberbullying-2022/>

US Teens aged 13-17 reported:

-46% experienced cyberbullying

-22% had false rumors spread about them

-17% received explicit images they didn't

ask for

-15% report being constantly asked where

they are; what they are doing or who they are with by someone other than a parent -10% reported receiving physical threats -7% reported having explicit images of them shared

without their consent -Older teen girls stand out for experiencing multiple types of cyberbullying behaviors

### 10) Suicidality:

Arnon S, Brunstein Klomek A, Visoki E, et al. (2022), Association of Cyberbullying Experiences and Perpetration With Suicidality in Early Adolescence (2022). JAMA Network Open. 2022;5(6):e2218746. doi:10.1001/jamanetworkopen.2022.18746

**2022 JAMA Network Open study, found that cyberbullying was the #1 cause of suicidal ideations in adolescents aged 10-13 years old.**

Giordano, A. L., Prosek, E. A. & Watson, J.C. (2021). Understanding Adolescent Cyberbullies: Exploring Social Media Addiction and Psychological Factors, Journal of Child and Adolescent Counseling, 7 (1), 10.1080/23727810.2020.1835420, <https://doi.org/10.1080/23727810.2020.1835420>

## List of Social Media Harms for Minors

### 11) Effects/Results - Suicidal Ideation:

Nesi, J., Burke, T. A., Bettis, A. H., Kudinova, A. Y., Thompson, E. C., MacPherson, H. A., Fox, K. A., Lawrence, H. R., Thomas, S. A., Wolff, J. C., Altemus, M. K., Soriano, S., & Liu, R. T. (2021). Social media use and self-injurious thoughts and behaviors: A systematic review and meta-analysis. *Clinical psychology review*, 87, 102038. <https://doi.org/10.1016/j.cpr.2021.102038> <https://pubmed.ncbi.nlm.nih.gov/34034038/>

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Maartje Boer, Regina J.J.M. van den Eijnden, Meyran Boniel-Nissim, Suzy-Lai Wong, Joanna C. Inchley, Petr Badura, Wendy M. Craig, Inese Gobina, Dorota Kleszczewska, Helena J. Klanšček, Gonneke W.J.M. Stevens, Adolescents' Intense and Problematic Social Media Use and Their Well-Being in 29 Countries, *Journal of Adolescent Health*, Volume 66, Issue 6, Supplement, 2020, Pages S89-S99, ISSN 1054-139X, <https://doi.org/10.1016/j.jadohealth.2020.02.014>. (<https://www.sciencedirect.com/science/article>

Abi-Jaoude, E., Karlina Treurnicht Naylor, K. & Pignatiello, A. (2020), Smartphones, social media use and youth mental health, *Canadian Medical Association Journal*, 192 (6) E136-E141; DOI: <https://doi.org/10.1503/cmaj>, <https://www.cmaj.ca/content/192/6/E136>

Royal Society of Public Health, U.K., All Party Parliamentary Group on Social Media and Young People's Mental Health and Wellbeing Inquiry: "Managing the Impact of Social Media on Young People's Mental Health and Wellbeing" (2019) #NewFilters study, <https://www.rsph.org.uk/static/uploaded/23180e2a-e6b8-4e8d-9e3da2a300525c98.pdf>

### 12) Self Harm Effects/Results:

Giordano, A., Lundeen, L., Wester, K., Lee, J., Vickers, S., Schmit, M., Kim, I. K. (2022). Nonsuicidal Self-Injury on Instagram: Examining Hashtag Trends, *International Journal for the Advancement of Counseling*, [https://www.researchgate.net/publication/354941736\\_Nonsuicidal\\_Self-Injury\\_on\\_Instagram\\_Examining\\_Hashtag\\_Trends](https://www.researchgate.net/publication/354941736_Nonsuicidal_Self-Injury_on_Instagram_Examining_Hashtag_Trends)

Haidt, J., & Twenge, J. (2021). Adolescent mood disorders since 2010: A collaborative review. Unpublished manuscript, New York University. Accessed at: <https://docs.google.com/document>

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Nesi, J., Burke, T. A., Bettis, A. H., Kudinova, A. Y., Thompson, E. C., MacPherson, H. A., Fox, K. A., Lawrence, H. R., Thomas, S. A., Wolff, J. C., Altemus, M. K., Soriano, S., & Liu, R. T. (2021). Social media use and self-injurious thoughts and behaviors: A systematic review and meta-analysis. *Clinical psychology review*, 87, 102038. <https://doi.org/10.1016/j.cpr.2021.102038> <https://pubmed.ncbi.nlm.nih.gov/34034038/>

Amanda Marchant A, Hawton K, Stewart A, Montgomery P, Singaravelu V, Lloyd, K, Purdy N., Daine K, John A (2017). A systematic review of the relationship between internet use, self-harm and suicidal behaviour in young people: The good, the bad and the unknown, *PLOS*, <https://doi.org/10.1371/journal.pone.0181722>

**13) Source:** Giordano, et al (2020) surveyed 94 licensed clinicians, 30.9% of the sample reported that at least some of their clients who self injured, utilized the internet to share Non-Suicidal Self Injury (NSSI) images

Giordano, Amanda & Lundeen, Lindsay & Wester, Kelly & Lee, Jaewoo & Vickers, Samuel & Schmit, Michael & Kim, In Kee. (2022). Nonsuicidal Self-Injury on Instagram: Examining Hashtag Trends. *International Journal for the Advancement of Counselling*. 44. 10.1007/s10447-021-09451-z.

Conclusions. Pictures of NSSI are frequently posted on Instagram. Social reinforcement might play a role in the posting of more severe NSSI pictures. Social media platforms need to take appropriate measures for preventing online social contagion.

Brown, R., Fischer, T., Goldwisch, A., Keller, F., Young, R., & Plener, P. (2018). #cutting: Non-suicidal self-injury (NSSI) on Instagram. *Psychological Medicine*, 48(2), 337-346. doi:10.1017/S0033291717001751

### 14) Eating disorders/Body Dysmorphia Effects/Results:

## List of Social Media Harms for Minors

Fairplay Study Designing for Disorder, April 2022,

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Wilksch, S. M., O'Shea, A., Ho, P., Byrne, S., & Wade, T. D. (2020). The relationship between social media use and disordered eating in young adolescents. *The International journal of eating disorders*, 53(1), 96–106. <https://doi.org/10.1002/eat.23198> Sowles, S. J., McLeary, M., Optican, A., Cahn, E., Krauss, M. J., Fitzsimmons-Craft, E. E., Wilfley, D. E., & Cavazos-Rehg, P. A. (2018). A content analysis of an online pro-eating disorder community on Reddit. *Body image*, 24, 137–144. <https://doi.org/10.1016/j.bodyim.2018.01.001>

### 15) References for Pornography/Sexting:

Giordano, A., Schmit, M., Clement, K., Potts, E., Graham, A. (2022). Pornography Use and Sexting Trends Among American Adolescents: Data to Inform School Counseling Programming and Practice. *Professional School Counseling*. 26. 2156759X2211372. 10.1177/2156759X221137287.

To better inform school counseling programming and practice, we assessed trends related to pornography use and sexting behaviors among adolescents. Approximately 53% of the sample had seen pornography, with an average age of 11.5 years old at first exposure. Almost 15% of adolescents had sent a sext and 24.3% had received a sext. The correlation between pornography use and sending a sext was significant. We discuss gender and racial differences and implications for school counselors

Paul J. Wright, Debby Herbenick, Bryant Paul & Robert S. Tokunaga (2021) Exploratory Findings on U.S. Adolescents' Pornography Use, Dominant Behavior, and Sexual Satisfaction, *International Journal of Sexual Health*, 33:2, 222-228, DOI: 10.1080/19317611.2021.1888170

Willis, et al (2022); teen dating violence (Rostad et al., 2019), influencing academic focus (Maas et al., 2022), legal consequences related to child pornography laws (Lee & Darcy 2021)

16) Resources: <https://fightthenewdrug.org/>

### 17) Sextortion References:

Patchin, Justin & Hinduja, Sameer. (2018). Sextortion Among Adolescents: Results From a National Survey of U.S. Youth. *Sexual abuse : a journal of research and treatment*. 32. 1079063218800469. 10.1177/1079063218800469.

### 18) Screen Addiction for "Effects/Results":

Khatcherian, E., Zullino, D., De Leo, D., & Achab, S. (2022). Feelings of Loneliness: Understanding the Risk of Suicidal Ideation in Adolescents with Internet Addiction. A Theoretical Model to Answer to a Systematic Literature Review, without Results. *International journal of environmental research and public health*, 19(4), 2012. <https://doi.org/10.3390/ijerph19042012>

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Paakkari L, Tynjälä J, Lahti H, Ojala K, Lyyra N. (2021, Feb 15) Problematic Social Media Use and Health among Adolescents. *Int J Environ Res Public Health*. 2021;18(4):1885. Published 2021 Feb 15. doi:10.3390/ijerph18041885

EU Kids Online (2020), EU Kids Online, Survey Results from 19 Countries, <https://childhub.org/en/series-of-child-protection-materials/eu-kids-online>

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Rahardjo, W., & Mulyani, I. (2020). Instagram addiction in teenagers: The role of type D personality, self-esteem, and fear of missing out. *Psychology*, DOI:10.21580/PJPP.V5I1.4916

Pan, P. Y., & Yeh, C. B. (2018). Internet Addiction among Adolescents May Predict Self-Harm/Suicidal Behavior: A Prospective Study. *The Journal of Pediatrics*, 197, 262–267. <https://doi.org/10.1016/j.jpeds.2018.01.046>

The internet helps to expand adolescents' social networks and relieve their emotional distress. It may also lead to addiction, an excessive or compulsive internet usage characterized by a loss of personal control (2), which results in poor mental health or other maladaptive behaviors (3).

From: Du Gang, Lyu Houchao (2021), Future Expectations and Internet Addiction Among Adolescents: The Roles of Intolerance of Uncertainty and Perceived Social Support, *Frontiers in Psychiatry*, 12, DOI=10.3389/fpsy.2021.727106, <https://www.frontiersin.org/articles/10.3389/fpsy.2021.727106>

Cited references (2, 3): Young KS. Internet addiction: the emergence of a new clinical disorder. *CyberPsychol Behav.* (1998) 1:237–44. doi: 10.1089/cpb.1998.1.237

Ciarrochi J, Parker P, Sahdra B, Marshall S, Jackson C, Gloster AT, et al. The development of compulsive Internet use and mental health: a four-year study of adolescence. *Dev Psychol.* (2016) 52:272–83. doi: 10.1037/dev0000070

### 19) Reference for Sexting:

References for Pornography/Sexting:

Giordano, A., Schmit, M., Clement, K., Potts, E., Graham, A. (2022). Pornography Use and Sexting Trends Among American Adolescents: Data to Inform School Counseling Programming and Practice. *Professional School Counseling*. 26. 2156759X2211372. 10.1177/2156759X221137287.

To better inform school counseling programming and practice, we assessed trends related to pornography use and sexting behaviors among adolescents. Approximately 53% of the sample had seen pornography, with an average age of 11.5 years old at first exposure. Almost 15% of adolescents had sent a sext and 24.3% had received a sext. The correlation between pornography use and sending a sext was significant. We discuss gender and racial differences and implications for school counselors

### 20) Rumor Spreading:

Teens and Cyberbullying 2022, Pew Research Center US Teens aged 13-17 reported: -22% had false rumors spread about them -Older teen girls stand out for experiencing multiple types of cyberbullying behaviors

21) Reference: Lee, Hae Yeon & Jamieson, Jeremy & Reis, Harry & Beevers, Christopher & Josephs, Robert & Mullarkey, Michael & O'Brien, Joseph & Yeager, David. (2020). Getting Fewer "Likes" Than Others on Social Media Elicits Emotional Distress Among Victimized Adolescents. *Child development*. 91. 10.1111/cdev.13422.

22) Reference: Statistics from U.S. Department of Health and Human Services: "51,667 substantive reports via phone calls, texts, webchats, emails, or online tips have been reported to the National Human Trafficking Hotline in just one year alone. An analysis of these reports identified 10,583 situations of #trafficking with 16,658 individual/unique victims of #trafficking" <https://cblcc.acf.hhs.gov/shareable-media/human-trafficking-prevention-month-social-media-resources/>

23) Reference: Fight the New Drug

<https://www.google.com/url?q=https://fightthenewdrug.org&sa=D&source=docs&ust=1675059138957037&usg=AOvVaw1i5nNCTPhlpnKoHVld7HH>

24) Reference: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0202330>

### 25) Reference for Extremist Recruiting

<https://www.bbc.com/news/world-us-canada-49363958>

### 26) Child Abuse, trafficking and sextortion:

Feb 14, 2023 Testimony to Senate Judiciary, Protecting Our Children Online. Testimony by John Pizzuro, Retired Commander, New Jersey State Police, current CEO of Raven <https://www.judiciary.senate.gov/imo/media/doc/2023-02-14%20-%20Testimony%20-%20Pizzuro.pdf>

Quote from testimony, "These were not images of older teens sending photos of themselves to their boyfriends and girlfriends – we began to see images of 7, 8, and 9-year-olds in sexual poses. The online landscape is horrifying because offenders know this is where our children live, and they recognize there are not enough safeguards to keep them at bay."

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### 27) Suicide relationship with Digital screen media use:

Jonathan Chu, Kyle T. Ganson, Fiona C. Baker, Alexander Testa, Dylan B. Jackson, Stuart B. Murray, Jason M. Nagata (2023) **Screen time and suicidal behaviors among U.S. children 9–11 years old: A prospective cohort study**, *Prevention Medicine*, 169: 107452 <https://www.sciencedirect.com/science/article/pii/S0091743523000324#bb0160>

### 28) Physical Brain Changes (young children and teens) related to exposure to digital and online products, brain harm from online product and digital product use:

Martin P. Paulus, Lindsay M. Squeglia, Kara Bagot, Joanna Jacobus, Rayus Kuplicki, Florence J. Breslin, Jerzy Bodurka, Amanda Sheffield Morris, Wesley K. Thompson, Hauke Bartsch, Susan F. Tapert, (2019) **Screen media activity and brain structure in youth: Evidence for diverse structural correlation networks from the ABCD study**, *Neuroimage*, 185, 140-153

John Hutton, MS, MD, Johanthan Dudley, PhD, Tzipi Howowitz-Kraus, PhD, Tom DeWitt, MD, Scott K Holland PhD (2019) **Associations between screen based-media use and brain white matter integrity in preschool-aged children**, *JAMA Pediatr.* 2020;174(1):e193869. doi:10.1001/jamapediatrics.2019.3869

Hutton, J.S., Dudley, J., DeWitt, T. *et al.* (2022) **Associations between digital media use and brain surface structural measures in preschool-aged children**. *Sci Rep* 12, 19095 (2022). <https://doi.org/10.1038/s41598-022-20922-0>

*“At a minimum, findings in the current study involving visual areas are consistent with those in the ABCD study, suggesting that relationships between higher media use and brain structure begin to manifest in early childhood and may become more extensive over time.” Hutton et al*