

## **Preschoolers' extensive electronic media use linked to emotional/behavioural issues**

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Preschoolers' extensive use of electronic media, including game consoles, mobile phones, and tablets, is linked to a heightened risk of emotional and behavioral problems by the age of 5, finds research published in the online journal *BMJ Open*.



This behavior is associated with hyperactivity, short attention span, poor concentration and peer relationship issues, among other things, the findings suggest.

Patterns of <u>children</u>'s electronic media use are changing rapidly, say the researchers. Preschoolers' use of mobile phones and tablets tripled between 2013 and 2017, with recent studies indicating that many 4-year-olds now play games, use apps, or watch videos on them every day.

Concerns have been raised that young children's extensive use of electronic media may impede <u>healthy development</u>, affecting language and <u>social skills</u>, as well as potentially fostering addictive behavior.

The researchers therefore wanted to find out if extensive electronic media use among young children might affect their <u>psychological health</u> and wellbeing by the <u>time</u> they reach the age of 5, and if different types of activity might be influential.

They drew on participants in the Finnish CHILD-SLEEP longitudinal birth cohort study, which has regularly tracked children's health and/or psychological wellbeing from before birth (32 weeks) up to the age of 5, via parental questionnaires.

The final analysis included 699 children (333 girls; 366 boys) for whom complete health and questionnaire data were available from the age of 18 months onwards.

Around two thirds of the children (68%) were in full-time day care; nearly two thirds of the parents (64%) were educated to degree level.

Parents reported how much time their child spent using electronic media at 18 months and 5 years of age, both during the week and at the weekend.



Parents were specifically asked how many hours their child watched programmes on television or other devices, and (at 5 years) how many hours their child played games on a computer, games console, <u>mobile</u> <u>phone</u>, tablet or other device.

The responses were used to calculate a daily average for program watching, game playing, and total screen time.

At 18 months of age, the toddlers spent an average of 32 mins/day on electronic media devices. By the age of 5 this had increased to 114 mins/day.

And nearly 1 in 4 children (23%) spent more than an hour on total screen time every day at 18 months of age; by the age of 5 this percentage had risen to 95%.

By the age of 5, more than two thirds (67%) watched programmes for more than an hour a day and around 1 in 10 (11%) spent more than an hour a day gaming.

Maximum recommended daily use of electronic media for preschoolers is 60 minutes.

When the children were 5, validated questionnaires (FTF and SDQ) were used to assess the prevalence of 'psychosocial symptoms'—emotional and behavioral issues, short attention span, hyperactivity, and difficulties making and keeping friends.

Extended use of all electronic media at 18 months was associated with a 59% heightened risk of peer relationship problems by the age of 5, but nothing else.

By the age of 5, extensive electronic gaming was associated only with a



heightened risk of hyperactivity, which disappeared after taking account of influential factors. But lengthy program viewing was associated with a heightened risk of several psychosocial problems.

And excess total screen time at 5 years of age was associated with a heightened risk of attention and concentration difficulties, hyperactivity and impulsivity, and emotional and <u>behavioral problems</u>.

This is an observational study, and as such, can't establish cause, added to which psychosocial symptoms weren't assessed in the children when aged 18 months of age while electronic media use wasn't based on logs or objective measures.

But the time children spend on electronic media likely reduces the time spent interacting with family members, reading, and playing, suggest the researchers. And at an early age, children's healthy social and <u>emotional</u> <u>development</u> depends on a dynamic interplay between social learning and environmental factors.

"Our results show that 5-year-old children spend considerably more time on e-media than is recommended by professionals. Our results further indicate that high levels of e-media use, especially program viewing, is associated with problems with psychosocial outcomes, while use of electronic games was only associated with hyperactivity in the crude models."

They emphasize: "Although children's e-<u>media</u> use patterns might not seem problematic when considering use on a daily level, they do have risks in the long term."

**More information:** High-dose electronic media use in five-year-olds and its association with their psychosocial symptoms: a cohort study, <u>DOI: 10.1136/bmjopen-2020-040848</u>



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