Gaming, Social Media and Mental Wellness

Presented by: Sina Safahieh, MD

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Background

Sina Safahieh, MD is a double board certified child, adolescent and adult psychiatrist. He graduated with a medical degree from University of Texas Medical Branch and completed an adult psychiatric residency and child & adolescent fellowship at UC Irvine. Dr. Safahieh has a private practice in Newport Beach and has staff privileges at Hoag Hospitals and CHOC. He is medical director of the ASPIRE program at Newport and Irvine Hoag Hospitals, team psychiatrist for the Los Angeles Chargers and a Major League Baseball certified clinician.

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"It's hard enough being cool in real life!"

– Anonymous teen
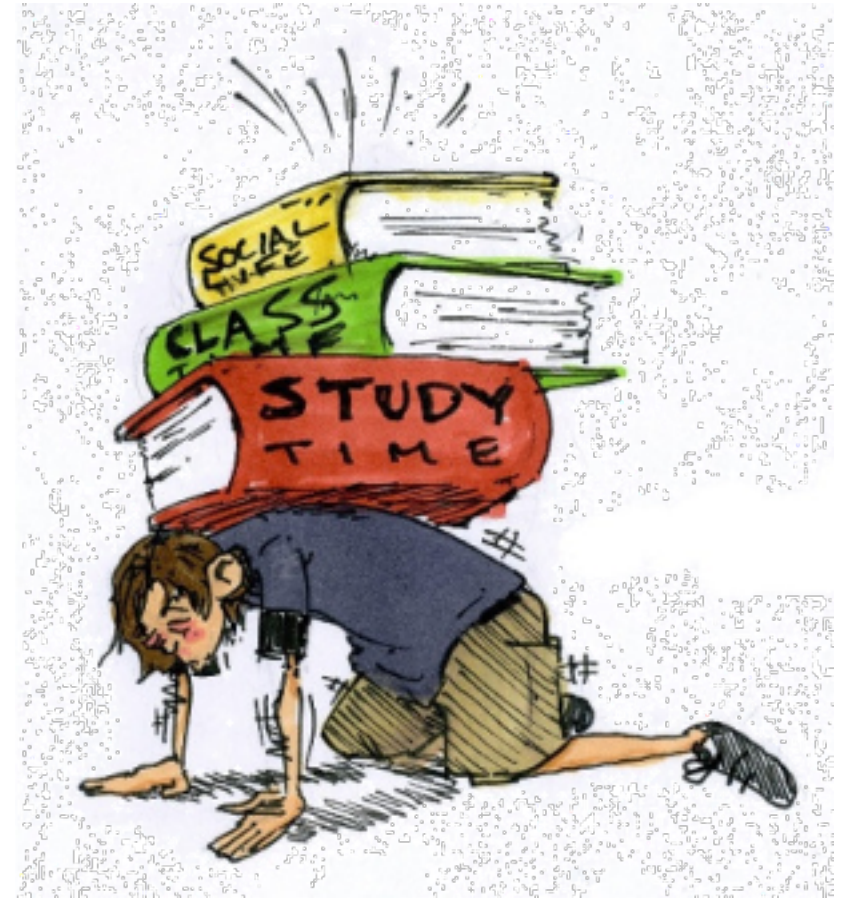
Let's Look At The Facts

- 11.5% of youth (age 12-17) in California report suffering from at least one major depressive episode (MDE) or other primary mental health condition in the past year.

- 73% increase in hospitalizations between 2007-2016 for primary mental health

- Self harm: 51% increase in 14 years for self harm ER visits

- 63% of youth (age 12-17) in California with major depression or other primary mental health disorder did not receive any mental health treatment.

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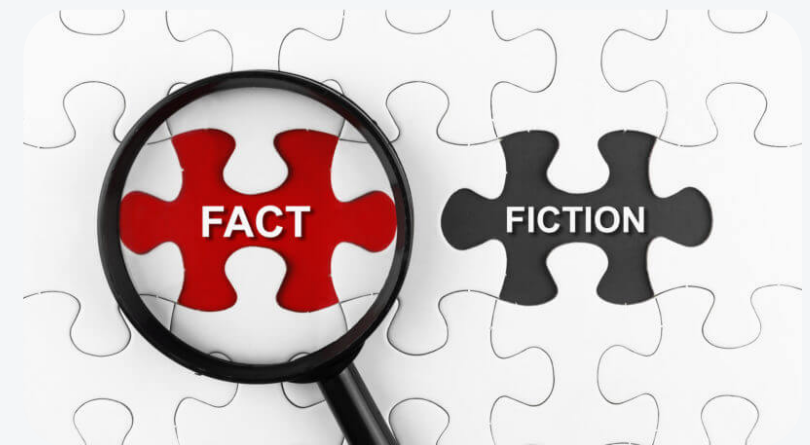
Suicide Rates

- Orange County has had the **largest suicide rate** increase among the nation's 20 most populous counties

- OC board of supervisors reported the county's per-capita suicide rate in the last two decades increased a whopping **45 percent in OC**.
  - Compare to an average increase of **22 percent nationwide** during the same time frame

- For teens the suicide hike was 29% in OC vs 22% in California

- More teen suicide in first 3 months of 2019 than all of 2018 combined!

- **2nd leading cause of death in OC**, for each suicide death there are 10 hospitalizations for attempted suicides

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Hospital Admission For Self Harm

- Much increased rates since 2009:
  - Ages 10-14: 189% increase
  - Ages 15-19 : 62% increase
  - Ages 20-24: 17% increase

- Timing consistent with advent of social media and increased smartphone usage

- Large spike in suicides, psychiatric hospitalizations around 2009-2010, approximately the same time that 50% of teens had a smartphone. Facebook opened to public in 2006.

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Warning Signs For Depression

- Suicide threats, direct and indirect

- Poems, essays and drawings that refer to death

- Dramatic change in personality or appearance

- Overwhelming sense of guilt, shame or rejection

- Changed eating or sleeping patterns

- Severe drop in school performance

- Cutting or other self harm behaviors

- Obsession with death

- Giving away belongings/drafting a will

- Irrational, bizarre behavior

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Screens, Screens and More Screens!

Screen Time

- Includes televisions, gaming consoles, computers, tablet devices and smartphones.
  - Children in the United States ages 8-18 spend on average 7.5 hours a day with media and technology screens.

- Children who watch a lot of electronic media are likely to:
  - Have lower grades in school
  - Read fewer books
  - Exercise less
  - Be overweight
  - Sleep less
    - blue light from screens blocks production of melatonin

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Importance of Sleep Hygiene

- Sleep is crucial!

- Affects your memory, retention, mood, cognition, ability to cope, immune system

- One hour less sleep per night has proven to increase the risk of car accidents
  - You can get a DWI (driving while impaired) for sleeplessness!

- Glymphatic system:
  - Recently discovered macroscopic waste clearance system
  - Cleaning crew of the brain

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Gaming Addiction

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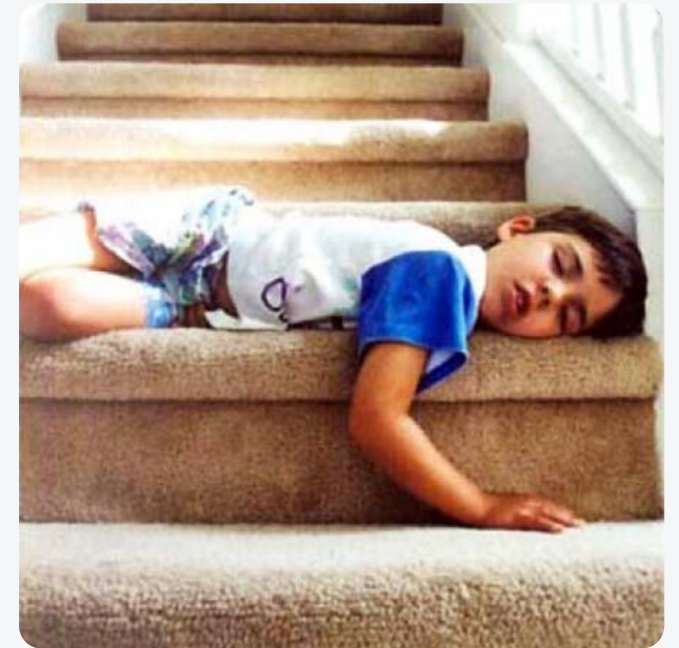
Video Game Industry

- Video games generate $139 billion per year in revenue
  - More than film, music, NFL, NBA, MLB, NHL industries combined

- 2.4 billion people play video games every year

- Rise in E-Sports
  - More people watched League of Legends championship than NBA finals
  - Teenager recently won $3 million in Fortnite

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Fortnite

- "Free game" created by Epic Games

- 250 million players, the company has made more than $3.9 billion

- Hired psychologists to utilize intermittent and continuous reinforcement to keep people hooked onto games; similar to slot machines

- Micro-transaction model: like drug dealers
  - Give you drugs for free, once your hooked you can't stop using!

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Sobering Gaming Stats

- More than half a billion people worldwide playing computer and video games at least an hour a day – and 183 million in the U.S. alone.

- The average young person racks up 10,000 hours of gaming by the age of 21
  - Roughly the same time they spent in in a classroom for all of middle and high school if they have perfect attendance.

- 5 million gamers in the U.S., in fact, are spending more than 40 hours a week playing games
  - The equivalent of a full time job!

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Gaming Addiction

- WHO recently added as mental health condition

- Not in DSM 5 but likely in the next manual
  - **Currently classified "Condition for Further Study"**
  - With further research, the APA may or may not decide to make the disorder "official" in future editions of the *DSM*.

- Many popular games emphasize negative themes and promote:
  - The killing of people or animals
  - The use/abuse of drugs and alcohol
  - Criminal behavior, disrespect for authority and the law
  - Sexual exploitation and violence toward women
  - Racial, sexual, and gender stereotypes
  - Foul language and obscene gestures
  - Escapism, avoidance

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Gaming Addiction

- More common in male adolescents 12 to 20 years of age
  - Recent studies show 55/45 percent male:female ratio

- More prevalent in Asian countries than in North America and Europe
  - South Korea and Japan have the most tech addiction rehab clinics

- Young people have literally died playing video games excessively
  - Playing for 30-40 hrs straight without stopping, standing, eating, or using the restroom
  - Embolisms, strokes, cardiac arrest

- Likely to worsen with introductions of augmented reality and virtual reality

DSM Diagnostic Criteria

Repetitive use of Internet-based games, often with other players, that leads to significant issues with functioning.

- Five of the following criteria must be met within one year:
  - Preoccupation or obsession with Internet games
  - Withdrawal symptoms when not playing Internet games.
  - A build-up of tolerance–more time needs to be spent playing the games.
  - The person has tried to stop or curb playing Internet games, but has failed to do so.
  - The person has had a loss of interest in other life activities, such as hobbies.
  - The person lied to others about his or her Internet game usage.
  - The person uses Internet games to relieve anxiety or guilt–it's a way to escape/avoid.

American Academy of Pediatrics
Screen Time Recommendations

American Academy
of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®

- Younger than 18 months, avoid use of screen media other than video-chatting.

- 18 to 24 months of age who want to introduce digital media should choose high-quality programming

- 2 to 5 years, limit screen use to 1 hour per day of high-quality programs

- 6 and older, place consistent limits on the time spent using media, and ensure sleep, physical activities, hobbies are not affected

- Designate media-free times together, such as dinner or driving, as well as media-free locations at home, such as bedrooms.

- Have ongoing communication about online citizenship and safety, including treating others with respect online and offline.

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Gaming Effects On The Brain

- Activates key regions of the brain's pleasure circuit, including the nucleus accumbens, as well as the amygdala, and the orbitofrontal cortex

- PET scans revealed increased dopamine release, specifically in the dorsal striatum and nucleus accumbens

- **Similar response as drug or gambling addictions, including withdrawals**

- Minds are activated but bodies are not, leading to inability to vent aggression/stress
  - DNA hasn't evolved since caveman era!

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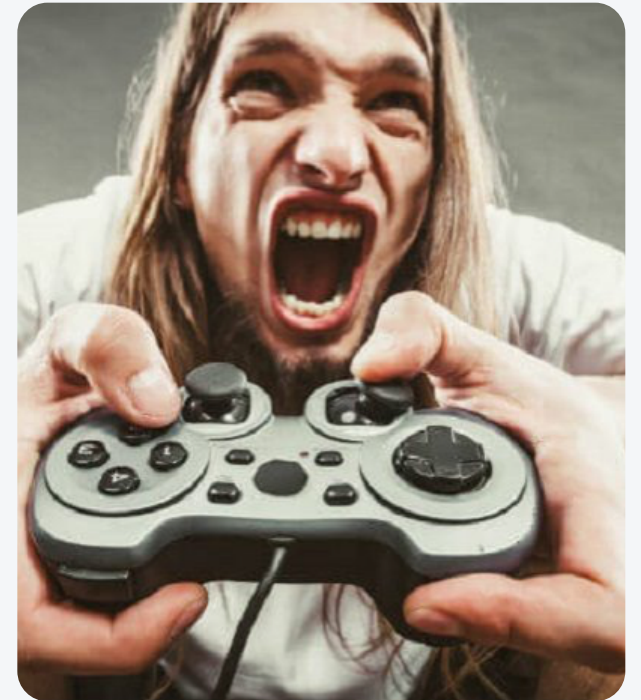
Gaming Effects On Functioning

Spending excessive time playing these games can lead to:

- Less time socializing with friends and family

- Poor social skills, time away from family time, school work, and other hobbies

- Lower grades, less reading

- Less exercise and becoming overweight

- Decreased sleep and poor quality sleep

- Aggressive thoughts and behaviors

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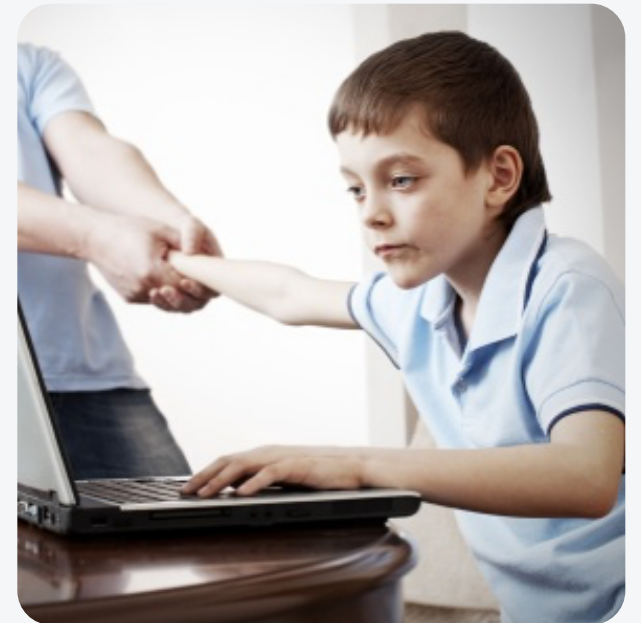
Gaming/Screen Time Boundaries

- Avoiding video games in preschool-aged children

- Checking ESRB ratings

- Playing video games with their children to share the experience

- **MAKE A CONTRACT:** Setting clear rules about game content and playing time, enforcing limits

- Monitoring online interactions and warning children about potential dangers of Internet contacts while playing games online

- **NO TVS IN THE BEDROOM!** Allowing video game playing only in public areas of the home, not in the child's bedroom

- Ensuring video games are only played after homework and chores are done

- Encouraging participation in other activities, particularly physical activities

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Social Media

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Social Media

- 95% of teens ages 13-17 have used social media

- 75% report having at least one active social media profile

- 33% report using social media "almost constantly"

- 40% of children ages 8-12 use social media
  - despite age 13 being the typical cutoff for most platforms

- On average, **teens are online almost nine hours a day**, not including time for homework

Social Media: Starting Young

- 96% of children under 4 have used a device before

- 75% of them have their own device

- 75% of teens have their own smartphone

- In recent Pew poll, 40% of adolescents self-reported that social media is having negative effects in their lives

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US Surgeon General Advisory On Social Media and Youth Mental Health (5/23/23)

"There are ample indicators that social media can also have a profound risk of harm to the mental health and well-being of children and adolescents"

"Nearly every teenager in America uses social media, and yet we do not have enough evidence to conclude that it is sufficiently safe for them. Our children have become unknowing participants in a decades-long experiment"

"Frequent social media use may be associated with distinct changes in the developing brain in the amygdala (important for emotional learning and behavior) and the prefrontal cortex (important for impulse control, emotional regulation, and moderating social behavior), and could increase sensitivity to social rewards and punishments."

"Broad agreement among the scientific community that social media has the potential to both benefit and harm children and adolescents"

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US Surgeon General Advisory On Social Media and Youth Mental Health (5/23/23)

- Social media platforms are often designed to maximize user engagement
  - Push notifications, autoplay, infinite scroll, quantifying and displaying popularity (i.e., 'likes'), and algorithms that leverage user data to serve content recommendation

- Social media exposure can overstimulate the reward center in the brain and, when the stimulation becomes excessive, can trigger pathways comparable to substance and gambling addictions
  - 33% of a national survey of girls aged 11-15 reported feeling "addicted" to at least one social media platform
  - 50% of teens reported it would be difficult to give up social media

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US Surgeon General Advisory On Social Media and Youth Mental Health (5/23/23)

Survey of 8th and 10th graders revealed:

- Average time spent is 3.5 hours per day

- 1 in 4 spent 5+ hrs per day

- 1 in 7 spend 7+ hrs per day

- 1 in 3 reported using screens until midnight or later

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Potential Benefits of Social Media

- Staying connected to friends

- Meeting new friends with shared interests; especially important for youth who are often marginalized, including racial, ethnic, and sexual and gender minorities

- Finding community and support for specific activities

- Sharing art work or music

- Exploring and expressing themselves

- Exposure to new ideas and current events

- Learning technical skills

- Learning character strengths

Potential Risks of Social Media

- Exposure to harmful or inappropriate content (e.g., self harm, eating disorders, sex, drugs, violence, predators)
  - 6 in 10 adolescent girls reporting they've been contacted by a stranger
- Perpetuating body dissatisfaction and disordered eating behaviors
  - 46% of teens reported that social media negatively affects their body image, while only 14% said it makes them feel better

- Cyber bullying, a risk factor for depression and suicide
- Oversharing personal information
- Privacy concerns including the collection of data about teen users and Identity theft
- Interference with sleep, exercise, homework, or family activities
- Seeking validation through likes, thumbs ups

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4 Most Common Stressors On Social Media

- Highlight reel
  - Comparing our behind the scenes with everyone else's highlight reels

- Social currency
  - Economy of attention
  - Likes, thumbs up
    - A shot of dopamine
    - Reinforces pleasure circuits
  - Tying up self worth with what everyone else thinks about us

- **FOMO**: fear of missing out

- Online Harassment

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Association of Screen Time and Depression in Adolescence

- Study published July 2019 in JAMA (Journal of the American Medical Association) Pediatrics with 3826 adolescents; seventh graders in 31 schools in the Greater Montreal area.

- Showed significant between-person associations showed that for every increased hour spent using social media, adolescents showed a **0.64-unit increase in depressive symptoms** (95% CI, 0.32-0.51) and 8.5-unit difference in 40 point scale in self esteem

- Another study conducted among 14-year-olds (n = 10,904) found that greater social media use predicted poor sleep, online harassment, poor body image, low self-esteem, and higher depressive symptom scores with a larger association for girls than boys.

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JAMA Psychiatry Study: 3 Hours or More Is Detrimental

JAMA Psychiatry

- A study published last year in the journal JAMA Psychiatry (and referenced in the US Surgeon Generals advisory report yesterday – 5/23/23) suggests that teenagers who spend **more than three hours a day** on social media face double the risk of developing mental health problems including depression, anxiety, aggression, and antisocial behavior.

- **The study:** Nearly 6,600 12- to 15-year-old Americans self-reported how much time they spent per day on social media, as well as whether they had any mental health problems. The researchers found that three hours of social media correlated with higher rates of mental health issues, even after adjusting for a history of such problems.

- Manifests in two main ways
  - internally (depression and anxiety)
  - externally (aggressive behavior or antisocial behavior)

Affects Adults Too: American Journal of Preventative Medicine

- A study published 12/10/20 suggests more time a nondepressed person spent on social media at the start of the study, the greater the odds that person would go on to develop depression.

- **The study**: more than 1,300 people between the ages of 18 and 30 and screened them for depression. Factored in information on race, sex, income, relationship status, adverse childhood experiences, and other socioeconomic factors associated with the development of depression.

- Six months after collecting this baseline data, researchers found that among those who were not depressed at the start of the study, heavy social media use was robustly associated with the emergence of depression.

- Another small, randomized controlled trial in college-aged youth found that limiting social media use to 30 minutes daily over three weeks led to significant improvements in depression severity.
  - This effect was particularly large for those with high baseline levels of depression who saw an improvement in depression scores by more than 35%.

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Causal relationship?

3 explanations of how social media may have a casual relationship with increased depression:

- **Displacement theory:** more time spent on screens, less time on other activities

- **Upward social comparisons** aka FOMO "everyone's life looks great on facebook"

- **Spiral hypothesis:** reinforcement spiral phenomenon "Life in a bubble"

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Risky Internet Behavior

- Teens more vulnerable because of limited capacity for self regulation

- Youth who are more at risk offline tend to be at risk online
  - Visiting inappropriate sites
  - Exposure to social media content that encourage behaviors
  - Cyber bullying
  - Sexting: 10% of teens have sent, 30% have received
  - Revenge porn

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Signs of Cyberbullying

- Upset after using technology

- Take cyberbullying reports at face value; don't dismiss and save evidence

- Discuss with other parents, school staff

- 15% of kids experience cyberbullying, 20% experience regular bullying

- Girls more likely to damage social relationships than physical bullying

- Sibling bullying is just as dangerous

- 5% of teens cyber bully themselves
    - A form of self injurious behavior

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Bridging The Digital Gap

- **Digital natives vs digital immigrants**

- Parents cannot often keep pace with the digital landscape
  - Nearly 70% of parents say parenting is now more difficult than it was 20 years ago, with technology and social media as the top two cited reasons

- Learn about technology first hand

- Have kids teach you directly and be savvy enough to make sure you aren't getting hoodwinked

- Talk to other parents

- Concerted effort with schools
  - It takes a village!

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Digital Natives vs Digital Immigrants

Digital Natives

- Like constant connectivity

- Prefer immediacy and have short attention spans

- Go to the internet first for information

- Prefer to socialize online and less so with face-to-face communication

Digital Immigrants

- Prefer to talk on the phone or in person

- Prefer formal communication channels, such as phone, detailed emails, or face-to-face communication

- Printing things out as opposed to working on screen

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Technology

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When to get a smartphone?

- **No magical age!**

- Once given a smartphone, it will be very difficult to take it back.
  - **You've opened up Pandora's box.**
  - Taking away a smartphone from a 10-year-old will often create more problems than waiting to give them phone a year or two later.

- At earliest should be 7th or 8th grade
  - Wait until 8th not 8!

When to get a smartphone?

- Consider "dumb" phone, flip phone or specialized kid friendly smart watch
  - Kids can make calls and text, and most have GPS capability.
  - Allows communication without getting sucked into some of the drama that plays out on social media.
  - Allows for testing waters before getting smartphone

- Go over some do's and don'ts

- We want to be clear about the expectations and limits

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Tech Boundaries

- Relinquishing phone at night
  - Having a phone is not a human right! It is a privilege.

- Again, no TV's in the bedroom. Ever.

- Firm contracts, that need to be enforced.

- Using technology to fight technology
  - Using apps to predetermine time limits to prevent negotiations at night

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Parental Control Apps

- OurPact: family locator and screen time management

- Bark: (social media monitoring): connects to 24 platforms

- Life360: Cell phone GPS location, including historical tracking

- iPhone Backup extractor: reads text messages, including deleted messages, call history, photos and videos, voicemails, notes and contacts

- Webwatcher: keystroke logger

- Blocksi: for google chromebooks

- AAP's Family media use plan

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Parental Control Apps

Wirecutter (a New York Times publication) recommendations:

- Apple screen time is best for iOS

- The controls built into iOS 12/13 let you set a daily time limit on app and/or device use and give you more information about and control over your kid's screen time than third-party apps can.

- Google family link for Android family with kids under 13

- Qustdio (computer filtering/monitoring/time control: for Android households with kids 13 and older

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AAP Family media use plan

- Interface tool from AAP that can be personalized
  - www.Healthychildren.org/mediauseplan

- Media time calculator

- Screen free zones and times

- Device curfews

- Digital citizenship
  - Digital footprint, posting is permanent
  - Review privacy settings in social media
  - Discuss family expectations
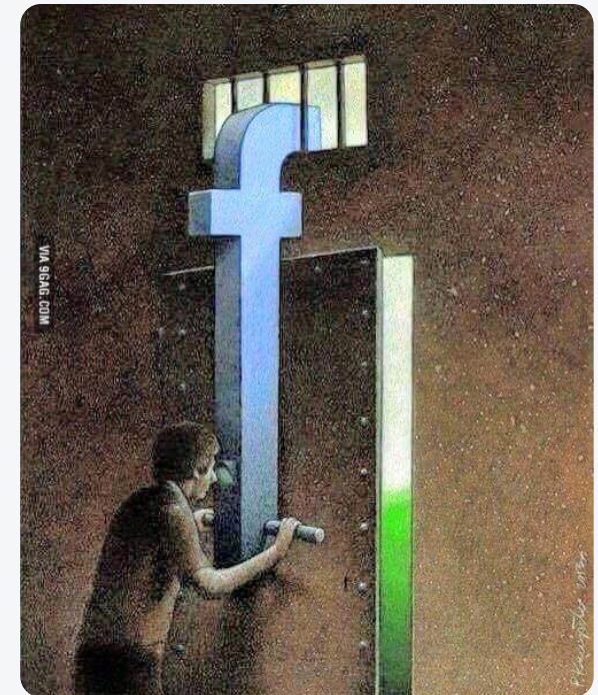
Social Media Tips/Regulations

- Executives of social media companies/gaming companies **don't allow their own kids on these platforms**

- Easier to limit social media use if it's a concerted community/school effort.
  - Hard to ask kids to stop or curtail use if all their friends are using it

- Again, all devices out of the bedroom! Especially before bed!

- Ideally, no social media until high school

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What should parents do?

- Lead by example.

- You can't forbid them from using technology, its not practical or tenable.

- Its a balancing act. Mild usage can be beneficial, like a peer group.

- Parents need to watch their kids posts, know their passwords.

- Create an illusion of privacy
  - Checking in on social media on the DL ("down low")
  - Reading diaries/journals
  - GPS tracker (without kids knowledge)
    - Phones
    - Cars

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Resources and Information

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Sources and Information

- AACAP; Facts for Families

- AAP

- JAMA

- APA's May 2023 Health Advisory
  - https://www.apa.org/topics/social-media-internet/health-advisory-adolescent-social-media-use.pdf

- US Surgeon General Advisory
  - https://www.hhs.gov/sites/default/files/sg-youth-mental-health-social-media-advisory.pdf

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Useful Books and Websites

- https://screenstrong.com

- Glow Kids – Dr. Nicholas Kardaras

- Raising Human Beings – Dr. Ross Greene

- Breaking the Trance – George T. Lynn and Cynthia C. Johnson

- The Collapse of Parenting – Dr. Leonard Sax

- Hold onto Your Kids – Gordon Neufeld

- Reset Your Child's Brain – Victoria Dunckley, MD

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Current Resources In The Community

- 211: This is a free 24-hr information and referral service for information about: hotlines, food and shelter assistance, help with drug abuse, violence, and other health issues.

- NAMI OC: Online resources as well as their contact number (714) 991-6412

- HOAG: Community Mental Health Resources

- Suicide hotline: 1-800-273-TALK

- CAT Team: 866-830-6011

- **ASPIRE**

What does ASPIRE help with?

- Depression and mood disorders

- Anxiety

- ADHD

- Personality disorders

- Autism spectrum disorder

- Oppositional defiance disorder

- Video game addiction

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The ASPIRE Program Structure

8 week **Dialectical Behavior Therapy** skills based program with a weekly check in with teens facilitator to address skills and how skills are being used in triggering situations.

Works collaboratively with parent, teen and treatment team to address behavior issues and future needs related to aftercare.

Any afterschool obligations are put on hold until the teen completes the program.

Mandatory parent and child attendance and participation

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The ASPIRE Program Benefits

Families not covered by insurance are provided scholarships for the remainder of the program through philanthropy.

1st program in Southern California with WASC accreditation. Students that complete the program qualify to receive 5 hours of elective credit with participating school districts

4 Key Points Addressed by ASPIRE

Distress tolerance

Interpersonal effectiveness

Emotional Regulation

Mindfulness

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ASPIRE Locations

Hoag Newport Beach
located inside the Melinda Hoag Smith Center for Healthy Living

Hoag Irvine
located off of Sand Canyon near Hoag Irvine

ASPIRE – helping teens and families navigate mental health and wellness

Patrick's Purpose: John and Kim Turner

For more information, visit www.hoag.org/ASPIRE