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Screen Time: Supporting Young Children and Their Families in the Digital Age

Stacey Landberg, MS, CCC-SLP

Moderated by:
Amy Natho, MS, CCC-SLP, CEU Administrator, SpeechPathology.com

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Learning Outcomes

After this course, participants will be able to:

- List four areas of consideration when making recommendations to families concerning screen time.
- Describe the key features of joint media engagement and when professionals might make this recommendation to families.
- Explain how visual perception and attention to 2D media develops from birth to age 5.

Disclosures

Financial: I receive a funds to conduct this professional development course

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SPECIAL THANKS

- Dr. Daniel Anderson (U. Mass Amherst)
- Dr. Rachel Barr (Georgetown U.)
- Dr. Tim J. Smith (Birbeck U.)
- Dr. Heather Kirkorian (U. Madison WI)
- Dr. Sara Lytle (I-Labs)
- Dr. Jacqueline Snow (U. Nevada Reno)
- Dr. Juliann Woods (Florida State U.)
- Lisa Guernsey (New America Foundation)
- Dr. Marina Kcrmar (Wake Forest U.)
- Dr. Chip Donahue (Tec Center, Erickson)
- Dr. Alexis Lauricella & Dr. Ellen Wartella (Northwester U.)
- Dr. Deena Weisberg (Upenn)
- Dr. Calum Hartley (Lancaster U.)
- Dr. Rebekah Richert (U. CA Riverside)

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Current screen- time position from the AAP

AAP Position: The most widely cited position statement and most familiar to professionals.

- 1999-2015 the AAP had discouraged screen time for children under 2 years old (Strasburger et al., 2013).

In October 2015, the AAP Newmagazine published *Beyond Turn It Off* and acknowledged "scientific research and policy statements lag behind the pace of digital innovation" (Brown, Shifrin, & Hill, 2015).

Current screen- time position from the AAP

New AAP recommendations were based on the results of a 2-day symposium in May 2015 with leading scientists, researchers, educators, and pediatricians.

- Available here: https://www.aap.org/en-us/Documents/digital_media_symposium_proceedings.pdf

Highlights:

✓ Co-viewing
✓ Screen-free bedrooms
✓ Setting screen time limits
✓ Discouraging screen time for children under 18 months (except for video chat)
✓ <1 hour/day of educational screen-time for children older than 2 years
✓ Educating families*

How Likely are Pediatricians to talk about screen time with parents?

- *Just 16 percent of pediatricians talk to families about their media use (Rideout, 2013).
- Pediatricians' own media habits impacted their opinion of the AAP's recommendations (Gentile, Oberg, Sherwood, Story, Walsh, & Hogan, 2004).

Media Mentorship:

A relationship in which a person with more experience or more knowledge about screen time, helps to guide a less experienced or less knowledgeable person.

Lisa Guernsy – Ted Talk 2014

According to Donahue (2016):

- Every child needs a media mentor
- Every parent and family needs a media mentor
- Every librarian and educator needs to be a media mentor

Media Mentorship

Goals

- Identify and understand parents' perspectives about screen time and family practices/habits (assess a baseline)
- Change or broaden caregivers' perspectives and behaviors with media as needed
- To be media mentors to parents, so they can be media mentors to their children

When surveyed, most parents indicated that they DO want guidance from experts on media consumption for their children (Rideout, 2014).

- This desire for media mentorship was expressed at a greater percentage among low-income and minority parents (Rideout, 2014).

Does Media Mentorship *Work?*

58 clients in 2016 (18 – 33 months old)

- White n=8
- Black n=1
- Asian n=4
- Mixed Race n=5
- Hispanic n=40

6 families intentionally limited screen-time to ≤2 hours per week. All 6 of these children were white and middle to upper class

18 children averaged 3+ hours of screen-time daily (up to 10 hours daily)
11/18 at the low income to poverty level
17/18 were Hispanic

Does Media Mentorship *Work?*

Of the 18 children who averaged 3+ hours of screen-time daily

- Direct "media mentorship" was provided to caregivers of all 18 children
- 9 of the 18 families made significant screen-time changes (primarily restricting use and monitoring content).
- 3 of the 18 families spontaneously reported that they felt their child's language and/or behavior improved due to significant changes in screen-time

How are these numbers?

Understand & Assess the 4 C's (content, context, child, caregivers)

1. Content
2. Context
3. Child

(3 C's: Guernsey, 2012)

4. Caregivers

4 Cs – Content (what's on the screen)

- Violent?
- Developmentally appropriate?
- Adult-directed?
- Educational? Entertainment?

4 Cs – Content

- Magazine Format vs. Narrative Format?
  - Narratives are associated with better language outcomes (Linebarger & Walker, 2005).
- **Formal Features**: rapid pacing, background music, visual effects, sound effects, zooms/pans, etc. (Gola & Calvert, 2011).

Historically Scenes ARE Getting Shorter

- http://www.cinemetrics.lv/database.php

ASL = Average Shot Length

- 1971 - Willy Wonka and the Chocolate Factory
  - ASL 7 seconds
  - 98 minutes long
  - **844 shots**
- 2005- Charlie and the Chocolate Factory
  - ASL 3 seconds
  - 103 minutes long
  - **2091 shots**

NEW AND OLD RESEARCH SUPPORTS INTENTIONALLY LIMITING THE NUMBER OF SCENES IN CHILDREN'S MEDIA (Kirkorian & Anderson 2016; Anderson & Smith, 1984).

Recommendations of *better* shows for young children

- Mr. Roger's Neighborhood
- Bear in the Big Blue House
- Play School (youtube, Australia)
- JBRARY https://www.youtube.com/user/Jbrary

4 Cs – Context

Context: Who? When? Where? How much?

- **Who** the child is/is not with the child during screen time
- **When** is the screen time happening? At bedtime? During therapy? During meals?
- **Where** is the screen time taking place?

Or realistically - *Where/When is screen time* ***NOT*** *taking place?*

4 Cs – Context:
Who? When? Where? How much?

6-36 month olds average 1-2 hours of screen-time daily

How much screen time is occurring?

1. *Can your child walk up stairs independently?*
2. *Does your child wipe his own nose or cover his mouth when he coughs?*
3. *How much time does your child spend wiping his nose each day?*
4. *How much time does your child spend walking up stairs each day?*

Population Changes

2010 - 20% population <15 years old
- 13% population >65yo (Pew Research Center, 2014)

2050 –Drastic population changes anticipated
The USA and most countries can anticipate a higher senior citizen population and a lower population of children

2016: More kids are being raised by grandparents than ever before
10% of U.S. children live with a grandparent

2.7 million grandparents are raising grandchildren (Ellis & Simmons, 2014).
Adults aged 50-64 watch 43+ hours of TV per week.
65+ —> 51+ hours (Nielsen, 2017)

4 Cs - Child

- The average child (U.S.) starts screen-time at 4 months of age

We must consider each child's unique:
- Environment
- Developmental Levels
- Personal Experiences / Exposure
- Circumstances/health (e.g. do they live in a hospital, homeless, foster care)

4 Cs - Child

- Culture: Latino children spent more time viewing TV compared to non-Latino, white children (Thompson, Matson, & Ellen, 2013).
- Access: 91% of families at the poverty level have Internet access (Rideout & Katz, 2016).
  - 83% own tablets
  - 77% have smartphones

4 Cs - Caregivers

- Education – Mothers with higher education levels were more likely to restrict screen time (Borzekowski & Robinson, 2007).
- Language – Moms who prefer to use Spanish may be less likely to watch with their children or instruct their children during screen time (Thompson et al., 2016).

4 Cs - Caregivers

Our work as Media Mentors will likely be affected by Caregivers':

1. Beliefs
2. Priorities
3. Behavior

- 52% of moms multitask during infant bottle feedings – TV was the most common activity (Golen, R.P., & Ventura, A.K., 2015).
- Parents' own media behavior was strongly associated with children's screen time (Lauricella, Wartella, & Rideout, 2015).

New Research Direction: Parents' Screen Use and Child Development

- 2 year olds did not learn new words from parents when dyadic interaction was interrupted by a cell phone (Reed, Hirsh-Pasek, & Golinkoff, 2017). http://www.apa.org/pubs/highlights/spotlight/issue-104.aspx

- Parents' device use was associated with tantrums in 3 year olds (McDaniel & Radesky, 2017)

https://www.inc.com/minda-zetlin/want-emotionally-healthy-kids-science-says-stop-doing-this-most-parents-wont.html?cid=nl029week25day19

4 Cs - Caregivers

Mental Health

- Children of depressed mothers watched twice as much TV (Bank et al., 2012).
- Mothers of children with ASD had the highest rates of depression.
- Poorer relational well being was associated with increased tablet use by 12-48 month olds (Pempek & McDaniel, 2016).

"Strengthen a parent…and you strengthen a child"

– Fred Rogers

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Free & Affordable Mental Health Support/Counseling

- Universities
- Churches/Temples
- Meet-Ups; Support Groups
- Parent to Parent – USA - http://www.p2pusa.org/p2pusa/SitePages/p2p-home.aspx
- National alliance on mental illness: http://www.nami.org/

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4 Cs Summarized

- Content (*What's* on?)
- Context (*Who, When, Where, How much?)*
- Child (*environment, circumstances/health, SES, developmental level, culture/personal experiences*)
- Caregivers (*beliefs, behaviors, priorities, mental health, education level, language*)

Nudges

1. Media Diet Ideas
2. Developmental Menu Ideas

Use enhancements to build on what the caregiver is already doing (e.g. increase frequency, quality, quantity) (Woods, Kashinath, Coston, Richmond, & Goldstein, 2007).

Possible Nudges (Media Diet Ideas)

1. Low Tech (or *No Tech)* Tuesday
2. Digital Free Dinners
3. Screen-Free Sundays
4. Media free mornings
5. No screens after 7pm
6. Tech-free home zones
7. TV-free kids' rooms
8. Decreasing or eliminating background TV
9. Media Free Meals / Screen-free snacks
10. **Replacing sedentary screen time with physical movement screen time (e.g. yoga videos, gonoodle.com)**

Possible Nudges (Developmental Menu Ideas)

1. Outside Play twice a day
2. Book sharing before bed *and nap*
3. Interacting with our voices AND eyes
4. Pretend play twice each day
5. Daily Development Activities (e.g. *Vroom*)

Nearly Every Activity Other Than Screen Time and Sleep Requires Some Movement

By focusing on increasing other activities and expanding on daily routines, screen time may decrease without us having to say "reduce screen time."

- Stairs
- Climbing
- Crawling/Cruising
- Stomping
- *Ring around Rosie*
- Hopping
- Skipping
- Galloping
- Dancing
- Musical chairs
- Wheel barrow walks
- Digging / sand play
- Hide and seek
- Object permanence
- Sorting laundry
- Gesture games/songs
- Scribbling
- Watering plants
- Stringing beads
- Drawing / coloring
- Painting / Crafts
- Touch/feel guessing games
- Rolling/Catching/Throwing
- Peek a boo
- Tag
- Dress up
- Spoon/finger feeding
- Pouring
- Meal prepping / cooking
- Book sharing routines
- Shaving cream play
- Burrito roll (blankets)
- Make slime /flubber
- Taking a walk
- Block play
- Swinging
- Kinetic sand /Play Doh
- Making/playing instruments
- Smell/taste guessing game

Free Tools From the AAP (2016)

Family Media Plans and Media Time calculator

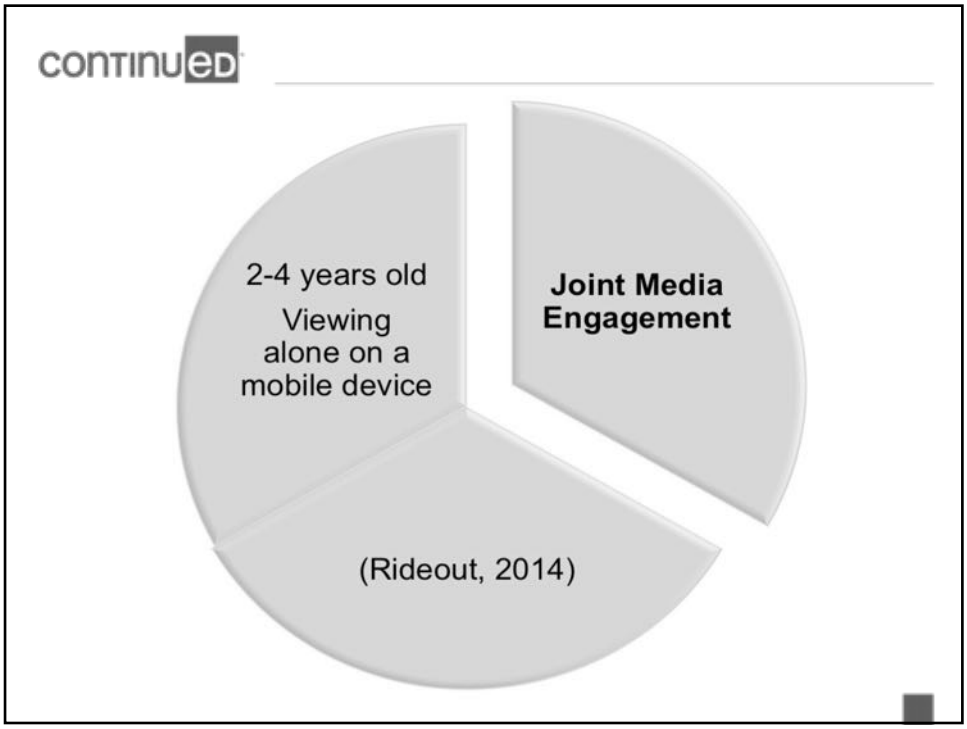
https://www.healthychildren.org/English/media/Pages/default.aspx

Joint Media Engagement

Previously termed “co-viewing”

Infants and toddlers are more likely to learn from screens when interacting with peers or adults (Barr, Zack, Garcia, & Muentener, 2008).

- The more caregivers verbalized while co-viewing, the more their infants and toddlers responded and looked at the screen (Barr, Zack, Garcia, & Muentener, 2008).



Mute, Pause, Verbal Cues

Joint Media Engagement Considerations:

- If parents have time to interact with their child, that time may be best spent:
  - Books
  - Traditional Toys/ People Play
  - Daily Routines
- In some instances, viewing alone may be more beneficial if the caregiver is able to rest or get something important done, which would allow them to be less stressed, more patient, more responsive when interacting with their child
- ONE SIZE DOES NOT FIT ALL!

How Visual Attention and Comprehension to 2D Media Develops

- Babies prefer to look at faces from birth (Johnson & Morton, 1991).
- ≤ **6 months:** Comprehend little to nothing they see & hear on screen.
- @**6 months** children may recognize some familiar objects on screen, but they will be unable to understand how those objects relate to other objects on screen or how they relate to reality (Anderson & Hanson, 2010)
- **3-9 months**, eye gaze is gradually directed to faces on screen (Frank, Vul, & Johnson, 2009).

Infants fail to understand the symbolic nature of pictures (despite their prior picture exposure) and treat them as objects (DeLoache, Pierroutsakos, Uttal, Rosengren, & Gottlieb, 1998).

Development of Video Comprehension

- ≥12 months of age, eye gaze is directed by formal features including: rapid pacing, background music, visual effects, sound effects, zooms/pans, etc. (Gola & Calvert, 2011).

Development of Video Comprehension

- Around 18 months, children have some ability to relate TV to real world objects (Hudson & Sheffield, 1999).
- 18 months onward, comprehension *begins* to play a bigger role in eye gaze and gaze duration (over formal features). By 24 months, this is solidified (Anderson & Pempek, Pempek et al., 2010; 2005; Barr, 2008).

Development of Video Comprehension 18-24 months

- Cognitive capacity, inhibitory control, and working memory development play a role.
- From 18-24 months: Researchers still do not understand exactly how children learn or what they can understand from screen media at this age.

Development of Video Comprehension

- 3+ year olds become better at transferring information between dimensions.
- 3 ½ to 5 ½ year olds may still struggle to transfer advanced concepts
  - Solutions to problems
  - Fantasy vs. Reality (Richert, & Smith, 2011).

Summary

- Experts agree that caregivers of "generation alphas" can benefit from media mentorship
- Surveys indicate that parents want trusted support and information about screen-time
- We must consider the 4 C's when making our recommendations (individualize our recommendations by considering the *learner's potential for change*)
- Visual comprehension of screen content develops over time. Babies understand almost nothing they see or hear on screen.

To Learn More and Stay up to date

- Resources:
  - http://www.truceteachers.org/
  - http://www.bu.edu/news/category/jenny-radesky/
- Twitter
  - @Tec_Center @Lisa Guernsey @mediatrician @cmch_boston @DAChristakis
- On Facebook
  - Media Mentorship for 0-36 month olds: https://www.facebook.com/groups/mediamentorsinearlyintervention/
  - I-labs https://www.facebook.com/ILABS.UW/?fref=ts

"We live in a world in which we need to share responsibility. It's easy to say "It's not my child, not my community, not my world, not my problem." Then there are those who see the need and respond. I consider those people my heroes."

- Fred Rogers

THANK YOU!!!