

Abstract from Current Literatures

Associations Between Screen Use and Child Language Skills A Systematic Review and Meta-analysis

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Introduction: There is considerable public and scientific debate as to whether screen use helps or hinders early child development, particularly the development of language skills.

Objective: To examine via meta-analyses the associations between quantity (duration of screen time and background television), quality (educational programming and co-viewing), and onset of screen use and children's language skills.

Materials & Methods: Inclusion criteria were a measure of screen use; a measure of language skills; and statistical data that could be transformed into an effect size. Exclusion criteria were qualitative studies; child age older than 12 years; and language assessment preverbal. The following variables were extracted: effect size, child age and sex, screen measure type, study publication year, and study design. All studies were independently coded by 2 coders and conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Outcomes were measured based on prior study criteria, quantity of screen use included duration of screen time and background television, quality of screen use included co-viewing and exposure to educational programs, and onset of screen use was defined as the age children first began viewing screens. The child language outcome included assessments of receptive and/or expressive language.

Results: Participants totaled 18 905 from 42 studies included. Effect sizes were measured as correlations (r). Greater quantity of screen use (hours per use) was associated with lower language skills (screen time [$n = 38$; $r = -0.14$; 95%CI, -0.18 to -0.10]; background television [$n = 5$; $r = -0.19$; 95%CI, -0.33

to -0.05]), while better-quality screen use (educational programs [$n = 13$; $r = 0.13$; 95%CI, 0.02 - 0.24]; co-viewing [$n = 12$; $r = 0.16$; 95%CI, 0.07 - 0.24]) were associated with stronger child language skills. Later age at screen use onset was also associated with stronger child language skills [$n = 4$; $r = 0.17$; 95%CI, 0.07 - 0.27].

Conclusion: The findings of this meta-analysis support pediatric recommendations to limit children's duration of screen exposure, to select high-quality programming, and to co-view when possible.

Multisystem Inflammatory Syndrome in U.S. Children and Adolescents

L.R. Feldstein, E.B. Rose, S.M. Horwitz, J.P. Collins, M.M. Newhams, M.B.F. Son, J.W. Newburger, L.C. Kleinman, S.M. Heidemann, A.A. Martin, A.R. Singh, S. Li, K.M. Tarquinio, P. Jaggi, M.E. Oster, S.P. Zackai, J. Gillen, A.J. Ratner, R.F. Walsh, J.C. Fitzgerald, M.A. Keenaghan, H. Alharash, S. Doymaz, K.N. Clouser, J.S. Giuliano, Jr., A. Gupta, R.M. Parker, A.B. Maddux, V. Havalad, S. Ramsingh, H. Bukulmez, T.T. Bradford, L.S. Smith, M.W. Tenforde, C.L. Carroll, B.J. Riggs, S.J. Gertz, A. Daube, A. Lansell, A. Coronado Munoz, C.V. Hobbs, K.L. Marohn, N.B. Halasa, M.M. Patel, and A.G. Randolph
N Engl J Med 2020; 383:334-46.

Background: Understanding the epidemiology and clinical course of multisystem inflammatory syndrome in children (MIS-C) and its temporal association with coronavirus disease 2019 (Covid-19) is important, given the clinical and public health implications of the syndrome.

Methods: We conducted targeted surveillance for MIS-C from March 15 to May 20, 2020, in pediatric health centers across the United States. The case definition included six criteria: serious illness leading to hospitalization, an age of less than 21 years, fever that lasted for at least 24 hours, laboratory evidence of inflammation, multisystem organ involvement, and

evidence of infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) based on reverse-transcriptase polymerase chain reaction (RT-PCR), antibody testing, or exposure to persons with Covid-19 in the past month. Clinicians abstracted the data onto standardized forms

Results: We report on 186 patients with MIS-C in 26 states. The median age was 8.3 years, 115 patients (62%) were male, 135 (73%) had previously been healthy, 131 (70%) were positive for SARS-CoV-2 by RT-PCR or antibody testing, and 164 (88%) were hospitalized after April 16, 2020. Organ-system involvement included the gastrointestinal system in 171 patients (92%), cardiovascular in 149 (80%), hematologic in 142 (76%), mucocutaneous in 137 (74%), and respiratory in 131 (70%). The median duration of hospitalization was 7 days (interquartile range, 4 to 10); 148 patients (80%) received intensive care, 37 (20%) received mechanical ventilation, 90 (48%) received vasoactive support, and 4 (2%) died. Coronary-artery aneurysms (z scores ≥ 2.5) were documented in 15 patients (8%), and Kawasaki's disease-like features were documented in 74 (40%). Most patients (171 [92%]) had elevations in at least four bio-markers indicating inflammation. The use of immunomodulating therapies was common: intravenous immune globulin was used in 144 (77%), glucocorticoids in 91 (49%), and interleukin-6 or 1RA inhibitors in 38 (20%).

Conclusions: Multisystem inflammatory syndrome in children associated with SARS-CoV-2 led to serious and life-threatening illness in previously healthy children and adolescents.

Randomized oral stimulation and exclusive breastfeeding duration in healthy premature infants

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Aim: Although exclusive breastfeeding is recommended for all newborn in the first 6 months of life, only 13% of Danish premature infants complies with this. This trial aimed to examine whether oral stimulation prolonged exclusive breastfeeding in premature infants.

Method: A randomized controlled trial was conducted at the Neonatal Intensive Care Unit, Hvidovre Hospital, Denmark between 2016 and 2018. Systematic oral stimulation was performed by the parents after training by occupational therapists. Primary outcome was exclusive breastfeeding duration with 6 months' follow up, analyzed by intention to treat.

Results: Included were 211 infants (53% boys) with a mean gestational age of 231 days, allocated in ratio 1:1 to oral stimulation or standard care. There was no difference in exclusive breastfeeding duration between infants orally stimulated and control infants. Thus, for orally stimulated infants, median duration was 122 days (interquartile range 40 183) in contrast to 154 days (interquartile range 61 183) for the controls, P value .16. At 6 months of age, 27% of orally stimulated infants were exclusively breastfed compared with 25% of controls.

Conclusion: In healthy premature infants, oral stimulation performed by parents has no long lasting effect on breastfeeding duration. Attention should be directed to parental education and involvement.