How Much Is Too Much?

Best Practices in Navigating Media Use in American Indian and Alaska Native Youth

Shawn Singh Sidhu, MD, DFAPA, DFAACAP
Co-Director, Vista Hill Native American SmartCare Program
Child and Adolescent Psychiatrist, Southern Indian Health Council

Jennifer Clay, LMFT, ATR-BC, Ph.D. Candidate
Cultural Consultant and Art Therapist

Mark Chenven, MD, DFAPA, DFAACAP
Co-Director

Shirley Fett, NP
Developmental Disabilities Expert, Nurse Practitioner

Judy Whitcher, LPCC
Program Manager

VISTA HILL

INDIAN HEALTH SERVICE · PHS · 1955

Disclosures:

Shawn Singh Sidhu does not have any financial conflicts of interest or disclosures

We hold a deep and profound respect for the original inhabitants of this land. Our homes and places of work rest on the unceded territory of the **Kumeyaay Nation**. We thank them deeply for their stewardship of this land, and for their wisdom, guidance, mentorship, insightfulness, and support.

May we continue to seek education from the original inhabitants of this land, such that we gain a critical awareness the historical, modern day, and potential future impacts of colonization trauma

A Nation Separated: July 23rd, 2020. Kumeyaay Border Protest @ U.S. - Mexico Border. To this day the Kumeyaay Nation remains separated based on artificial borders imposed by colonizers and those of us who remain silent bystanders.

Outline

1) **Introduction** to the Native American SmartCare Program

2) Cognitive, Physiological, Social, and Emotional **Impacts of Extended Screen Time**, Including **Best Practices**

3) **Navigating Media Use** in American Indian and Alaska Native Youth - Jennifer Clay

4) Summary and Q/A: All Speakers

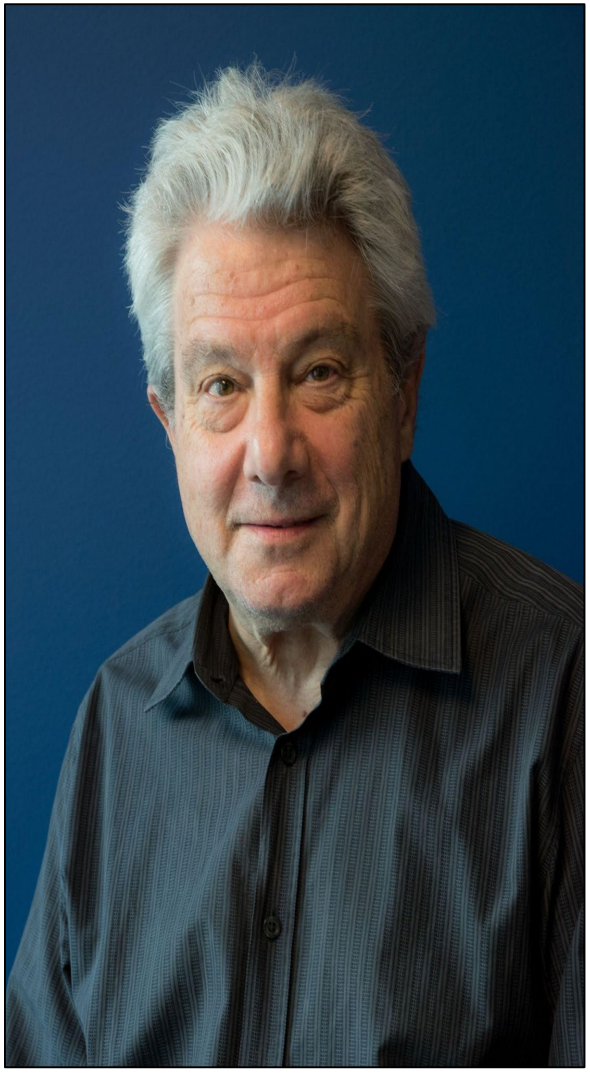
Introduction to the Native American SmartCare Program

Jennifer Clay, LMFT, ATR-BC, Ph.D Candidate
Cultural Consultant

Jennifer is the daughter of a boarding school survivor and both sides of her family are rooted in the red earth of Oklahoma. She is a member of the Choctaw Nation of Oklahoma and has worked as a licensed Marriage & Family Therapist and Board Certified Art Therapist for over fifteen years. She previously served at both Southern Indian Health Council and San Diego State University's Native Resource Center. Jennifer is a PhD candidate in clinical art therapy. She firmly believes that art expression is a social window and an effective change agent in community healing and societal change. At the core of her work between art and dialogue, Jennifer believes that addressing social justice issues through art expression is most impactful when the artists and viewers are working together.

Mark Chenven, MD, DFAPA, DFAACAP
Co-Director

Mark Chenven is an Adjunct Clinical Professor of Psychiatry at the University of California San Diego (UCSD). Dr. Chenven has spent his entire career working with underserved youth and families. After directing programs for the County of San Diego Medi-Cal populations for 20 years, Dr. Chenven transitioned to the role of Executive Medical Director for Vista Hill Foundation. He currently serves as Co-Director for the Vista Hill Native American SmartCare Program. At a national level, Dr. Chenven developed the first Practice Parameter on Community-Based Systems of Care for the American Academy of Child and Adolescent Psychiatry, and he has served on multiple influential committees for both the American Academy of Child and Adolescent Psychiatry and the American Psychiatric Association aimed at improving access and reducing health disparities.



Shawn Singh Sidhu, MD, DFAPA, DFAACAP
Co-Director

Shawn Singh Sidhu an Associate Professor of Psychiatry at the University of California San Diego (UCSD) and Rady Children's Hospital of San Diego where he serves as Training Director for the Child and Adolescent Psychiatry Fellowship Program. Along with supporting asylum-seeking migrant youth and families at the border, Dr. Sidhu's greatest honor has been to serve American Indian and Alaska Native families over the past 10 years. Dr. Sidhu served rural tribal health centers in three different states in his role as Associate Medical Director for the Indian Health Services - University of New Mexico Telebehavioral Health Center of Excellence Program. He now serves as Co-Director for the Vista Hill Native American SmartCare Program, a collaboration between California Area Indian Health Services and Vista Hill Foundation. He also serves AI/AN families directly at the Southern Indian Health Council.

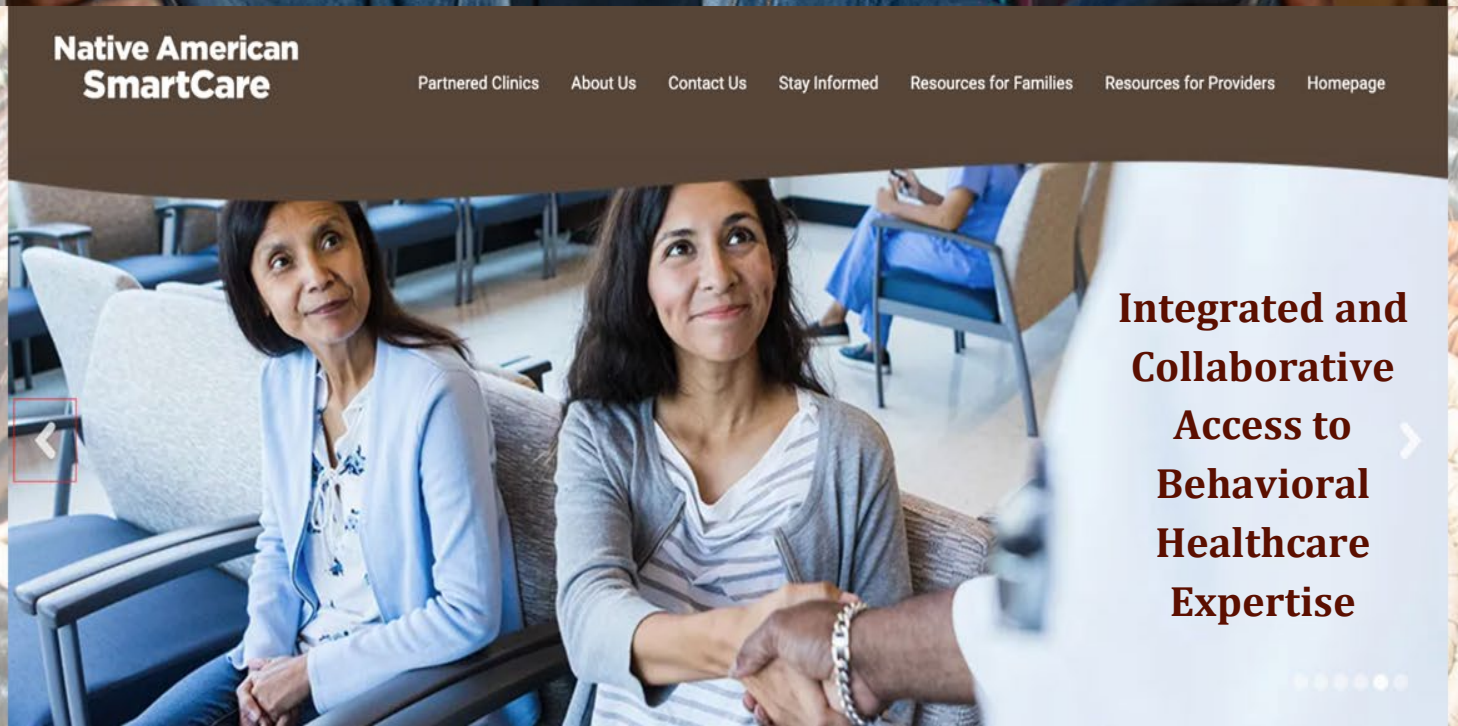
Shirley Fett, FNP-BC, PMHS
Consultant and ASD/DD/ID Expert

Shirley Fett is a Family Nurse Practitioner and a Pediatric Mental Health Specialist. She is a graduate of the University of Iowa, San Diego State University and UCSD. She has been an NP for 26 years working in family practice, internal medicine and for Vista Hill for the past 8 years, including extensive experience as a behavioral health consultant in the Vista Hill SmartCare Program. She is an expert in developmental disabilities, particularly in autism, including assessments, therapeutic services, and systems of care. She is an executive board member of the Autism Society San Diego. She provides many professional trainings on autism spectrum disorder throughout the county and state. Shirley and her husband live in San Diego with their two adult autistic sons.

Judy Whitcher, LPCC
Program Manager and Therapist

Judy Whitcher is Program Manager for Vista Hill Foundation Native American SmartCare, licensed as a Professional Clinical Counselor (LPCC) in California. She has a Masters of Arts in Clinical Psychology, and served as an Adjunct Professor of Psychology at the University of Arkansas, McGehee. She has worked in school-based and community mental health, as well as outpatient, residential and IOP settings for 15 years with underserved and at-risk children, youth, and families. She has also worked with the Department of Child and Family Services to provide individual and family therapy services for families at risk for foster care placement or undergoing reunification. Ms. Whither also has experience with case management for federal and county clients transitioning out of incarceration.


Native American SmartCare
Partnered Clinics
About Us
Contact Us
Stay Informed
Resources for Families
Resources for Providers
Homepage
Child and Family Centered
Urban and Rural


Native American SmartCare
Partnered Clinics
About Us
Contact Us
Stay Informed
Resources for Families
Resources for Providers
Homepage
Integrated and Collaborative Access to Behavioral Healthcare Expertise

Native American SmartCare

Partnered Clinics | About Us | Contact Us | Stay Informed | Resources for Families | Resources for Providers | Homepage

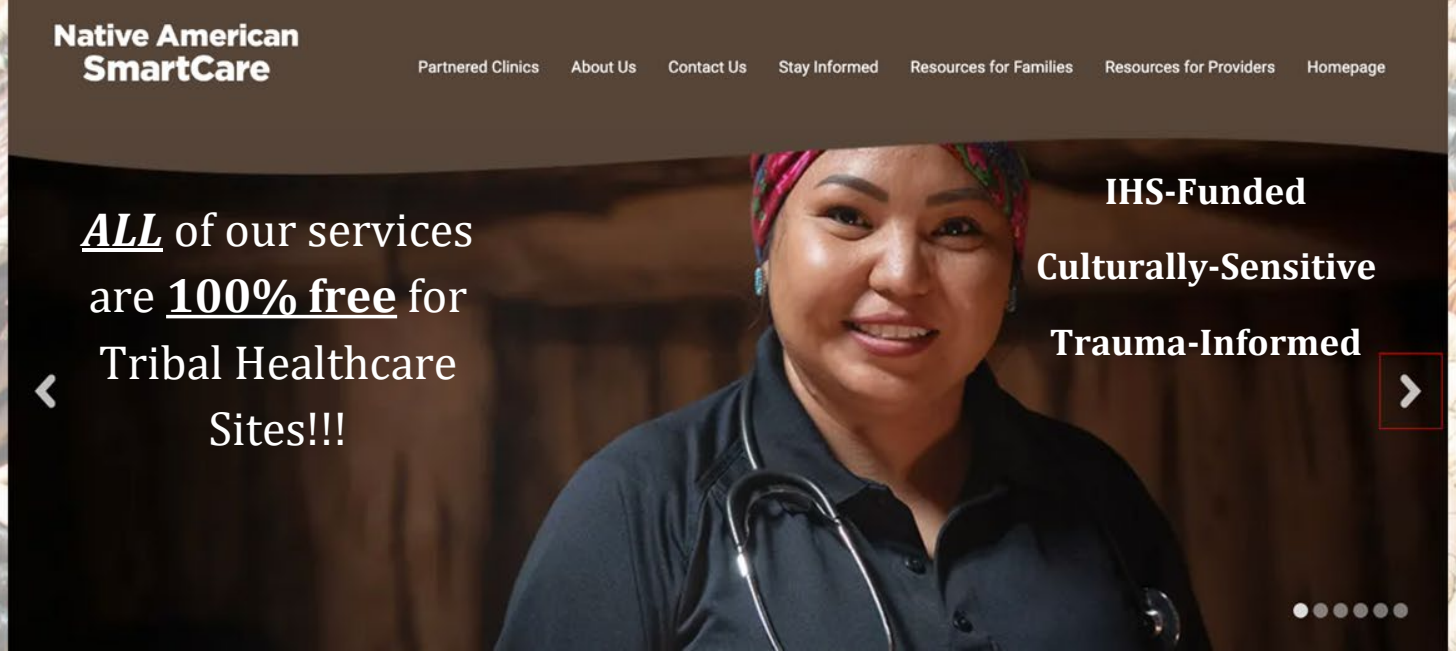
221 Consults with Providers.

139 Meetings with Healthcare Teams.

Native American SmartCare

Partnered Clinics | About Us | Contact Us | Stay Informed | Resources for Families | Resources for Providers | Homepage

60-75% of Clients are American Indian/ Alaska Natives



What We Offer:

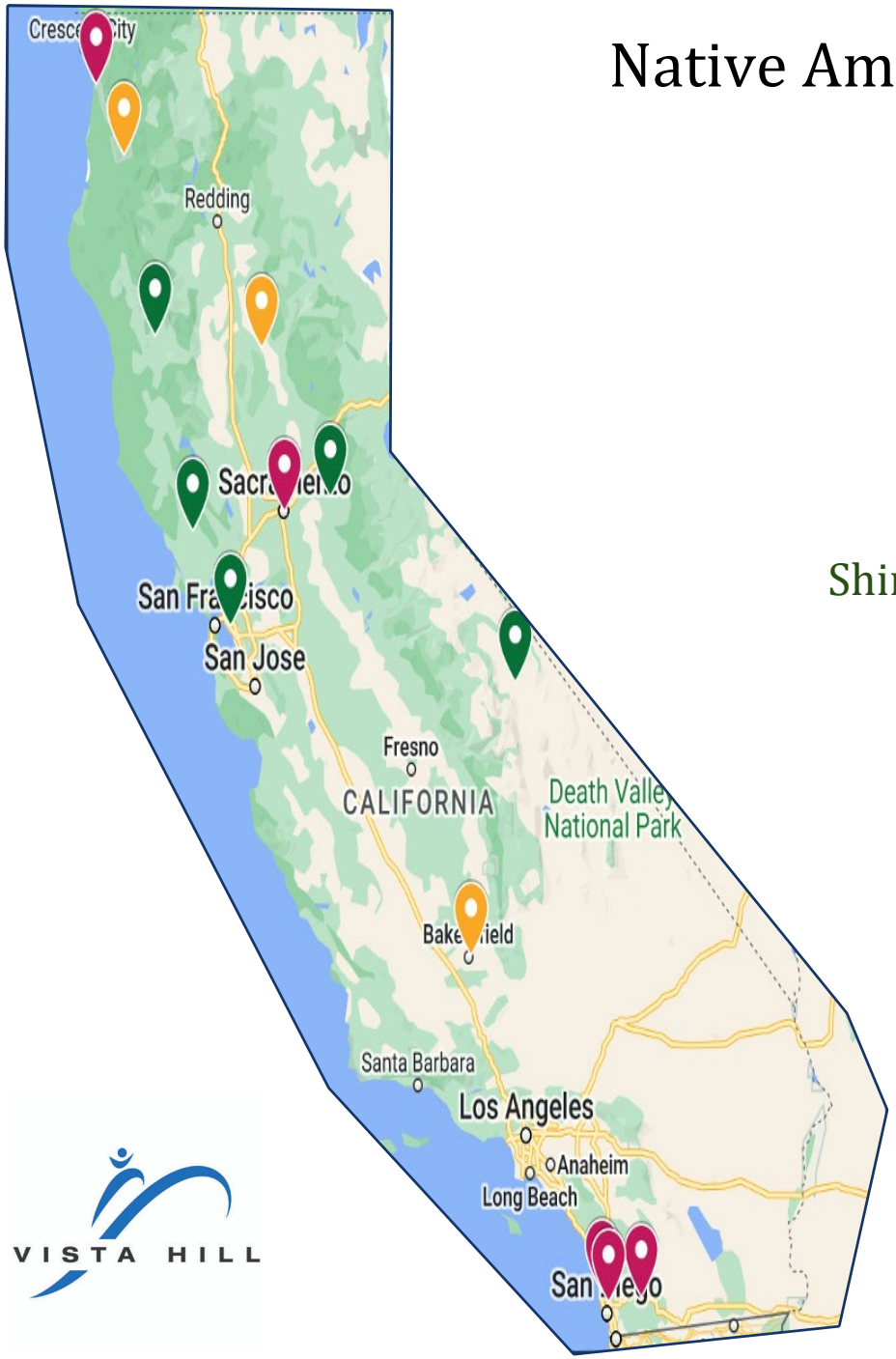
1) Live Telehealth Treatment Team Consultation (we join your treatment teams!)
2) Scheduled Patient Consultations (we send you an iPad, interview the patient in your clinic virtually, and produce a consultation report with recommendations for you)
3) Monday - Friday, 8 a.m. to 5 p.m. Telephonic Provider Warmline for Provider to Provider Consults: **888-987-0960**
4) Monday - Friday, 8 a.m. to 5 p.m. Telephonic Family/Parent Line for Family/Parent Mental Health Questions: **888-660-6616**
5) In-Service Behavioral Health Education and Training for Staff
6) Weekly Behavioral Health Newsletters with treatment recommendations
7) Linkage to resources

Contact Information:

Call us with questions at **760-427-6427**
NativeAmerican.SmartCare@VistaHill.org
NativeAmericanSmartCare.org

VISTA HILL

Native American SmartCare Program



Active Sites:

Native American Health Center (Bay Area)

Round Valley Indian Health Center

Sonoma County Indian Health Project

Shingle Springs Tribal Health and Wellness Center

Toiyabe Indian Health Project

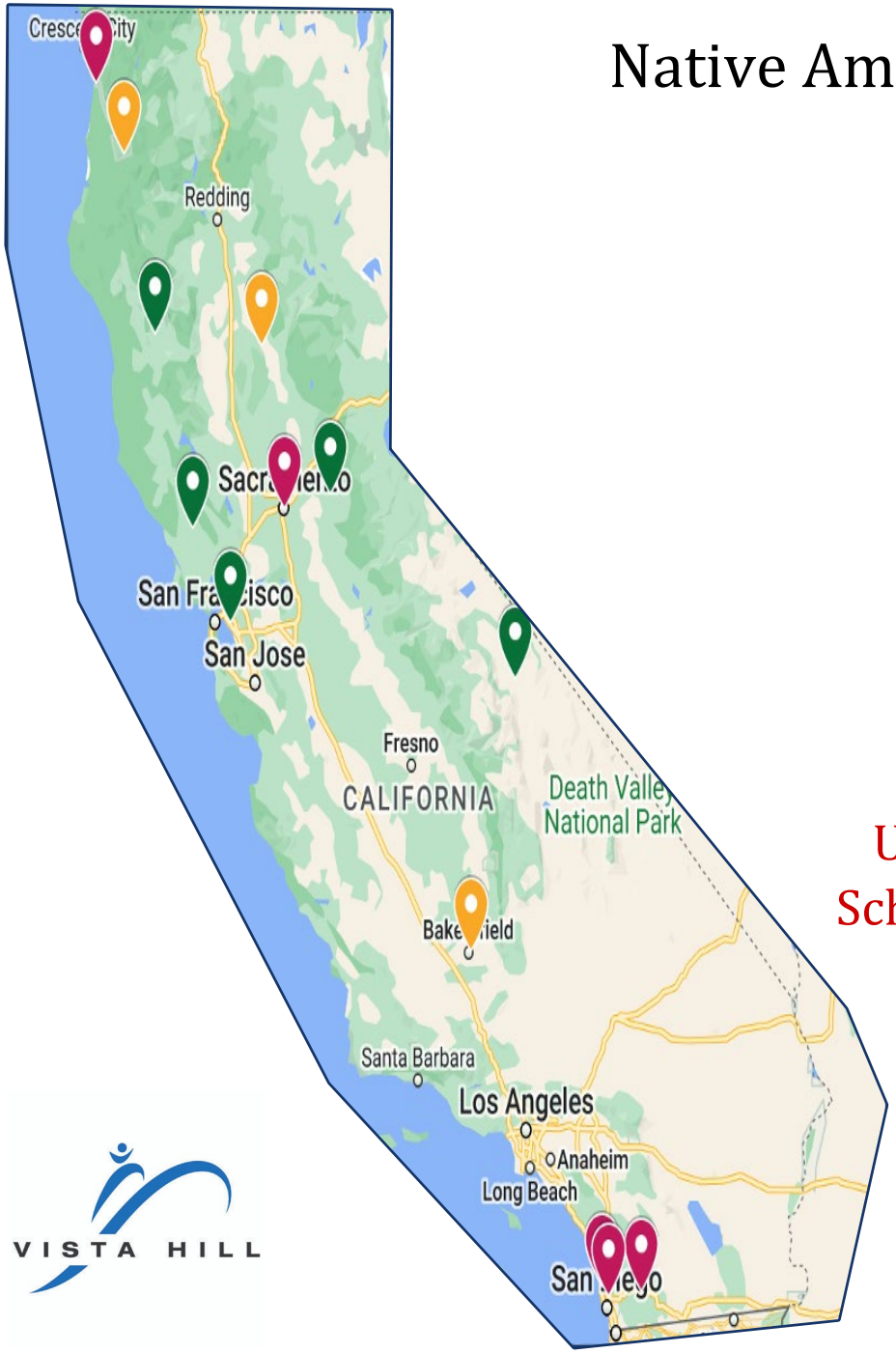
Potential Upcoming Sites:

Bakersfield American Indian Health Project

K'ima:w Medical Center

Northern Valley Indian Health

VISTA HILL



Native American SmartCare Program

Collaborators:

California Area Indian Health Services

Southern Indian Health Council

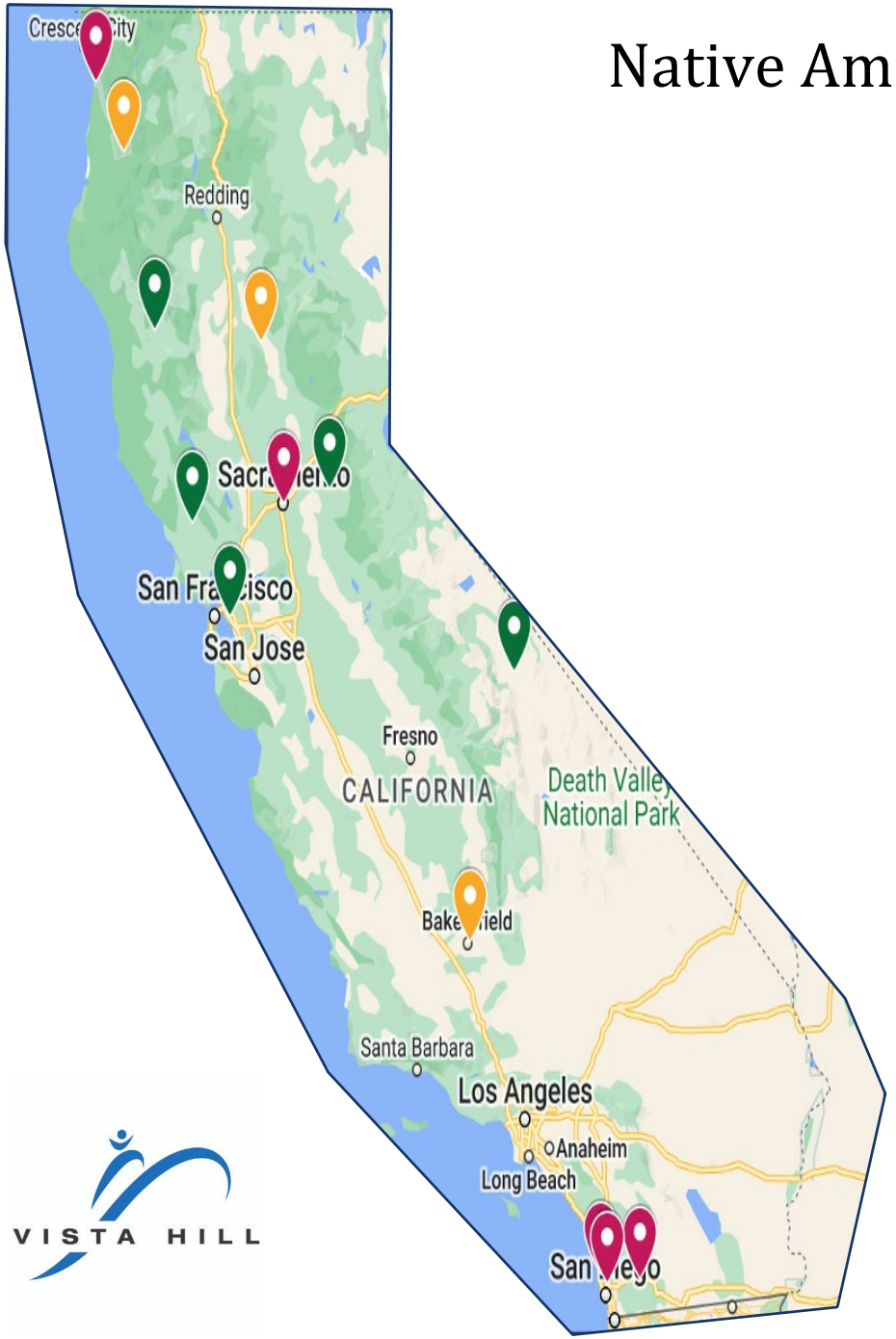
Rady Children's Hospital of San Diego

University of California San Diego (UCSD) School of Medicine Transforming Indigenous Doctor Education Program (TIDE)

Yurok Health and Human Services

VISTA HILL

Native American SmartCare Program



<u>Tribal Groups Served and Tribal Collaborations</u>:

Cloverdale Rancheria of Pomo Indians of California, Dry Creek Rancheria Band of Pomo Indians, Federated Indians of Graton Rancheria, Kashia Band of Pomo Indians of the Stewarts Point Rancheria, Lytton Rancheria of California, Manchester Band of Pomo Indians of the Manchester Rancheria, Shingle Springs Band of Miwok Indians, Antelope Valley Indian Community, Big Pine Paiute Tribe of the Owens Valley, Bishop Paiute Tribe, Bridgeport Indian Reservation, Lone Pine Paiute-Shoshone Reservation, Utu Utu Gwaitu Tribe, Timbisha Shoshone Tribe, Barona Band of Mission Indians, Campo Band of Kumeyaay Indians, Ewiiaapaayp Band of Kumeyaay Indians, Jamul Indian Village, La Posta Band of Mission Indians, Manzanita Band of the Kumeyaay Nation, Viejas Band of Kumeyaay Indians, the Hoopa Valley Tribe, and the Yurok Tribe.

VISTA HILL

Impact of Extended Screen Time on General Child and Adolescent Populations (Non-Natives)

Learning Objectives/Outcomes:

Upon completion of this activity, participants will be able to:

1. Identify cognitive, psychological, social, emotional, and other **impacts of excessive screen time** in AI/AN youth and families
2. **Apply current guidelines** from the American Academy of Pediatrics (AAP) and the American Academy of Child and Adolescent Psychiatry (AACAP) to conduct an effective media history when working with AI/AN youth
3. **Provide families with effective tools** to set media priorities for their children

Child & Adolescent Psychiatric Clinics

REVIEW ARTICLE | VOLUME 27, ISSUE 2, P203-219, APRIL 01, 2018

Electronic Screen Media Use in Youth With Autism Spectrum Disorder

McLeod Frampton Gwynette, MD • Shawn S. Sidhu, MD • Tolga Atilla Ceranoglu, MD

DOI: https://doi.org/10.1016/j.chc.2017.11.013

Journal of the American Academy of
CHILD & ADOLESCENT
PSYCHIATRY

TRANSLATIONS | VOLUME 56, ISSUE 1, P3-4, JANUARY 01, 2017

Name No Names: The Role of the Media in Reporting Mass Shootings

Shawn Singh Sidhu, MD, FAPA

DOI: https://doi.org/10.1016/j.jaac.2016.10.004

BMJ Open

Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews

Neza Stiglic, Russell M Viner

To cite: Stiglic N, Viner RM. Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews. *BMJ Open* 2019;**9**:e023191. doi:10.1136/bmjopen-2018-023191

► Prepublication history for this paper is available online. To view these files, please visit the journal online (http://dx.doi.org/10.1136/bmjopen-2018-023191).

Received 25 March 2018
Revised 11 October 2018
Accepted 26 November 2018

ABSTRACT

Objectives To systematically examine the evidence of harms and benefits relating to time spent on screens for children and young people's (CYP) health and well-being, to inform policy.

Methods Systematic review of reviews undertaken to answer the question 'What is the evidence for health and well-being effects of screentime in children and adolescents (CYP)?' Electronic databases were searched for systematic reviews in February 2018. Eligible reviews reported associations between time on screens (screentime; any type) and any health/well-being outcome in CYP. Quality of reviews was assessed and strength of evidence across reviews evaluated.

Results 13 reviews were identified (1 high quality, 9 medium and 3 low quality). 6 addressed body composition; 3 diet/energy intake; 7 mental health; 4 cardiovascular risk; 4 for fitness; 3 for sleep; 1 pain; 1 asthma. We

Strengths and limitations of this study

- Undertook a systematic review of reviews in multiple electronic databases using a prespecified methodology.
- Included only studies that directly reported screentime separately from other sedentary behaviours.
- Used assessment of review quality and weight of supportive evidence to assign strength of evidence to findings.
- Quality of included reviews was predominantly moderate or low, dominated by studies of television screentime, with screentime largely self-reported.
- Data on mobile screen use was extremely limited and our review did not address the content or context of screen viewing.

Relevant Publications

Gwynette FM, **Sidhu S**, Ceranoglu TA. "Electronic Screen Media Use in Youth with Autism Spectrum Disorders." *Child and Adolescent Psychiatric Clinics of North America*. Status: in press.

Sidhu S. "Name No Names: The Role of the Media in Reporting Mass Shootings." *Journal of the American Academy of Child and Adolescent Psychiatry*. 2017 Jan; 56(1):3-4. PMID: 27993225.

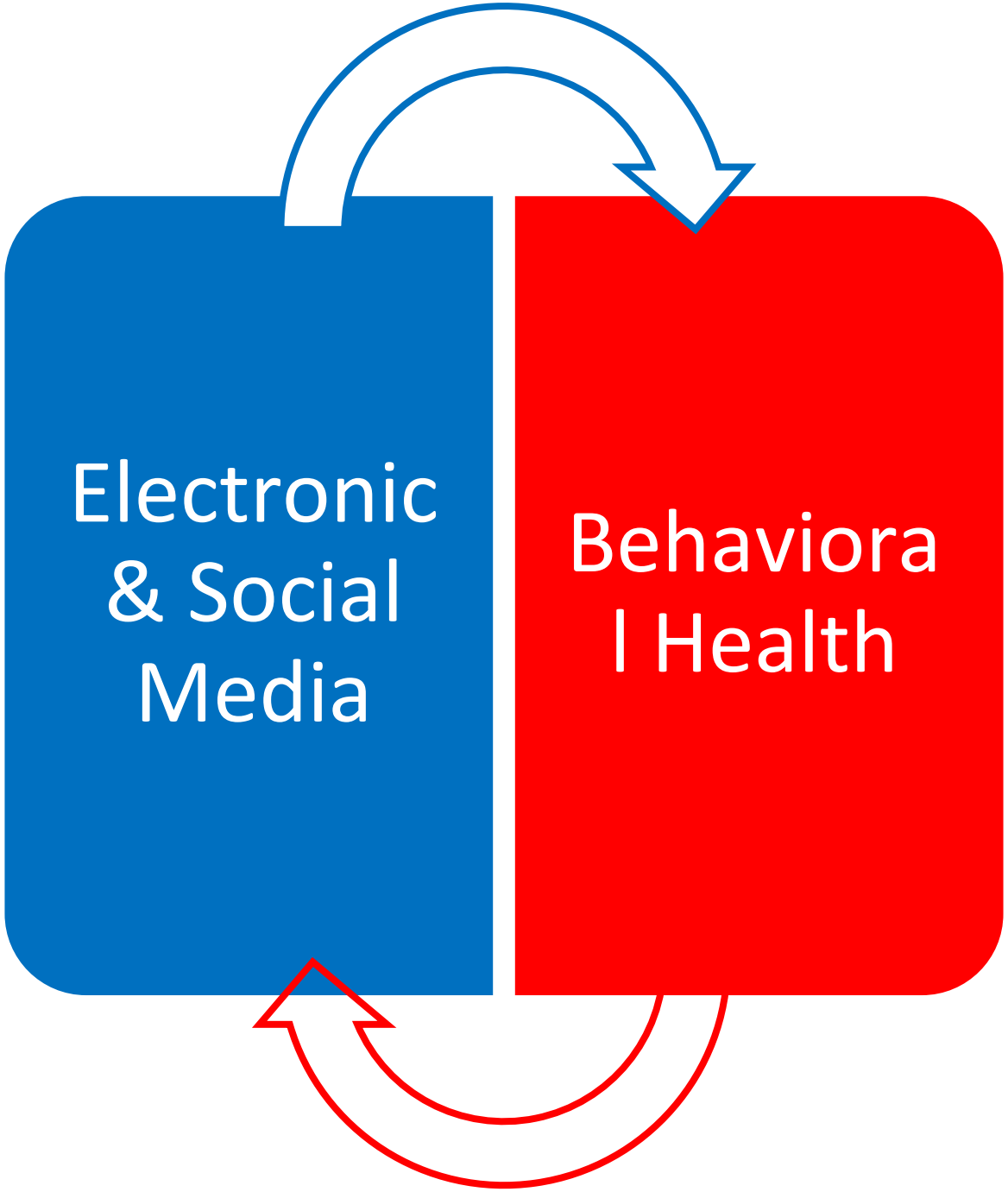
Sidhu S. "The Yin and Yang of Social Media Use in Our Patients." *AACAP News*. 2015 Nov/Dec;46(6):261-2.

Sidhu S. "Doctor, When Should My Child Be Allowed to Start Using Social Media?" *AACAP News*. 2015 Jul/Aug;46(4):169-170.

Sidhu S, Gwynette MF, Veenstra-VanderWeele JM. "46.0 Will You Friend Me? Understanding the Complex Interplay Between Social Media, Online Gaming, and Technology in Autism Spectrum Disorder." *Journal of the American Academy of Child and Adolescent Psychiatry*. 2016 Oct;55(10) Supplement: S70.

Limitations in Data

Correlation ⊘ Causation


Electronic & Social Media
Behavioral Health

Potential Benefits of Screen Time:

- Increased connection with friends and family
- Academic performance
  - (Khan Academy, i-Ready)
- Advocacy and community involvement
- Moral support for minorities
- Free access to information
- Opportunities and networking

Potential Benefits of Screen Time:

Screens may be displacing risky behaviors in teens

➢ Decreased Risky Behaviors

- Teen Pregnancy Rate: 1990s → 2012 decreased over 100%
- Teen Drug Use: 2000 → 2016 alcohol and nicotine decreased 50%(more marijuana)
- Teen Violent Crime: 1990s → 2015, 50%decrease
- Teen Motor Vehicle Accidents: 2000 →2014 50% decrease

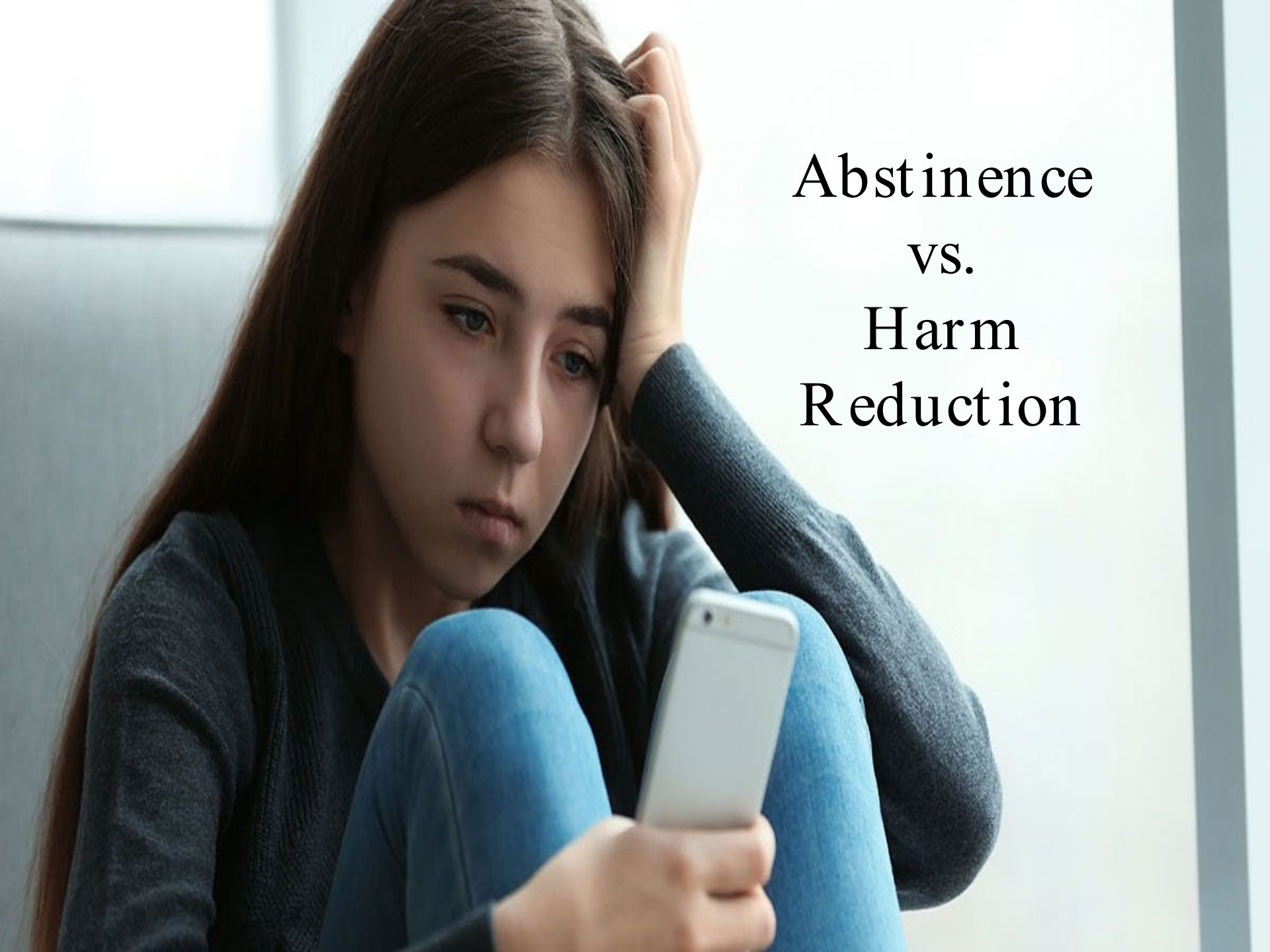
Potential Drawbacks of Screen Time:

BUT..screens may be displacing healthy behaviors in teens too

➢ Decreased Healthy Behaviors
- Physical Activity: 2000→2016 obesity rate increased 33%
- Socializing In Real Life: 2000→2015 decreased 20%
- Reading: 2000→2016, %daily teen readers decreased from 60%to 15%
- Sleep: 2000 →2015, %teens with < 7 hrs sleep per night increased from 26%to 40%

Potential Drawbacks of Screen Time:

- BUT…in the past 20 or so years we've seen
  - Increased Teen Depression
  - Increased Teen Anxiety
  - Increased Teen Self-Injurious Behavior
  - Increased Teen Deaths by Suicide


Abstinence
vs.
Harm
Reduction

Duration of Use

Children (American Academy of Pediatrics Media Toolkit)

-The average 8 year-old spends 8 hours a day using various forms of media

-Teenagers 13-17 years of age send an average of 3,364 test messages per month

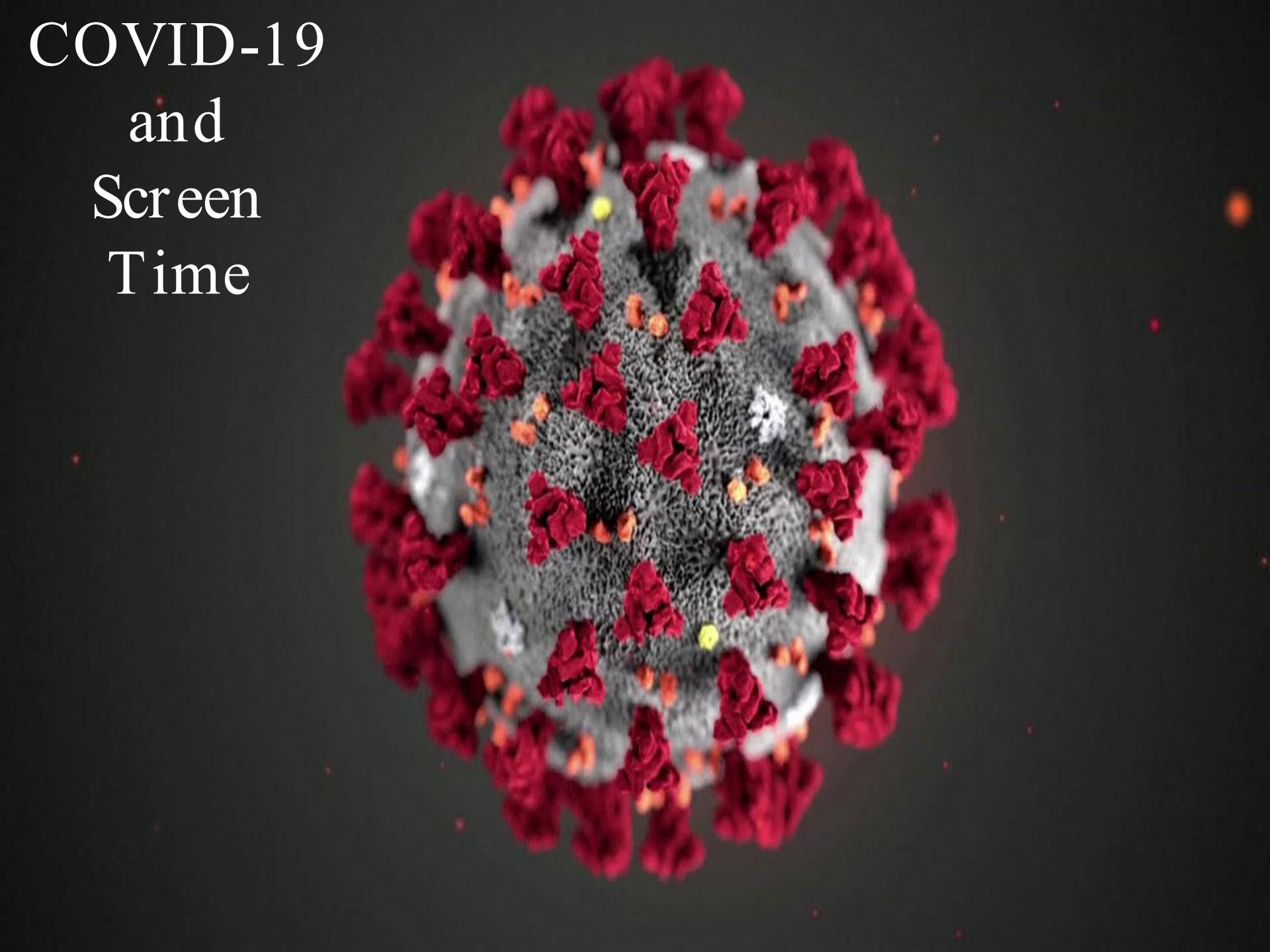
Teens (American Heart Association):

-60% average 2.9 hours per day (20 hrs/wk)

-33% average 5.7 hours per day (40 hrs/wk)

-7% greater than 7.1 hours per day (50 hrs/wk)

COVID-19 and Screen Time



Sociodemographic Predictors of Changes in Physical Activity, Screen Time, and Sleep Among Toddlers and Preschoolers in Chile during the COVID-19 Pandemic

- 3157 participants
- Mean age 3.1 years
- **Overall decreased time spent in physical activity**
- **Overall increase in recreational screen time**
- **Sleep duration increased, but sleep quality decreased**
- Toddlers and pre-schoolers living in a rural area with space to play attenuated impact
- Older children living in urban areas with higher-educated caregivers aged 35-45: greater changes

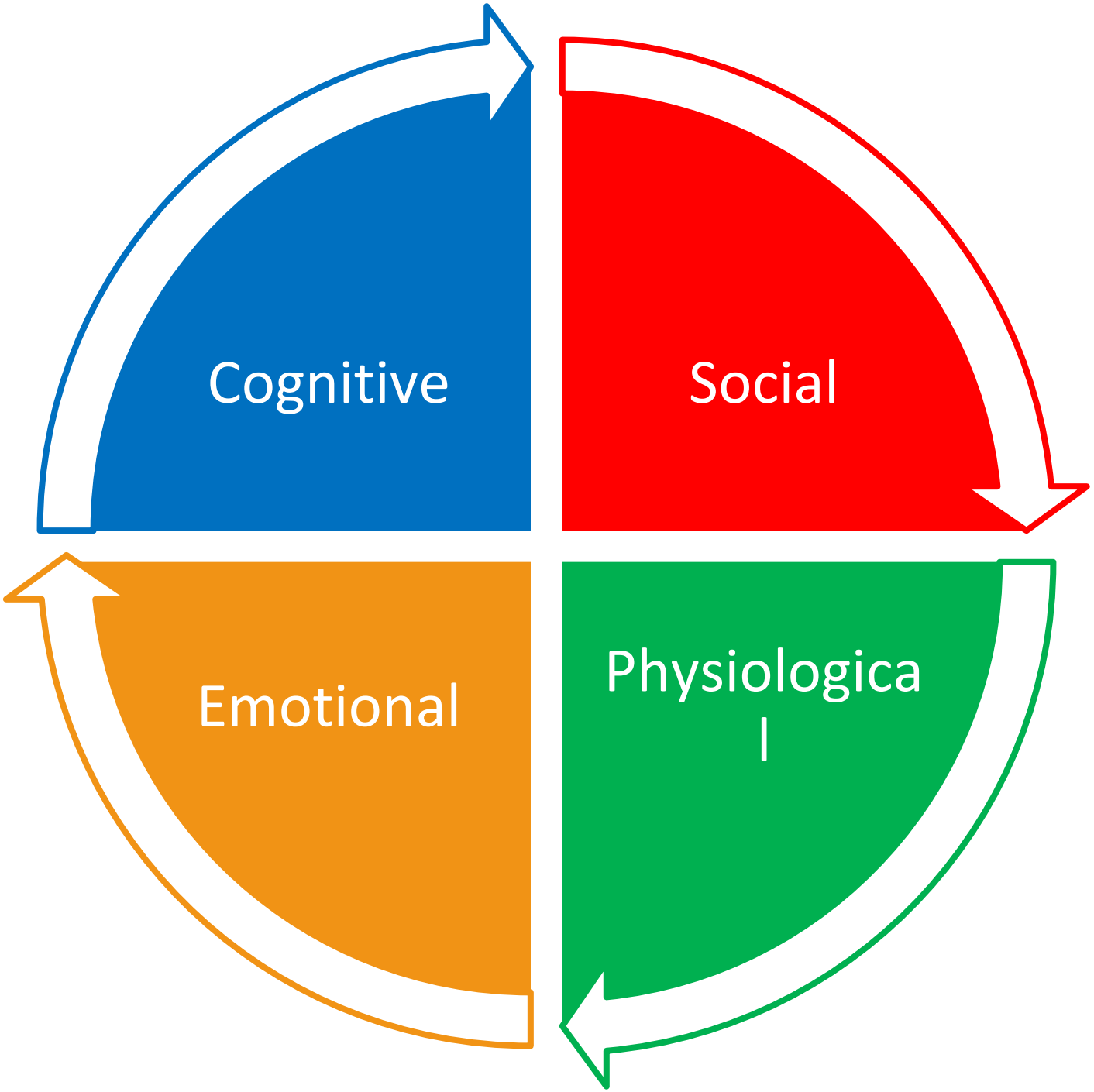
Health Disparities

Weight-Related Behaviors of Children with Obesity During the COVID-19 Pandemic (Duke University)

- 51 parents given semi-structured interviews
- Mean age 9.7
- African American (46%), Hispanic (39%)
- Low Income (62%)
- **Increase in leisure-based screen time, corresponding to sleeping later and waking up later**
- Increased snacking and more meals consumed
- Some kids had less physical activity with loss of structure, while others had more

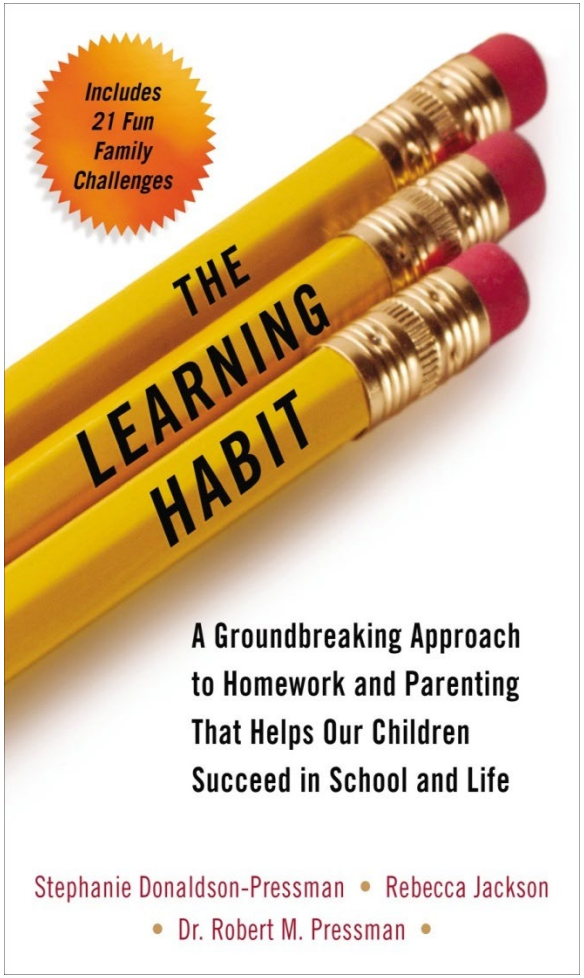
Income, Race and its Association with Obesogenic Behaviors of U.S. Children and Adolescents, NHANES 2003-2006

- 3551 children and adolescents
- Mean age 13.1 years
- Demographics: 37% Hispanic, 27% White, 35% African American
- **Increase screen time associated with low-income households** as compared to medium or high-income households
- **Race/Ethnicity by Income Interactions** for Hispanic and African American Youth with Screen Time


Cognitive
Social
Emotional
Physiologica
l

What Are the Negative Effects of Increased Screen Time?

Pressman RM, Owens JA, Evans AS, et al. "Examining the Interface of Family and Personal Traits, Media, and Academic Imperatives Using the Learning Habit Study." *The American Journal of Family Therapy*. 2014 Oct. 42(5):347-363.



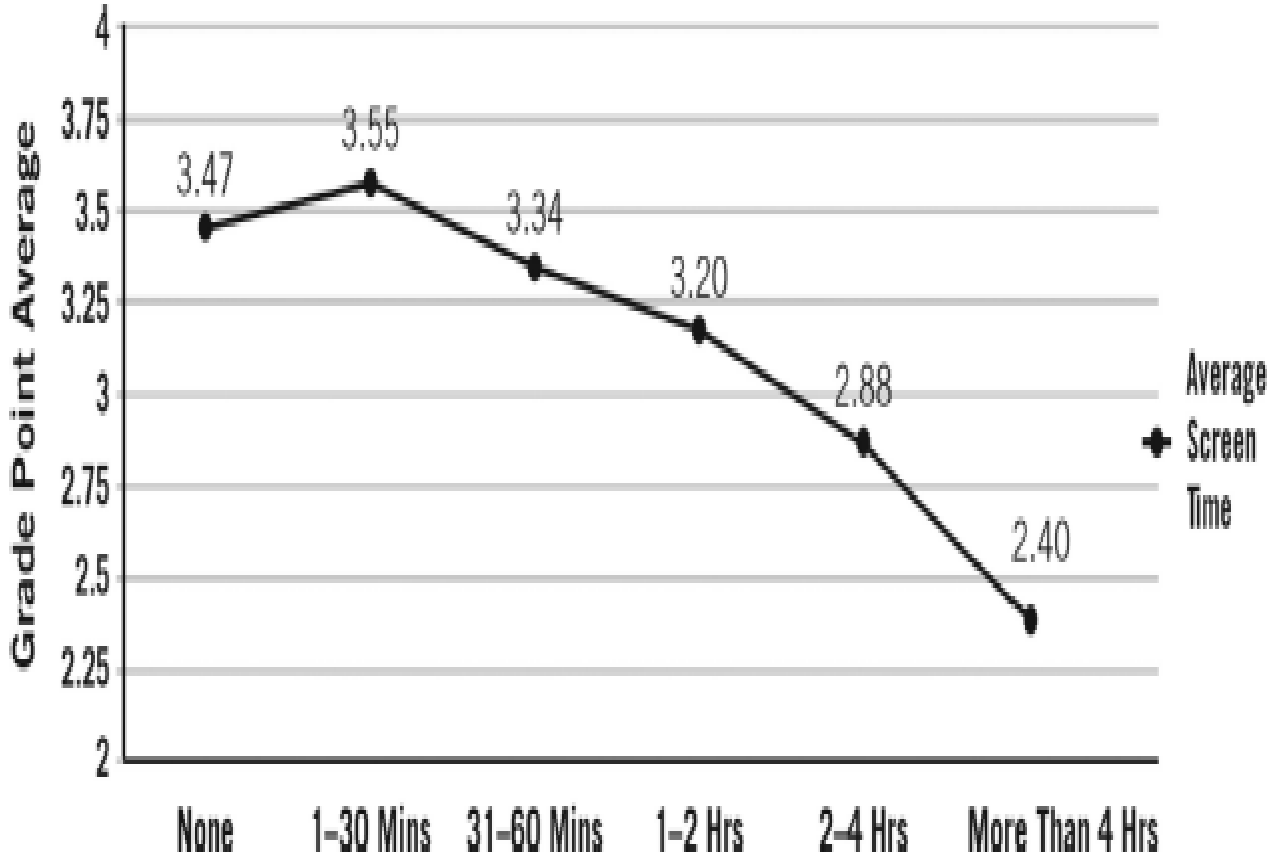
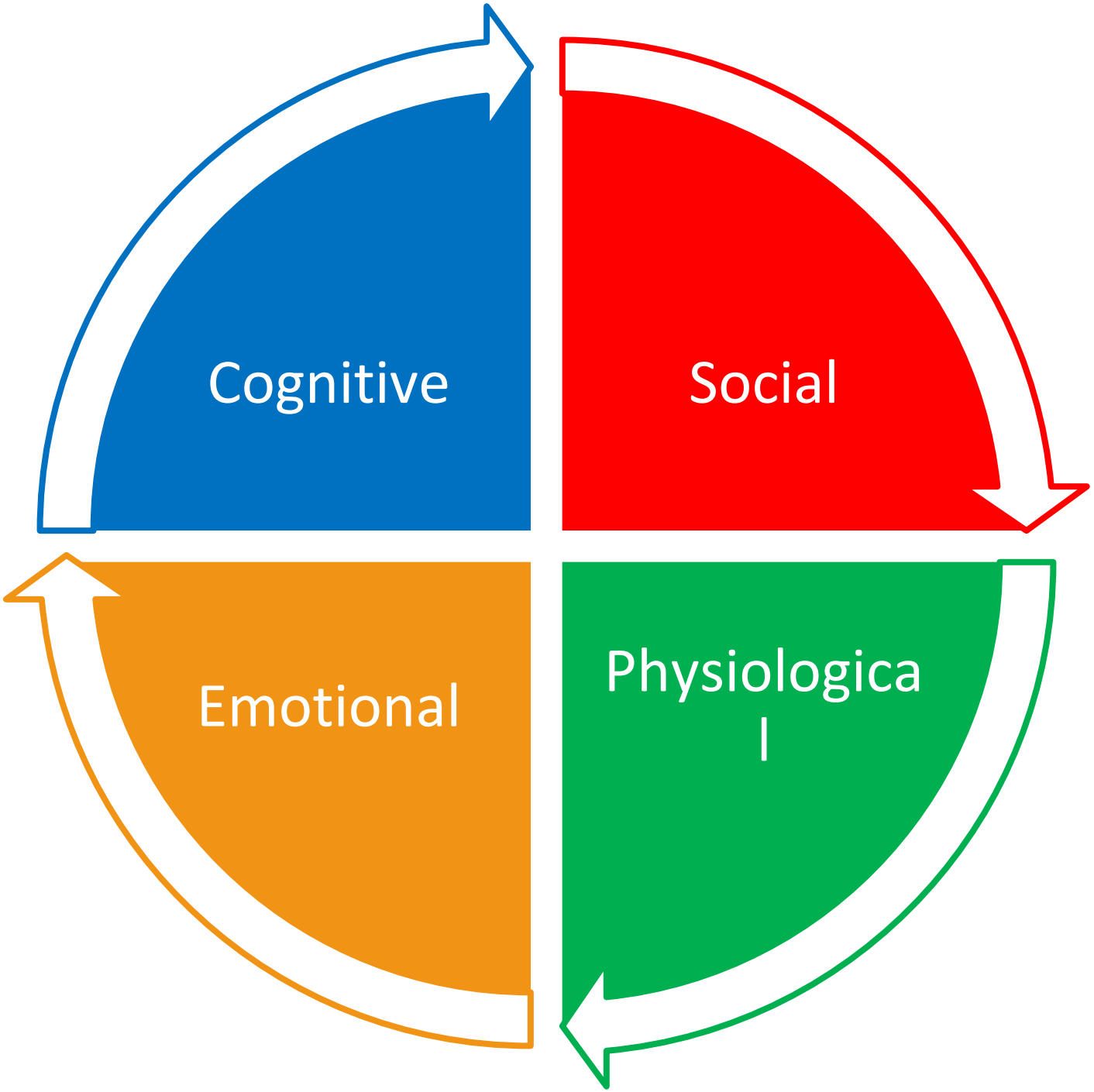


FIGURE 1 Grade point averages by screen time per day for children in secondary school.

Published in: Robert M. Pressman; Judith A. Owens; Allison Schettini Evans; Melissa L. Nemon; *The American Journal of Family Therapy* **2014,** 42, 347 363.
DOI: 10.1080/01926187.2014.935684


Cognitive
Social
Emotional
Physiologica
l

Correlations Between Extended Screen Time and General Pediatric Health

↑ screen time → ↓ activity → ↑ obesity (DM, sleep apnea)

Heavy media use in preschool children is significantly correlated with increases in **BMI** (Cox 2012).

A study of 2 year olds found that **BMI** increases for every hour of media consumed throughout the week (Wen 2014).

*Preliminary studies are being conducted using smartphone technology to fight obesity and increase fitness (Lubans 2016), but much more evidence to the contrary, and lose social benefit of in-person activities

2 hours of tablet exposure prior to bed resulted in significantly ***decreased melatonin levels*** in teens and young adults (Wood 2013); however, a significant confound for stimulation effect in phones

Poor Sleep Correlated To…

Obesity (Li 2017)

Early Onset Type-2 DM (Gurnani 2015)

Cardiopulminary Disease (Gurnani 2015)

Difficulty Performing on Cognitive Tests (Sadeh 2002)

-Continuous Performance Test

-Symbol-Digit Substitution Test

Behavioral Problems (Sadeh 2002)

"Psychiatric Symptoms" and Externalizing Symptoms (Sadeh 2002)

Social Problems (Velten-Schurian 2010)

Self-Harm Behaviors (Singareddy 2013)

In Adolescents: decline in psychosocial health, school performance, and an increase in risk-taking behaviors including nicotine and marijuana use (Schochat 2014)

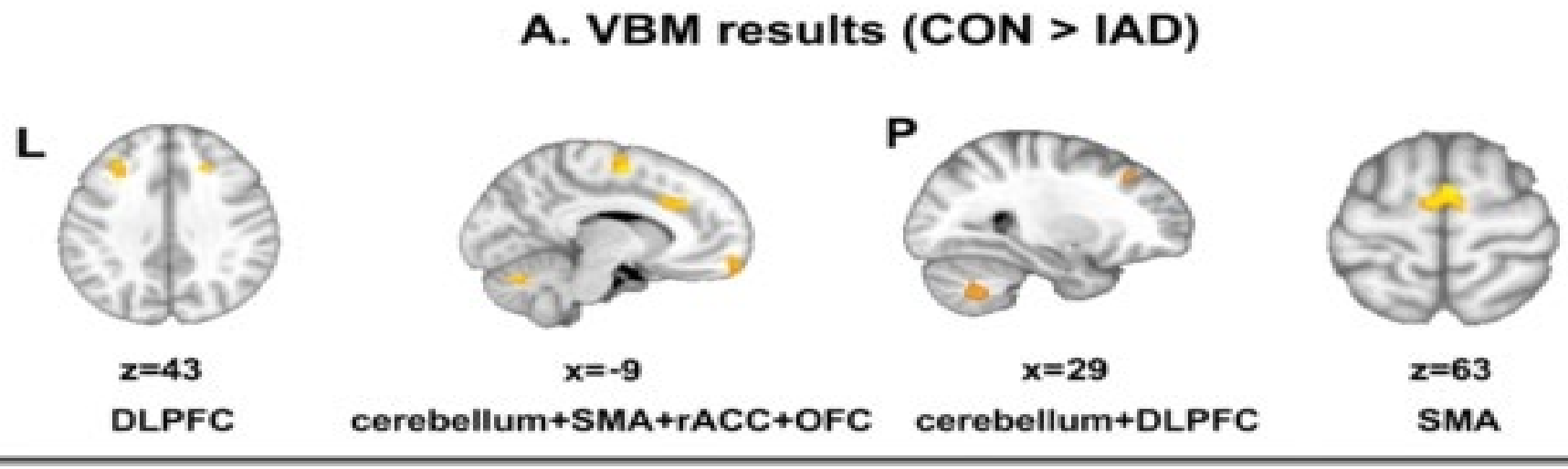
Extremely Extended Media Time: Internet Gaming Disorder

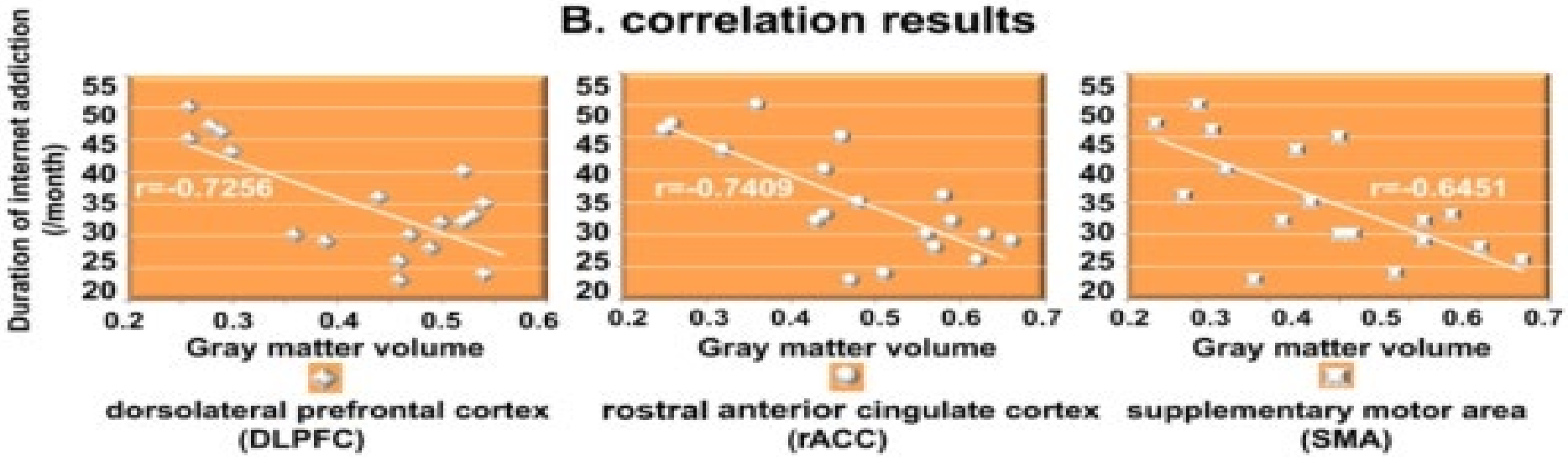
Internet Addiction (DSM-V "Conditions for Further Study")

Compulsive-impulsive and excessive internet ***use to the point of serious impairment in functioning, associated with loss of sense of time and/or neglecting basic drives***

As in other addictions, includes withdrawal/tolerance and negative impact in multiple domains

Decreased Gray Matter in Internet Addiction (Yuan 2013)





Decreased Gray Matter in Internet Addiction

Orbitofrontal Cortex (Weng 2013, Yuan 2011)

Bilateral Dorsolateral Prefrontal Cortex (Yuan 2011)

Left Insula (Zhou 2011)

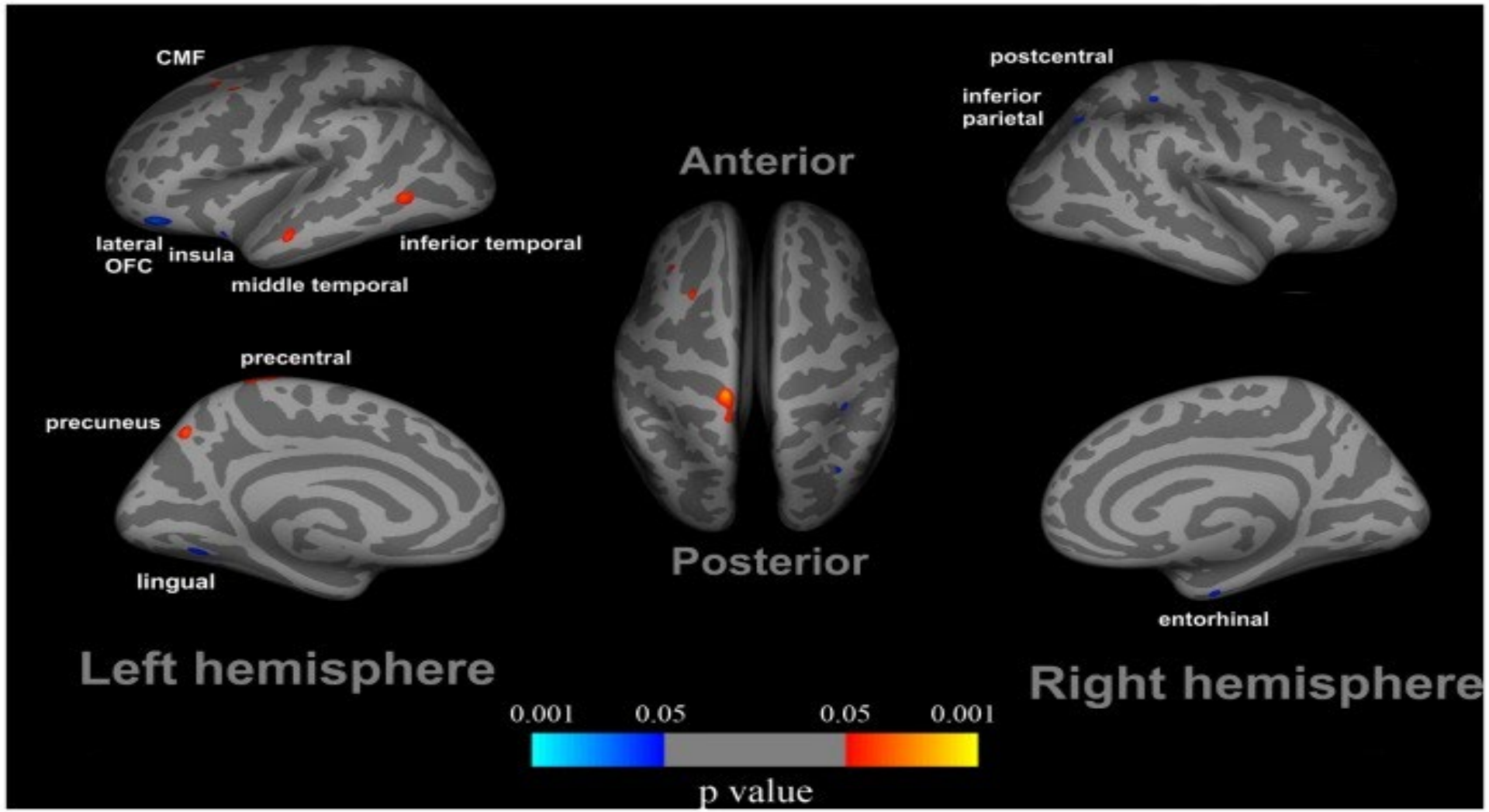
Supplementary Motor Area (Weng 2013, Yuan 2011)

Left Lingual Gyrus (Zhou 2011)

Cerebellum (Yuan 2011)

Left Anterior/Posterior Cingulate Cortex (Yuan 2011, Zhou 2011)

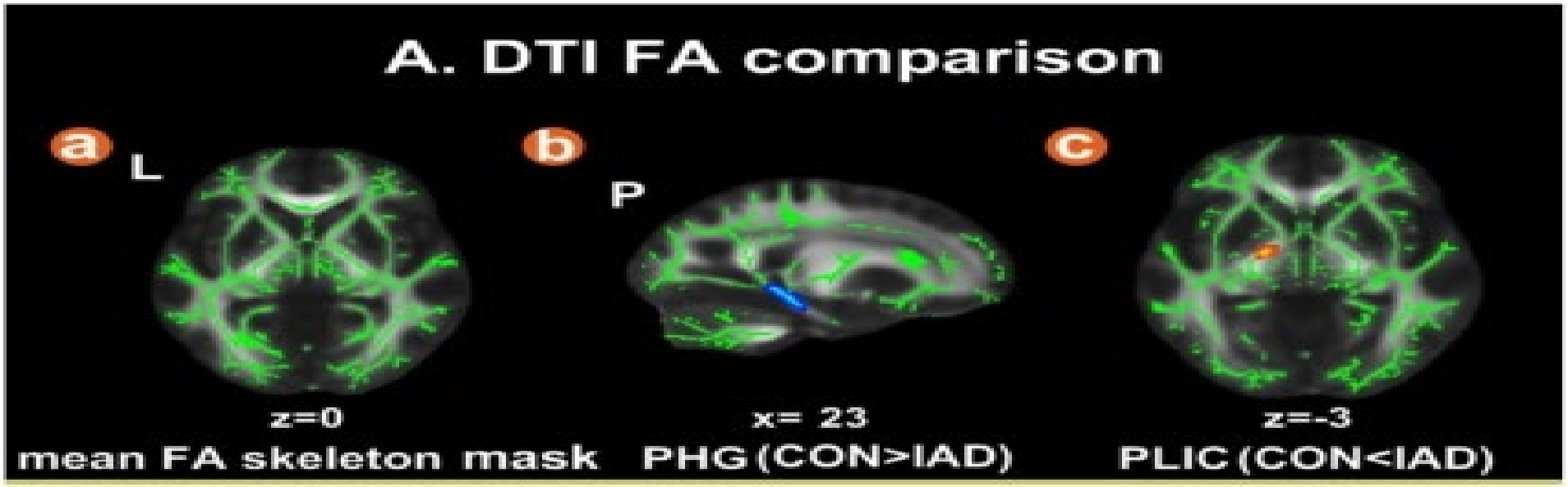
Changes in Cortical Thickness in Internet Addiction (Yuan 2013)

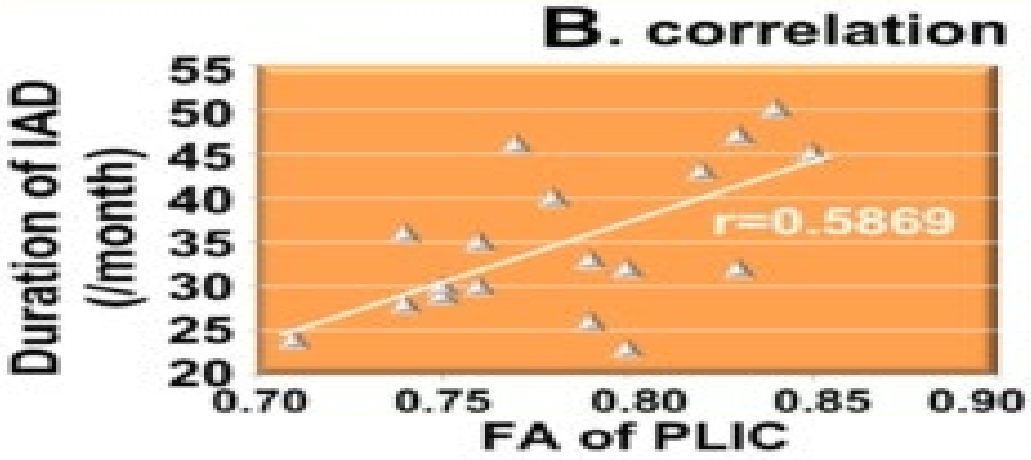


Changes in Cortical Thickness in Internet Addiction

↓ in Left Lateral Orbitofrontal Cortex (Weng 2013)
↓ in Right Lateral Orbitofrontal Cortex (Hong 2013)
↓ in Insula (Yuan 2013)
↓ in Lingual Gyrus (Yuan 2013)
↓ in Right Post-Central Gyrus (Yuan 2013)
↓ in Entorhinal Cortex (Yuan 2013)
↓ in Inferior Parietal Cortex (Yuan 2013)
↑ in Left Precentral Cortex (Yuan 2013)
↑ in Precuneus (Yuan 2013)
↑ in Middle Frontal Cortex (Yuan 2013)
↑ in Inferior/Middle Temporal Cortex (Yuan 2013)

White Matter Changes on DTI in Internet Addiction (Yuan 2011)





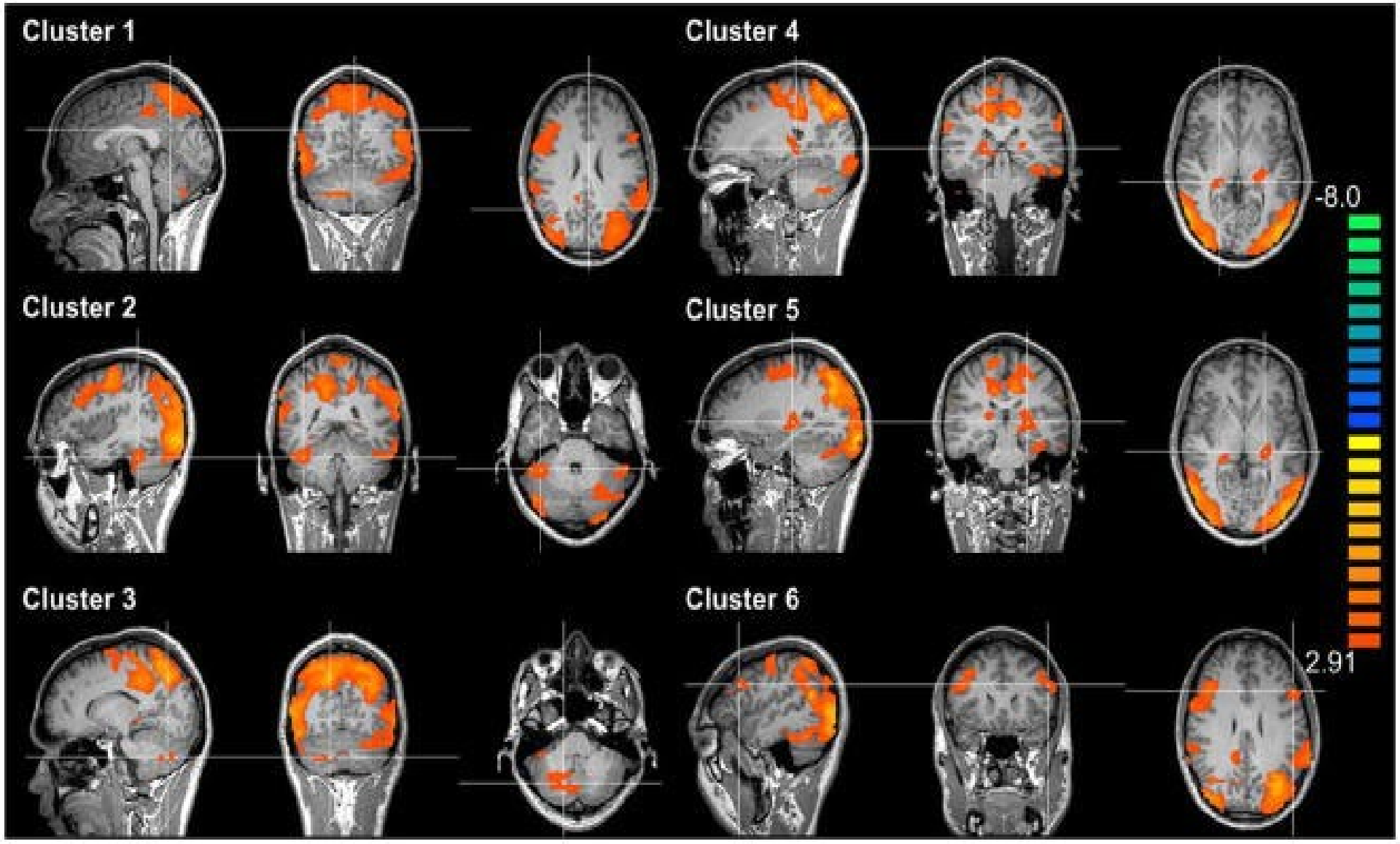
PHG:
parahippocampal gyrus

PLIC:
posterior limb of
the internal capsule

White Matter Changes (Fractional Anisotropy) in Internet Addiction

↓ in Orbitofrontal White Matter (Lin 2012)
↓ in Inferior Fronto-Occipital Fasciculus (Lin 2012)
↓ in Cingulum (Lin 2012)
↓ in Right Genu of Corpus Callosum (Weng 2013)
↓ in Left Genu of Corpus Callosum (Lin 2012)
↓ in Corona Radiata (Lin 2012)
↓ in Right External Capsule (Weng 2013)
↓ in Bilateral Frontal Lobe (Weng 2013)
↓ in Internal and External Capsules (Lin 2012)
↓ in Inferior Parietal Cortex (Yuan 2011)
↑ in Left Posterior Limb of Internal Capsule (Yuan 2011)

fMRI Findings in Internet Addiction (Han 2011)



Increased Activation on fMRI in Internet Addiction

*Tasks performed while engaging in media content

Right Orbitofrontal Cortex (Ko 2009)
Right Dorsolateral PFC (Ko 2009)
Left Inferior Frontal Gyrus (Han 2011)
Right Medial Frontal Lobe (Han 2011)
Bilateral Medial Frontal Cortex (Ko 2009)
Bilateral Anterior Cingulate Cortex (Ko 2009)
Right/Left Frontal Precentral Gyrus (Han 2011)
Left Parietal Precuneus Gyrus (Han 2011)
Left/Right Parahippocampal Gyrus (Han 2011)
Right Parietal Post-Central Gyrus (Han 2011)
Left/Right Thalamus (Han 2011)
Right Nucleus Accumbens (Ko 2009)
Right Caudate Nucleus(Ko 2009)

Increased Fluctuation on fMRI in Internet Addiction

*ALFF = Amplitude of Low Frequency Fluctuations at rest. Tasks performed while engaging in media content

Left Medial Orbitofrontal Cortex (Yuan 2013)

Left Precuneus (Yuan 2013)

Left Supplementary Motor Area (Yuan 2013)

Right Parahippocampal Gyrus (Yuan 2013)

Bilateral Middle Cingulate Cortex (Yuan 2013)

TRYING THE STROOP EFFECT YOURSELF

blue orange green red purple

red purple blue orange green

green red purple blue orange

red blue green orange purple

Impairment in Task Performance in Internet Addiction

Deliberation Time:

↑ Left Striatal Gray Matter (Kuhn 2011, correlated with **longer deliberation time** on tasks)

Stroop Performance:

-↑ fluctuation in Left Medial Orbitofrontal Cortex correlated with Stroop Performance (Yuan 2013)

-**Impaired Stroop task performance** correlated to **↓ Cortical Thickness of OFC (Yuan 2013)**

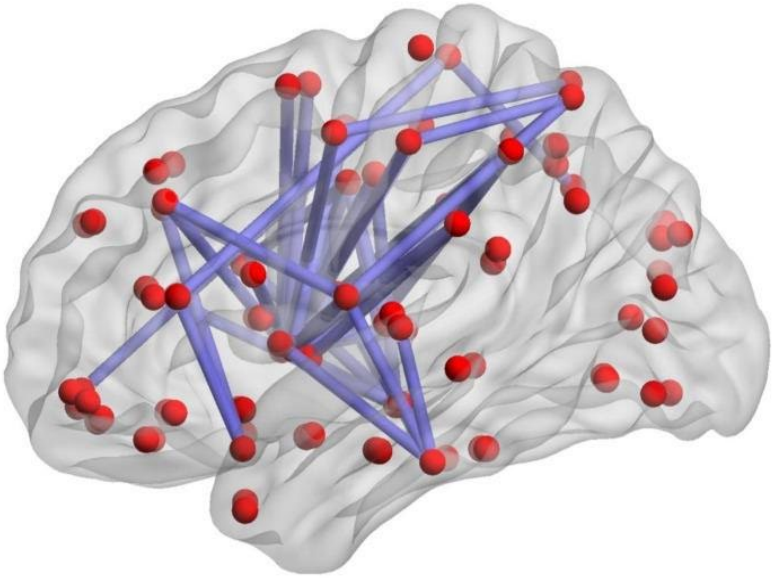
-**Impaired Stroop Performance** correlated **to fMRI changes in Anterior and Posterior Cingulate Cortex (Dong 2012)**

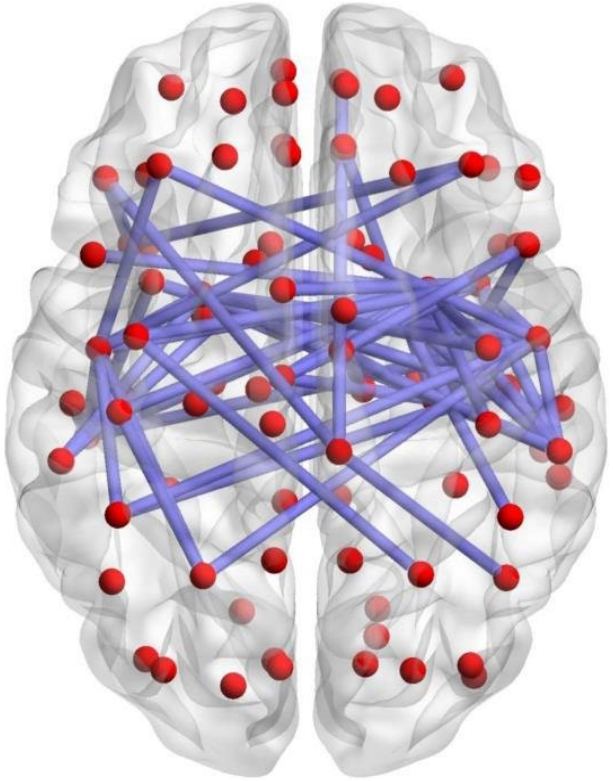
Other Neurobiological Correlates in Internet Addiction Disorder

↓cortico-striatal functional **connectivity** (24% prefrontal and 27% parietal), bilateral putamen most extensively involved subcortical brain region (Hong 2013)

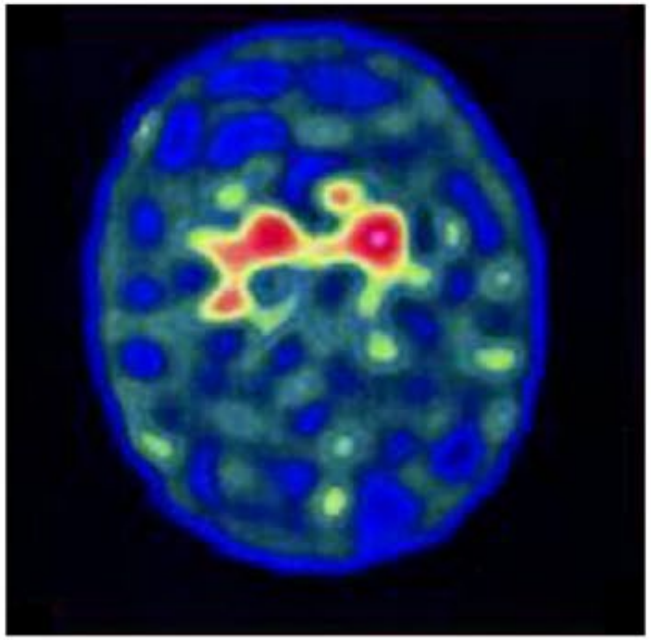
↓**striatal dopamine transporters** (Hou 2012)

↓striatal dopamine (D2) transporters, bilateral dorsal caudate and right putamen also affected (Kim 2011)

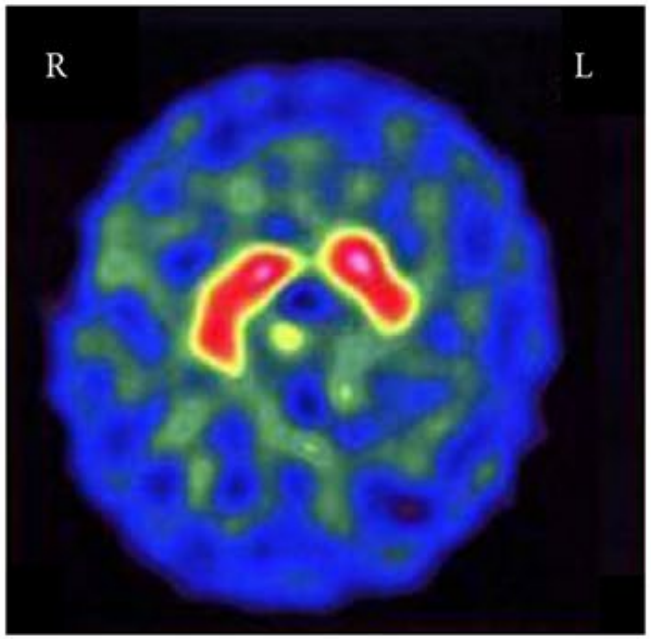




Decreased Brain Connectivity in Internet Addiction (Hong 2013)

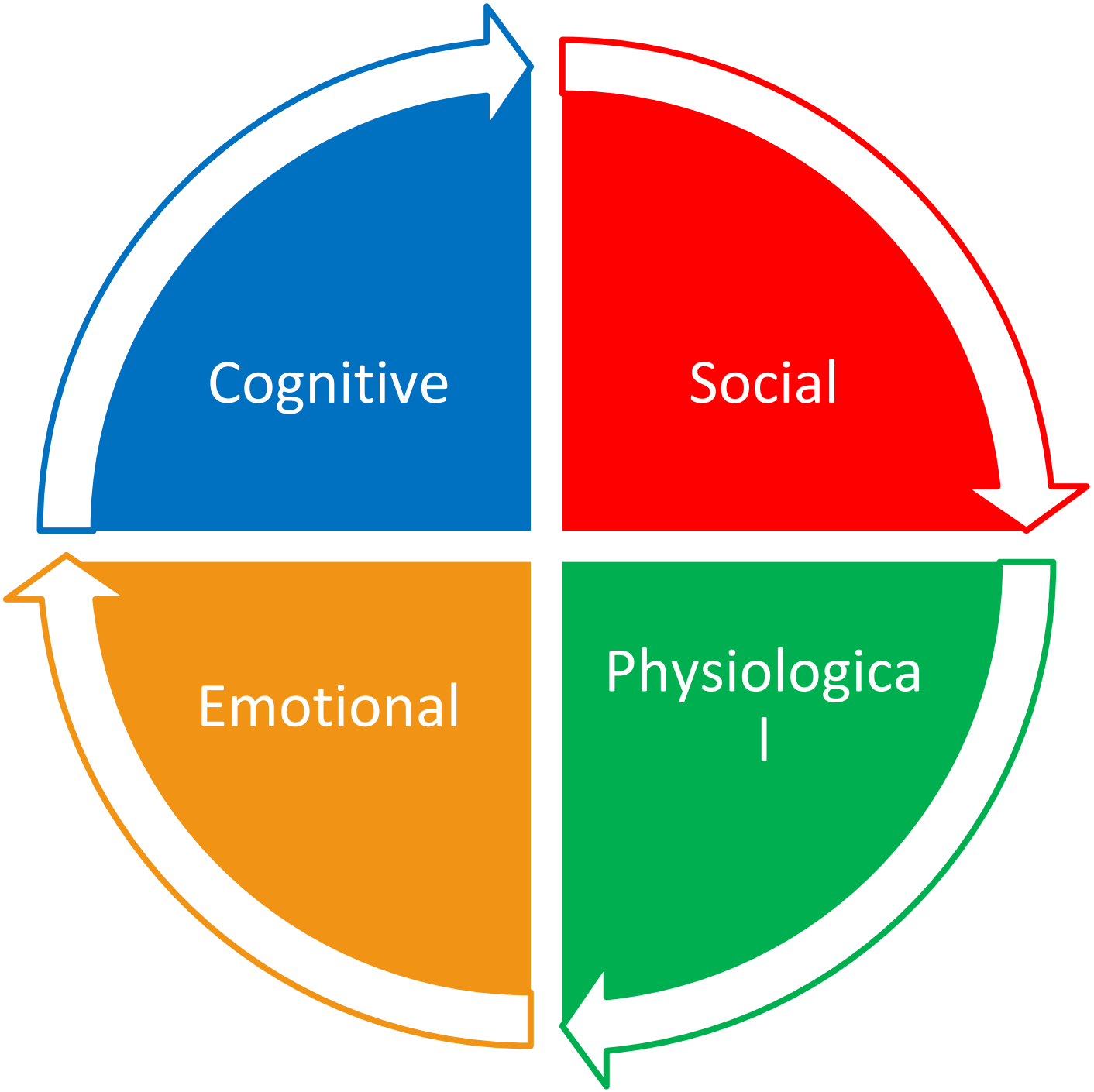


(b)



(c)

Reduced Striatal Dopamine Transporters (Hou 2012)


Cognitive
Social
Emotional
Physiologica
l

Blais 2008 (adolescents)

Increased Electronic Media Use Correlates With:

-Lower Friendship Trust

-Disrupted Communication

-Increased Rate of Peer Conflict

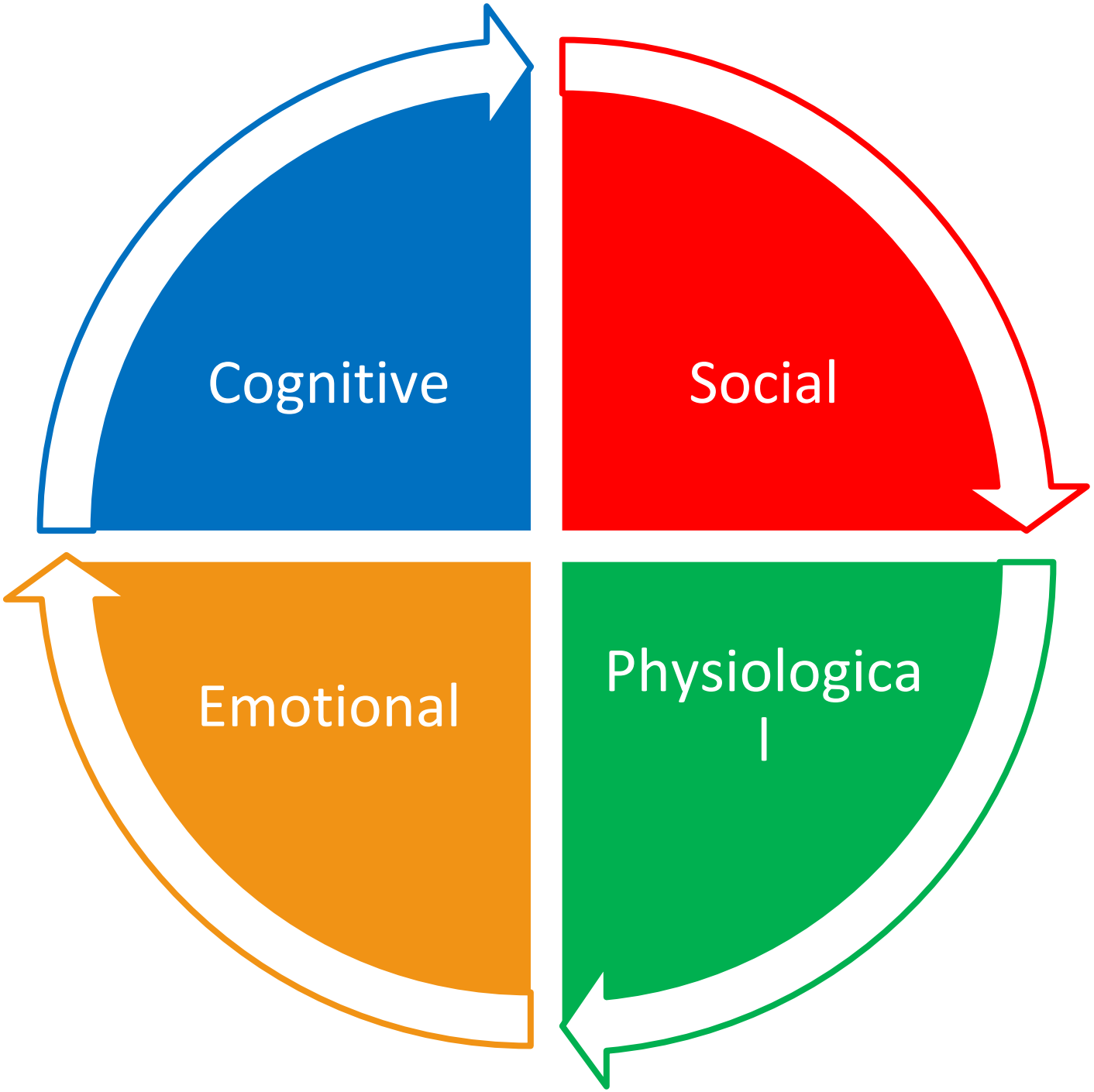
-Feeling Isolated

Interestingly, while using forms of messaging were positively associated with quality relationships, chat rooms and video games predicted decreased quality relationships

Valkenburg 2007

Communicating online with existing friends positively impacted the closeness of existing "real world" relationships

Communicating online with strangers, or engaging online independently, did not improve the quality of existing "real world" relationships


Cognitive
Social
Emotional
Physiologica
l

Correlations Between Extended Media Time and Emotional Functioning

American Academy of Pediatrics (AAP) Media Toolkit:

Extremes of Internet Use (Too Much or None) and Passive Social Media Use Correlated with:

-**Increased Depression**

-Decreased Life Satisfaction

Cyberbullying (Nixon 2014)

Adolescent Victims Report Increased:

-Depressive Affect

-Anxiety

-Loneliness, Decreased Self-Esteem

-Fewer Friendships, Decreased Trust, Decreased School Attachment

-Hopelessness/Powerlessness

-**Suicidal Ideation/Behavior**

-Somatic Symptoms

Cyberbullying (Nixon 2014)

Perpetration of Cyberbullying Correlated With:

-Substance Use

-Aggression

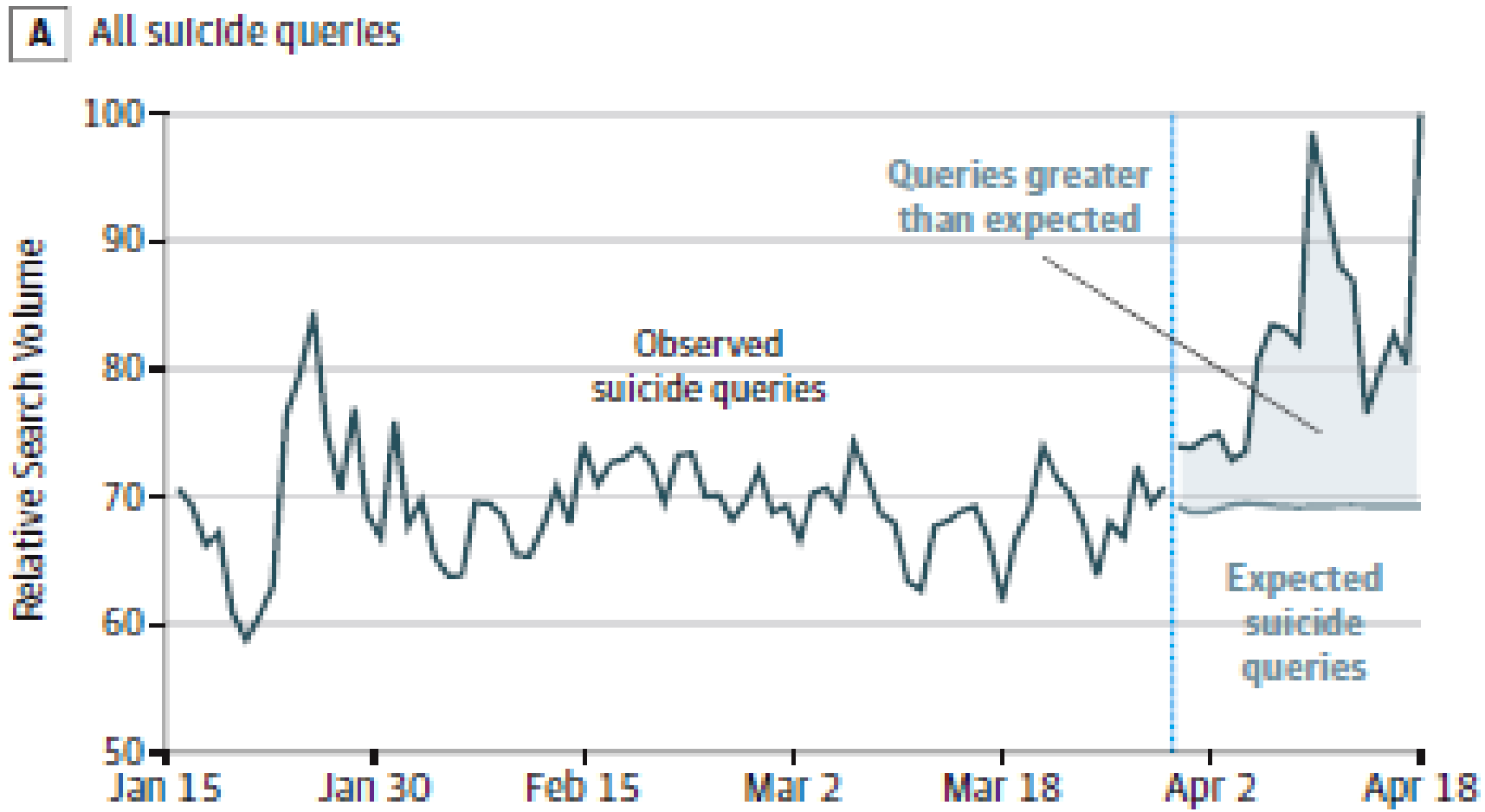
-Delinquent behaviors

Of note, many perpetrators of cyberbullying also report being victims of cyberbullying.

Some data suggests that individuals identifying as both perpetrators and victims have the worst overall outcomes

Content Matters

Figure. Internet Searches Following the Release of *13 Reasons Why*



Comparison of expected internet suicide queries to actual queries following 13 Reasons Why

Ayers et al.,JAMA Internal Medicine, on line, 7/31/2017
Slide courtesy of Gabrielle Carlson, M.D.

Impact of 13 Reasons Why (Ayers 2017)

900,000 to 1,500,000 more suicide related searches than expected in the 19 days following the show's release

All suicide related queries were up **19%**, including a **26%** increase in "how to commit suicide" and an **18%** increase in "how to kill yourself"

However, queries for suicide hotlines and suicide prevention also increased at **12%** and **23%** respectively

Slide courtesy of Gabrielle Carlson, M.D.

Revisiting the Werther Effect in the 21st Century: Bullying and Suicidality Among Adolescents Who Watched *13 Reasons Why*

Aline Zimerman, HSD • Arthur Caye, MD • André Zimerman, MD • Giovanni A. Salum, MD, PhD • Ives C. Passos, MD, PhD • Christian Kieling, MD, PhD

- n = 21,062
- Predominantly Female, mean age 15.92
- 65.6% had a history of depression, and 64.5% had a lifetime history of suicidal ideation (SI), 78.7% had suffered from bullying
- + Prior SI Group: **16.5% expressed more SI** and **59.2% reported less SI** after watching the show
- - Prior SI Group: **6.4% reported new onset SI after watching the show**

Association Between the Release of Netflix's *13 Reasons Why* and Suicide Rates in the United States: An Interrupted Time Series Analysis

Jeffrey A. Bridge, PhD • Joel B. Greenhouse, PhD • Donna Ruch, PhD • ... Lisa M. Horowitz, PhD, MPH • Kelly J. Kelleher, MD • John V. Campo, MD • Show all authors

- Complex forecasting models used to assess monthly suicide rates among 3 ages groups
- Compared pre and post airing of the show
- After accounting for seasonal effects and an underlying increasing trend, found **suicide rate among 10-17 year olds increased significantly (28.9%) in the month immediately following release of show – the highest in 5 years**
- Suicide rate remained elevated in the two subsequent months relative to forecasted rates

13 Reasons Why Not

https://www.youtube.com/watch?v=3tgMaFg18H8

The emerging data regarding the influence of the Internet and social media on suicide behavior suggest that these forms of technology may introduce new threats to the public but also new opportunities for assistance and prevention. The initiative #13reasonswhynot is a great example of a "postvention" project originating in Michigan's Oxford High School, in which students talk about their personal challenges in recordings similar to those of the show; but instead of blame, each student shares messages of gratitude and hope. The project has been promoted on social media, was replicated and used by various suicide prevention agencies, and appeared in news reports.

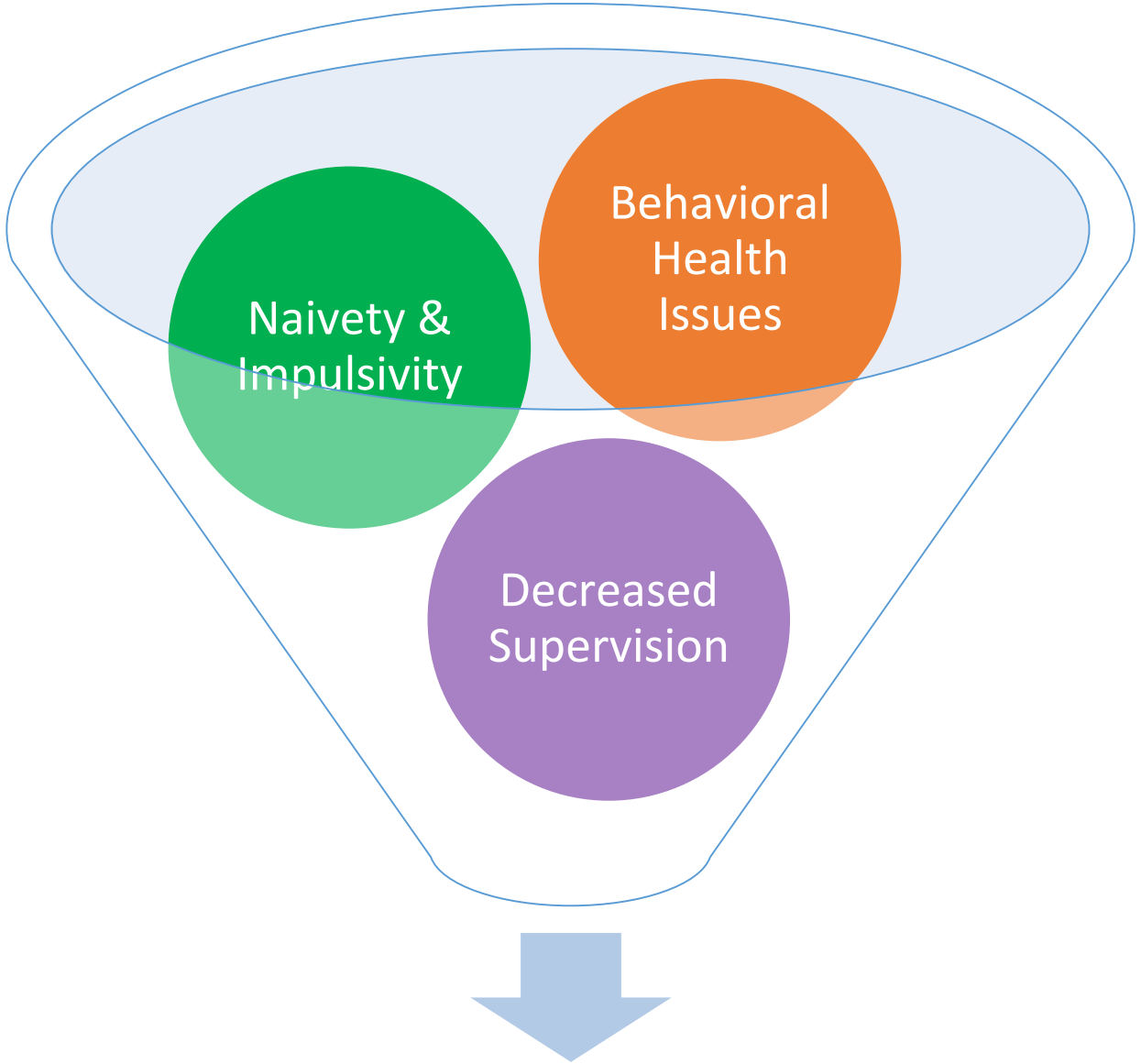
Credit to Gabrielle Carlson, M.D

Feuer and Havens, JAACAP , 2017

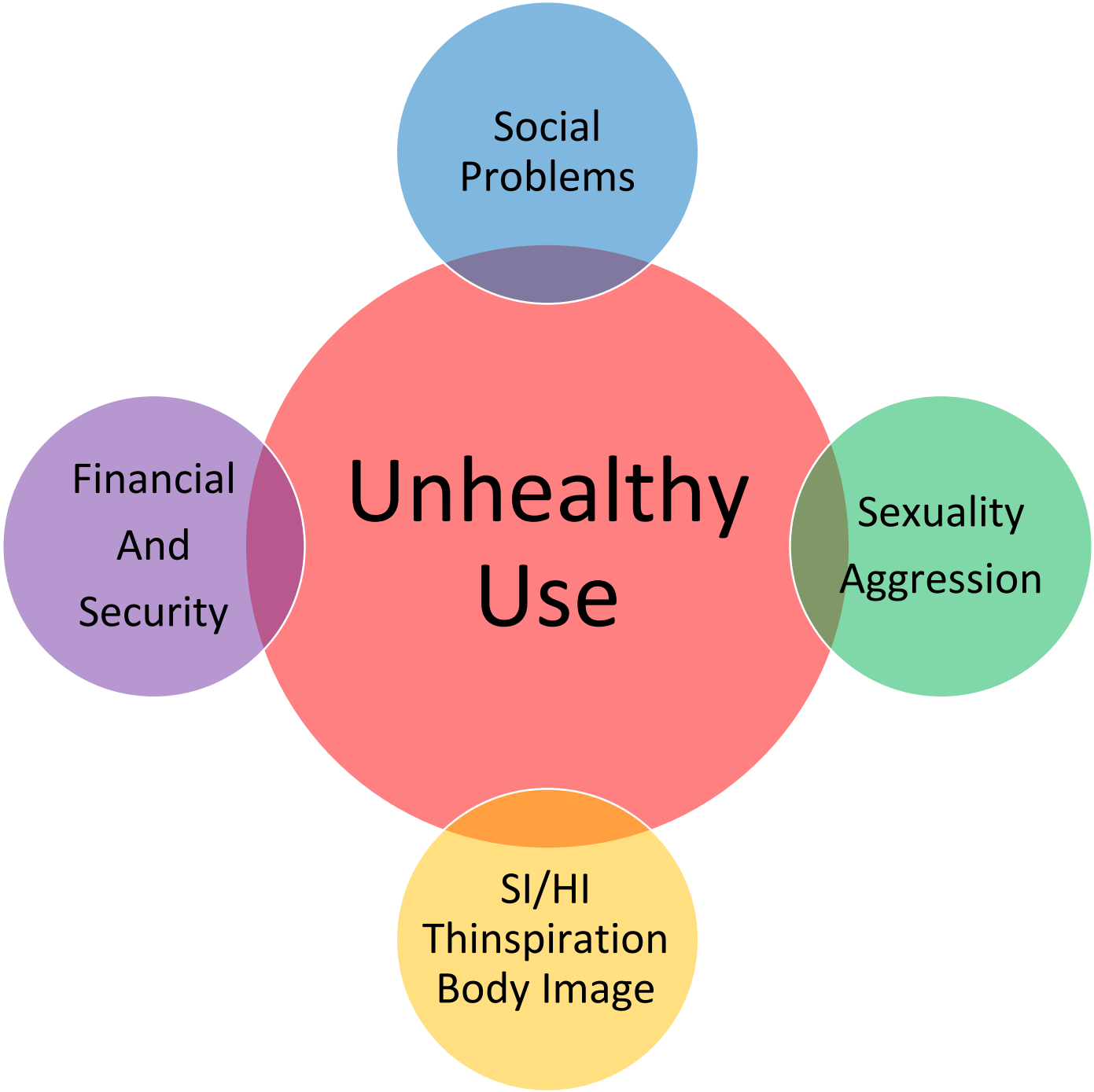
Violent Media & Aggression

- >100 experimental, longitudinal, & correlational studies demonstrate link
  (Anderson, '10, Greitmeyer '14, Exelmans '15, & Ferguson '15)
- Desensitization
- Increase aggressive thoughts
- Increase aggressive behaviors
- Effect size small ~0.15

Credit to Paul Weigle, M.D



Recipe for Unhealthy Teen Social Media Use


Social Problems
Financial And Security
Unhealthy Use
Sexuality Aggression
SI/HI
Thinspiration
Body Image

What is a Clinician To Do? How Can We Help Families?

Links to Practical Resources

- ***AAP Family Media Plan:*** https://www.healthychildren.org/English/media/Pages/default.aspx
- ***Common Sense Media****: https://www.commonsensemedia.org/*
- ***AAP Family Media Plan*****:** https://www.healthychildren.org/English/media/Pages/default.aspx
- ***AACAP Facts for Families:*** https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/Layout/FFF_Guide-01.aspx
- ***AACAP Facts for Families Internet Use in Children:*** https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-Online-059.aspx
- ***AACAP Facts for Families Listening to Music and Watching Music Videos:*** https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Influence-Of-Music-And-Music-Videos-040.aspx
- ***AACAP Facts for Families Movies, Media, and Children:*** https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-And-Movies-090.aspx
- ***AACAP Facts for Families News and Children:*** https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-And-The-News-067.aspx
- ***AACAP Facts for Families Screen Time and Children:*** https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-And-Watching-TV-054.aspx
- ***AACAP Facts for Families Social Media and Teens:*** https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Social-Media-and-Teens-100.aspx
- ***AACAP Facts for Families TV Violence and Children:*** https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-And-TV-Violence-013.aspx
- ***AACAP Facts for Families Video Games and Children: Playing with Violence:*** https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-and-Video-Games-Playing-with-Violence-091.aspx

Table 4
Taking an electronic screen media history

Quantitative	Qualitative
Hours per week and day	Activity (eg, offline games, online games, social media, email, YouTube, school work)
Hours per week and day	Type of games (if applicable): individual, online, role-player
Length of time between last use of ESM and going to bed	Emotional reaction of the child to parents setting limits on ESM

Table 2
Risk factors potentially leading to negative outcomes for youth with ASD using electronic screen media

Home/Parent Factors	Child Factors	Negative Outcomes
• Inconsistent parenting • Parental coercion and spanking • Exposure to inappropriate media • Heavy parental use • Constant media background noise • Screen as pacifier	• Temperament • Externalizing behaviors • Self-regulation and social-emotional problems • Difficulty disengaging • Resistance to limit setting • ASD-related barriers	• Increased child screen time • Decreased executive functioning in child • Decreased verbal and nonverbal parent-child interaction • Poorer family functioning • Decreased child play/ development

Table 3
Summary of recommendations from American Academy of Child and Adolescent Psychiatry Facts for Families guide on use of electronic screen media in children and adolescents and the American Academy of Pediatrics Media and Communication Toolkit for Families Recommendations

0–18 mo	18–24 mo	2–5 y	6–12 y	Adolescents
• Avoid screens completely • Hands-on activities with human engagement facilitate normal cognitive, motor, language, and social-emotional development • Most time should be spent in hands-on activities without media in the child's environment	• Most time should be spent in hands-on activities without media • Very brief intervals • Focus on high-quality educational programming • Parents watch with children and explain content	• Most time should be spent in hands-on activities without media • <1 h per day • Still emphasize educational and age-appropriate programming • Parent still watch with children and explain content	• Consistent time limits • Limit types of media • Monitor sleep, physical activity, and behavioral health effects • Screen-free zones: bedroom, dinner table • Screen-free times: meals, bedtime, family interaction	• <2 h per day • Media-free zones and times • Ongoing education and communication • Parental supervision and limit setting • Parental modeling of healthy use • Limit media use when doing homework

Data from American Academy of Child and Adolescent Psychiatry Facts for Families: Children and screen time. Available at: https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-And-Watching-TV-054.aspx. Accessed November 10, 2017; and AAP Council on Communications and Media. Media use in school-aged children and adolescents. Pediatrics 2016;138(5):[pii:e20162592].

Internet Use in Children

No. 59; Updated October 2015

AACAP Facts for Famili

The internet is fast becoming trusted by both children and adults as reliable and accurate sources of information. Through the internet children now have access to an almost endless supply of information and opportunity for interaction. However, there can be real risks and dangers for an unsupervised child.

Most online services give children resources such as encyclopedias, current events coverage, and access to libraries and other valuable material. They can also play games and communicate with friends on social media platforms like Facebook, Twitter, Snapchat, etc. The ability to "click" from one area to another appeals to a child's natural impulsivity and curiosity and needs for immediate gratification or feedback.

Most parents teach their children not to talk with strangers, not to open the door if they are home alone, and not to give out information on the telephone to unknown callers. Most parents also monitor where their children go, who they play with, and what TV shows, books, or magazines they are exposed to. However, many parents don't realize that the same level of guidance and supervision must be provided for a child's online experience.

Parents cannot assume that their child will be protected by the supervision or regulation provided by the online services. Most "chat rooms" and social media sites are completely unsupervised. Because of the anonymous nature of the "screen name," children who communicate with others in these areas will not know if they are "talking" with another child or a child predator pretending to be a child or teen. Unlike the mail and visitors that a parent sees a child receive at home, e-mail or "chat room" activity is not seen by parents. Unfortunately, there can be serious consequences to children who have been persuaded to give personal information, (e.g. name, passwords, phone number, email or home address) or have agreed to meet someone in person.

Some of the other risks or problems include:

- accessing areas that are inappropriate or overwhelming
- being exposed to online information that promotes hate, violence, and pornography
- being misled and bombarded with intense advertising
- being invited to register for prizes or to join a club when they are providing personal or household information to an unknown source
- losing time from developing real social skills and from physical activity and exercise
- revealing too much personal information on social media sites
- being bullied on social media sites

In order to make a child's online experience more safe and educational, parents should:

- limit the amount of time a child spends online and "surfing the web"
- teach a child that talking to "screen names" in a "chat room" is the same as talking with strangers
- teach a child never to give out any personal identifying information to another individual or website online
- teach a child to never agree to actually meet someone they have met online
- never give a child credit card numbers or passwords that will enable online purchases or access to inappropriate services or sites
- remind a child that not everything they see or read online is true
- make use of the parental control features offered with your online service, or obtaining commercially available software programs, to restrict access to "chat lines," news groups, and inappropriate websites
- provide for an individual e-mail address only if a child is mature enough to manage it, and plan to periodically monitor the child's e-mail and online activity
- monitor the content of a child's personal webpage and screen name profile information
- teach a child to use the same courtesy in communicating with others online as they would if speaking in person -- i.e. no vulgar or profane language, no name calling, etc.
- insist that a child follow the same guidelines at other computers that they might have access to, such as those at school, libraries, or friends' homes

Parents should remember that communicating online does not prepare children for real interpersonal relationships. Spending time with a child initially exploring an online service and periodically participating with a child in the online experience gives parents an opportunity to monitor and supervise the activity. It is also an opportunity to learn together.

Return to Table of Contents

Media Time Calculator

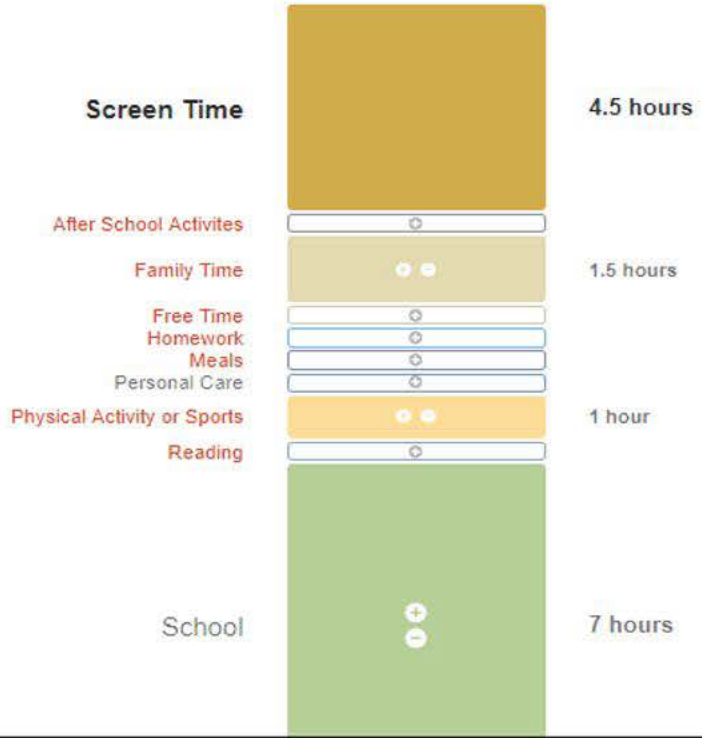
Instructions: Look through the categories below & add the amount of time, if any, your child spends on each activity. You can also add categories of your own. The calculator is already set with the recommended number of hours for sleep & physical activity. Once complete, you will be able to see how much time your child has left for screen time each day.

To find this information in Spanish, click here.

Gia

2-5 years

Add your own category



Screen Free Zones

Having areas of your home remain screen-free is important. Select from the list below & add them to your Family Media Plan to make sure your children understand w

APA Family Media Guide

Gia

2-5 years

Mobile devices & TVs are not allowed in the following screen-free zones in our home:

- [ ] Kitchen or dining room table
  - Keep family mealtimes & other family & social gatherings tech-free.

- [ ] Bedroom

  Recharge devices overnight - outside your child's bedroom
  - incoming messages & calls can interfere with your child's sleep
  - help children avoid the temptation to use or check devices when they should be sleeping
  - emitted light from devices charging may still effect the quality of your child's sleep

- [ ] Stroller

- [ ] Type your own

Add Another

We Have Answers

Kids of all ages are swiping and scrolling, totally transfixed by screens of all sizes. Welcome to the new frontier of parenting. If you have questions on how to take control of the technology in your kids' lives, you came to the right place.

Is it OK for my kid to start her own YouTube channel?

YOUTUBE

Kids see YouTube as a way to express themselves, showcase their skills, and share their interests. Parents worry about the risks. With compromise on both sides, you can help kids pursue their passions while staying safe.

FAQS	ARTICLES	VIDEOS
19	21	6

How can I use media to teach my kid empathy?

CHARACTER STRENGTHS AND LIFE SKILLS

Learn more about character strengths, tips for using media to bolster them, and recommendations for media the whole family can learn from and share.

FAQS	ARTICLES	VIDEOS
97	72	6

How much screen time is OK for my kid(s)?

SCREEN TIME

Setting screen-time limits and helping kids moderate their own habits means finding the right balance for your individual family.

FAQS	ARTICLES	VIDEOS
32	172	18

What should I do if my kid is bullied online?

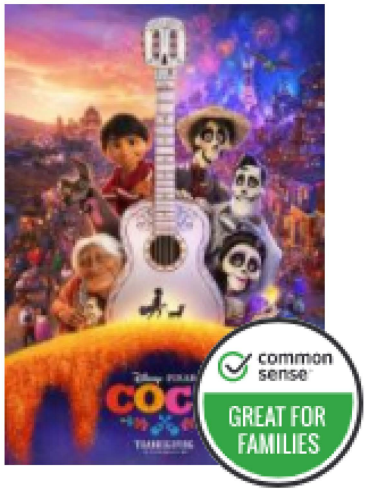
CYBERBULLYING, HATERS, AND TROLLS

Find age-specific guidelines, videos, and articles to help with tough conversations – whether your kid is a bully or is being bullied.

FAQS	ARTICLES	VIDEOS
23	12	9

Coco

Movie review by Sandie Angulo Chen, Common Sense Media



Common Sense says

age 7+

Stunningly animated, poignant tribute to family and culture.

PG | 2017 | 109 minutes

Save | Rate movie

Sign in or join to save for later

Parents say	*Kids say*
age 7+	age 6+
Based on 38 reviews	Based on 27 reviews

Get tickets on FANDANGO

A LOT OR A LITTLE?

The parents' guide to what's in this movie.

- A+ Educational value
- Positive messages
- Positive role models & representations
- Violence & scariness
- Sexy stuff
- #! Language
- $ Consumerism
- Drinking, drugs & smoking

WHAT PARENTS NEED TO KNOW

Parents need to know that *Coco* is a vibrant Disney/Pixar film that explores the traditions of the Day of the Dead, a child's desire to become a musician despite his family's wishes, and the power of unconditional love. Told from the point of view of Miguel (voiced by Anthony Gonzalez), a young boy who ends up in the Land of the Dead, the movie -- which features an all-star Latino voice cast (including Gael García Bernal and Benjamin Bratt), as well as a Latino co-director and many Latino crew members -- is a tribute to Mexican traditions and customs. The Land of the Dead contains some potentially disturbing imagery, but most kids will probably get used to all of the skeletons quickly. A few moments of life-or-death peril are fraught with tension, but none of the major characters die (at least, who aren't already dead). There's also some drinking by adult characters (a shot, cocktails at a party) and a few uses of words like "stupid." While all is well in the end, the movie can be dark and sad (as with most Pixar films, it's likely some viewers will cry), especially for those who've lost beloved relatives. But it also has powerful themes of perseverance, teamwork, and gratitude and encourages audiences to love and appreciate their family and always follow their dreams.

SUMMARY

In moderation, media use can be developmentally appropriate and healthy, and can strengthen real world relationships

There are many associations between extended media time and impairments in cognitive, physiological, social, and emotional functioning in the child and adolescent population

Healthcare providers should be taking an electronic and media screen history from their patients, and should also be educating at both a clinic level and a much broader level (schools, public policy, community outreach)

There are many resources for both Child and Adolescent Psychiatrists and for families that can be incredibly helpful in navigating what can be a tough and distracting media environment

References

- Wood B, Rea M, Plitnick B, et al. “Light Level and Duration of Exposure Determine the Impact of Self-Luminous Tablets on Melatonin Suppression.” *Applied Ergonomics*. 2013 Mar;44(2):237-40.
- Yuan, Kai, Wei Qin, Guihong Wang, Fang Zeng, Liyan Zhao, Xuejuan Yang, Peng Liu, et al. “Microstructure Abnormalities in Adolescents with Internet Addiction Disorder.” Edited by Shaolin Yang. *PLoS ONE* 6, no. 6 (June 3, 2011): e20708. doi:10.1371/journal.pone.0020708.
- Zhou, Yan, Fu-Chun Lin, Ya-Song Du, Ling-di Qin, Zhi-Min Zhao, Jian-Rong Xu, and Hao Lei. “Gray Matter Abnormalities in Internet Addiction: A Voxel-Based Morphometry Study.”*European Journal of Radiology* 79, no. 1 (July 2011): 92–95. doi:10.1016/j.ejrad.2009.10.025.
- Weng, Chuan-Bo, Ruo-Bing Qian, Xian-Ming Fu, Bin Lin, Xiao-Peng Han, Chao-Shi Niu, and Ye-Han Wang. “Gray Matter and White Matter Abnormalities in Online Game Addiction.” *European Journal of Radiology* 82, no. 8 (August 2013): 1308–1312. doi:10.1016/j.ejrad.2013.01.031.
- Yuan, Kai, Ping Cheng, Tao Dong, Yanzhi Bi, Lihong Xing, Dahua Yu, Limei Zhao, et al. “Cortical Thickness Abnormalities in Late Adolescence with Online Gaming Addiction.” Edited by Bogdan Draganski. *PLoS ONE* 8, no. 1 (January 9, 2013): e53055. doi:10.1371/journal.pone.0053055.
- Yuan, Kai, Chenwang Jin, Ping Cheng, Xuejuan Yang, Tao Dong, Yanzhi Bi, Lihong Xing, et al. “Amplitude of Low Frequency Fluctuation Abnormalities in Adolescents with Online Gaming Addiction.” Edited by Krish Sathian. *PLoS ONE* 8, no. 11 (November 4, 2013): e78708. doi:10.1371/journal.pone.0078708.
- Hong, Soon-Beom, Jae-Won Kim, Eun-Jung Choi, Ho-Hyun Kim, Jeong-Eun Suh, Chang-Dai Kim, Paul Klauser, et al. “Reduced Orbitofrontal Cortical Thickness in Male Adolescents with Internet Addiction.” *Behavioral and Brain Functions* 9, no. 1 (2013): 11. doi:10.1186/1744-9081-9-11.
- Hong, Soon-Beom, Andrew Zalesky, Luca Cocchi, Alex Fornito, Eun-Jung Choi, Ho-Hyun Kim, Jeong-Eun Suh, Chang-Dai Kim, Jae-Won Kim, and Soon-Hyung Yi. “Decreased Functional Brain Connectivity in Adolescents with Internet Addiction.” Edited by Xi-Nian Zuo. *PLoS ONE* 8, no. 2 (February 25, 2013): e57831. doi:10.1371/journal.pone.0057831.
- Lin, Fuchun, Yan Zhou, Yasong Du, Lindi Qin, Zhimin Zhao, Jianrong Xu, and Hao Lei. “Abnormal White Matter Integrity in Adolescents with Internet Addiction Disorder: A Tract-Based Spatial Statistics Study.” *PloS One* 7, no. 1 (2012): e30253. doi:10.1371/journal.pone.0030253.
- Aguilar-Farias N, Toledo-Vargas M, Miranda-Marquez S, Cortinez-O’Ryan A, Cristi-Montero C, Rodriguez-Rodriguez F, Martino-Fuentealba P, Okely AD, Cruz B. Sociodemographic Predictors of Changes in Physical Activity, Screen Time, and Sleep Among Toddlers and Preschoolers in Chile During the COVID-19 Pandemic. International Journal of Environmental Research and Public Health. 2021 Jan; 18(1): 176.
- Neshteruk CD, Zizzi A, Suarez L, Erikson E, Kraus WE, Li JS, Skinner AC, Story M, Zucker N, Armstrong SC. Weight-Related Behaviors of Children with Obesity During the COVID-19 Pandemic. Childhood Obesity. 2021 Sep;17(6):371-378.
- Ayers JW, Althouse BM, Leas EC, Dredze M, Allem JP. Internet Searches for Suicide Following the Release of 13 Reasons Why. JAMA Internal Medicine. 2017; 177:1527-1529.
- Kieling C, Zimerman A, Caye A, Zimerman A, Slum G, Passos IC. Revisiting the Werther Effect in the 21st Century: Bullying and Suicidality Among Adolescents Who Watched 13 Reasons Why. Journal of the American Academy of Child and Adolescent Psychiatry. 2018; 57: 610-613.
- Bridge JA, Greenhouse JB, Ruch D, Horowitz LM, Kelleher KJ, Campo JV. Association Between the Release of Netflix’s 13 Reasons Why and Suicide Rates in the United States: An Interrupted Time Series Analysis. Journal of the American Academy of Child and Adolescent Psychiatry. 2020 Feb: 59(2):236-243.

References

- Dong, Guangheng, Elise E Devito, Xiaoxia Du, and Zhuoya Cui. "Impaired Inhibitory Control in 'Internet Addiction Disorder': A Functional Magnetic Resonance Imaging Study."*Psychiatry Research* 203, no. 2–3 (September 2012): 153–158. doi:10.1016/j.pscychresns.2012.02.001.
- Ko, Chih-Hung, Gin-Chung Liu, Sigmund Hsiao, Ju-Yu Yen, Ming-Jen Yang, Wei-Chen Lin, Cheng-Fang Yen, and Cheng-Sheng Chen. "Brain Activities Associated with Gaming Urge of Online Gaming Addiction." *Journal of Psychiatric Research* 43, no. 7 (April 2009): 739–747. doi:10.1016/j.jpsychires.2008.09.012.
- Kühn, S, A Romanowski, C Schilling, R Lorenz, C Mörsen, N Seiferth, T Banaschewski, et al. "The Neural Basis of Video Gaming." *Translational Psychiatry* 1 (2011): e53. doi:10.1038/tp.2011.53.
- Han, Doug Hyun, Nicolas Bolo, Melissa A. Daniels, Lynn Arenella, In Kyoon Lyoo, and Perry F. Renshaw. "Brain Activity and Desire for Internet Video Game Play."*Comprehensive Psychiatry* 52, no. 1 (January 2011): 88–95. doi:10.1016/j.comppsych.2010.04.004.
- Kim, Sang Hee, Sang-Hyun Baik, Chang Soo Park, Su Jin Kim, Sung Won Choi, and Sang Eun Kim. "Reduced Striatal Dopamine D2 Receptors in People with Internet Addiction." *Neuroreport* 22, no. 8 (June 11, 2011): 407–411. doi:10.1097/WNR.0b013e328346e16e.
- Hou, Haifeng, Shaowe Jia, Shu Hu, Rong Fan, Wen Sun, Taotao Sun, and Hong Zhang. "Reduced Striatal Dopamine Transporters in People with Internet Addiction Disorder."*Journal of Biomedicine & Biotechnology* 2012 (2012): 854524. doi:10.1155/2012/854524.
- Suri D, Vaidya VA. "Glucocorticoid Regulation of Brain-Derived Neurotrophic Factor: Relevance to Hippocampal Structural and Functional Plasticity." *Neuroscience*. 2013 Jun;239:196-213.
- "Media and Children." American Academy of Pediatrics. Web. 14 Oct 2015. https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/pages/media-and-children.aspx
- American Heart Association. "Many Teens Spend 30 Hours A Week on 'Screen Time' During High School." Science Daily. 14 Mar 2008. Web. 14 Oct 2015. http://www.sciencedaily.com/releases/2008/03/080312172614.htm
- Pressman RM, Owens JA, Evans AS, et al. "Examining the Interface of Family and Personal Traits, Media, and Academic Imperatives Using the Learning Habit Study." *The American Journal of Family Therapy*. 2014 Oct. 42(5):347-363.
- Nixon CL. "Current Perspectives: The Impact of Cyberbullying on Adolescent Health." *Adolescent Health, Medicine and Therapeutics*. 2014 Aug;5:143-58.

References

- Cox R, Skouteris H, Rutherford L, Fuller-Tyszkiewicz M, Dell'Aquila D, Hardy LL.Television viewing, television content, food intake, physical activity and body mass index: a cross-sectional study of preschool children aged 2-6 years. Health Promot J Austr. 2012;23(1):58–62pmid:22730942
- Wen LM, Baur LA, Rissel C, Xu H, Simpson JM. Correlates of body mass index and overweight and obesity of children aged 2 years: findings from the healthy beginnings trial. Obesity (Silver Spring). 2014;22(7):1723–1730pmid:24415528
- Lubans, D. R., Smith, J. J., Peralta, L. R., Plotnikoff, R. C., Okely, A. D., Salmon, J., . . . Morgan, P. J. (2016). A school-based intervention incorporating smartphone technology to improve health-related fitness among adolescents: rationale and study protocol for the NEAT and ATLAS 2.0 cluster randomised controlled trial and dissemination study. *BMJ Open, 6*(6), e010448. doi:10.1136/bmjopen-2015-010448
- Gurnani M, Birken C, Hamilton J. Childhood Obesity: Causes, Consequences, and Management. Pediatr Clin North Am. 2015 Aug;62(4):821-40.
- Paavonen EJ, Porkka-Heiskanen T, Lahikainen AR. Sleep Quality, Duration and Behavioral Symptoms Among 5-6-Year-Old Children. Eur Child Adolesc Psychiatry. 2009;18(12):747-754.
- Velten-Schurian K, Hautzinger M, Poets CF, Schlarb AA. Association Between Sleep Patterns and Daytime Functioning in CHildren with Insomnia: the Contribution of Parent-Reported Frequency of Night waking and Wake Time After Sleep Onset. Sleep Med. 2010;11(3):281-8.
- Singareddy R, Krishnamurthy VB, Vgontzas AN, Fernandez-Mendoza J, Calhoun SL, Shaffer ML, Bixler EO. Subjective and Objective Sleep and Self-Harm Behaviors in Young CHildren: A General Population Study. Psychiatry Res. 2013 Oct;209(3):549-53.
- Li L, Zhang S, Huang Y, Chen K. Sleep Duration and Obesity in Children: A Systematic Review and Meta-Analysis of Prospective Cohort Studies. J Paediatr Child Health. 2017 Apr;53(4):378-85.
- Sadeh A, Gruber R, Raviv A. “Sleep, Neurobehavioral Functioning, and Behavioral Problems in School-Age Children.” *Child Development*. 2002 Mar-Apr;73(2):405-17.
- Blais JJ, Craid WM, Pepler D, et al. Adolescents Online: The importance of Internet Activity Choices to Salient Relationships. J Youth Adolesc. 2008 May;37(5):522-36.
- Valkenburg PM, Peter J. Preadolescents' and Adolescents' Online Communication and Their Closeness to Friends. Dev Psychol. 2007 Mar;43(2):267-77.

Relevant Publications

Gwynette FM, **Sidhu S**, Ceranoglu TA. "Electronic Screen Media Use in Youth with Autism Spectrum Disorders." *Child and Adolescent Psychiatric Clinics of North America*. Status: in press.

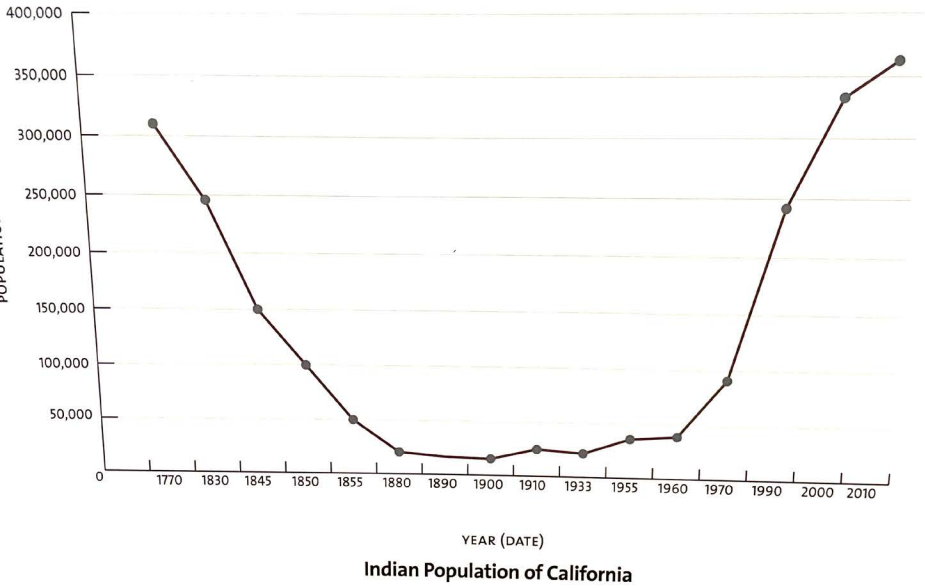
Sidhu S. "Name No Names: The Role of the Media in Reporting Mass Shootings." *Journal of the American Academy of Child and Adolescent Psychiatry*. 2017 Jan; 56(1):3-4. PMID: 27993225.

Sidhu S. "The Yin and Yang of Social Media Use in Our Patients." *AACAP News*. 2015 Nov/Dec;46(6):261-2.

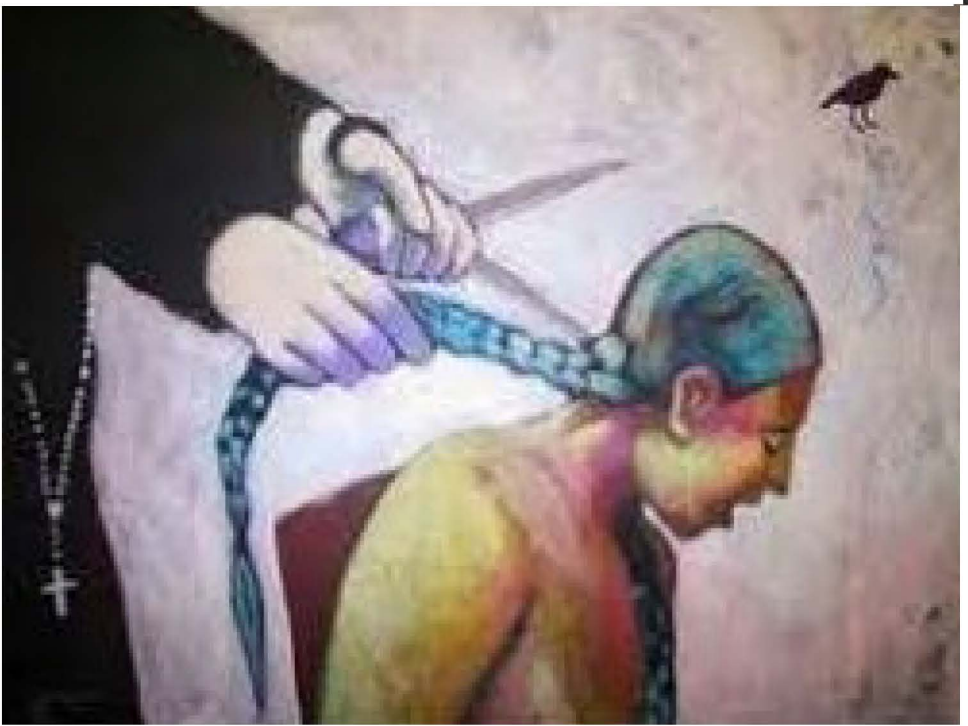
Sidhu S. "Doctor, When Should My Child Be Allowed to Start Using Social Media?" *AACAP News*. 2015 Jul/Aug;46(4):169-170.

Sidhu S, Gwynette MF, Veenstra-VanderWeele JM. "46.0 Will You Friend Me? Understanding the Complex Interplay Between Social Media, Online Gaming, and Technology in Autism Spectrum Disorder." *Journal of the American Academy of Child and Adolescent Psychiatry*. 2016 Oct;55(10) Supplement: S70.

Navigating Media Use in American Indian and Alaska Native Youth and Families
(credit to Jennifer Clay, Ph.D. Candidate)



Indian Population of California



Colonization Playbook

- Develop friendship through trade of bright and shiny objects while increasing your own numbers and buying time. Simultaneously sew doubt and create factions within the area, and use trade of bright and shiny objects as a means of sewing doubt.
- Once your numbers are large enough, proceed to take with force that which you want (land, resources, people, etc.)
- Once genocide and/or physical warfare cease, then strip indigenous people of not only their land and resources, but also their culture, language, home, resilience, and hope ("*Kill the Indian, Save the Man"*)
- Having been stripped of their land and way of life, the indigenous population is now dependent on the colonizer, completing the cycle by creating a situation in which each group depends on the other and cannot exist without the other, and insuring colonizer rule for years to come

Journal Research with Relevant Discussions:

Topics discuss various addictions - some addressing the topic of Internet addiction in Indian Country but not specifically regarding the Native Youth population

- **2011**: *Associations of American Indian children's screen time behavior with parental television behavior, parental perceptions of children's screen time, and media-related resources in the home.*
- **2014**: *Internet sociology: Impact of Facebook addiction on the lifestyle and other recreational activities of the Indian youth.*
- **2015**: *The Digital Reality: E-government and access to technology and internet for American Indian and Alaska Native populations.*
- **2016**: *A systematic review and meta-analysis of screen time behavior among North American Indigenous populations.*
- **2016**: *Social media and digital technology use among Indigenous young people in Australia: a literature review.*
- **2021**: *The Human Digitalisation Journey: Technology First at the Expense of Humans?*
- **2022**: *Substance and Behavioral Addictions among American Indian and Alaska Native Populations*
- **2023**: *Tribal reservation adolescent connections study: A study protocol using mixed methods for examining social networks and associated outcomes among American Indian youth on a Northern Plains reservation.*

Associations of American Indian Children's Screen-Time Behavior With Parental Television Behavior, Parental Perceptions of Children's Screen Time, and Media-Related Resources in the Home, 2011, *Preventing Chronic Disease*

Results:

-Higher media use in youth associated with:

- -Male Gender
- -Kids Consuming Media Immediately After School
- -Parental Media Consumption
- -Parental Difficulty in Setting Limits
- -Higher Parental BMI

Conclusion:

"Changes in parental television watching time, parental influence over children's screen-time behavior, and availability of media-related resources in the home could decrease screen time and may be used as a strategy for reducing overweight and obesity in AI children."

A Systematic Review and Meta-Analysis of Screen Time Behaviour among North American Indigenous Populations (2016) – A Comparison with North American Europeans

- Screen time is associated w/increased obesity and other health risks (diabetes)
  - Generally greater overall screen time among First Nations/American Indian Youth vs Europeans

- Children most likely to exceed recommended screen time (2 hrs per day) included:
  - Rural residences
  - Overweight/obese children
  - Lower socioeconomic households
  - North American Indigenous populations (include Canada First Nations, Inuit and Metis & USA AI) fall within those categories

2022 Substance and Behavioral Addictions among American Indian and Alaska Native Populations

- Substance and Behavioral Addictions (texting, internet, shopping) among American Indian and Alaska Native Populations
- Conducted and synthesized by Indigenous researchers using a culturally centered approach
- Study looked at both behavioral addictions and cultural resilience factors that may potentially reduce the addiction
- Lit review was limited to US and US history of colc

Study: Substance and Behavioral Addiction among AI/AN Populations

- Study examined structural and psychosocial risks and protective factors

- Results: numerous risk factors (impacts of historical trauma)
    - Life stressors
    - Severe trauma/ high ACE's
    - Family hx of substance abuse
    - Tobacco, alcohol, opioid, stimulant addictions
    - Different for Rural/Reservation than Urban/Off-Res

Substance and Behavioral Addiction among AI/AN Populations – Qualitative Data

- Why Use? Substances and Behavioral Addictions provide respite from acculturation and balancing roles in both cultures, and self-medicate trauma, poverty stressors, domestic and community violence, multiple losses

Protective factors: community, individual, family

- culture as prevention
- Language and language restoration projects
- Traditions (examples of beading and sweat lodges at AI/AN clinics)
- Heritage through elders
- Strong cultural identity
- Healing practices build cultural identity (Wellbriety)
- Healing practices such as storytelling
- Drum Assisted Recovery Therapy

2023: Tribal Reservation Adolescent Connections Study, Schultz, et. al.: A Social Network Analysis

- Examined social networks and associated outcomes among American Indian youth on a Northern Plains reservation
- Collective cultural and traditional practices make it vital for interpersonal and multigenerational networks
- Take Home Points:
  - Social networks impact youth risk and resilience
  - Both Peer and Elder relationships play a role in development of adolescent risk and protective behaviors
  - Networks can be intergenerational, kinship (cultural), purely social, or even resource networks that involve multiple systems

2016: Social media and digital technology use among Indigenous young people in Australia: a literature review. (22 articles)

- Article explored how digital technologies are used by Indigenous youth; positive and negative impacts

- Potential Benefits: Indigenous youth familiarity with technology provides a sense of fearlessness and control, Opportunities to participate and communicate in new ways
- Potential Barriers: Remoteness, computer/internet access, cost, family structure, education level and employment status

2016: Social media and digital technology use among Indigenous young people in Australia: a literature review. (22 articles)

Potential Problems

Cyber bullying/**cyberracism**

Exchange of sexually explicit content w/minors

Generational gap in knowledge and use of social media between Indigenous youth and parents/Elders who are less familiar

Communication mediated by technology has **disrupted traditional forms of interaction** (loss of communication through gesture, sign, and gaze (Kral (2014)

Less control by older generations to reduce the capacity for traditionally socially sanctioned forms of conflict resolution and social control (cyber bullying goes unaddressed)

Increased connectivity between people who live far away from each other - long distance conflicts rather than local conflicts

2016: Social media and digital technology use among Indigenous young people in Australia: a literature review. (22 articles)

Four Identified themes:

- **Identity**: opportunities for Indigenous youth to explore their Indigenous identities online - sharing stories or being a part of a larger Indigenous online community

- Indigenous youth use social media to help form, affirm and strengthen identity, and to feel less isolated and a part of something greater than themselves

2016: Social media and digital technology use among Indigenous young people in Australia: a literature review.

Identified Themes

Empowerment and Control

- Though often lacking mobile phone service in areas; Indigenous youth found **resourceful** ways to gain online access
- They have **control** of participation and use
- Self-directed nature allows them to access information themselves enabling new forms of **self-agency and empowerment**
- Many become **indigenous activists**; a tool for protest and activism
- Opportunity to represent themselves rather than “the other”

2016: Social media and digital technology use among Indigenous young people in Australia: a literature review.

Identified Themes

Cultural Compatibility

- Lends itself to **orally and visually focused** cultures of Indigenous communities rather than western-based literacy and numerics
- Indigenous leaders identify the **mesh of interactions** present in social networks - similar to **ancient imagery** and ancient communication channels
- Opportunities for **transmitting intergenerational knowledge** within and between communities
- Allows for **continuity, expansion and transformation of traditions** (language to activism)
- Provides a broader space to reflect on alternative understandings about what it means to be Indigenous

2016: Social media and digital technology use among Indigenous young people in Australia: a literature review.

Identified Themes

Community and Family Connections

- Transmit intergenerational knowledge
- Uniting and healing
- **Strong cultural identity is linked with greater participation, education and training - a protective factor against self-harm**
- Strengthening identity through social media may improve health and educational outcomes
- **May encourage young and old Indigenous people to reconnect and understand each other**
- Cultural and individual expression shared
- Provided a **shared space** for youth to express, inform, a space to reflect and document what is important to themselves

Approaches to Internet Addiction and the Impact on Native & Indigenous Youth

Critical for Providers:

- Understanding population's unique history: acquiring your own understanding of AI/AN history and key issues/dates; particularly genocidal history, broken treaties, and the Boarding School Era. Even if patients didn't directly experience the trauma, it does not remove them from the impact.
- All tribes are not a monolith; however, some overarching themes and metaphors exist
- **Understanding that mistrust of authority figures certainly includes the medical and mental health systems** (see prior research without Indigenous consent for data)
- Historical paternalistic and likely ineffective approach: "There is something wrong with you and we need to fix it."

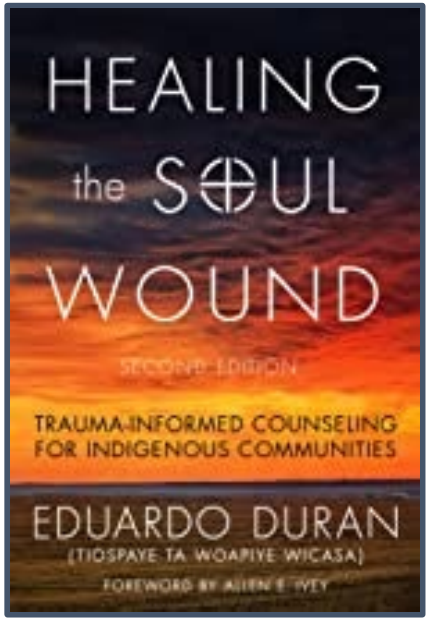
Approaches to Internet Addiction and the Impact on Native & Indigenous Youth

Patient-Centered,Culturally-Sensitive,Collaborative **Reframe**:

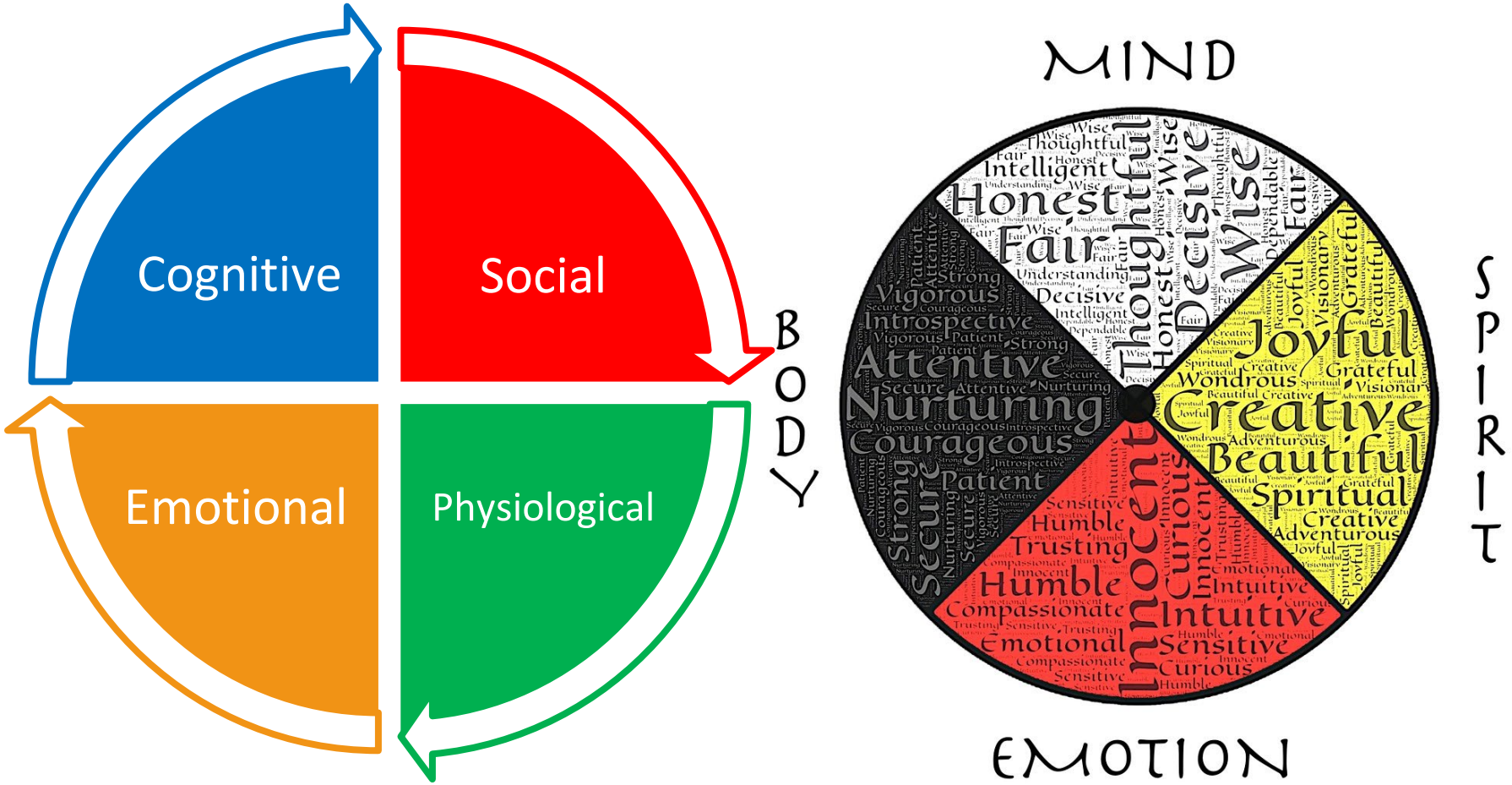
- Instead of “what is wrong with you,” “what happened to you? What is going well? What are your strengths?”
- “In what ways are you in balance and feeling a sense of wholeness, fulfillment, and connection? Are you walking the middle path, or path of beauty? Is anything out of balance? What can we do to create balance together?”
- “Do you identify with traditional cultural beliefs or practices? Tell me about them. How can I support these as a part of our work here?”

Approaches to Wellness in Indian Country

- Behavioral Addictions have activated the negative side of medicine
- Behavioral Addiction is a spiritual disorder
- Jung calls it a spiritual thirst for wholeness
- Duran talks about the need for culturally based approaches to historical/transgenerational trauma and addiction
- Approaches that have many facets and are multidimensional containing both intervention and prevention strategies



Four Directions/Four Pathways: Maintaining Balance



References

Barr-Anderson, D., Fulkerson, J.A., Smyth, M. Himes, J.H., Hannan, P.J., Rock, B.H., & Story, M. (2011). Associations of American Indian children's screen time behavior with parental television behavior, parental perceptions of children's screen time, and media-related resources in the home. *Preventing Chronic Disease, 8*(5), 105.

Hassani, H., Huang, X., & Silva, E. (2021). The Human Digitalisation Journey: Technology First at the Expense of Humans? *Information*, *12*(7), 267. MDPI AG. Retrieved from

Foulds HJ, Rodgers CD, Duncan V, Ferguson LJ. A systematic review and meta-analysis of screen time behaviour among North American indigenous populations. Obes Rev. 2016 May;17(5):455-66. doi: 10.1111/obr.12389. Epub 2016 Mar 17. PMID: 26990323.

Modi, Y.A. & Gandhi, I.S. (2014). Internet sociology: Impact of Facebook addiction on the lifestyle and other recreational activities of the Indian youth. *SHS Web of Conferences, 00001*(1-4).

Parkhurst, N., Tahy, E., Morris, T. & Mossberger, K. (2015). The Digital Reality: E-government and access to technology and internet for American Indian and Alaska Native populations. *Proceedings of the 16th Annual International Conference on Digital Government Research.* 217-229.

Rice, E. Haynes, E. Royce, P. & Thompson, S. (2016). Social media and digital technology use among Indigenous young people in Australia: a literature review. *International Journal of Equity in Health, 15*(81).

Schultz, K., Ivanich, J. D., Whitesell, N. R., Zacher, T. (2023). Tribal reservation adolescent connections study: A study protocol using mixed methods for examining social networks and associated outcomes among American Indian youth on a Northern Plains reservation. *Child Abuse & Neglect,* 106198.

Soto, C., West, A. E., Ramos, G. G., & Unger, J. B. (2022). Substance and Behavioral Addictions among American Indian and Alaska Native Populations. *International journal of environmental research and public health*, *19*(5)

QUESTIONS/COMMENTS

Jennifer Clay: Cultural Consultant
jcclay@sdsu.edu

Mark Chenven: Medical Director
mchenven@vistahill.org

Shawn S. Sidhu: Associate Medical Director
ssidhu@vistahill.org

Judy Whitcher: Program Administrator and Lead Clinician
jwthicher@vistahill.org

Contact Information:

Call us with questions at **760-427-6427**

NativeAmerican.SmartCare@VistaHill.org

NativeAmericanSmartCare.org