

Zucker, Gershenfeld Research Roundup

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Debates

- Sole cause **or** contributor to youth mental health crisis
- Cause **or** correlate?
- Screen time **or** platform features?
- Content **or** features/functions
- Problematic social media use **or** addiction



Potential Risks of Content Features, and Functions

A CLOSER LOOK AT THE SCIENCE BEHIND HOW SOCIAL MEDIA CONTENT AFFECTS YOUTH

APRIL 2024

Almost a year after the American Psychological Association issued its health advisory on social media and youth mental health, the society continues to wrestle with ways to maximize the benefits of these potential harms associated with them. By early 2024, few meaningful changes had been enacted by industry, and no federal policies had been adopted. There remain fundamental changes to their platforms. Psychological science continues to make fundamental changes to their platforms. Psychological science continues to make fundamental changes to their platforms. Psychological science continues to make fundamental changes to their platforms.

ELABORATION OF SCIENCE ON SOCIAL MEDIA CONTENT, FEATURES, AND FUNCTIONS
Platforms built for adults are not inherently suitable for youth. Youth require more support and guidance as they progress through the childhood, teenage, and young adulthood stages of life. The science discussed below highlights the need to enact new, responsible policies that are designed to protect youth and support healthy development.



APA Recommendations for Healthy Teen Video Viewing

A SUMMARY OF THE SCIENCE WITH ACTIONABLE RECOMMENDATIONS FOR VIDEO VIEWING AND ADOLESCENT WELL-BEING

Psychological and social scientists are continually investigating the impact of video content on adolescents' well-being. Both the volume of video content and adolescents have increased dramatically in recent years. This report summarizes the science on video content on video streaming channels and via various online gaming) on which adolescents can consume video content produced by adolescents themselves. Much of this new video content is designed to protect youth and support healthy development.

Science suggests multiple ways that video content, and the platforms that host it, can be designed to protect youth and support healthy development. Addressing these issues is the responsibility of numerous stakeholders, including parents, educators, policymakers, and technology companies. To ensure the time adolescents spend on video is enriching, all should review the recommendations.



Artificial Intelligence and Adolescent Well-being

AN APA HEALTH ADVISORY

The use of artificial intelligence (AI) is expanding rapidly, with increasing adoption among youth. AI offers new efficiencies and opportunities, yet its deeper integration into daily life requires careful consideration to ensure that AI tools are safe, especially for adolescents (generally considered to be between ages 10 and 25).^{2,3}

AI is embedded in many types of applications and programs, ranging from more subtle uses (e.g., predictive text, autocomplete, shopping recommendations) to a more substantial presence (e.g., chatbots, job application reviews, warning systems). We refer to *generative AI* as including applications that can generate humanlike text, create photorealistic images, produce lifelike audio, and create realistic videos, all of which can influence young people's perceptions and behaviors. We refer to *interactive AI* as



Written Testimony
of
Mitch Prinstein, PhD, ABPP
Chief Science Officer
American Psychological Association
Protecting Our Children Online
Before the U.S. Senate Committee on Judiciary

February 14, 2023



Written Testimony
of
Mitchell J. Prinstein, PhD, ABPP
Chief of Psychology, American Psychological Association
Examining the Harm of AI Chatbots
Before the U.S. Senate Judiciary Committee,
Subcommittee on Crime and Counterterrorism
September 16, 2025

- **Starting age 10:**
Hypersensitive to peer feedback, attention, or punishments
- **Through age 25....:**
Underdeveloped self-control



Under **which conditions**, and for
which children may specific social
media **features or content** be
helpful or harmful to youth
development?

What questions are we asking....

1. What are the potential benefits of technology use?
2. What types of technology use may increase or decrease mental health risk?
3. Who may be most susceptible to potentially negative effects of tech/social media on mental health?
4. How might tech/social media content promote adaptive or maladaptive behavior?
5. Are teens more influenced by peers online?
6. Does digital media cause youth stress?
7. What are teens not doing when using tech/social media?
8. What is “problematic” technology use?
9. Is smartphone use in school related to positive or negative outcomes?
10. Is technology use related to brain development?
11. How is AI changing everything?

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4) Promoting Maladaptive Behavior



search for “self-injury” and
“self-harm”

50 most-viewed character (with
a live individual) & 50
most-viewed noncharacter
videos examined

Lewis, Heath, St Denis, & Noble, 2011

Variable	Proportion of Videos Present
Trigger warning	
Warning	42
No warning	57
Tone	
Factual or educational	53
Melancholic	51
Encouraging	23
Hopeful	16
Angry	13
Humorous	4
Other	25
Purpose of video	
Neutral	42
Against NSSI	26
Mixed message	23
Pro-NSSI	7

Pro-Anna

Twisted Minds

some look at us and call us crazy
how little they really know
they pass us by and stare
like we're in some sickly show
don't they see?
it is not us who is at fault
they kill their bodies with fats and grease
but we give our bodies nothing at all
so, you see,
we really are the purest of the pure
nothing but skin and bones,
plus a scale to reassure
so think about which one of us is on top
next time you stop and stare
for we float in the realm of nonexistence
where all we need is air ...

Thinspiration

Main

Information

- > Anorexia
- > Bulimia
- > Self Injury
- > Recovery

Tools

- > BMI calculator
- > Food: calories
- > Thinspiration

Community

- > Forums
- > Guestbook

Bones



Models



Celebrities



Athletes



The Thin Commandments

1. If you aren't thin you aren't attractive.
2. Being thin is more important than being healthy.
3. You must buy clothes, cut your hair, take laxatives, starve yourself, do anything to make yourself look thinner.
4. Thou shall not eat without feeling guilty.
5. Thou shall not eat fattening food without punishing oneself afterward.
6. Thou shall count calories and restrict intake accordingly.
7. What the scale says is the most important thing.
8. Losing weight is good/gaining weight is bad.
9. You can never be too thin.
10. Being thin and not eating are signs of true will power and success.

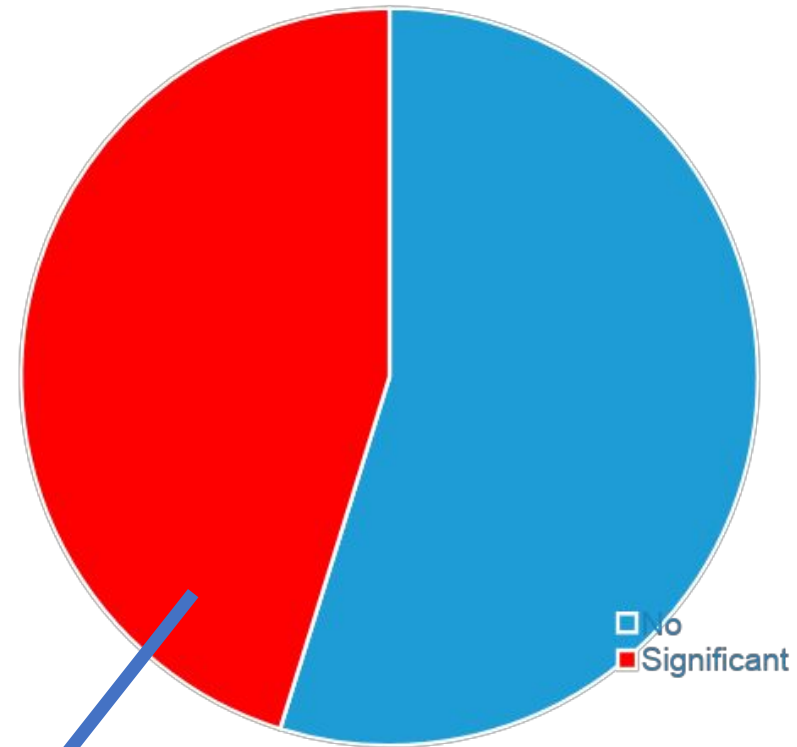
6) Is digital media use a stressor?

- Connection overload
- Fear of Missing Out (FOMO)
- Availability Stress
- Approval Anxiety

Digital Stress in High School

N = 680, aged 14-15

Experiencing Digital Stress

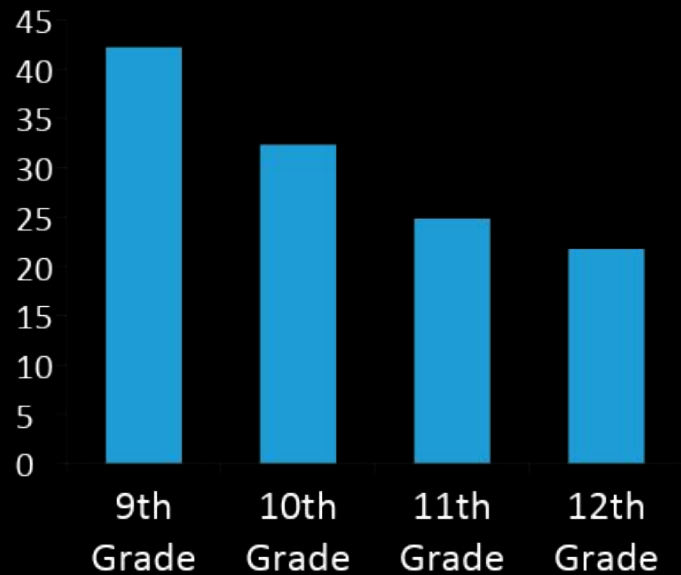


Predicted increased depression one year later

Nick et al., 2021
Small effect sizes

7) Interferes with Sleep

Percent of students who get recommended sleep (8+ hours)

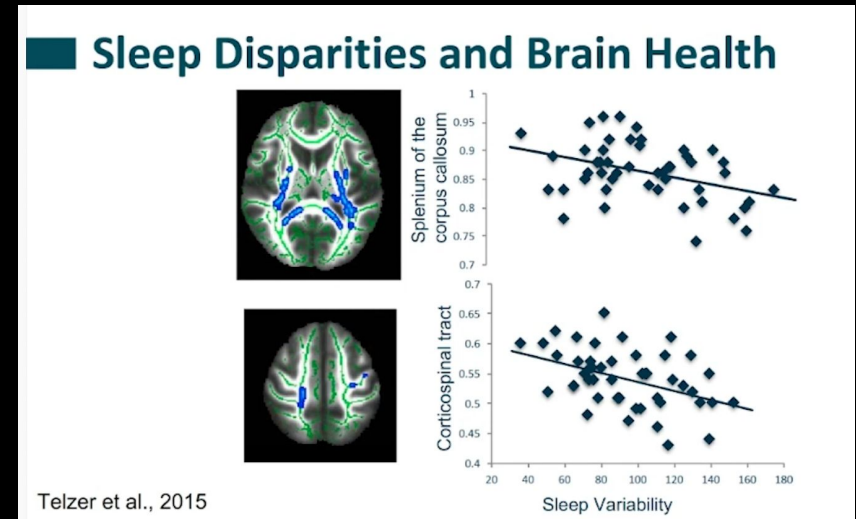


Poor sleep linked to obesity, depression, risky behaviors, poor school performance



Nighttime Screen Use linked to Poor Sleep Health

- Meta-analyses: Nighttime smartphone use associated with poorer sleep health
 - later sleep onset
 - shorter sleep duration
 - more frequent and longer wake events



8) Problematic Social Media Behaviors

- Do you ever feel like you spend more time on social media than you intended?
- Have you ever tried to spend time away from social media, but couldn't do it?
- Do you ever expend extra effort to make sure you will continue to have access to social media at times when you otherwise may not be able to use it?
- Do you ever have a craving or strong desire to use social media?
- Does social media use ever get in the way of things you are supposed to be doing (e.g., sleep, exercise, schoolwork)?
- Do you ever use social media even after you realized that it was getting in the way of what you thought was best for you?
- Have you ever been away from social media and felt like you were missing it too much to engage in normal day to day activities?
- Do you think you may be addicted to social media?



Results

- **Nearly all** adolescents report spending more time on social media than they intended
- **Half** of adolescents report that being away from social media results in experiencing difficulties in engaging with daily life activities
- **One-quarter** perceive that they are “moderately” or “severely” addicted to social media

10) Social Media and Brain Development



Grade 6



Grade 7



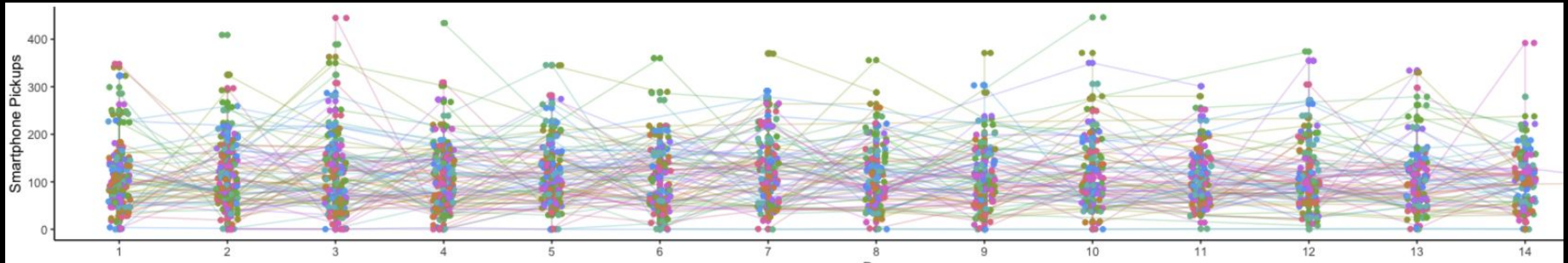
Grade 8



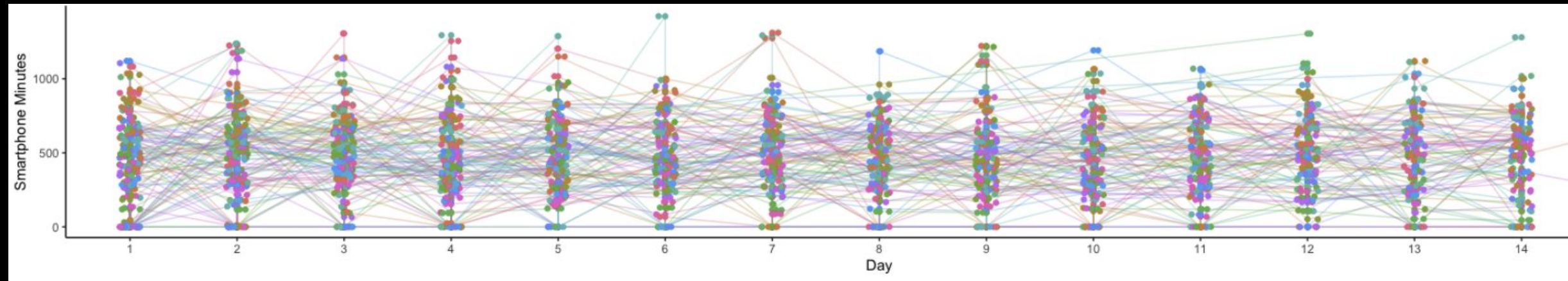
Grade 9

Daily Pickups and Time on Smartphones

Average pickups = 100/day

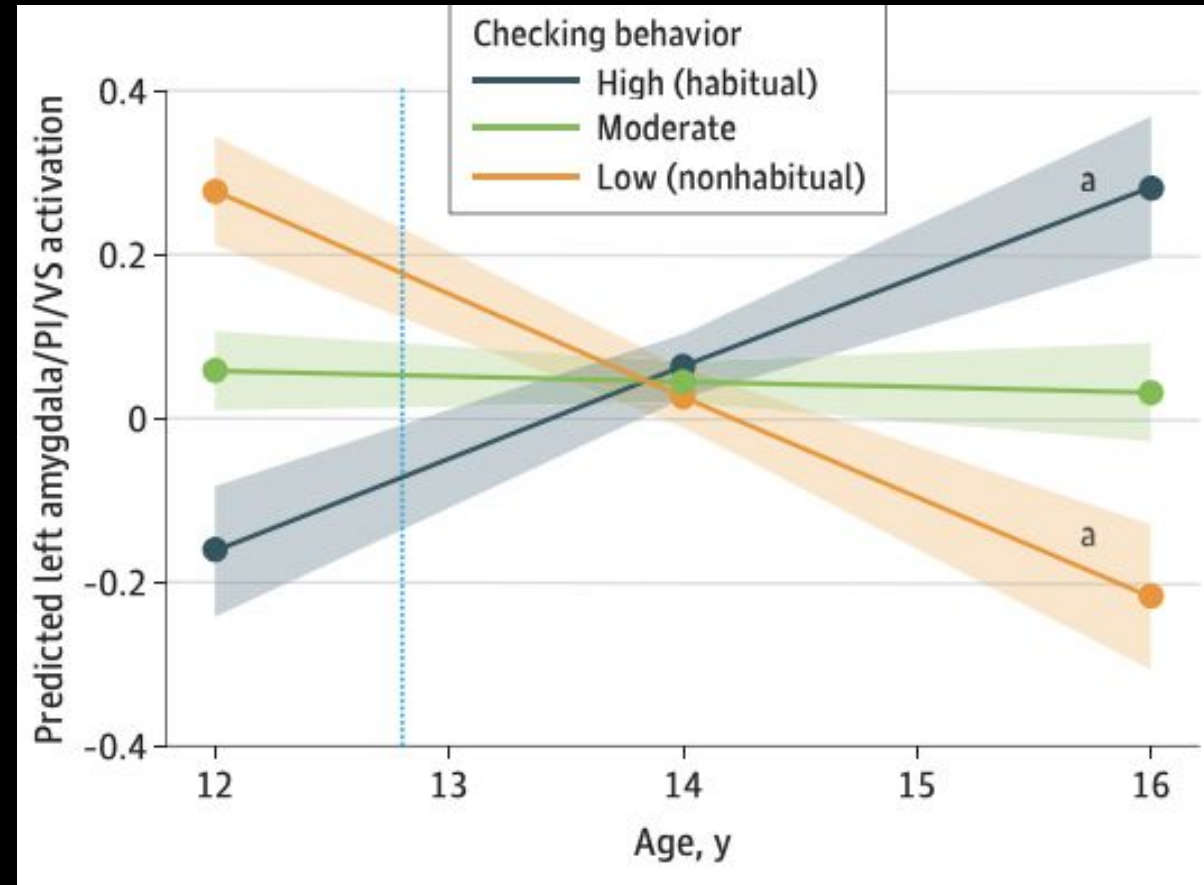


Average time on smart phone = 500min/day (8.3 hours)



Social Media and Brain Development

Left Amygdala/ Posterior
Insula/ Ventral Striatum



11) AI

1. AI is often invisible
2. Most youth are using companion or character AI
3. Youth report higher trust in AI than in their parents/teachers
4. AI sometimes presents as a licensed psychologist

Research sorely needed

Thanks!