

Disconnected Connections:

The Impact of Screen Time on Young Children's Social-Emotional Well-Being

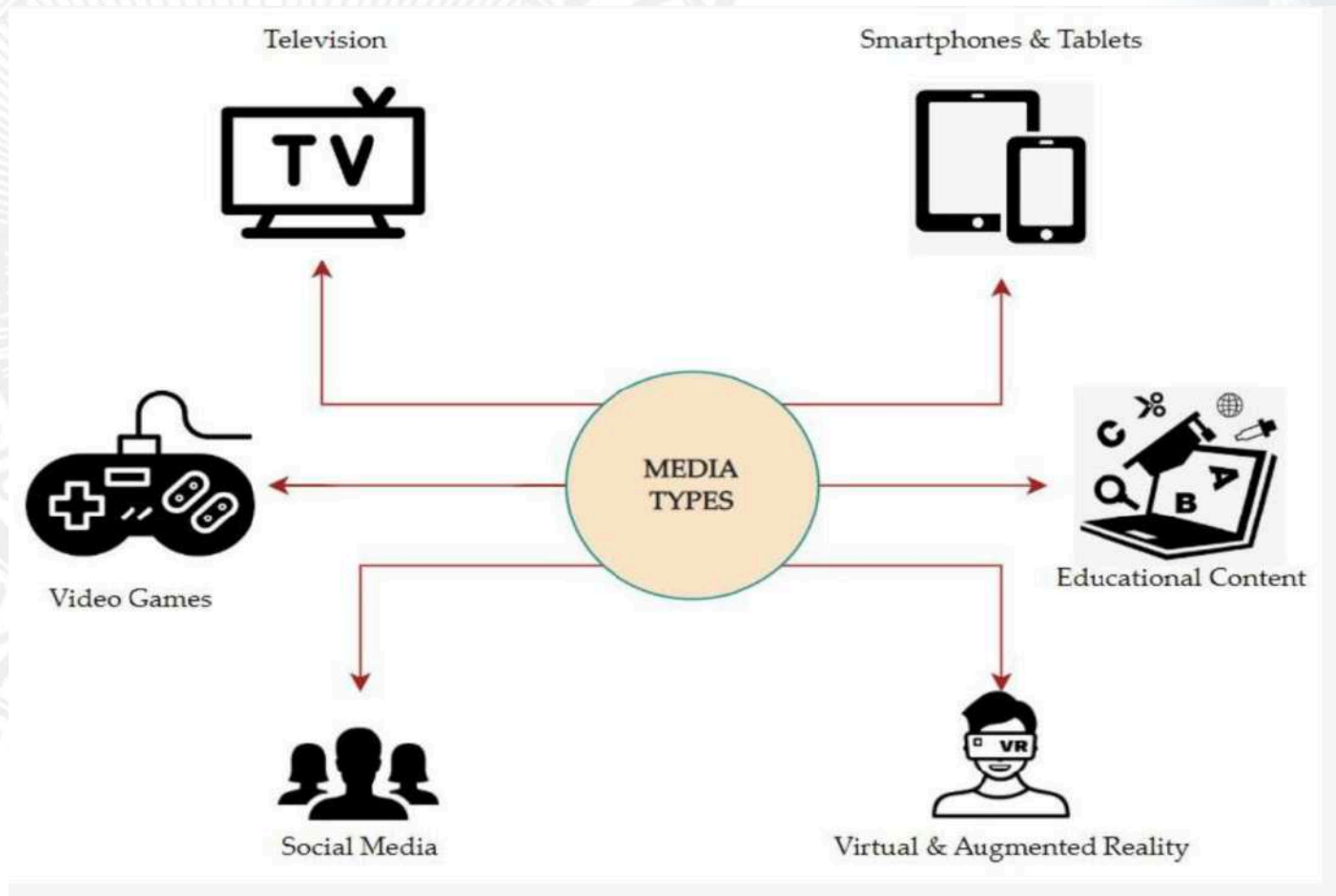
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Panjeti-Madan, & Ranganathan, (2023)

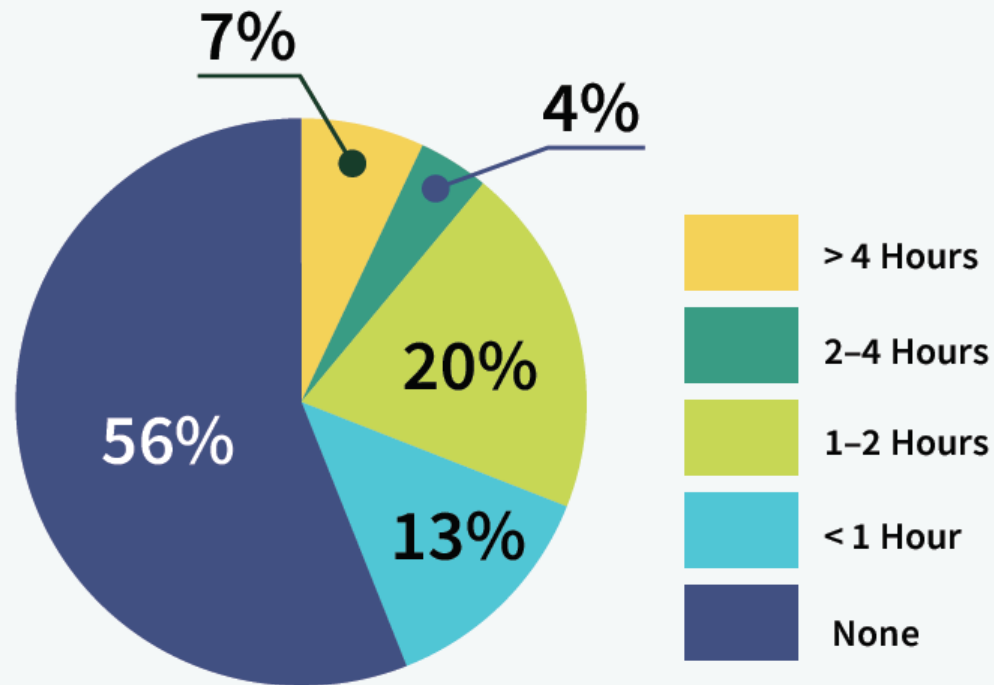




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Screen time

Daily Screen Use Among Children Under 2 Years Old



(Rideout & Robb, 2020)

Canadian Paediatric Society (2023)

Nearly all children in Canada are exposed to
screens by the age of 2
and

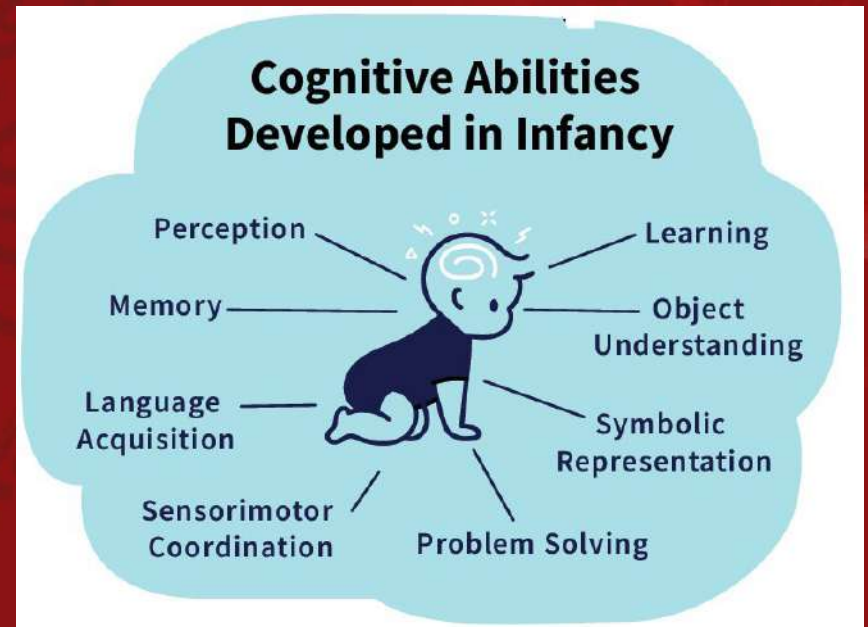
only 15% of Canadian children aged 3 to 4 years
meet screen time guidelines of <1 hour/day .

Good news



Brain Development

- Heightened brain plasticity
- Experiences shape and influence brain development



DEVELOPMENTAL DOMAINS

COGNITIVE



- Memory
- Problem-solving and reasoning
- Mathematical thinking
- Knowledge development
- Understanding the world around

SOCIAL AND EMOTIONAL

- Relationship with adults
- Relationships with other children
- Emotional behavior
- Self-identity and belonging



LANGUAGE



- Understanding words
- Communication and speech
- Vocabulary
- Reading and writing development

PHYSICAL



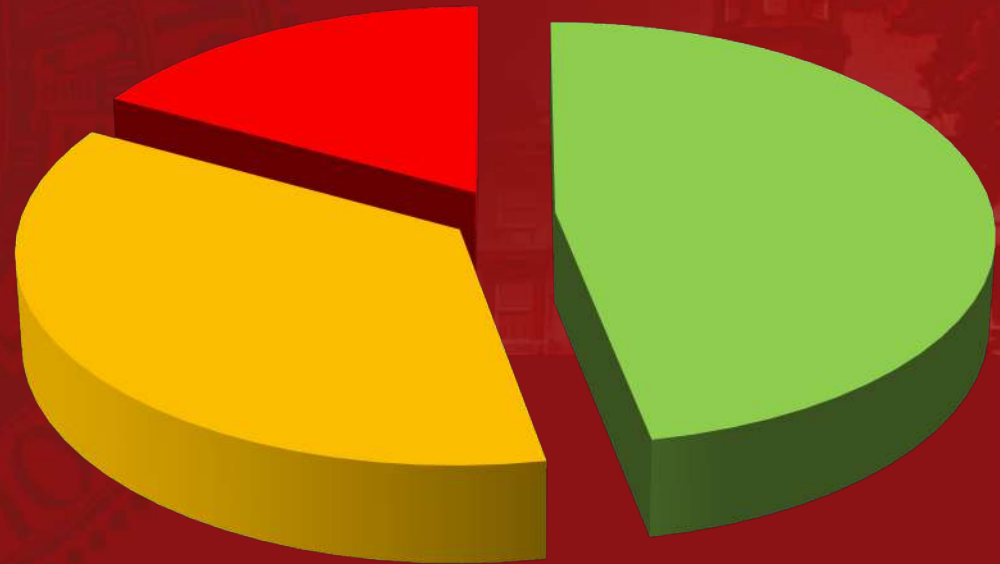
- Perception
- Motor skills Development
- Nutrition and health
- Physical growth and development



Screentime per day

McArthur et al 2022

the association between hours of screen time (≤ 1 vs 2 vs ≥ 3 h/day) and children's developmental and behavioral outcomes in 36 month year olds



■ < 1hr

■ 2 h

■ 3h +

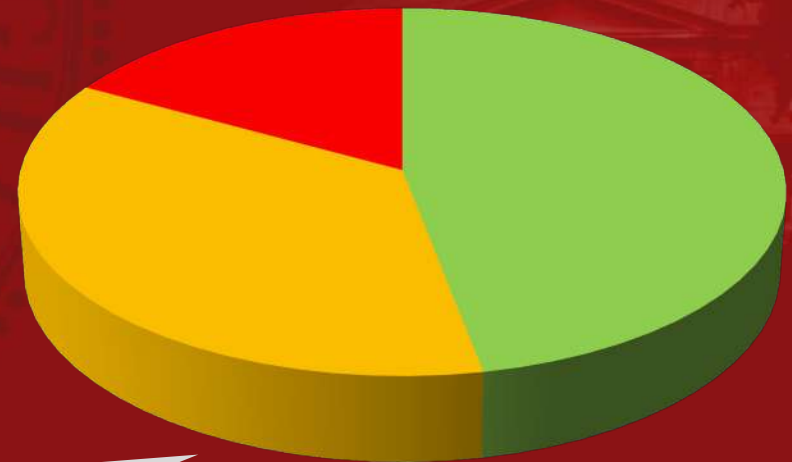
McArthur et al 2022

Screen time per day

- Even greater at risk range of internalizing
- externalizing problems
- delays in developmental milestones achievement
- Language delays

Greater at risk range:

- internalizing
- externalizing problems
- delays in developmental milestones achievement



■ < 1hr

■ 2 h

■ 3h +


```
graph TD; A[Children between 5 – 6 years of age] --> B[Parent report of screen time]; B --> C[Child measures of cognitive abilities: Executive functioning: Cognitive flexibility, visual and verbal working memory, inhibition];
```

Children between 5 – 6 years of age

Lakicevic et al
(2025)

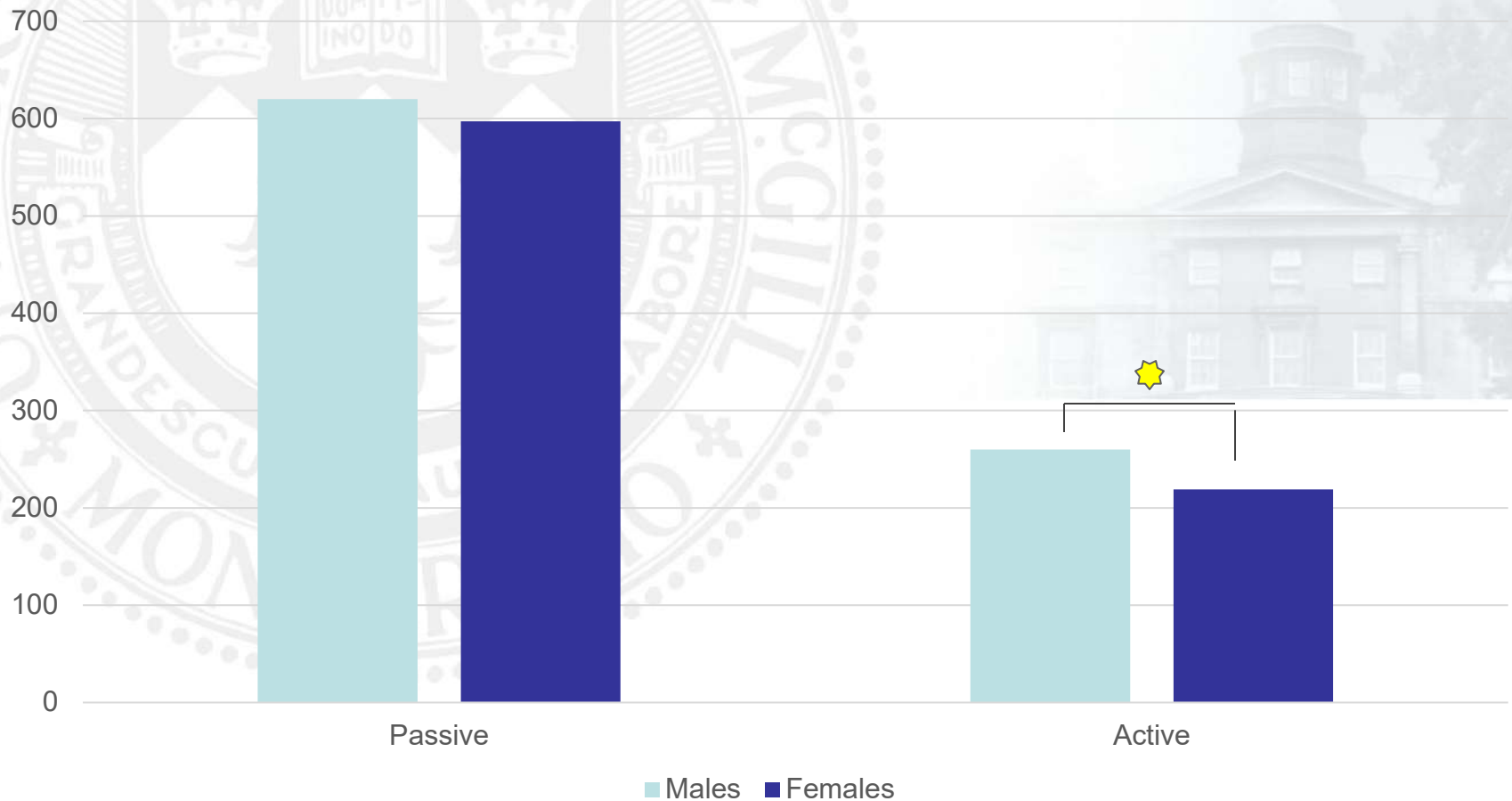
Parent report of screen time

Child measures of cognitive abilities:

Executive functioning:

- Cognitive flexibility, visual and verbal working memory, inhibition

Weekly Screen Time





Passive ST



Active ST



Cognitive Flexibility



Visual Working Memory



Verbal Working Memory



Inhibition



Displacement



Screen time can mean less time interacting with a caregiver



Child-caregiver interaction **fundamental** importance for development


```
graph TD; A[Language and parent-child relation] --> B[Evidence for displacement]; B --> C[Children 3 to 5 years;]; C --> D[Parent reports and children test of language ability and comprehension];
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Language and parent-child relation

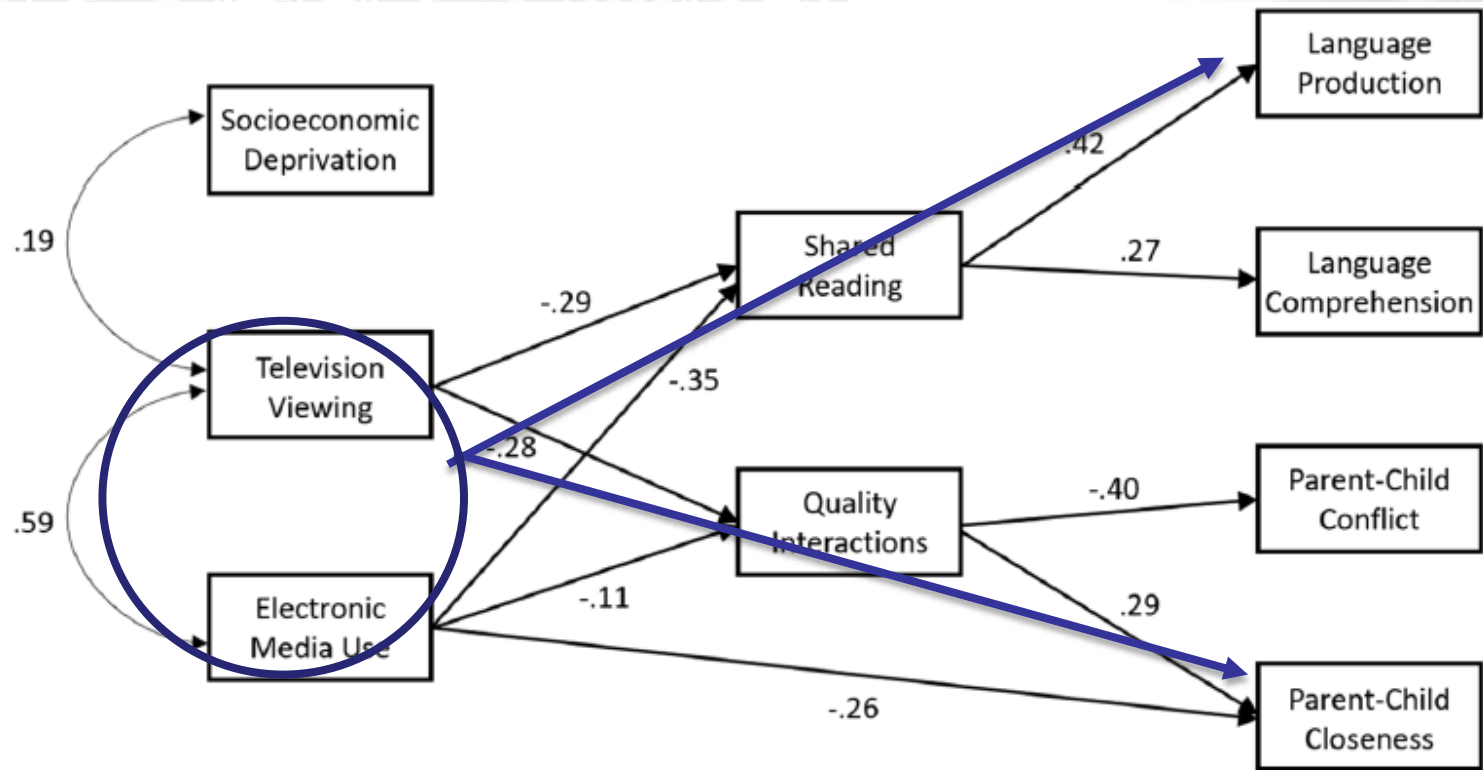
Evidence for displacement

Gath et al 2023

Children 3 to 5 years;

Parent reports and children test of language ability and comprehension

Preschoolers' screen time and reduced opportunities for quality interaction: Associations with language development and parent-child closeness



Gath et al, 2023

Key Developmental Social-Emotional Learning in Early Childhood



identify and label emotions in self and others



Learn empathy, helping, and pro-social behaviors;



Regulate intense emotions through co-regulation with caregiver;



Developing regular circadian rhythms and sleep critical for brain and emotional health



Practicing social problem-solving;



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Tezal et al 2022

220 Mothers and children 2-5 years

2 groups:

Low Screen Time: < 1 hour/day

High Screen Time: \geq 4 hours/day

Strengths and Difficulties Questionnaire

Emotional
symptoms

Conduct
problems

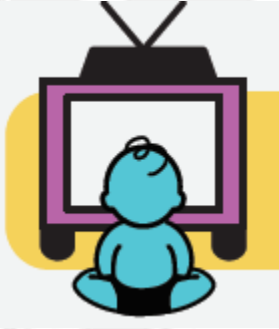
Peer
relationship
problems

Total
difficulties

Hyperactivity

Pro social
scores

Children with excessive screentime



- *Emotional symptoms*
- *Conduct problems*
- *Peer relationship problems*
- *Total difficulties*

- No differences on hyperactivity or prosocial scores

Xiang et al (2022)

Association between excessive ST and Health-related quality of life and behavioural problems

- 4985 children between 3 and 6 years of age
- Quality of Life Inventory
- Conners Parent Rating Scale

Excessive screen time:
1 + hour per day

Early exposure:
if before 2 years of age

Excessive ST



Early Exposure:

- poorer emotional functioning,
- social functioning
- school functioning
- physical functioning

- Lower emotional functioning
- More behavioural problems
 - Conduct
 - Learning
 - Psychosomatic
 - Impulsive-hyperactive
 - Anxiety
 - Hyperactivity

Niiranen et al (2024)

Parental factors affect the association
between children's screen time and
psychosocial symptoms



5 year-olds from Finnish CHILD-SLEEP birth
cohort



Child screen time and psychosocial problems



Parents' depression, stress, and parenting
style

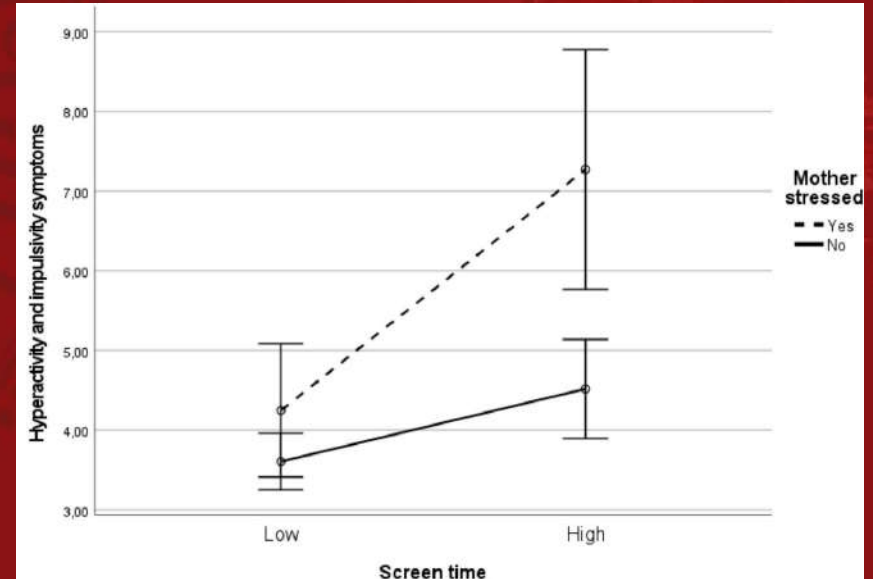
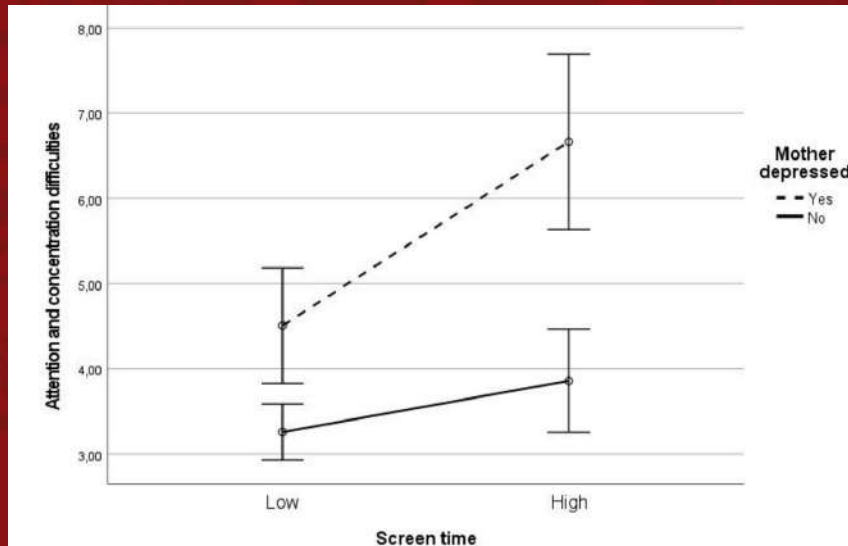
High Level of Screen Time



- Parent mental health
- Parenting style
- Background factors

- Attention & concentration difficulties
- Hyperactivity & impulsivity symptoms
- Internalizing & externalizing symptoms

Maternal stress and depression moderates association between ST and psychosocial symptoms



Liu et al (2021)

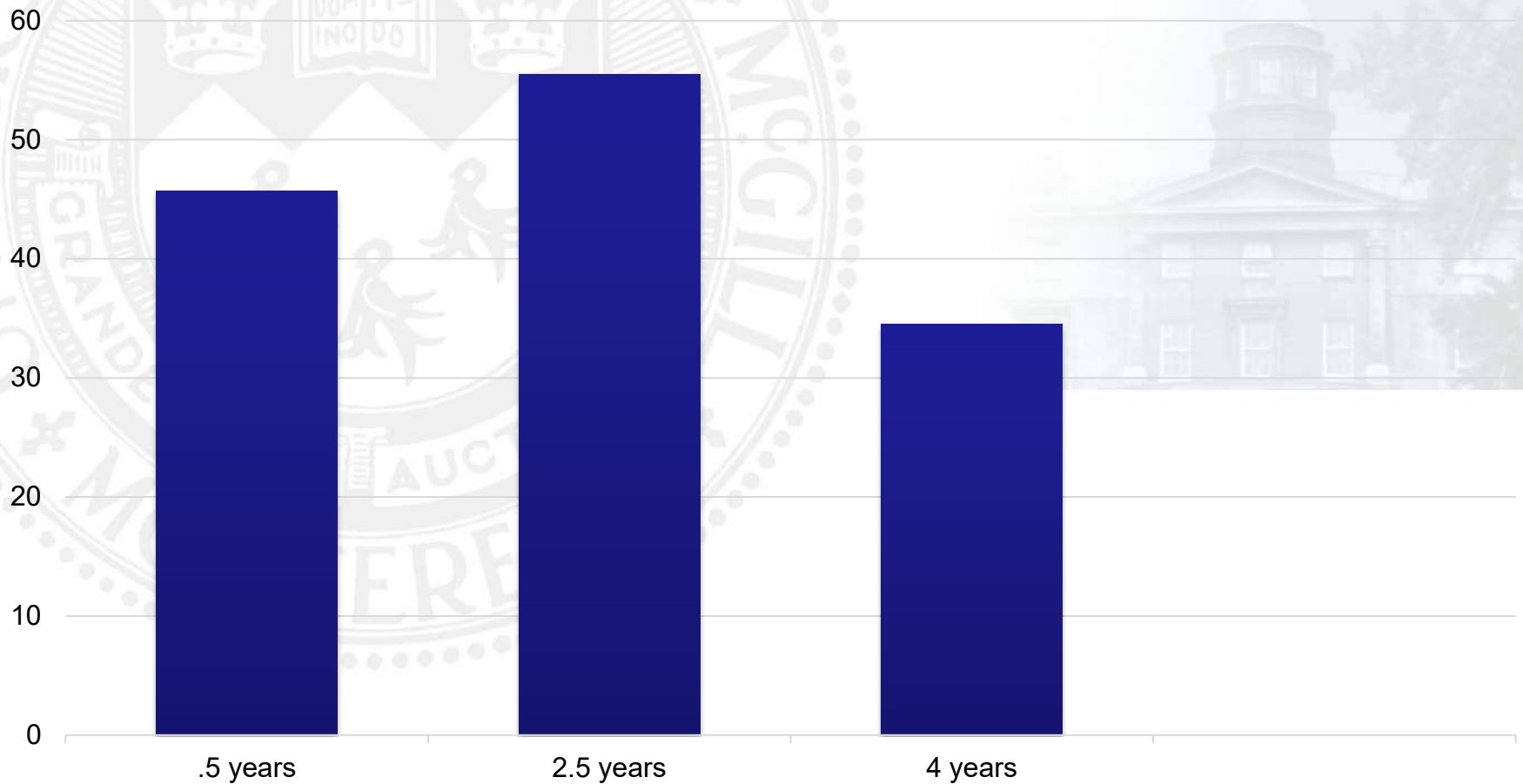
Longitudinal study – birth cohort study

- 2490 children at .5, 2.5 and 4 years
- Strengths and Difficulties Questionnaire

High ST

.5 years ST > 0 h/day
2.5 years ST > 2 h/day
4 years ST > 2 h/day

Excessive Screen Time



High Level of ST

At .05 years



- Emotional symptoms



- Hyperactivity

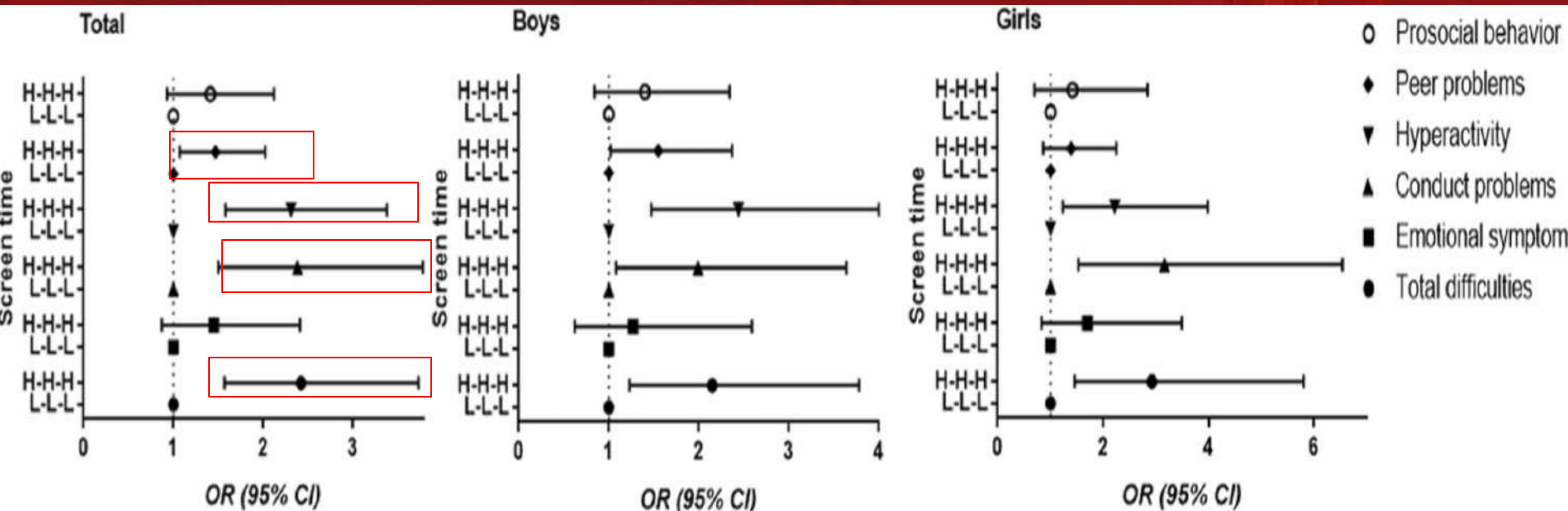
Similar for
2.5 years

- No gender differences

At 4 years

conduct problems peer problems,
hyperactivity prosocial behavior

Sustained Excessive ST



Adjusted odds ratios (95% confidence intervals) between sustained ST and emotional and behavioral problems (H-H-H, continuous high ST; L-L-L, continuous low ST)

Family/socioeconomic
factors affecting
screen time and its impacts

Lower family income

High family TV time

Smaller living spaces

One sibling

Greater maternal pre-pregnancy BMI

Lower maternal age

Not predominantly breastfeeding

Lower maternal education level

Temperament behavioural profile

- Child factors are associated with ST
 - *Poor self-regulation*
 - *Surgency*
 - *Negative affectivity*
 - *Effects greater in families facing greater social risk*





Calming the Child Down

Disruption



High media use linked to less **curiosity**, and **self-control**



Heightened risk for dysfunctions known as **sensory processing disorders**



Persistent **self-regulation** problems predict higher media use by age 2



Screen time at age 4 is connected to higher **dysregulation** at age 8.



- Associate with **emotion regulation difficulties** and **behavior problems**.
- **Tech-based distractions** have been strongly linked with **ADHD symptoms**.



Benefits of Screentime

Limited documented benefits of screen exposure in infants/toddlers

Video-deficit effect: real-world interaction > screen-based learning

Any positive benefits that may result only when **co-viewing** and repeated

But may actually be accompanying interactions that lead to educational gains

Parents may **overestimate** infants' learning from videos



PARENT BEHAVIOUR

Your own media habits?

Be aware how you use
digital media





Technoference

the interruption of parent-child interactions by technology



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Zhang et al (2025)

positive association between parental technoference and child problematic media use

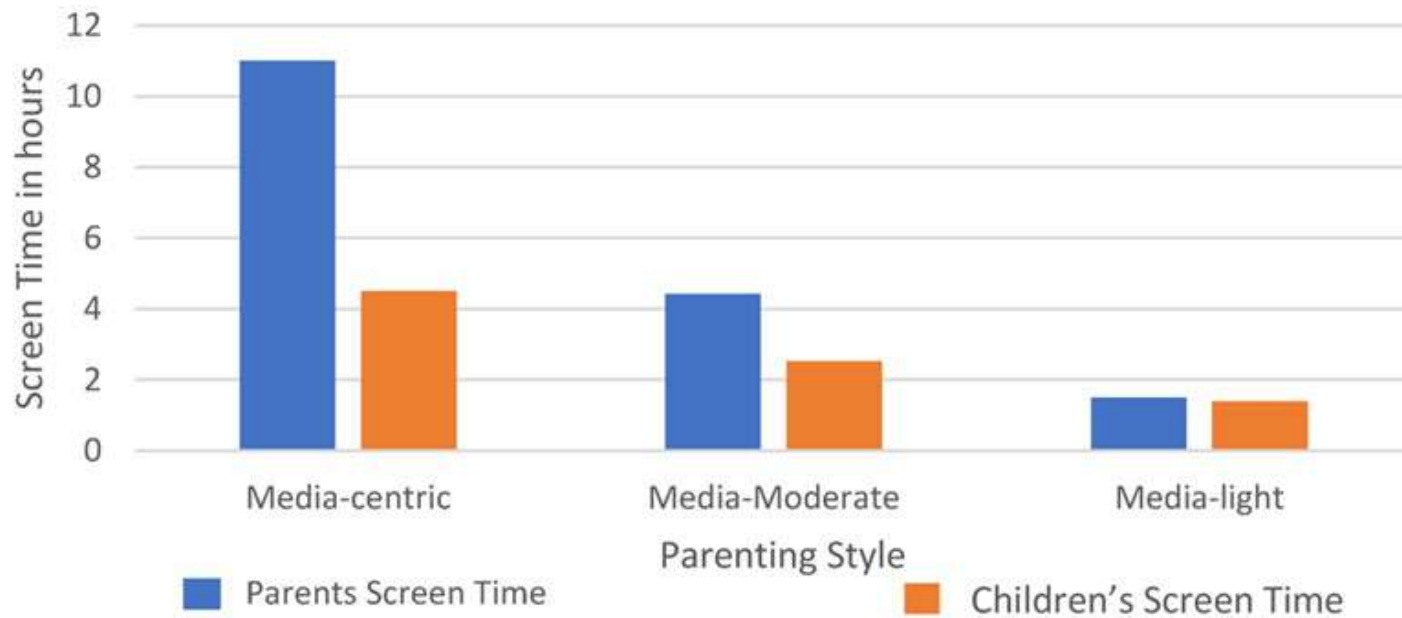


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Social learning mechanisms



Parenting orientation affects screen time



Panjeti-Madan, & Ranganathan, (2023)

Positive consequences of parent media use





Advising and Supporting Parents

MENTAL HEALTH PROFESSIONALS

Harm Reductions Strategies for Families

Educate	Educate parents on negative screen use patterns <ul style="list-style-type: none">• Excessive duration• Bedtime use and mealtimes
Screen habits	Promote healthy screen habits <ul style="list-style-type: none">• Limit to 1 hour/day• Co-view with child• Focus on high-quality, educational content
Media Plan	Encourage use of a customizable media plan
Parent habit	Address parent screen habits

Interventions

Multidimensional	Include: screen time duration, content, context, and nature of use
Support	Support harm-reduction strategies through targeted understanding
Characteristics	Account for individual child and family characteristics (differential susceptibility)
Mechanisms	Understand mechanisms like displacement and social learning

School and Daycare settings

Media use **common** in childcare settings

Train early childhood professionals

- Raise awareness of **risks** from excessive screen exposure
- Promote **screen-free alternatives**
 - diverse, engaging activities
 - Physical play and sports
 - Arts
 - Nature exploration
 - Hands on learning

Guidance and support of Families

Provide **anticipatory guidance** on **healthy screen time practices**

Early childhood is a **critical window** for prevention

Prioritize **interventions** to avoid problematic media use

Promote **caregiver involvement** and **interaction**

Encourage **positive digital media use**:

- **Educational**
- **Safe**



What can parents do?

TIPS

Be *mindful* about the use of screen time

- ✓ Family Media Plan
 - ✓ Assess family media habits
 - ✓ Develop a plan: when, how and where
 - ✓ Prioritize shared family media use over solitary child use
 - ✓ Limit screen time !



Background media

- Reduces attentional focus
- Linked to lower-quality, less complex play
- Poorer language development
- **Homes with always-on TV:**
 - Children watch more TV
 - Read less



Minimize screen time

- ✓ **No media use** under age 2
- ✓ Ages 2-5: Limit to ≤ 1 hour/day
- ✓ **Avoid routine screen time** in children under 5 y.o.
- ✓ Include **daily screen-free** time, especially during meals



CAVEAT: Video Chat

Limit Screen Time to Joint Use



- Use together
- Actively engage
- Make Media Time predictable

Content



- **Preview** all media content and **Monitor**
- Prioritize educational, age-appropriate and interactive programming
- Curate viewing/playlists

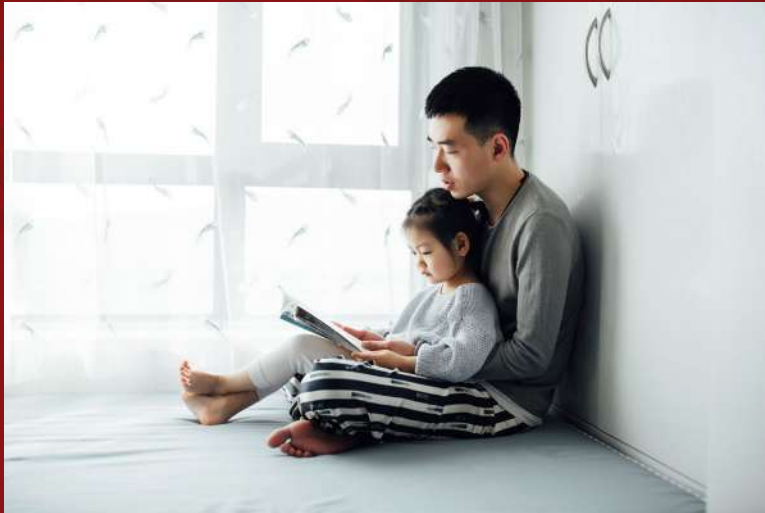
Model and Monitor own screen use

- Parents are models!
 - Limit and monitor own screen use
 - Don't keep screens on in background and participate in activities unrelated to screens
 - Turn off devices during family time



Time Together

Avoid using screens as
“emotion regulators”



Focus on Interactive
Play to develop EF and
self-regulation



Traditional play!



Traditional Play!



Face-to-Face interaction



Social support and relationships



Help!

IT IS NEVER TOO LATE.

**PARENTS CAN TEACH
THEIR CHILD TO
GROW UP IN A
DIGITAL WORLD
WHERE THEY CAN
USE THESE TOOLS
EFFECTIVELY**



Take a slow –step-by-step
approach



Create a media plan and
break it into steps



Then take each step at a time
–test it out; problem
solve any set-backs



Never too late to rein in media
use



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Thank you

- Questions?



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