SOCIAL MEDIA USE AND ADOLESCENT DEPRESSION

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DISCLOSURES

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AACAP/NIDA K12	X	
Johns Hopkins University		X

LEARNING OBJECTIVES:

Upon completion of this lecture, learners will be able to:

1. Describe trends of depression and suicide in the adolescent population

2. Identify at least 3 ways in which social media affects adolescent mental health.

3. List at least 2 ways for clinicians to communicate effectively with parents and adolescents about the appropriate use of social media
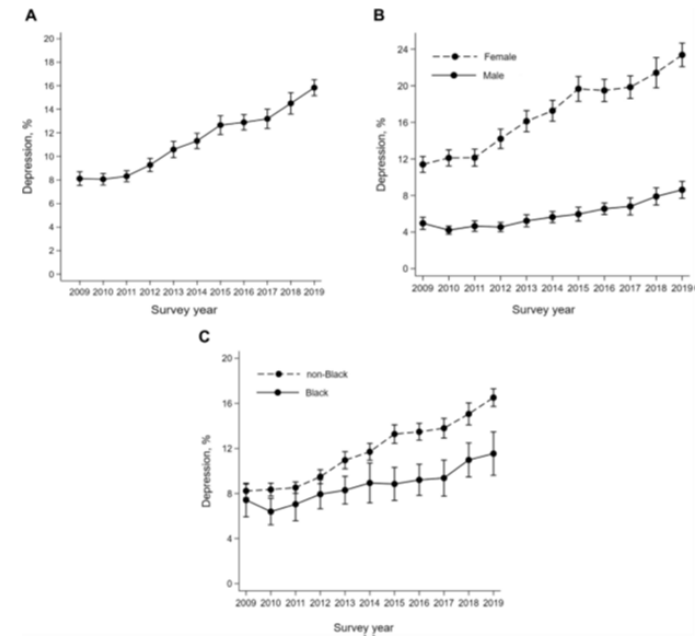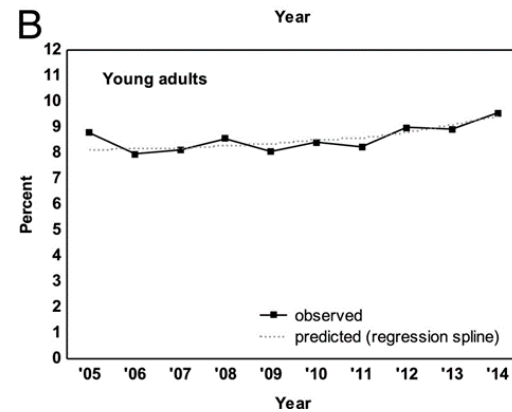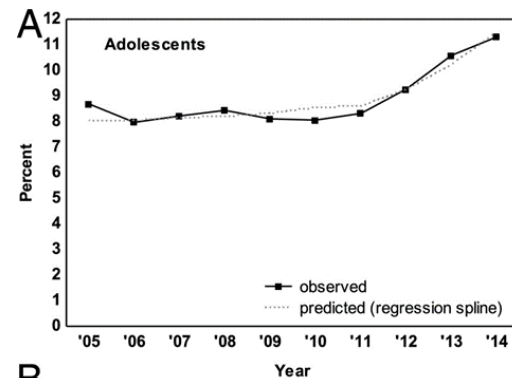
GLOBAL ADOLESCENT MENTAL HEALTH

- 1 in 7 10-19-year-olds experiences a mental disorder.

- Depression, anxiety and behavioral disorders are among the leading causes of illness and disability among adolescents.

- Anxiety disorders: most prevalent, more common among older (4.6%) than younger adolescents (3.6%)

- Depression: 1.1% of younger vs 2.8% in older adolescents, and can lead to suicide.

- Multifaceted risk factors for suicide: substance use, abuse, stigma, access to care, access to means.

- Digital media can play a significant role in either enhancing or weakening mental health prevention efforts.

Depression, Anxiety, Behavior Disorders, by Age

World Health Organization (WHO): https://www.who.int/news-room/fact-sheets/detail/adolescent-mentalhealth
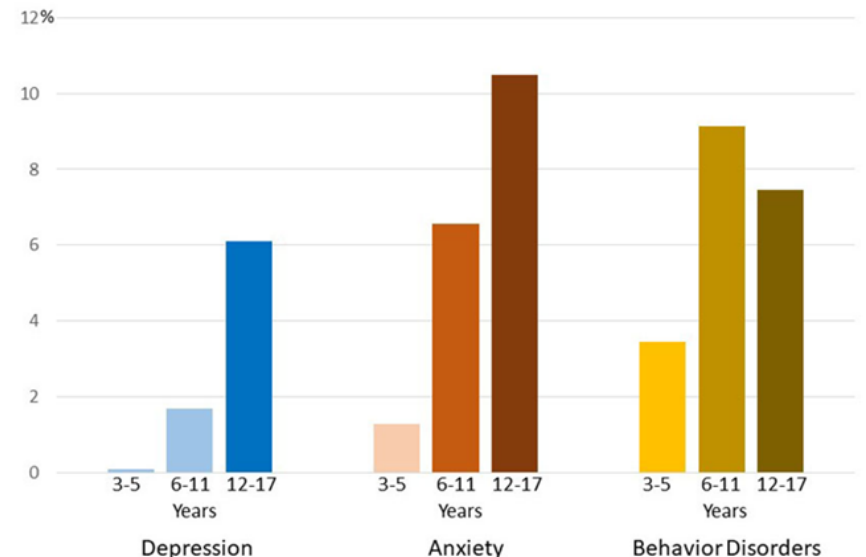
TRENDS OF ADOLESCENT DEPRESSION IN THE US

- Lifetime prevalence 11%

- 12-month prevalence of MDEs increased from 8.7% in 2005 to 11.3% in 2014 in adolescents and from 8.8% to 9.6% in young adults

- The increase was larger and statistically significant only in the age range of 12- 20 years

- 3:1 female predominance

- Black participants experienced a comparatively small increase in depression (4.1%)

https://www.cdc.gov/childrensmentalhealth/data.html; Motjabai et al. (2016). *Pediatrics*; 138(6): e20161878. doi: 10.1542/peds.2016-1878

ADOLESCENT DEPRESSION

What percentage of students have mental health issues 2021?

13.84% of youth (age 12-17) report suffering from at least one major depressive episode (MDE) in the past year.

Suicide is 2nd or 3rd leading cause of death among youth ages 10 to 34 (CDC, 2017) with a steeper increase in females (Ruch et., 2019).

	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Congenital Anomalies 3,963	Unintentional Injury 1,299	Unintentional Injury 827	Unintentional Injury 915	Unintentional Injury 15,792	Unintentional Injury 34,452	Unintentional Injury 36,444	Covid-19 36,881	Malignant Neoplasms 108,023	Heart Disease 553,214	Heart Disease 695,547
2	Short Gestation 2,946	Congenital Anomalies 412	Malignant Neoplasms 347	Suicide 598	Homicide 6,635	Suicide 8,862	Covid-19 16,006	Heart Disease 34,535	Heart Disease 89,342	Malignant Neoplasms 446,354	Malignant Neoplasms 605,213
3	Sids 1,459	Homicide 309	Homicide 188	Malignant Neoplasms 449	Suicide 6,528	Homicide 7,571	Heart Disease 12,754	Malignant Neoplasms 33,567	Covid-19 73,725	Covid-19 282,457	Covid-19 416,893
4	Unintentional Injury 1,306	Malignant Neoplasms 282	Congenital Anomalies 171	Homicide 298	Covid-19 1,401	Covid-19 6,133	Malignant Neoplasms 11,194	Unintentional Injury 31,407	Unintentional Injury 33,471	Cerebrovascular 139,257	Unintentional Injury 224,935

https://www.mhanational.org/issues/2021/mental-health-america-youth-data

MDD DIAGNOSIS

- 9 symptoms in 3 domains:
  - Mood
  - Neurovegetative
  - Cognitive
- 1 symptom needs to be low mood/irritable or loss of interest/anhedonia AND impairment
- 3/5 neurovegetative symptoms:
  - Appetite/weight
  - Sleep
  - Psychomotor retardation/agitation
- 2-week period, change from baseline, symptoms nearly every day (not SI)

DEPRESSION TREATMENT BASICS

- Combined treatment enhances effectiveness of medications (TADS study)

- Response AD (50-60%) vs Placebo (40-50%)

- FDA Approved:
  - Lexapro (≥ 12 year-olds)
  - Prozac (≥ 8 year-olds)

- Psychological interventions:
  - CBT
  - Interpersonal therapy
  - Psychodynamics, Supportive, Family, Group, ACT

|	Bollini et al (1999)[5]	Jakubovski et al (2016)[7]	Hayasaka et al (2015)[16]	Medical Expenditure Panel Survey (2009, 2018)[18,19]	Defined daily dose (2006)[17]	Current study
Citalopram	30	33·3	..	25·2	20	20
Escitalopram	..	16·7	9	12·3	10	9
Fluoxetine	20	20	20	31·0	20	20
Paroxetine	20	20	17	30·4	20	17
Sertraline	83	120	49·3	72·0	50	49·3
Venlafaxine	100	..	74·7	133·1	100	74·7
Mirtazapine	..	..	25·5	19·1	30	25·5

Table 1: Antidepressant dose equivalence (mg) according to previous studies

"The lower range of the licensed dose achieves the optimal balance between efficacy, tolerability, and acceptability in the acute treatment of major depression"

TREATMENT FOR ADOLESCENTS WITH DEPRESSION RCT (TADS)

- CBT + Fluoxetine (significantly better)

- Fluoxetine alone > CBT alone

- SI improved in all 4 groups, but Fluoxetine + CBT greatest reduction

	12 weeks (%)	18 weeks (%)	36 weeks (%)
Combination therapy	73	85	86
Fluoxetine	62	69	81
CBT at week 12	48	65	81
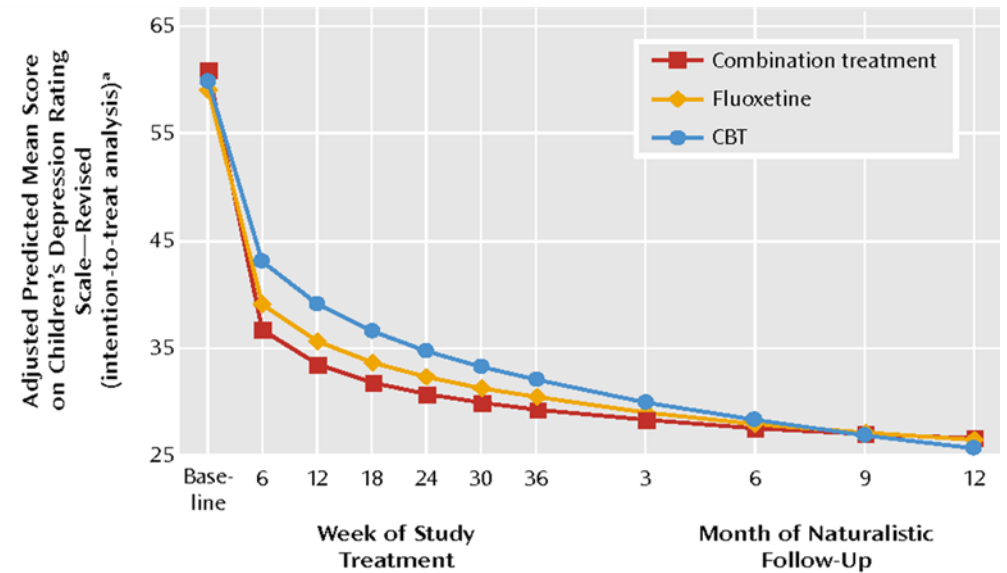
SAFETY AND RECOVERY

- PDW -> SI -> self-harm/SA plans -> detailed plan

- Safety at home:
  - Access to weapons
  - Lethal medications
  - Other objects
  - Monitoring
  - Safety plans: *What would you do it you had SI/intent? Who would you talk to?*

- 1st neurovegetative symptoms (energy, sleep, appetite)

- 2nd cognitive symptoms (worthlessness, guilt, SI)

- High Risk for SA in-between phases because more energy but still having negative cognitions and SI.

THE TREATMENT OF ADOLESCENT SUICIDE ATTEMPTERS (TASA)

- Importance of front-loading intervention strategies (4 first weeks) with safety planning and coping strategies for likely precipitants of suicidal behavior

- Distress tolerance and emotion regulation, treating residua of childhood trauma

- Enhancing protective elements in family, school and social environments

- PDW -> SI -> self-harm/SA plans -> detailed plan

- Safety at home:
  - Access to weapons
  - Lethal medications
  - Other objects
  - Monitoring
  - Safety plans: *What would you do it you had SI/intent? Who would you talk to?*

Safety Plan

Name of App:
Safety Plan

App Developer:
Padraic Doyle

Writers:
Barbara Stanley and Gregory Brown

Available:
iTunes (free of charge)

Funding:
NYS OMH Suicide Prevention Center of New York and Columbia University
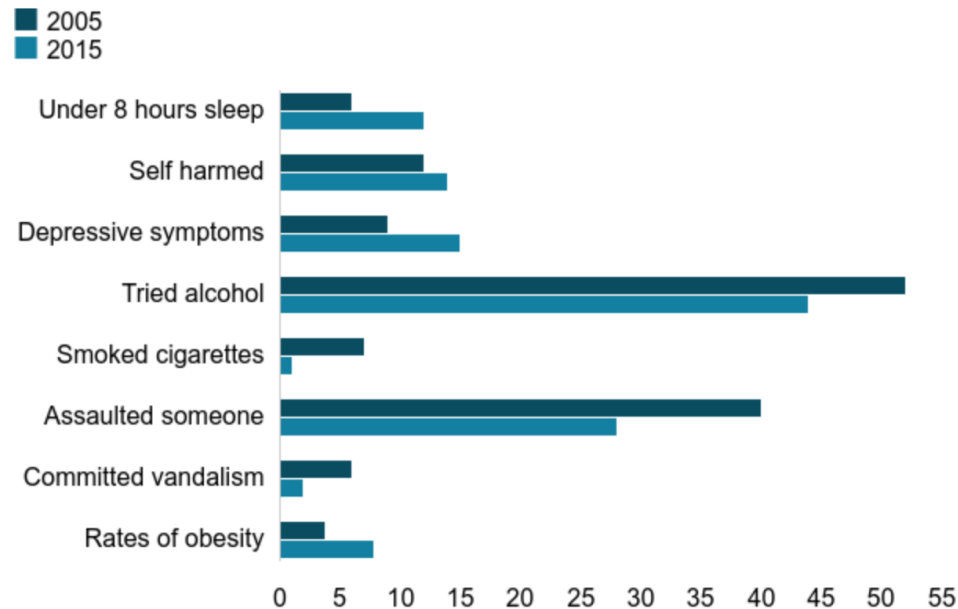
DIFFERENTIAL DIAGNOSIS

- "Demoralized"
  - Neurovegetative symptoms are less likely
- Grief
  - Feeling emptiness or loss – not depressed or with anhedonia
- Adjustment disorder
  - Identifiable stressor
- Things to consider when discussing with parents:
  - Stigma
  - "normal phase of growing up"?

HOW HAVE ADOLESCENT BEHAVIORS CHANGED?

How the health and behaviour of teenagers has changed over 10 years, 2005-15
Study based on two surveys of 14-year-olds

■ 2005
■ 2015

Under 8 hours sleep
Self harmed
Depressive symptoms
Tried alcohol
Smoked cigarettes
Assaulted someone
Committed vandalism
Rates of obesity
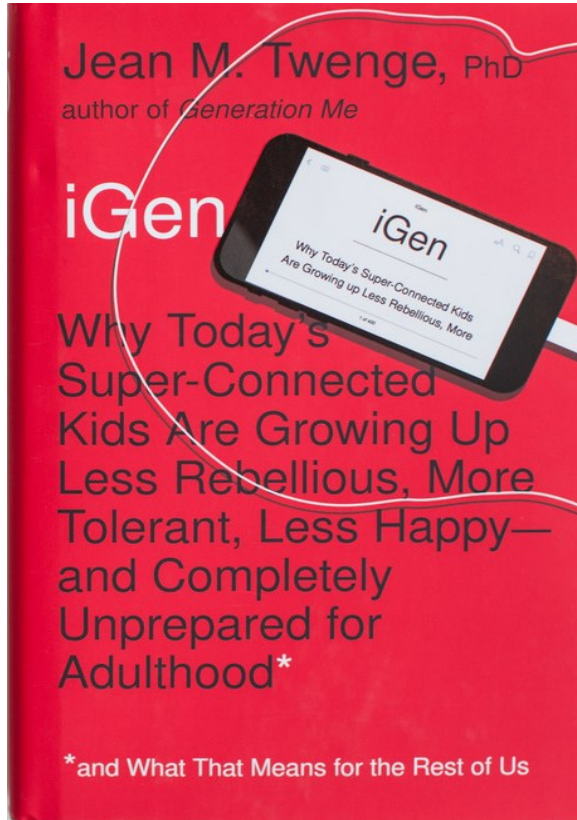
0 5 10 15 20 25 30 35 40 45 50 55

Source: Patalay and Gage, International Journal of Epidemiology

BBC

- Social media has become widely used among adolescents over the past decade (Pew Research Center, 2018)

- SM Use has been suggested as one potential cause of increase in depression and suicide (Twenge et., 2018; McCrae et al., 2018)

SCREENS AND WELL-BEING

Jean M. Twenge, PhD
author of *Generation Me*

iGen

Why Today's Super-Connected Kids Are Growing up Less Rebellious, More

Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy— and Completely Unprepared for Adulthood*

*and What That Means for the Rest of Us

- Consistently, more frequent users of digital media have x2 lower psychological well-being than less frequent users

- Non-users are generally lower in well-being than light users of digital media, suggesting that limited use may be beneficial

- Mechanisms may include the displacement of activities more beneficial to well-being (sleep, face-to-face social interaction) and exposure to comparisons and cyberbullying

Have Smartphones Destroyed a Generation?

More comfortable online than out partying, post-Millennials are safer, physically, than adolescents have ever been. But they're on the brink of a mental-health crisis.

OLD MEDIA VS NEW MEDIA

- The impact of "traditional" media on children's fears and anxieties has been studied for decades
- Ample evidence about TV and movies (including news broadcasts) and increase in children's fears often result in long-term anxieties and sleep disturbances


Children and Screens, Depression
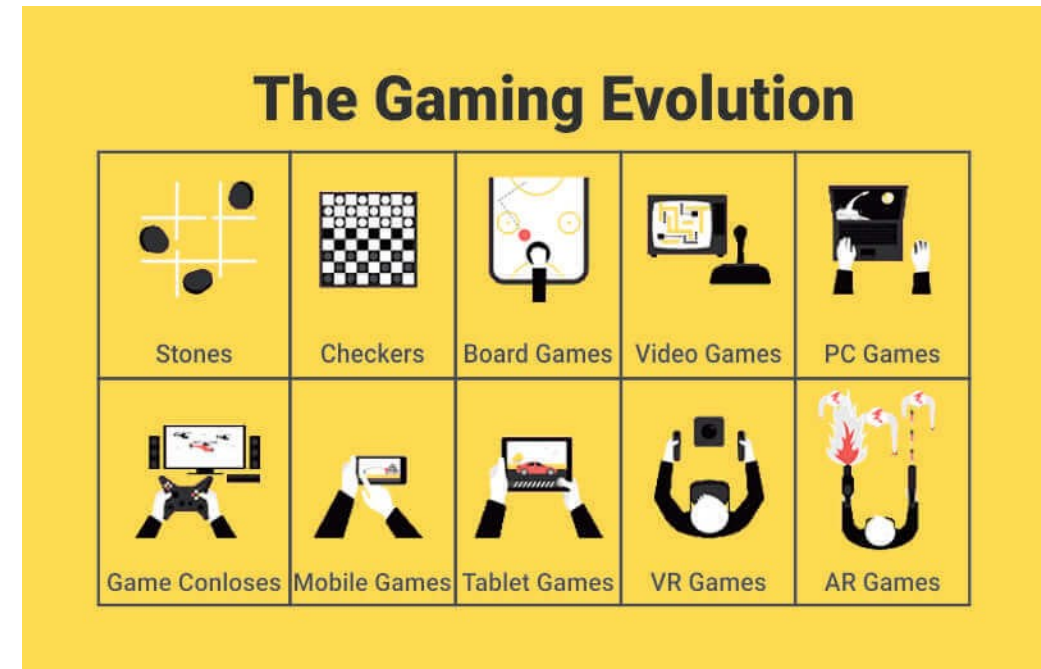
SCREENS AND DEPRESSION

- Meta-analysis (Hoare et al., 2016)
- All studies reported leisure screen time among adolescents, and 2/3 examined depressive symptomatology
- Strong evidence for the relationship between depressive symptoms and time spent using screens for leisure
- Poorer mental health status among adolescents with > 2–3 h per day of screen time
- Gender differences existed
- Limitations: Heterogeneity in mental health and screen time-based measures

WHEN TO BE CONCERNED?

- Time and Context of use?

- Staying in touch with friends and deepening peer relationships, or cyberbullying?

- How much does it affect other activities?
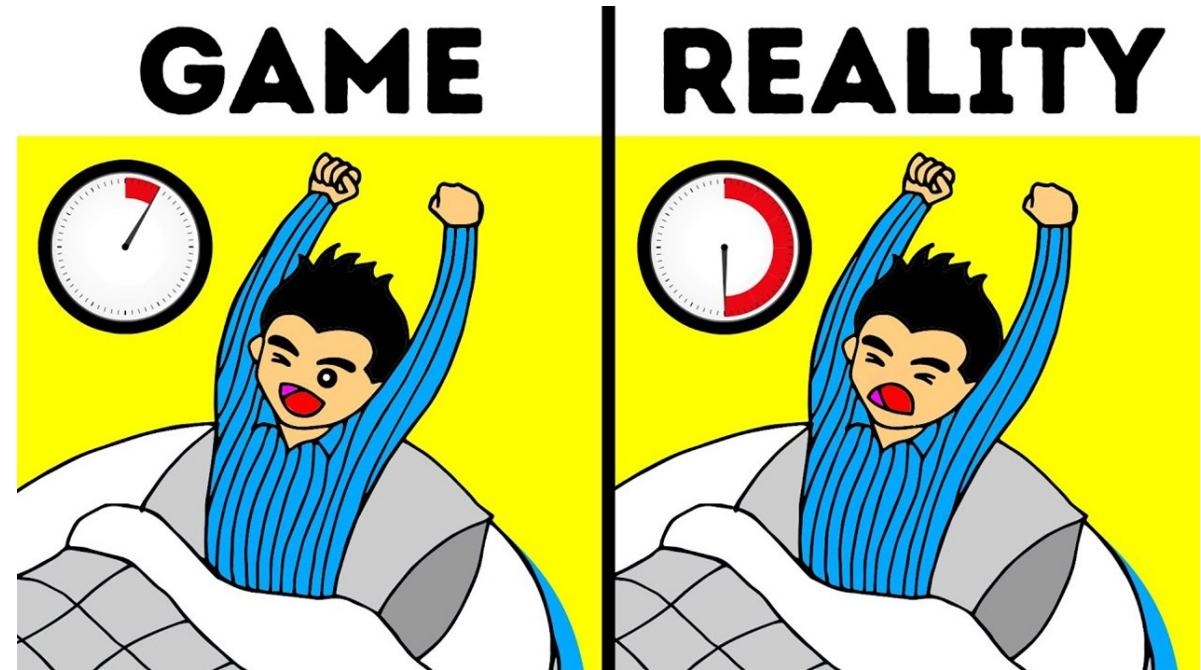
RISKS OF SOCIAL MEDIA

- Less time on face-to-face communication (Kraut et al., 1998) and interpersonal interactions (Nie et al., 2002; Baym, 2010; Robinson et al., 2002)

- Addictive effect of the internet and SM: "problematic internet use" (Anderson, 2015)

- Increase in cyberbullying (Kowalski et al., 2012)

- Increased opportunities for social comparisons (Guernsey, 2014) and pressure to post positive-only content that garners attention through "likes" and "comments" (Pew Research Center, 2018b)

- Potential for contagion of suicidal behavior (Stack, 2003) through increased exposure to suicide stories (Bell, 2014)

BENEFITS OF SOCIAL MEDIA

- Feeling more connected to friends
- Interactions with a more diverse group of people who they feel offers them support (Pew Research Center, 2018).
  - College students with higher internet use reported positive effects on social life and wellbeing, & more face-to-face contact (Kraut et al., 2002; Baym et al., 2004; Wang & Wellman, 2010).
  - Finding your group (LGBTQ during pandemic)
- Opportunities to access to information (Reid Chassiakos et al., 2016)
- Community organizing/advocacy
- Cognitive exercises
- Monitoring and follow up of patients (text message, apps, surveys)

PRIOR REVIEWS & GOAL

- "General correlation" between SMU and mental health

- Limitations:

  - Conflicting findings in some domains (i.e.: time spent on SM and mental health problems)

  - Overall limited quality of the evidence

  - Absence of studies designed to show causal effects

- Further examine exploring the bi-directional association between SMU, and depression, and suicidal behaviors in adolescents, with SMU as a predictor as well as an outcome.

(Best et al., 2014; Keles et al., 2019)

REVIEWING DEPRESSION AND SM

Taylor & Francis
Taylor & Francis Group

Social media use and depression in adolescents: a scoping review

Carol Vidal (iD) , Tenzin Lhaksampa, Leslie Miller, and Rheanna Platt

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ABSTRACT

There have been increases in adolescent depression and suicidal behaviour over the last two decades that coincide with the advent of social media (SM) (platforms that allow communication via digital media), which is widely used among adolescents. This scoping review examined the bi-directional association between the use of SM, specifically social networking sites (SNS), and depression and suicidality among adolescents. The studies reviewed yielded four main themes in SM use through thematic analysis: quantity of SM use, quality of SM use, social aspects associated with SM use, and disclosure of mental health symptoms. Research in this field would benefit from use of longitudinal designs, objective and timely measures of SM use, research on the mechanisms of the association between SM use and depression and suicidality, and research in clinical populations to inform clinical practice.

- Effects of the frequency of use of SM
- Problematic internet use
- Social comparisons
- Cyberbullying
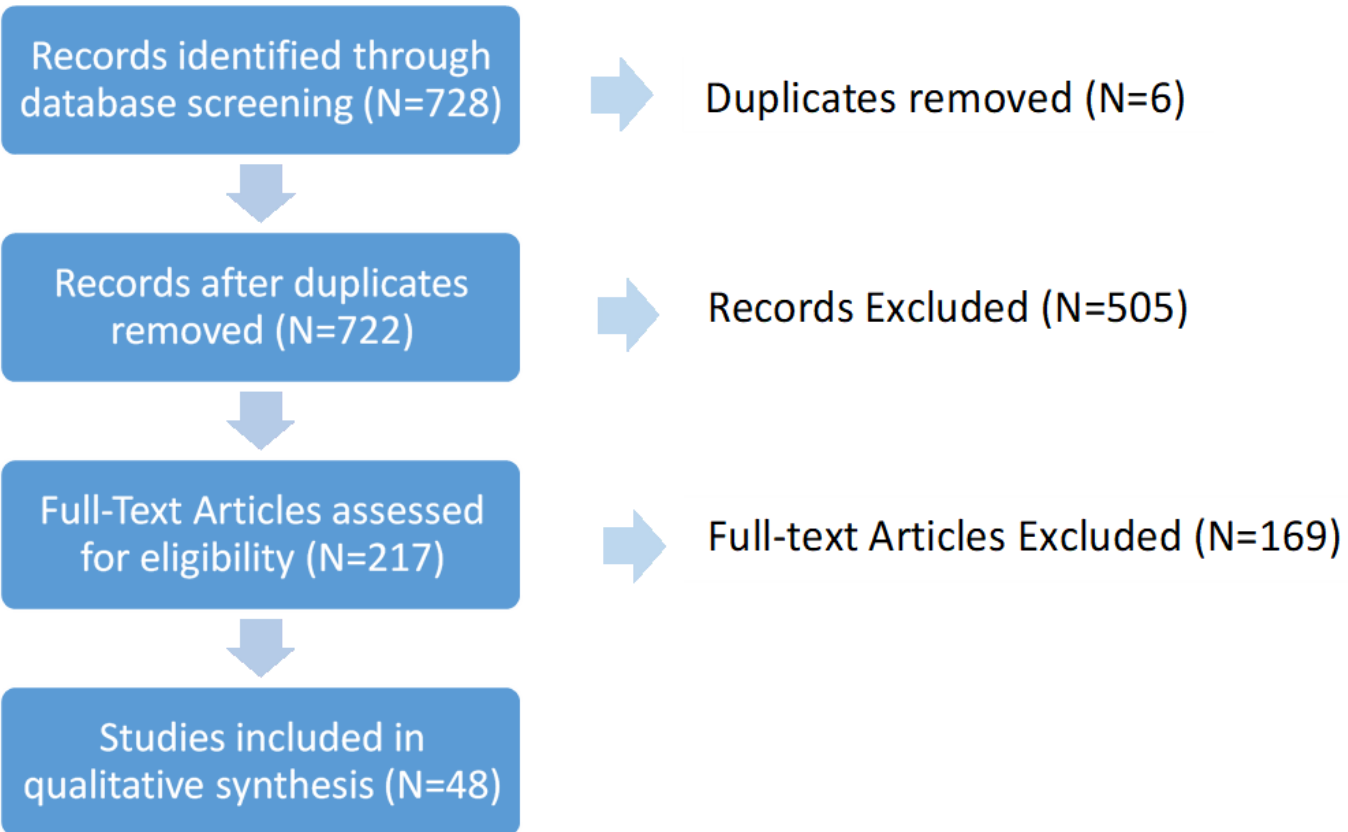- Characteristics of SMU
- Parental involvement
- Social support
- Suicide contagion effect
- On-line disclosure and prediction of mental health symptoms
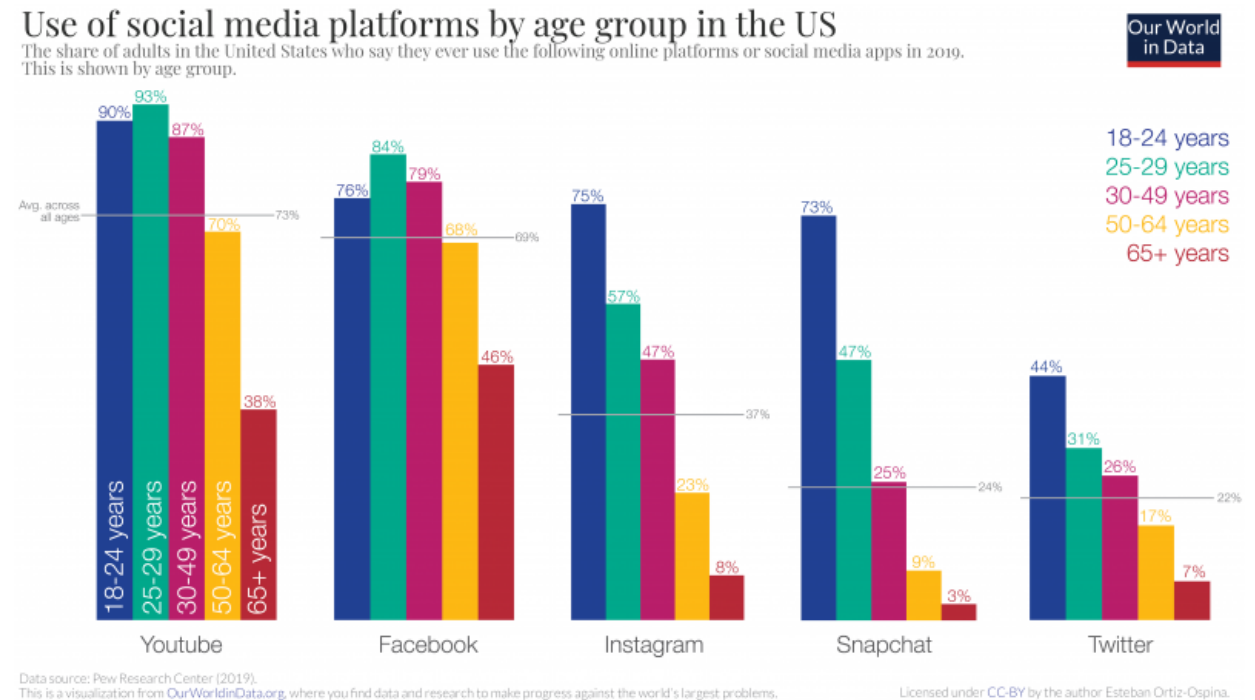
METHODS

- Scoping review
- Searched Data Base PsychINFO
- English and Spanish language articles
- *Covidence* systematic review software (Veritas Health Innovation, Melbourne, Australia).

FREQUENCY OF USE – POOR OUTCOMES

- The majority of articles demonstrate a positive association between frequency of SMU and depression

- Specific factors such as number of SM accounts, frequency of checking these accounts, or even how important SMU is to the adolescent, may account for this association

Use of social media platforms by age group in the US
The share of adults in the United States who say they ever use the following online platforms or social media apps in 2019. This is shown by age group.

18-24 years
25-29 years
30-49 years
50-64 years
65+ years

Data source: Pew Research Center (2019).
This is a visualization from OurWorldinData.org, where you find data and research to make progress against the world's largest problems.
Licensed under CC-BY by the author Esteban Ortiz-Ospina.

FREQUENCY OF USE - BENEFITS

- Moderate SMU is associated with better self-regulation – this may be due to moderate users being better at self-regulation

PROBLEMATIC INTERNET USE/ SM ADDICTION

- Problematic SMU is linked to a variety of psychosocial outcomes including low self-esteem, depressive symptoms, and cyberbullying (Lin et al., 2016; Reid et al., 2016)

- One potential mechanism is through sleep disruption (Choi et al., 2009), as it contributes to emotional dysregulation and depression

- May be more common in females (Banai et al., 2016, Kircaburun et al., 2018) and in those starting internet use at a younger age (Tsitsika et al., 2014a)

- Possible role for screening for problematic SMU, and stratification in terms of risk for negative consequences

SOCIAL COMPARISONS
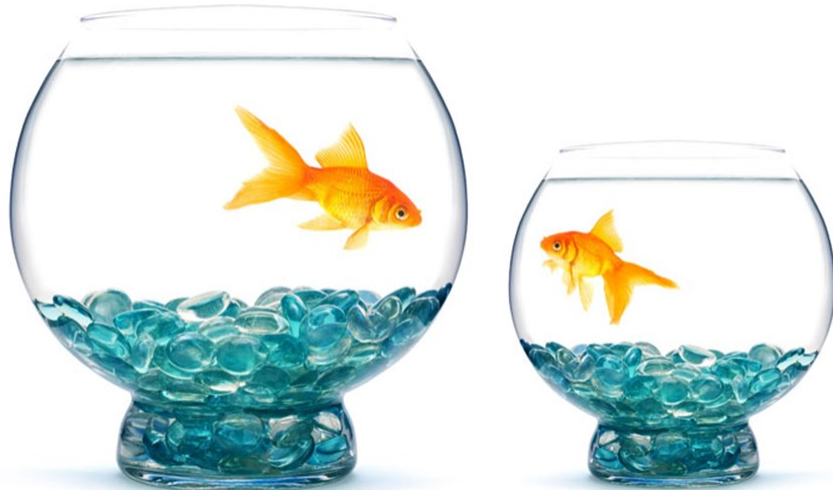
- Consistent in research (Feinstein Hershenberg et al., 2013; Krasnova et al., 2013; Nesi & Prinstein, 2015) , significant associations between social comparisons made via SM and depression

- Tendency of individuals to share more positive depictions of themselves on SM (Subrahmanyam & Greenfield, 2008), and objective opportunities for comparisons through "likes" and "comments" (Steers et al., 2014)

- Those with low self-esteem may be at risk (Buunk & Gibbons, 2007)

CYBERBULLYING/CYBER-VICTIMIZATION

- Cyberbullying (perpetration & victimization) was associated with mental health problems (Cénat et al., 2014)

- It mediated the relationship between SMU and depression and social anxiety, and between LGB status and depression, PTSD, and suicidal ideation

- Problematic SMU mediated the relationship between depression and cyberbullying perpetration (Cole et al., 2016; Dempsey et al., 2009; Duarte et al., 2018; Sampasa-kanyinga & Hamilton, 2015).
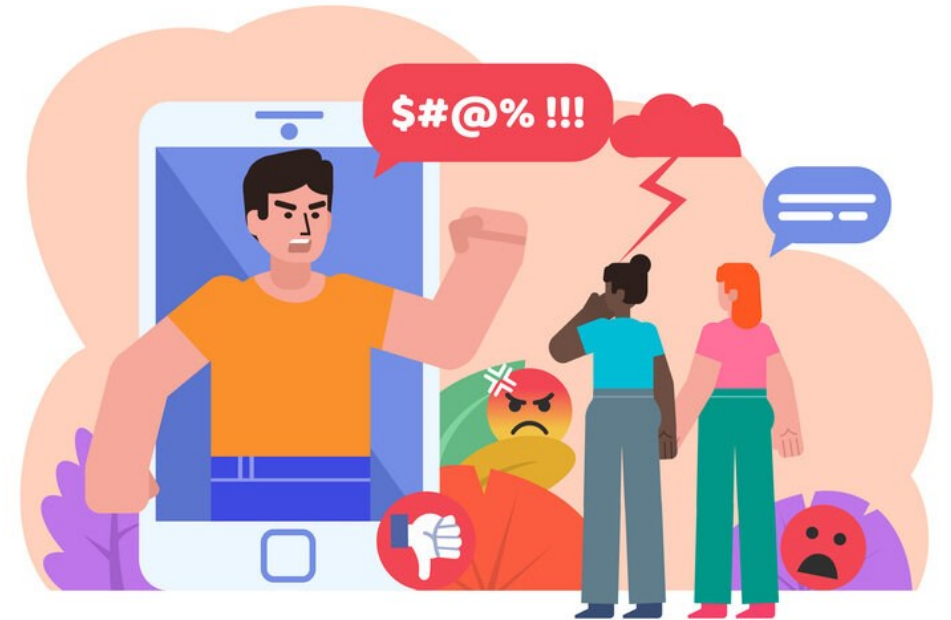
CHARACTERISTICS OF SOCIAL MEDIA USE – PATTERNS/TYPES

- *Passive and active* SMU, *types* of SMU (e.g. Facebook vs chat rooms) - screening only for time spent is insufficient

- Some types of SMU have adverse mental health effects for adolescents (i.e.: problematic internet use, cyberbullying, nighttime use)

- Other types of SMU, such as for information searching, or with moderate use, may be positive (Bagdasarov & More, 2013; Coyne et al., 2019).

- A qualitative study found that depressed adolescents shifted their SMU from negative (e.g., cyberbullying) to positive (e.g., searching for humor)

PARENTAL INVOLVEMENT

- Parental monitoring of SMU (Coyne, 2014), positive interactions with both parents (Lee et al., 2018), offline social activities (Isarabhadkdi & Penwil, 2016) correlated with positive mental health prosocial behaviors

- Teens with negative interactions with mothers more likely to use and prefer online communications (Szwedo et al., 2011), in turn associated with poor self-regulation, and more dependence on SM for self-identity formation (Lee et al., 2017).

- Other studies found no association between parental involvement in SMU and depression (Fardouly et al., 2018)

SOCIAL SUPPORT

- Both depressed mood and low in-person social support were associated with SM and online support seeking (Hwang et al., 2009; Frison et al 2015)

- Cases where social support online can be beneficial (Frison et al 2015), but excessive reliance on online communication and online support may be problematic (Twenge et al, 2019)

- SMU as a tool for interventions, particularly when moderated by a clinical expert, have demonstrated promise (Rideout & Campbell, 2018)

SUICIDE CONTAGION EFFECT
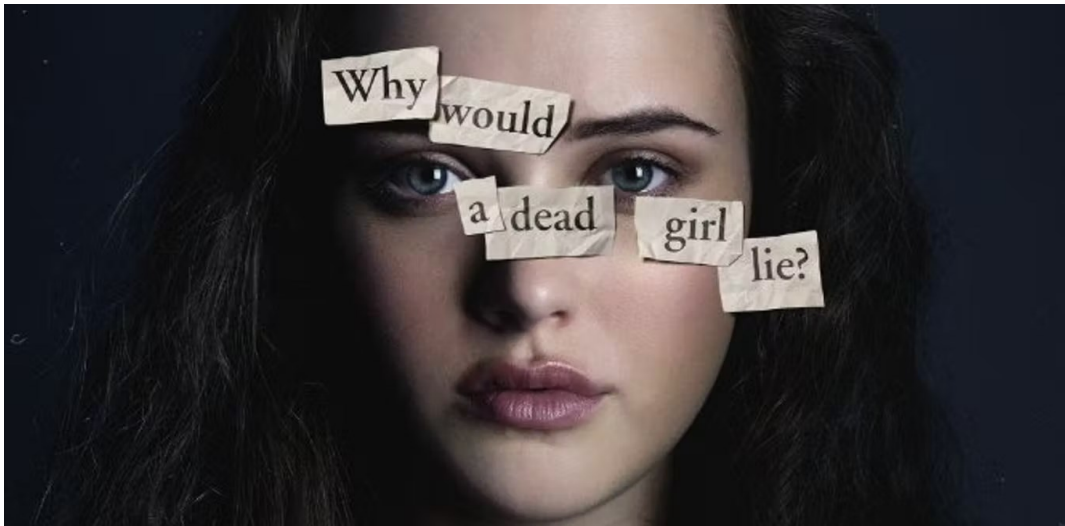
- Adolescents are particularly vulnerable to the group contagion effect of suicide (Stack, 2003) and there's a potential for increased exposure to suicide stories online (Dunlop 2011)

- Suicide contagion effect was a relatively understudied area, despite concerns raised that increased exposure to social media may amplify this effect (Bell 2014)

ON-LINE DISCLOSURE & PREDICTION OF MENTAL HEALTH SYMPTOMS

- Some depressed adolescents posted more negative symptoms of their mood (Akkin Gürbüz et al., 2017) - SM may be used as a supplemental tool to track depressive mood over time and start discussions about mental health

- Depressed adolescents were less likely than their healthy peers to disclose depressed mood on SM platforms (Ophir et al., 2019)

MODERATING FACTORS

- Age:
  - Starting internet use at an early age was associated with later problematic internet use.
  - Heavy use at younger age was more detrimental to functioning and mental health (Tsitsika et al., 2014a).
- Gender:
  - Stronger associations between SMU or problematic use in females (Banjanin et al., 2015; Nesi & Prinstein, 2015)
  - Differences in the effects of active versus passive SMU by gender (Frison 2016)

OVERALL FINDINGS

- Studies range from observational to experimental studies and qualitative studies through interviews or analysis of SM content
- Most of the research focused on frequency of SMU & PIU
- Less research on characteristics of SMU, cyberbullying, social comparisons, and parental involvement in monitoring SMU on depression
- Several longitudinal studies found a bi-directional relationship between SMU and depression
- Questions remain:
  - Cutoff times
  - Personal vulnerabilities/ use characteristics
  - Influence of other environmental factors (family support and/or monitoring), or cultural differences/SES

LIMITATIONS

- Cross-sectional studies

- Self-report measures for depression rather than clinician administered ones

- Most were retrospective, asking participants to report on past activities

- Many recruited participants to conduct surveys in schools, limiting the generalizability to clinical samples

- Some studies included contextual factors (educational and family environments), other contextual factors such as ethnicity and cultural context were not frequency assessed

RESEARCH

LIMITATIONS

CONSIDERATIONS FOR FUTURE RESEARCH

- Expand the focus to other areas: characteristics of SMU, cyberbullying, social comparisons, and parental monitoring, on depression and examining the potential of SMU for social support and to predict suicide behaviors

- Conduct more research with parents to provide clearer understanding of their role in teens' SMU

- Note differences in cultural practices of in-person interactions with both peers and parents to tailor culturally appropriate interventions

- Use methods that measure actual (and not just reported) use (i.e.: news feed activity, # of likes and comments, more frequent/timely reports of SMU)

- Use of consistent scales to measure SMU to allow comparisons between studies

COVID & DIGITAL MEDIA IN CHILDREN

- 72% children spending more time in front of screens during the pandemic

- 39% of parents loosened screen time rules for the time children spent with screens (in addition to schoolwork)

https://www.pewresearch.org/internet/2021/09/01/the-internet-and-the-pandemic/#:~:text=The%20vast%20majority%20of%20adults,from%2053%25%20in%20April%202020.

Roughly seven-in-ten parents say their children are spending more time in front of screens than they did before pandemic began …

Among parents with children in grades K-12, % who say their children are spending ___ in front of screens compared with before the beginning of the coronavirus outbreak

More time	About the same amount of time	Less time
72	20	7

… and 39% of parents say they have become less strict about their rules to control their children's screen time

Among parents with children in grades K-12, % who say their rules about the amount of time they allow their children to be in front of screens, ASIDE from time they might spend on schoolwork, have ___ compared with before the beginning of the coronavirus outbreak

Become more strict	Stayed about the same	Become less strict
18	43	39
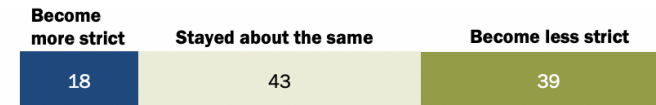
Note: "Parents with children in grades K-12" refers to those who said they were the parent or guardian of any children who were enrolled in elementary, middle or high school and who lived in their household. Those who did not give an answer are not shown.
Source: Survey of U.S. adults conducted April 12-18, 2021.
"The Internet and the Pandemic"

PEW RESEARCH CENTER
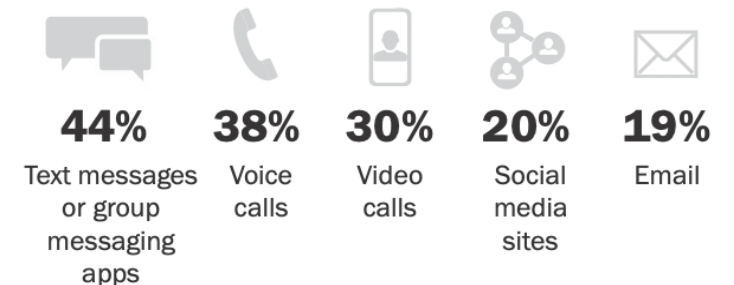
COVID & DIGITAL MEDIA

- For many, digital media was "a lifeline"
- 90% said that technology had been essential or important
- 40% often or sometimes felt fatigued by video calls
- 2/3 said digital interactions had been useful, but did not replace in-person
- Text, group message and voice calls were the most useful

About two-thirds say digital interactions have been useful, but not a replacement for in-person contact

% of U.S. adults who, when asked about the limits on social contact recommended during the coronavirus outbreak, say that the everyday interactions they normally would have had in person but instead had online or by telephone, have generally been ...

Not of much use
Just as good as in-person contact
15
17
68
Useful but not a replacement for in-person contact
DK/Ref 1
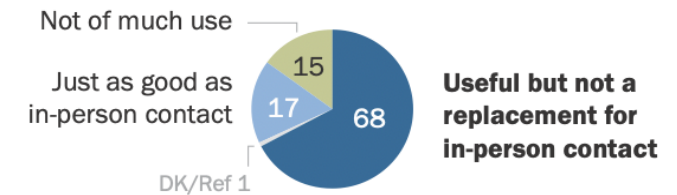
*% of U.S. adults who say that, since the beginning of the coronavirus outbreak in February 2020, each of the following has helped them, personally, **a lot** to stay connected with their family and friends*

44% Text messages or group messaging apps
38% Voice calls
30% Video calls
20% Social media sites
19% Email

Note: Those who did not give an answer or who gave other responses are not shown.
Source: Survey of U.S. adults conducted April 12-18, 2021.
"The Internet and the Pandemic"

PEW RESEARCH CENTER

A CLINICAL PERSPECTIVE

Behavioral Addictive Disorders in Children and Adolescents

Carol Vidal, MD, PhD, and Dar Meshi, PhD

Behavioral addictive disorders (BADs) are syndromes similar to substance use disorders (SUDs) but with a focus on behaviors rather than on use of psychoactive substances. These non-substance-related disorders occur when typical, rewarding behaviors, such as gambling, playing video games, and using social media, are done in excess, affecting daily functioning and/or inducing severe psychological distress. BADs are chronic and relapsing, and characterized by a failure to resist an impulse, drive, or temptation to perform an act despite adverse consequences. They are common among youth and linked to poor mental health outcomes and negative social consequences. Given the high prevalence of BADs and their potential serious outcomes, the burden on the youth population's mental health can be consequential.[1]

To identify and address BADs, we need appropriate diagnostic tools. Gambling disorder was the first BAD to be included in the *DSM-5*,[2] with diagnostic criteria similar to those for SUDs. Albeit with some controversy,[3] Internet gaming disorder was included by the World Health Organization (WHO) in the 11th Revision of their *International Classification of Diseases*,[4] and has also been discussed as a condition for future study in the *DSM-5*. More data are needed to justify the classification of other proposed behavioral addictions, such as social media use disorder or compulsive buying disorder.[5] The *DSM-5* task force has also proposed a new category of Addiction and Related Disorders that would encompass both SUDs and BADs, but it is not yet clear which behaviors should be classified as disorders.[6]

BADs and SUDs have many commonalities. They share a core defining characteristic, namely the loss of behavioral control. In addition, they present similarities in their natural history, phenomenology, tolerance, comorbidity, overlapping genetic contribution, neurobiological mechanisms,

response to treatments, and adverse consequences.[1] In both BADs and SUDs, there is usually tension before and relief after engaging in the behavior. Unlike obsessive-compulsive behaviors, the behaviors in BADs and SUDs are egosyntonic in nature, even though they become more egodystonic over time, as they are less pleasurable and more motivated by negative reinforcement (ie, the behavior takes place to relieve withdrawal from the substance or activity, or to decrease anxiety). They also present with an urge or craving prior to initiating the behavior to which emotional dysregulation may contribute. Individuals with BADs and SUDs generally also share similar personality profiles, scoring high on impulsivity and sensation seeking and low in harm avoidance.[7] Many individuals recover on their own without formal treatment, but for others, there can be significant functional impairment. Both BADs and SUDs involve serotonin and dopamine, as well as regions of the brain's reward system, such as the ventral striatum. These 2 groups of disorders may also share cognitive features, may present substantial comorbidities, and they appear to respond to the same psychosocial and pharmacological interventions.[1]

The overlap between BADs and SUDs is so significant that, more than a decade ago, various researchers and clinicians began proposing that addiction should be considered as a general syndrome, regardless of it stemming from the consumption of a psychoactive drug or engagement in a rewarding, non-substance-consuming behavior.[8]

Relevant to pediatric professionals, both BADs and SUDs have onset and higher rates in adolescence and young adulthood, and their natural histories may be chronic, with relapsing patterns.[8] Substance use is generally initiated in adolescence and young adulthood, and the age of onset is significantly associated with SUDs in adulthood. For example, the risk for SUDs in adulthood is 6 times higher in

TYPES OF BEHAVIORAL ADDICTIONS

Gambling Disorder (first BAD included in the DSM-5)

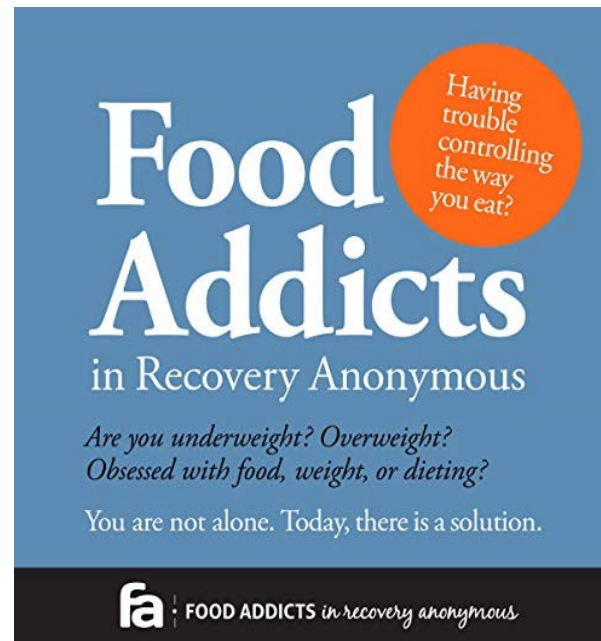Internet gaming disorder (included in the WHO ICD-11; Section III DSM)

Others under study (more data needed for inclusion in classifications):

    Social Media Use Disorder

    Compulsive Buying Disorder

COMMUNITY

- Peer-based supports
- 12-Step organizations for:
  - Gamblers Anonymous (1957)
  - Food Addicts Anonymous (1987)
  - Online Gamers Anonymous (2002)
  - Exercise Addicts Anonymous (2014)

DID YOU EVER LOSE TIME FROM WORK OR SCHOOL DUE TO GAMBLING?

THERE IS HOPE.

ENTER ▶

The photos used in this site are stock photos, and have no resemblance of any of our members.

GAMERS ANONYMOUS

Having trouble controlling the way you eat?

Food Addicts in Recovery Anonymous

Are you underweight? Overweight? Obsessed with food, weight, or dieting?

You are not alone. Today, there is a solution.

fa : FOOD ADDICTS in recovery anonymous

Exercise Addiction:

Signs, Symptoms, & Treatments

choosing therapy

SIMILARITIES BADS AND SUDS

Tension before the behavior and relief after the behavior

Behaviors are ego-syntonic (different from OCD)

Emotional dysregulation may contribute to the urge or craving prior to initiation of the behavior

Similar personality profiles (high impulsivity and sensation-seeking and low harm-avoidance)

Brain regions involved are similar (ventral striatum)

Involvement of serotonin and dopamine systems

Similar cognitive features

RELEVANT TO PEDIATRIC POPULATIONS

High rates in adolescence and young adulthood

Chronic and relapsing histories

SU is generally initiated in adolescence and young adulthood

Age of onset is associated with higher likelihood of SUD in adulthood.

Earlier onset is also associated with worse psychosocial outcomes

EARLY ONSET

- Increased risk for psychosocial problems
- Poorer mental health outcomes
- Social competence
- Family, peer relationships
- Leisure/recreational
- School and work adjustment

"THE ARE ONLY TWO INDUSTRIES THAT CALL THEIR CUSTOMERS 'USERS': ILLEGAL DRUGS AND SOFTWARE"

EDWARD TUFTE

Is Social Media Addictive? Here's What the Science Says.

A major lawsuit against Meta has placed a spotlight on our fraught relationship with online social information.
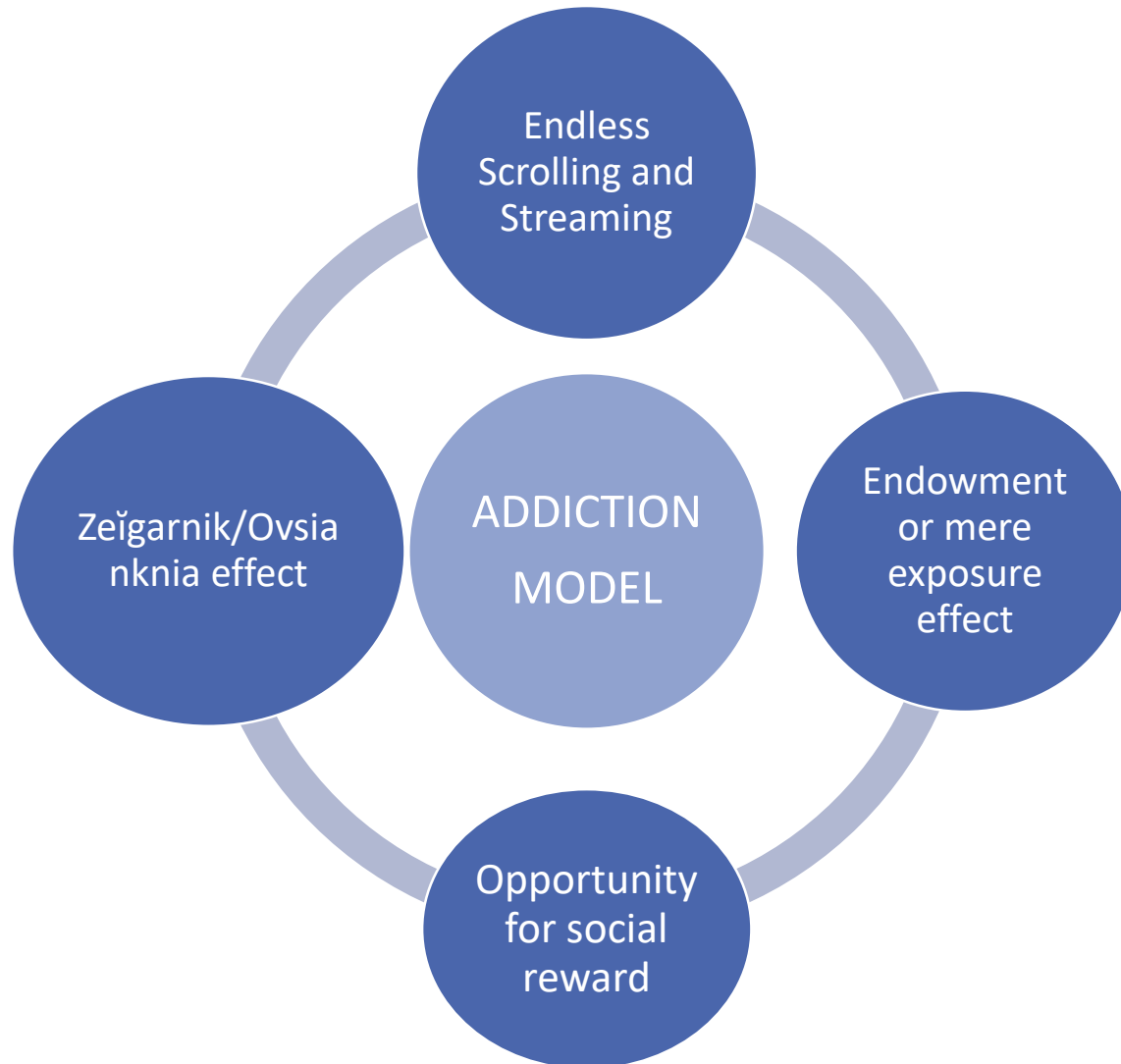
- Intermittent reinforcement (can get a reward any time)
- Unpredictable rewards (slot machine)
- Brain attuned to social connections during adolescence

Dr. Greenfield agreed that there clearly are valuable uses for the internet and that the definition of how much is too much can vary. But he said there also were clearly cases where excessive use interferes with school, sleep and other vital aspects of a healthy life. Too many young consumers "can't put it down," he said. "The internet is a giant hypodermic, and the content, including social media like Meta, are the psychoactive drugs."

DR. GREENFIELD

IS SOCIAL MEDIA ADDICTIVE?

Endless Scrolling and Streaming

Zeĭgarnik/Ovsia nknia effect

ADDICTION MODEL

Endowment or mere exposure effect

Opportunity for social reward

COGNTIVE BEHAVIORAL MODEL

Cognitive Preoccupation with Social Media

Use of the Internet for Mood Regulation
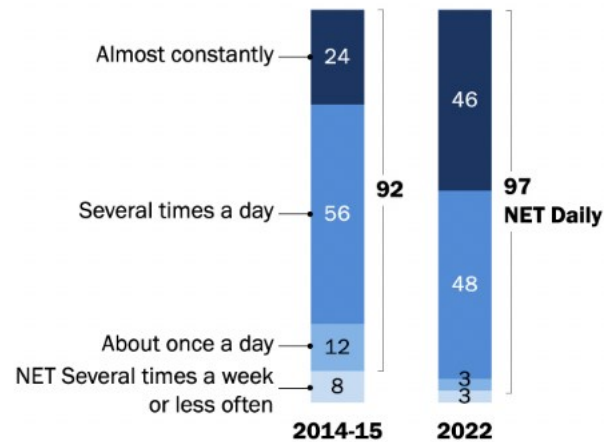
Compulsive Behaviors

Negative Life Outcomes

Preference for Online Social Interactions

IS IT RELEVANT?

Almost all U.S. teens report using the internet daily

Nearly half of teens now say they use the internet 'almost constantly'

% of U.S. teens who say they use the internet ...

Almost constantly — 24 (2014-15), 46 (2022)
Several times a day — 56 (2014-15), 48 (2022)
92 (2014-15), 97 NET Daily (2022)
About once a day — 12 (2014-15), 3 (2022)
NET Several times a week or less often — 8 (2014-15), 3 (2022)
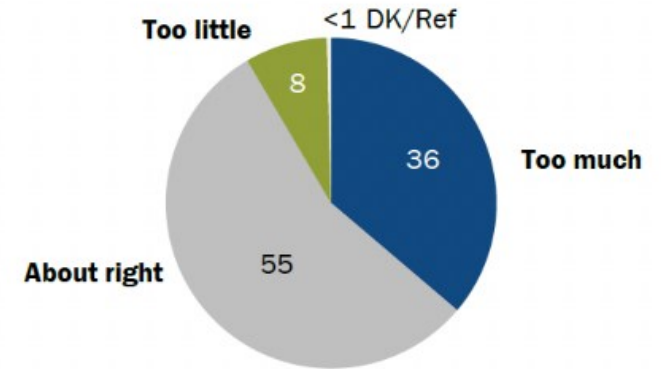
2014-15   2022

Note: Teens refer to those ages 13 to 17. Figures may not add up to the NET values due to rounding. Those who did not give an answer are not shown.
Source: Survey conducted April 14-May 4, 2022.
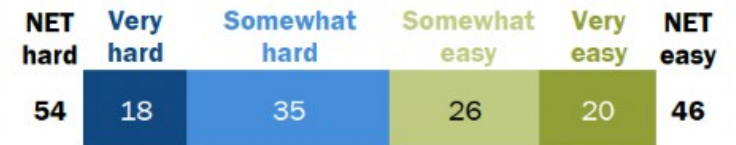"Teens, Social Media and Technology 2022"

PEW RESEARCH CENTER

54% of teens say it would be hard to give up social media

% of U.S. teens who say that overall, the amount of time they spend on social media is ...

Too little — 8
<1 DK/Ref
Too much — 36
About right — 55

% of U.S. teens who say it would be ___ for them to give up social media

NET hard	Very hard	Somewhat hard	Somewhat easy	Very easy	NET easy
54	18	35	26	20	46

Note: Teens refer to those ages 13 to 17. Figures may not add up to the NET values due to rounding. Those who did not give an answer are not shown.
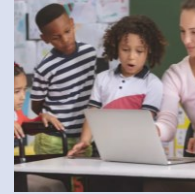Source: Survey conducted April 14-May 4, 2022.
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PEW RESEARCH CENTER
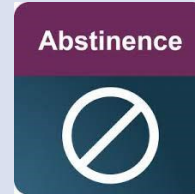
POTENTIAL SOLUTIONS

MEDIA LITERACY

Currently being done in schools

Brief psycho-educational video-based interventions.

As little as 2 training sessions with video/ interactive discussions have shown to be effective in eating disorders

TRADITIONAL SUD INTERVENTIONS

Abstinence vs Management

Motivational Interviewing

CBT to guide from obsessive thought patterns and habits of addiction.

Contingency Management

ENVIRONMENTAL INTERVENTIONS

Group therapy for motivation and moral support, especially to meet new people less focused on games.

Family counseling to educate about the disorder and create a more stable home environment.
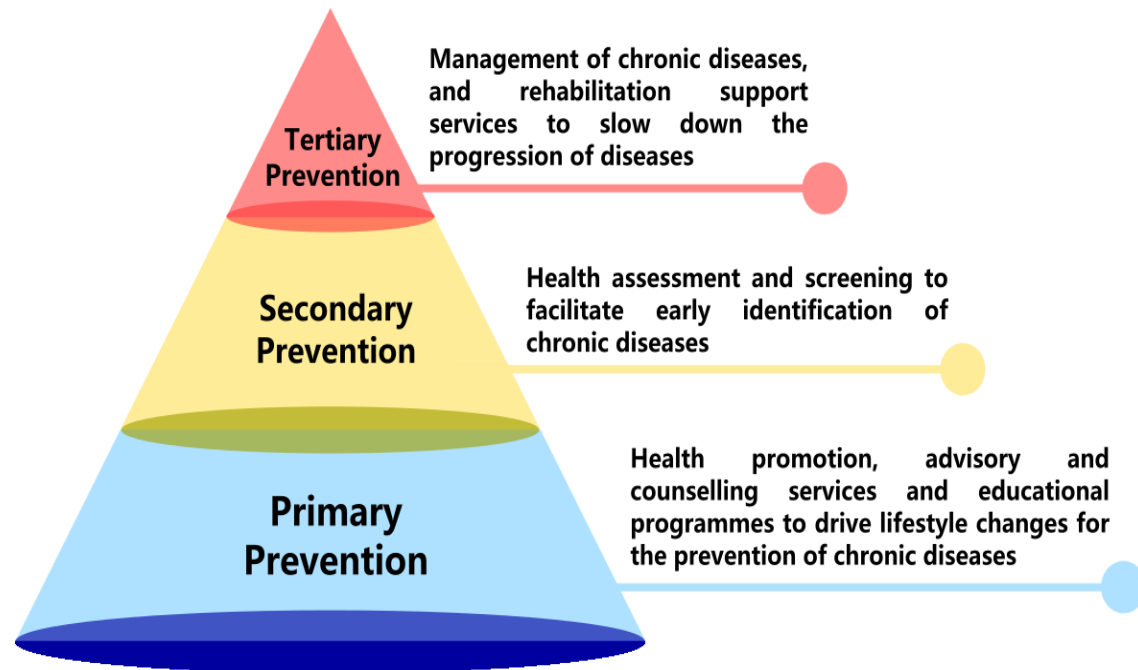
Nature Camps

BUILDING HEALTHY HABITS

- Healthy promoting behaviors change across the life course

- Decrease during the transition to young adulthood, but start declining at age 13

- This decline differs by individual characteristics and is influenced by social factors

- How much vs How

THE OUTPATIENT VISIT

Tertiary Prevention: Management of chronic diseases, and rehabilitation support services to slow down the progression of diseases

Secondary Prevention: Health assessment and screening to facilitate early identification of chronic diseases

Primary Prevention: Health promotion, advisory and counselling services and educational programmes to drive lifestyle changes for the prevention of chronic diseases

- Universal:
  - PCP offices already provide recommendations on healthy behaviors such as injury prevention (seat belts), nutrition, exercise, screen time to all patients in well-check visits.
    - May have a place in social media and gaming recommendations

- Targeted:
  - For children with already unhealthy habits.
  - Education on habit formation (repeating a behavior until it becomes automatic), psychoeducation
  - Examples: increased family time, empowering parental styles

- Intensive:
  - Treatment interventions: MI, CBT, CM separately or in combination

TIPS FOR PARENTS

- Ensure that children's media use is **directed** (used for a specific purpose and a default activity) and **balanced** with other activities

- Guide children to age-appropriate content

- Parents setting up their SM accounts with them, friending, following on the platforms, and communicating about their experiences online

- Be sensitive to children's moods and be prepared to engage in discussions of negative emotions that may be the result of media use

Hoge, E., Bickham, D., & Cantor, J. (2017). Digital Media, Anxiety, and Depression in Children. *Pediatrics, 140*(140S2). doi:10.1542/peds.2016-1758G

TIPS FOR PARENTS

- Monitor internet use when signs of depression and self-injurious behaviors and seek advice from clinicians to ensure child's online safety

- Therapists can explain how to place limits on playing time

- Parents being part of a child's treatment

- To keep the amount of screen time under control:
  - Set time limits for play and stick to them
  - Keep phones and other gadgets out of the bedroom
 - Do other activities every day (i.e.: exercise)

POLICY

- China instituted video-game restrictions (90 minutes a day with no playing after 10 pm)

- In 2019, Josh Hawley (R-Missouri) introduced *The Social Media Addiction Reduction Technology (SMART) Act* (now a Bill) to ban certain social media platform features designed to result in prolonged, repetitive, and sustained engagement. Gives users more power to monitor the time they spend on these platforms.

- Richard Blumenthal (D-Connecticut) and Marsha Blackburn (R-Tennessee) introduced *The Kids Online Safety Act* (A bill in the UK) to curb harmful impacts of social media on youth targeting content around issues such as eating disorders, substance abuse, and suicide
  - Reintroduced in May 2023
  - Criticism from civils rights organizations for potentially censoring content, which may affect marginalized groups.

A BILL

To prohibit social media companies from using practices that exploit human psychology or brain physiology to substantially impede freedom of choice, to require social media companies to take measures to mitigate the risks of internet addiction and psychological exploitation, and for other purposes.
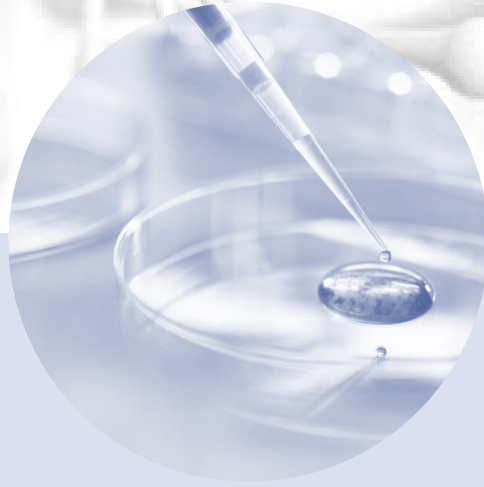
THANK YOU

CAROL VIDAL
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