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- Enter the Webinar ID: 160 635 8142#.
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- Join online or by phone by 11 a.m. Central and wait for the host to start the webinar. Your camera and audio/microphone are disabled.
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- Ask questions to the presenter(s) in the Zoom Q&A window. Each presenter will decide when to address questions. People who join by phone cannot ask questions.
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Social Media and Mental Health in Adolescents

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Conflict of Interest

Dr. Selkie is on a scientific advisory board for YouTube Kids.

The speaker does not intend to discuss any unlabeled or unapproved use of drugs or devices.



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**School of Medicine
and Public Health**
UNIVERSITY OF WISCONSIN-MADISON

LEARNING OBJECTIVES

01

Define

Common risks youth may encounter when using social media

02

Recognize

The mental health consequences of risky social media experiences

03

Conduct

an online safety assessment and plan for individual patients and families in your practice

Case review

- Ruby is a 15 year old female with major depressive disorder who presents for a medication check. She has been taking fluoxetine 40 mg for about the last year, and she sees her therapist every other week.
- Ruby denies concerns in the office today. Her mother is worried about the amount of time Ruby spends on her phone. She says Ruby uses her phone from the moment she gets home from school through bedtime.

Case (continued)

- On confidential interview, Ruby tells you that she reads and writes fanfiction about her favorite anime series and that she spends most of her time online in forums reading new stories, contributing her own, and discussing characters and plots. She admits that often she is reading until 1 or 2 am and on those nights gets about 5 or 6 hours of sleep and is tired throughout the day.
- Ruby reports that sometimes other students at school make fun of her. However, she reports that she's made a good friend her age through her favorite fanfiction site and they talk online or by video chat almost every day. She also confides in you that she thinks she might be bisexual, and is not sure that her parents are supportive, but she has been getting some advice about coming out from friends online.
- She denies suicidal ideation, and her PHQ-9 total score is 6.

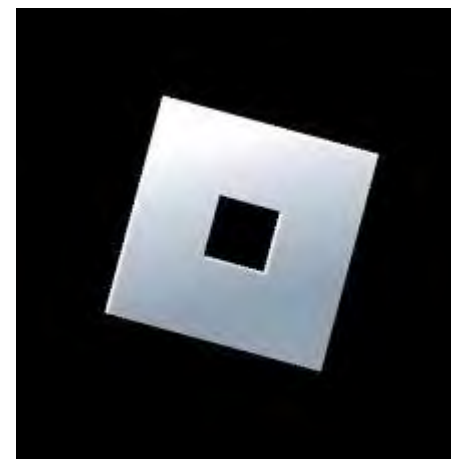
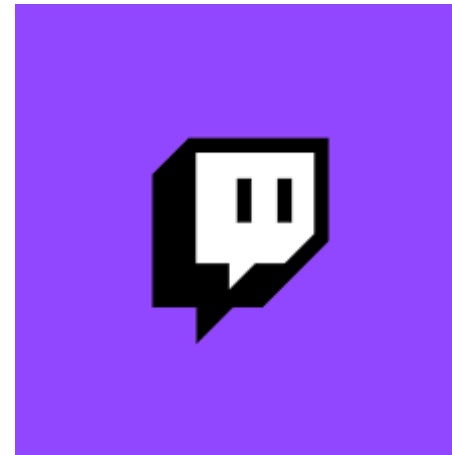
What are the primary ways adolescents use social media?

Adolescent Social Media Use

- Tweens (age 8-12)
 - Smartphone ownership: 43%
 - 38% have used social media, 18% use daily
- Teens (age 13-17)
 - Smartphone ownership: 88-95%
 - Average social media time 1.5 hours daily but 35% report being on at least one platform “almost constantly”
- Popular platforms
 - YouTube (95% of teens use)
 - TikTok (67%)
 - Instagram (62%)
 - Snapchat (59%)
 - Facebook (32%)



Other platforms

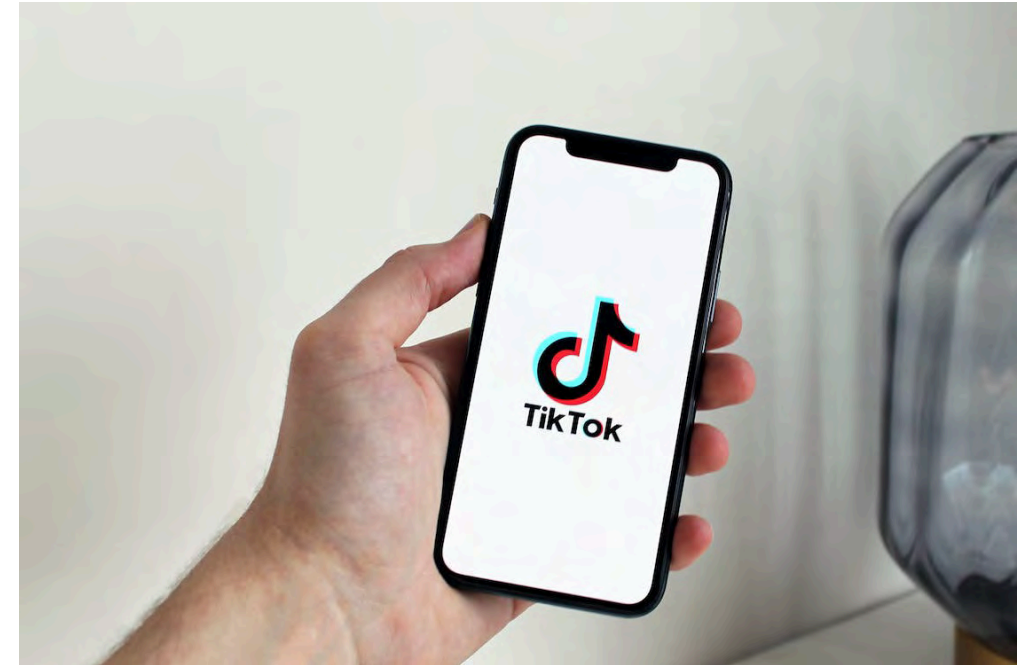


Demographic differences

- Girls tend to use visual platforms (Instagram, Snapchat, TikTok)
- Boys tend to use gaming related platforms (Discord, Twitch, Reddit)
- Black and Latine teens more likely to report being online “almost constantly” and use some platforms (Instagram, TikTok, Twitter/X) more frequently than White teens
- Teens report they enjoy video sharing platforms (YouTube, TikTok) more than traditional social media sites

Trends over time

- From 2015-2022:
 - Smartphone ownership 73% → 95%
 - Facebook use 71% → 32%
 - TikTok introduced
- During pandemic, teens also used social media for:
 - Information about pandemic
 - Mental health support
 - Civic engagement and social justice



**How does social media affect
adolescent mental health?**

Surgeon General's Advisory, mass media discussions

“Children are exposed to harmful content on social media, ranging from violent and sexual content, to bullying and harassment. And for too many children, social media use is compromising their sleep and valuable in-person time with family and friends. We are in the middle of a national youth mental health crisis, and I am concerned that social media is an important driver of that crisis – one that we must urgently address.”

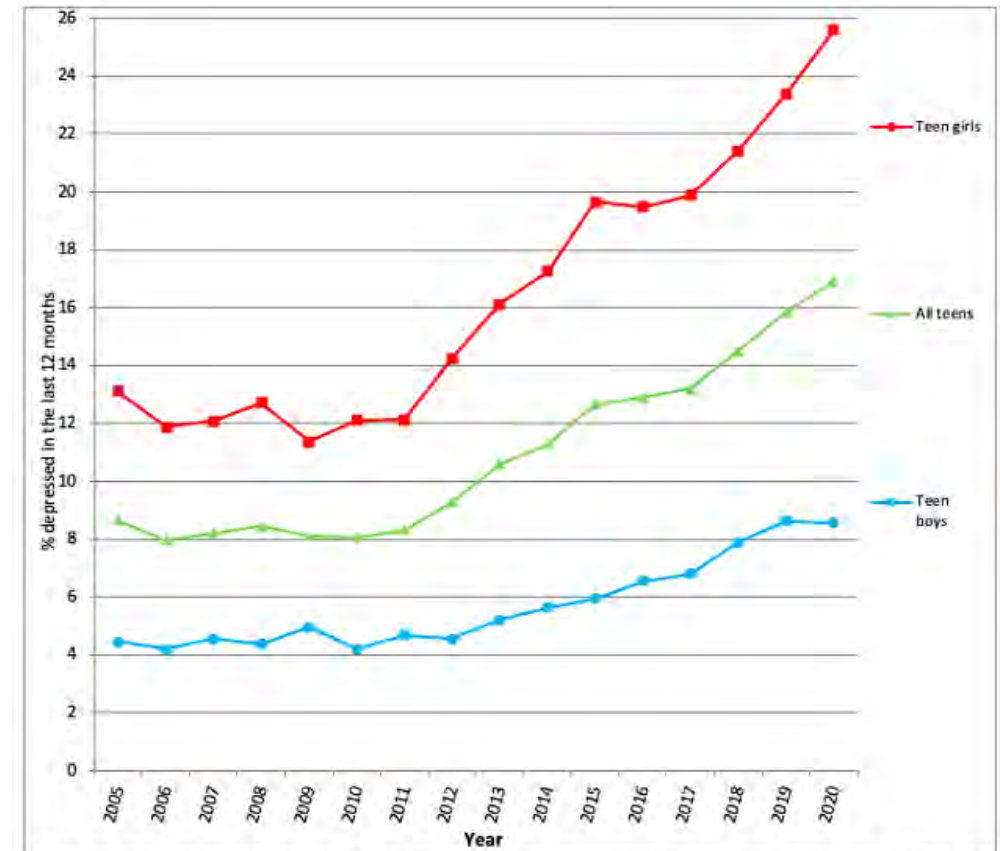
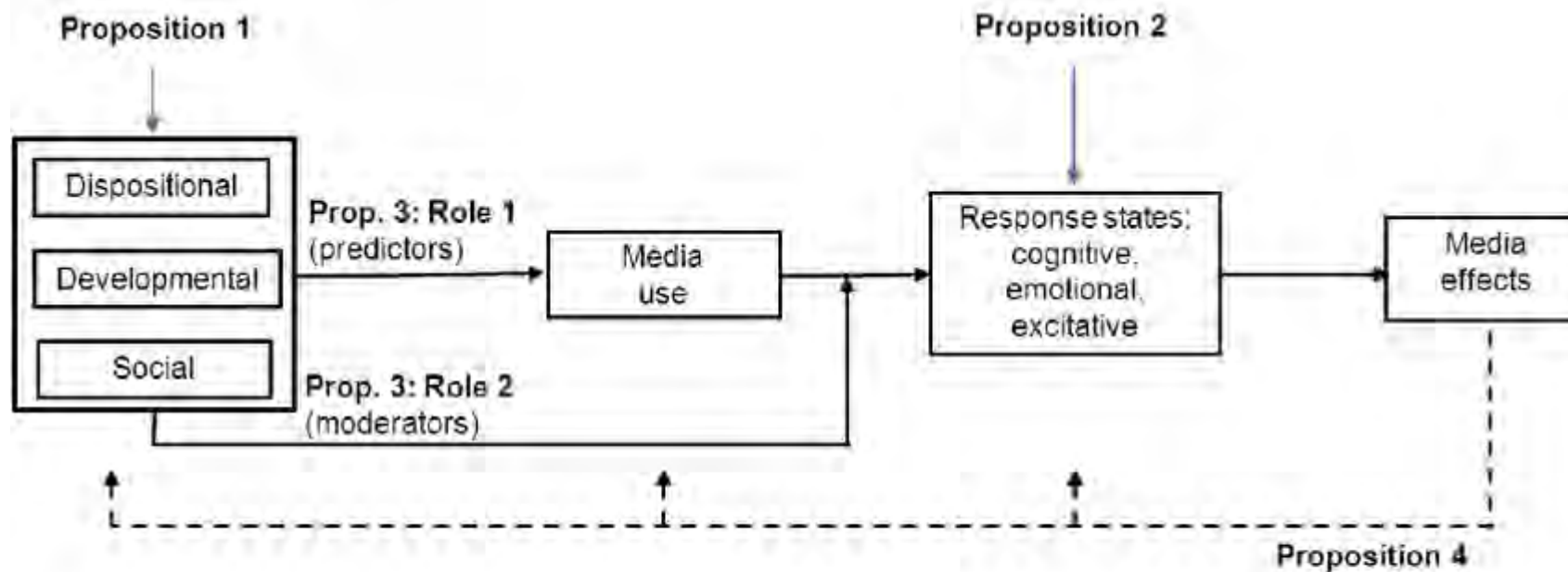


Figure 2: Percent of U.S. 12- to 17-year-olds with major depression in the last year, 2005-2020
Source: National Study of Drug Use and Health. NOTE: Depression assessed using DSM criteria.

“Social media is bad for mental health”

- What is social media?
 - General screen time measures do not give a full picture
 - Active vs passive use model also does not always apply
 - What are you posting?
 - Who are you communicating with, and how?
 - What do you see?
- What is mental health?

Differential Susceptibility to Media Effects Model



Proposition 1: Media effects depend on three types of susceptibility.

Proposition 2: Three media response states mediate the relationship between media use and effects.

Proposition 3: The differential susceptibility variables have two roles: they act as predictors and moderators.

Proposition 4: Media effects are transactional.

Recall: Adolescent Development

- Tasks of adolescence
 - Independence
 - Body image
 - Peer relations
 - Identity



Image: Min An

What is social media displacing?

- Sleep
- Physical activity
- In person interactions
- Family time
- Academics



Image: Andrea Piacquadio

Sleep

- Various screen time activities correlated with
 - Less and later sleep
 - Lower quality sleep
 - Sleep onset difficulties
- Social media, internet, and gaming (especially history of problematic use) have highest correlations
- Practical uses for phone (music/white noise, alarm) less incorporated into these models

Risk: Addiction

Gaming Disorder

- Newly added to ICD-11 by WHO
 - “a pattern of gaming behavior (“digital-gaming” or “video-gaming”)
 - impaired control over gaming
 - increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities
 - continuation or escalation of gaming despite the occurrence of negative consequences
 - behavior pattern must be of sufficient severity to result in significant impairment in personal, family, social, educational, occupational or other important areas of functioning and would normally have been evident for at least 12 months
- Not a DSM diagnosis but listed as “topic of interest”

Problematic Internet Use/Internet Addiction

- Definition: use of the internet that leads to psychological, academic, and/or social impairment
- Not a DSM or ICD diagnosis
- Does not always correlate with time spent
- Disproportionately prevalent in youth with autism
- Possible increase during pandemic particularly with younger users, more strongly associated with TikTok

Risk: body image

Media and body image have a long history



Social media and body image

- Known link between passive use and
 - Body dissatisfaction
 - Drive for thinness
- Image-based social media has strongest negative associations
- How is it different from magazines?
 - More peer-adjacent
 - Bidirectional communication (both personal and vicarious experiences)
 - Volume

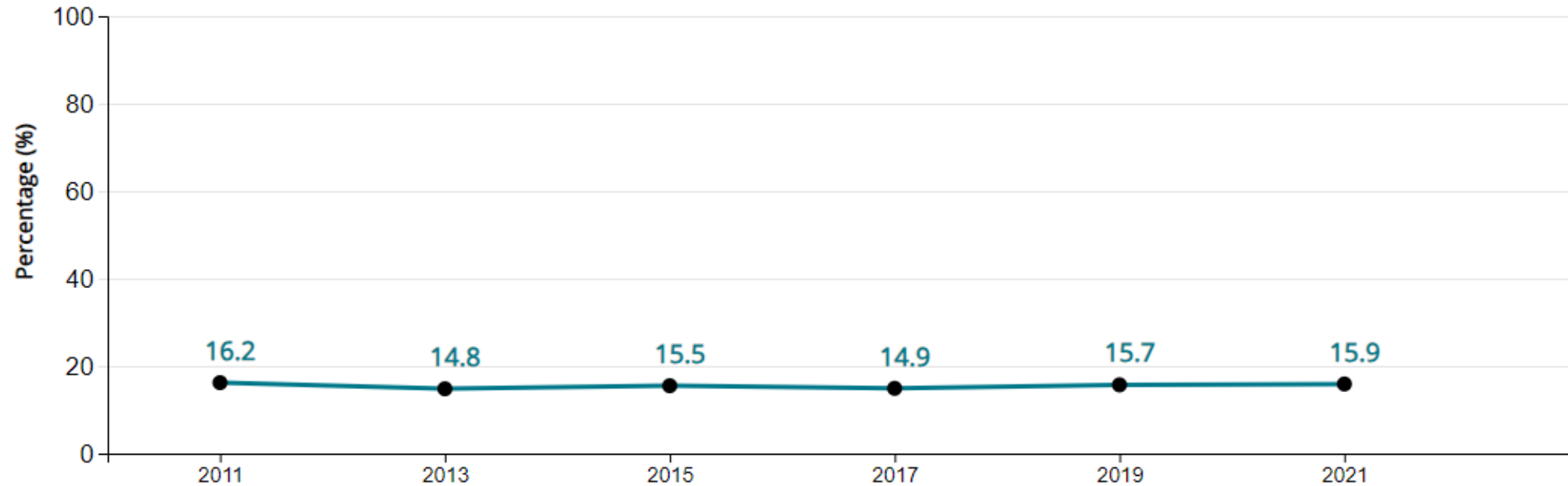


Risk: Cyberbullying

Cyberbullying/Online harassment

- CDC Uniform Definition of bullying: any **unwanted aggressive behavior(s)** by another youth or group of youths who are not siblings or current dating partners that involves an **observed or perceived power imbalance** and is **repeated multiple times or is highly likely to be repeated**. Bullying may inflict **harm or distress** on the targeted youth including physical, psychological, social, or educational harm
- Cyberbullying definition: highly variable
- Many teens experience offensive name-calling (32%), unwanted pornographic images (17%) and threats of physical violence (10%)
- Mental health associations for both perpetrator AND target

Prevalence of electronic bullying: YRBS



* Counting being bullied through texting, Instagram, Facebook, or other social media, ever during the 12 months before the survey.

† Overall, the percentage of students reporting this behavior did not change from 2011 to 2021. The direction of the trend line did not change from 2011 to 2021. Any indicated increase or decrease is statistically significant.

[Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

Risk: Multiple others

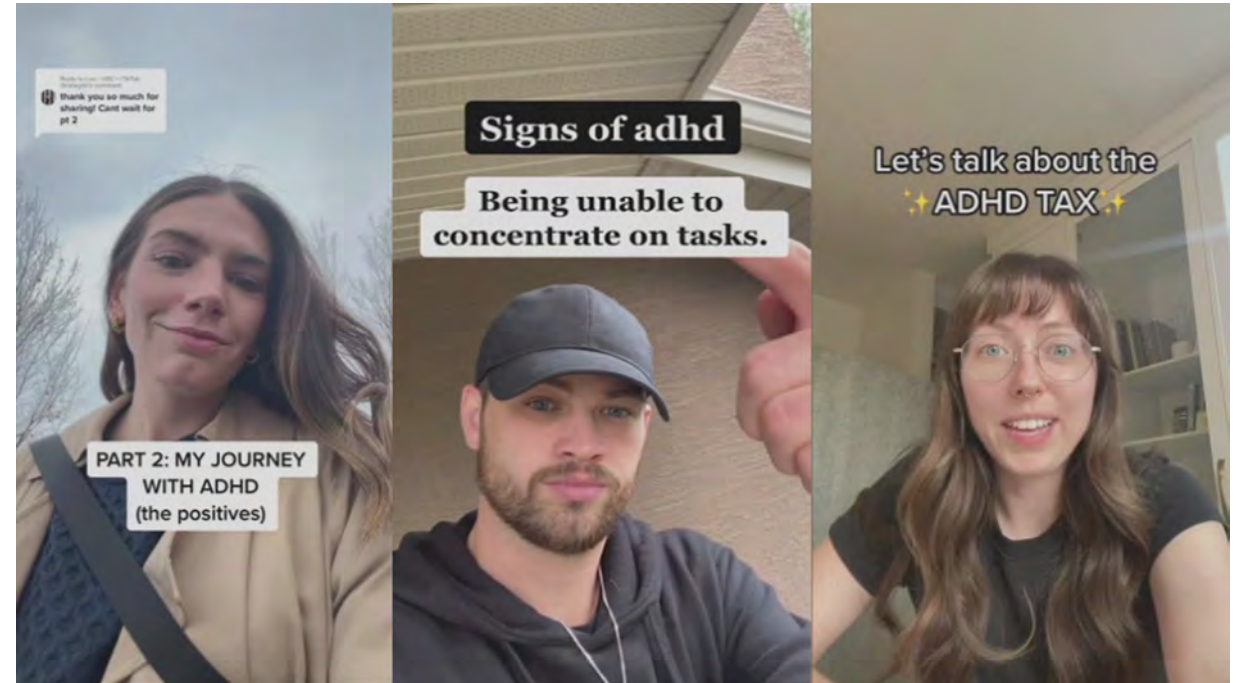
Harmful content

- Pornography
 - 15% of kids report that they first saw pornography under age 11 and 20-38% of kids aged 11-17 years old report seeing pornography online in the last year
 - Can be disturbing, mixed results about effect on sexual behavior
- Violence
 - Evidence for causing violence offline is mixed
- Racism
- Homophobia/transphobia



Contagion

- Suicide (Werther effect)
- Functional movement disorders (“TikTok tics”)
- False self-diagnosis vs increased awareness?



**Reframing using a strengths based
approach**

How social media can help vulnerable youth

Identity development – a task of adolescence

- Explore and affirm racial, ethnic, sexual, gender, and other identities
- Explore values and beliefs
- Develop empathy
- Experience relative “privacy” from adults

Formation of peer relationships – another task of adolescence

- Especially helpful if nobody in offline community to connect with
- Rarer to meet a new online friend in-person, but often teens take steps to mitigate risk

Research on positive impacts of social media – growing

- Social media use over time increases cognitive (understanding) and affective (feelings) empathy (Vossen & Valkenburg, 2016)
 - Perspective taking with peers
 - Role modeling by “influencers”
- Use of smartphones acutely improves mood (Minich & Moreno, 2024)
 - Coping with negative emotion/distraction
 - Entertainment (music, podcast, audiobooks) particularly helpful
- During the pandemic, high media users reported higher friend support, particularly for sexual minority and gender non-conforming adolescents (Lake et al 2022)

Mental health interventions on social media

- Hundreds of apps are promoted for “mental health”, but only a handful have been tested and/or used evidence-based principles
- Digital interventions that have been evaluated
 - Components: coaching, psychoeducation, gamification, online modules or text messages
 - Effect size often small, the best interventions are moderated/supervised
- Emerging options: embedded in social media, AI chatbots

General themes

- Youth voices:
 - Using technology related to mental health is acceptable and provides emotional, social, and informational support
 - Peer-driven experiences provide the most impact
 - Desirable interventions are accessible and trustworthy
 - Youth do not want their providers to be online with them

In the office

What to ask youth you serve

- Tell me how you use your device
- Have you had any experiences online that have made you feel unsafe?
- How does your mood and/or stress level change based on what you see on social media?
- How do you feel like your phone/device benefits you?
- Is there anything you would want to change about the way you use your phone/devices?

AAP Center of Excellence on Social Media and Youth Mental Health

- Fall 2022, AAP was awarded \$10 million over five years from the U.S. Department of Health and Human Services (HHS), through the Substance Abuse and Mental Health Services Administration (SAMHSA), to establish a National Center of Excellence on Social Media and Mental Wellness.

The goals of the Center are to:

1. **Improve pediatric mental wellbeing** by reducing the risks and leveraging the benefits of social media
2. **Build the capacity** of individuals who work with youth to mitigate social media's impact on mental wellbeing and promote healthy social media use
3. **Synthesize and promote the evidence base** and best practices for healthy social media use via communication, guidance, and other resources



American Academy
of Pediatrics

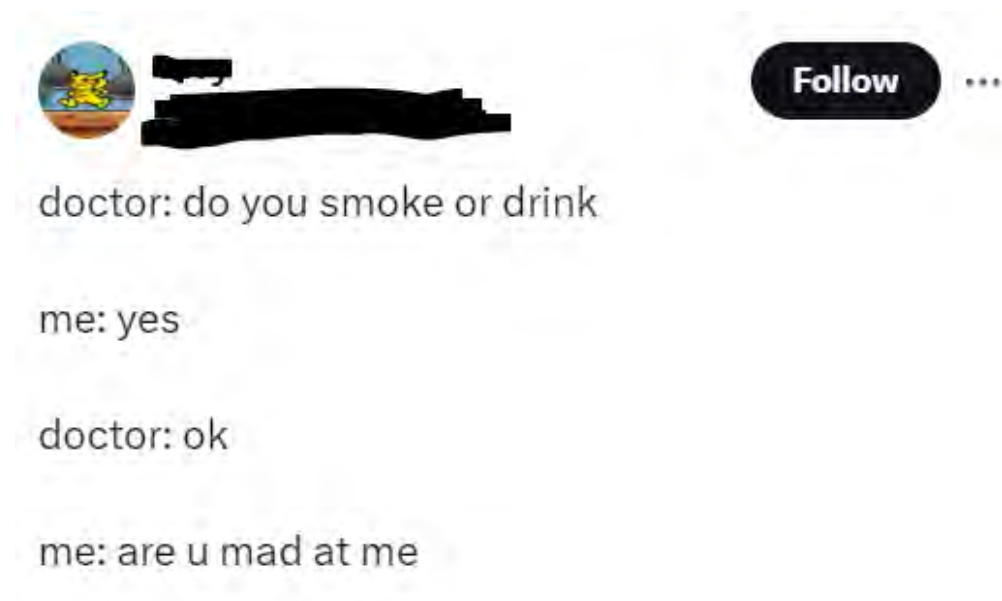


DEDICATED TO THE HEALTH OF ALL CHILDREN®

What is the impact of the popular (risk based) narrative?

The **current** narrative is

- Spread by news media
- Captures attention
- Leads to shame and guilt that is internalized by kids and families
 - → Parents want to give up or tighten control
 - → Teens blame themselves
- Shame and guilt do not lead to healthy behaviors or self-efficacy
- Is abstinence-only the way?



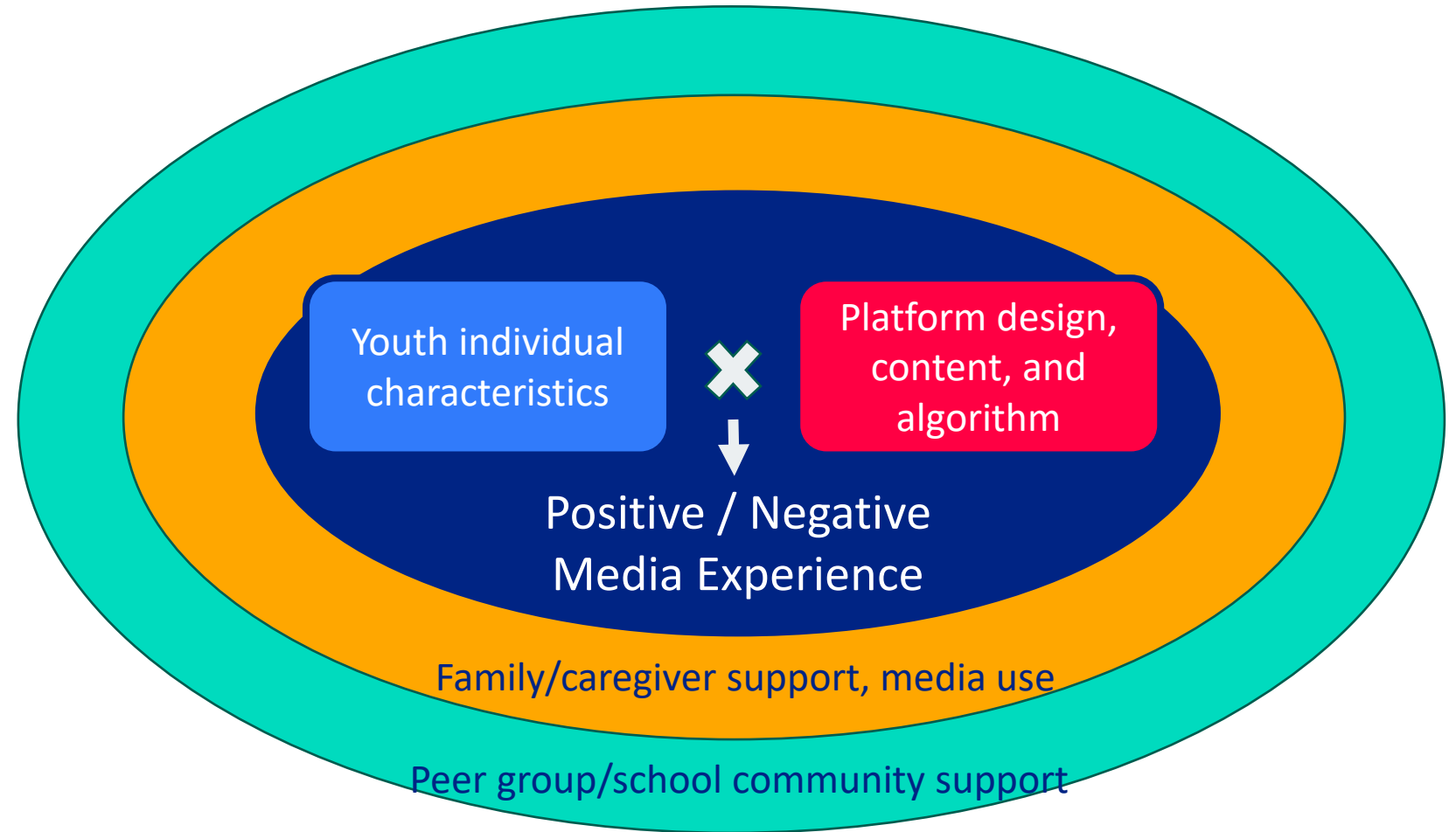
A New Narrative

Making words matter

- **Emphasize children's innate resilience** and unique characteristics that are developmentally adaptive (eg, curiosity, attracted to novelty, seeking peer reactions) but don't always interact well with the adult-built environments around them.
- **Recognize that we need to act now** to help youth through the mental health crisis (and prevent mental health problems in younger children), but avoids reinforcing the dominant polarized discourse (eg, only blaming technology).
- **Create and amplify resources and interventions** that are multi-level, involve all stakeholders and relationships children have, addresses the psychological and sociological factors that shape media use and how children react to it.

Center of Excellence Framework

1. Centering on the child/adolescent
2. Individual differences
3. Importance of context
4. Developmental lens
5. Digital ecosystem design



Backdrop: Social, economic, and climate stresses

The 5 Cs of Media Use

1. Child
2. Content
3. Calm
4. Crowding Out
5. Communication

The 5 Cs Downloadable PDFs

The 5 Cs of Media Use

INFCY: 0-18 MONTHS

From birth to 18 months, infants are building secure relationships with parents and caregivers, understanding and expressing early language, and quickly learning to move their bodies so they can explore the world and the objects around them. Emotionally, infants learn to self-soothe, fall asleep without depending on being held, enjoy playing back and forth with others, and learn new things. These are important tasks that media shouldn't crowd out.

ASK YOURSELF THE 5 Cs WHAT YOU CAN DO

PDF

Infancy (0-18 months)

Download

The 5 Cs of Media Use

TODDLERS AND PRESCHOOLERS: 2 TO 4 YEARS

From ages 2 to 4 years, toddlers are learning A LOT, becoming more talkative, wanting to master new things by themselves, and can finally understand some educational content on media. This is also a time of big emotions and learning how to manage them. These are the important developmental tasks that media shouldn't crowd out.

ASK YOURSELF THE 5 Cs WHAT YOU CAN DO

PDF

Toddlers & Preschoolers (2-4 years)

Download

The five age-based handouts can be downloaded at aap.org/5Cs.

The 5 Cs - Strengths-Based Framework

PROVIDING SIMPLE BUT NUANCED GUIDANCE

- 1. Child:** *Who is your child/adolescent, their unique strengths and challenges? How does this shape their media use and how they react to it?*
- 2. Content:** *What content is high-quality and worth our time? How does negative content affect our thoughts and emotions?*
- 3. Calm:** *How does your child calm down strong emotions and settle down for sleep?*
- 4. Crowding Out:** *When we use media for too long, what does it get in the way of?*
- 5. Communication:** *Regularly talking about your family's digital experiences, supporting critical thinking and problem-solving.*



Follow



Asked our 15 yr old if he agreed to install Life360 on his phone. We wanted to hear arguments against it and weigh them against the pros for us being able to see his location.

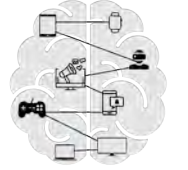
This child says, "Sure, except I want to see where you guys are at all times, so EVERYONE has to join."

What does the future hold?

What has been happening in the US?

- Multiple lawsuits against tech companies
- White House Task Force on Online Harassment, other listening sessions
- Senate hearings
- KOSA (Kids Online Safety Act): requires platforms to provide “safeguards” for users under age 17 such as parental controls, age verification and parental consent; **also would require platforms to share data with researchers**
 - Concerns: free speech, suppression/censorship of “controversial” content (ex. sexual and gender identity?)

Brain, Behavior, and wellBeing (B3) – b3study.org



**BRAIN, BEHAVIOR
& WELLBEING**

- **Title:** A longitudinal study investigating TDM and adolescent health and development: Behavior, Neuroscience and Socioemotional Well-being
- **Study Design:** A 2-year prospective study which began recruitment in March 2023
- **Purpose:** Investigate the impact of social media on adolescents' brain development, mental health and well-being, and health behaviors such as physical activity and substance use



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Learning More from Adolescents
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So many new questions and ideas

- Effectiveness of policies
- Treatment for problematic use
- Role of AI in media experiences
- Diversifying design
- Accessibility
- Interventional approaches for adults 😊



Wrapping up

- We are living in a very exciting time in the evolution of social technology, AND there are many uncertainties
- We are more connected than ever before AND we are witnessing more of everything than ever before
- While adolescent and caregiver dynamics and roles may seem to be shifting, we can still rely on core principles of development to guide us



Resources/References

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