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Handheld Screen Time Linked with Speech Delays in Young Children

New research being presented at the 2017 Pediatric Academic Societies Meeting suggests the more time children under 2 years old spend playing with smartphones, tablets and other handheld screens, the more likely they are to begin talking later.

SAN FRANCISCO – As the number of smart phones, tablets, electronic games and other handheld screens in U.S. homes continues to grow, some children begin using these devices before beginning to talk. New research being presented at the 2017 Pediatric Academic Societies Meeting suggests these children may be at higher risk for speech delays.

Researchers will present the abstract, "Is handheld screen time use associated with language delay in infants?" on Saturday, May 6 at the Moscone West Convention Center in San Francisco. The study included 894 children between ages 6 months and 2 years participating in TARGet Kids!, a practice-based research network in Toronto between 2011 and 2015.

By their 18-month check-ups, 20 percent of the children had daily average handheld device use of 28 minutes, according to their parents. Based on a screening tool for language delay, researchers found that the more handheld screen time a child's parent reported, the more likely the child was to have delays in expressive speech. For each 30-minute increase in handheld screen time, researchers found a 49 percent increased risk of expressive speech delay. There was no apparent link between handheld device screen time and other communications delays, such as social interactions, body language or gestures.

"Handheld devices are everywhere these days," said Dr. Catherine Birken, MD, MSc, FRCPC, the study's principal investigator and a staff pediatrician and scientist at The Hospital for Sick Children (SickKids). "While new pediatric guidelines suggest limiting screen time for babies and toddlers, we believe that the use of smartphones and tablets with young children has become quite common. This is the first study to report an association between handheld screen time and increased risk of expressive language delay."

Dr. Birken said the results support a recent policy recommendation by the American Academy

of Pediatrics to discourage any type of screen media in children younger than 18 months. More research is needed, she said, to understand the type and contents of screen activities infants are engaging in to further explore mechanisms behind the apparent link between handheld screen time and speech delay, such as time spent together with parents on handheld devices, and to understand the impact on in-depth and longer-term communication outcomes in early childhood.

Lead author Julia Ma, HBSc, an MPH student at the University of Toronto, will present the abstract, "Is handheld screen time use associated with language delay in infants?" at 10:30 a.m.

Reporters interested in an interview with one of the authors can contact Caitlin Johannesson, Media Relations, The Hospital for Sick Children, at caitlin.johannesson@sickkids.ca

Please note: only the abstract is being presented at the meeting. In some cases, the researcher may have more data available to share with media, or may be preparing a longer article for submission to a journal. Contact the researcher for more information.

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The Pediatric Academic Societies (PAS) Meeting brings together thousands of individuals united by a common mission: to improve child health and wellbeing worldwide. This international gathering includes pediatric researchers, leaders in academic pediatrics, experts in child health, and practitioners. The PAS Meeting is produced through a partnership of four organizations leading the advancement of pediatric research and child advocacy: Academic Pediatric Association, American Academy of Pediatrics, American Pediatric Society, and Society for Pediatric Research. For more information, visit the PAS Meeting online at www.pas-meeting.org, follow us on Twitter @PASMeeting and #pasm17, or like us on Facebook.

ABSTRACT

TITLE: Is handheld screen time use associated with language delay in infants?

Background: In recent years young children have been increasingly exposed to various handheld devices. The relationship between television time and expressive language delay is well established in young children. Studies examining the relationship between handheld screen time and language outcomes in infants are lacking.

Objective: To determine the association between handheld screen time and communication problems in children 6-24 months of age.

Design/Methods: A cross-sectional study design was used. Parents of children 6-24 months participating in the TARGet Kids! practice based research network were included during scheduled health supervision visits between September 2011 and December 2015. Parents reported their child's typical daily handheld screen time use and communication problems were assessed by the Infant Toddler Checklist (ITC), a validated questionnaire for detecting expressive speech delay and other communication concerns. Expressive speech delay was indicated by a score below the 10th percentile in the speech domain of the ITC and other communication concerns were indicated by a score below the 10th percentile in the symbolic,

social or the total score of the ITC. A logistic regression model was used to examine the association between handheld screen time and communication problems adjusted for the covariates infant non-handheld screen time, parent handheld screen time, infant temperament, maternal education, and family income.

Results: This study included 1077 children with a median age of 18.4 months; 580 (54%) were male. 744 (69%) children did not have any handheld screen time while 219 (20%) had a daily mean handheld device use of 27.8 minutes (SD=33.5). Adjusting for covariates, we identified a significant association between handheld screen time and expressive speech delay (OR=1.49, 95% CI: 1.02-2.16); this relationship was more pronounced among children who reported any handheld screen time (OR=2.11, 95% CI: 1.10-4.05). No relationship was observed between handheld screen time and other communication delays in infants for the entire cohort (OR=0.86, 95% CI: 0.54-1.39) and among those with any handheld screen time (OR=0.73, 95% CI: 0.27-1.96).

Conclusion(s): Infants with more handheld screen time have an increased risk of an expressive speech delay. Additional research is needed to inform recommendations limiting handheld screen time in infants.