

EFEITOS DO EXCESSO DE TELAS NO DESENVOLVIMENTO DE CRIANÇAS E ADOLESCENTES: REVISÃO DE LITERATURA INTEGRATIVA

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INTRODUÇÃO: O excesso do tempo de tela em crianças e adolescentes é um tema cada vez mais precoce devido ao incentivo parental e a necessidade de distração das crianças do mundo real. Assim, entendemos a necessidade de avaliar os efeitos fisiológicos e comportamentais a curto e longo prazo deste excesso de ecrãs. **OBJETIVOS:** Identificar relação entre o excesso do uso de telas e os impactos no desenvolvimento neuropsicomotor de crianças e adolescentes. **MÉTODOS:** Foram selecionadas para a pesquisa duas bases de dados de acesso online: Pubmed/Medline e a Biblioteca Virtual em Saúde (BVS). Com um vocabulário controlado na estratégia de busca em cada uma das bases de dados bibliográficas, Pubmed/Medline (*MeSH terms*), BVS (*DeCs terms*), os seguintes termos foram utilizados: “*child development, excessive screen time*”, bem como seus sinônimos e combinações. Para realizar esta pesquisa, a seguinte pergunta foi feita: Quais os efeitos do excesso do uso de telas no desenvolvimento de crianças e adolescentes? **RESULTADOS:** A população estudada varia entre 6 meses de idade e 19 anos dentre os artigos selecionados. As consequências mais encontradas em relação ao uso de telas em excesso foram os distúrbios do sono como, dificuldade para pegar no sono, insônia, desregulação do ciclo sono-vigília, aumento da latência do sono, sonolência excessiva durante o dia, diminuição da duração do sono, problemas relacionados a alimentação de má qualidade obesidade, compulsão alimentar, saciedade reduzida, aumento do consumo de fast food. diminuição do desenvolvimento cognitivo e emocional doenças como depressão e ansiedade e transtornos de hiperatividade e também transtornos cardiometabólicos. **CONCLUSÃO:** Foram encontrados diversos efeitos do excesso do uso de telas em crianças e adolescentes, sendo eles distúrbios do sono, alimentação inadequada, obesidade e sobrepeso, desregulações metabólicas, problemas cognitivos e executivos. o impacto do excesso de telas pós-pandemia ainda necessita de mais estudos, mas já identifica um grande impacto fisiológico em crianças que passaram pela pandemia de COVID-19.

PALAVRAS-CHAVE: excessive screen time, children, adolescents, screen time abuse, impacts, diseases.

REFERÊNCIAS:

1. Madigan S, Browne D, Racine N, Mori C, Tough S. Association Between Screen Time and Children's Performance on a Developmental Screening Test. *JAMA Pediatrics* [Internet]. 2019 Mar 1;173(3):244. Available from: <https://jamanetwork.com/journals/jamapediatrics/article-abstract/2722666>
2. Robidoux H, Ellington E, Lauerer J. Screen Time: The Impact of Digital Technology on Children and Strategies in Care. *Journal of psychosocial nursing and mental health services* [Internet]. 2019 [cited 2019 Nov 20];57(11):15–20. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31670830>
4. Zhao J, Yu Z, Sun X, Wu S, Zhang J, Zhang D, et al. Association Between Screen Time Trajectory and Early Childhood Development in Children in China. *JAMA Pediatrics*. 2022 Jun 6;
7. Varadarajan S, Govindarajan Venguidesvarane A, Ramaswamy KN, Rajamohan M, Krupa M, Winfred Christadoss SB. Prevalence of excessive screen time and its association with developmental delay in children aged <5 years: A population-based cross-sectional study in India. Gopichandran V, editor. *PLOS ONE*. 2021 Jul 6;16(7):e0254102.
8. Rocha HAL, Correia LL, Leite ÁJM, Machado MMT, Lindsay AC, Rocha SGMO, et al. Screen time and early childhood development in Ceará, Brazil: a population-based study. *BMC Public Health*. 2021 Nov 11;21(1).
10. Neville RD, McArthur BA, Eirich R, Lakes KD, Madigan S. Bidirectional associations between screen time and children's externalizing and internalizing behaviors. *Journal of Child Psychology and Psychiatry*. 2021 May 4;
11. Kushima M, Kojima R, Shinohara R, Horiuchi S, Otawa S, Ooka T, et al. Association Between Screen Time Exposure in Children at 1 Year of Age and Autism Spectrum Disorder at 3 Years of Age. *JAMA Pediatrics*. 2022 Apr 1;176(4):384.
14. Nagata JM, Chu J, Ganson KT, Murray SB, Iyer P, Gabriel KP, et al. Contemporary screen time modalities and disruptive behavior disorders in children: a prospective cohort study. *Journal of Child Psychology and Psychiatry*. 2022 Jul 26;

17. Pearson N, Biddle SJH, Griffiths P, Johnston JP, Haycraft E. Clustering and correlates of screen-time and eating behaviours among young children. *BMC Public Health*. 2018 Jun 18;18(1).
19. Hisler GC, Hasler BP, Franzen PL, Clark DB, Twenge JM. Screen media use and sleep disturbance symptom severity in children. *Sleep Health*. 2020 Aug;
23. John JJ, Joseph R, David A, Bejoy A, George KV, George L. Association of screen time with parent-reported cognitive delay in preschool children of Kerala, India. *BMC Pediatrics*. 2021 Feb 11;21(1).
26. Neville RD, Nelson MA, Madigan S, Browne DT, Lakes KD. Does physical activity moderate the association between screen time and psychosocial development in early childhood? Analysis of a longitudinal infant cohort study in Ireland. *European Journal of Pediatrics*. 2021 Mar 8;
28. Xie G, Deng Q, Cao J, Chang Q. Digital screen time and its effect on preschoolers' behavior in China: results from a cross-sectional study. *Italian Journal of Pediatrics*. 2020 Jan 23;46(1).
29. Santos RMS, Mendes CG, Marques Miranda D, Romano-Silva MA. The Association between Screen Time and Attention in Children: A Systematic Review. *Developmental Neuropsychology*. 2022 Apr 17;1–18.
31. Horowitz-Kraus T, DiFrancesco M, Greenwood P, Scott E, Vannest J, Hutton J, et al. Longer Screen Vs. Reading Time is Related to Greater Functional Connections Between the Salience Network and Executive Functions Regions in Children with Reading Difficulties Vs. Typical Readers. *Child Psychiatry & Human Development* [Internet]. 2020 Sep 4 [cited 2020 Dec 9]; Available from: <https://link.springer.com/article/10.1007%2Fs10578-020-01053-x>
35. Tornquist D, Tornquist L, Sehn AP, Schneiders L de B, Pollo Renner JD, Rech Franke SI, et al. Cardiorespiratory fitness, screen time and cardiometabolic risk in South Brazilian school children. *Annals of Human Biology*. 2022 Jan 2;49(1):10–7.
36. Supanitayanon S, Trairatvorakul P, Chonchaiya W. Screen media exposure in the first 2 years of life and preschool cognitive development: a longitudinal study. *Pediatric Research*. 2020 Mar 13;
39. Pan J, Jiang X, Tian Z, Hu Y, Li K. ML Model Optimization-Selection and GFA Prediction for Binary Alloys. *SSRN Electronic Journal*. 2021;

42. Alroqi H, Serratrice L, Cameron-Faulkner T. The association between screen media quantity, content, and context and language development. *Journal of Child Language*. 2022 Jun 27;1–29.
43. Guzmán V, Lissner L, Arvidsson L, Hebestreit A, Solea A, Lauria F, et al. Associations of Sleep Duration and Screen Time with Incidence of Overweight in European Children: The IDEFICS/I.Family Cohort. *Obesity Facts*. 2021 Nov 1;1–7.
44. Aishworiya R, Magiati I, Phua D, Daniel LM, Shek LP, Chong YS, et al. Are There Bidirectional Influences Between Screen Time Exposure and Social Behavioral Traits in Young Children? *Journal of developmental and behavioral pediatrics: JDBP* [Internet]. 2022 Aug 1 [cited 2022 Sep 13];43(6):362–9. Available from: <https://pubmed.ncbi.nlm.nih.gov/35580310/>
48. Brand S, Lemola S, Mikoteit T, Holsboer-Trachsler E, Kalak N, Sadeghi Bahmani D, et al. Schlaf und Befindlichkeit bei Kindern und Jugendlichen – ein narratives Review. *Praxis der Kinderpsychologie und Kinderpsychiatrie*. 2019 Feb 13;68(2):128–45.
49. El Refay AS, Hashem SA, Mostafa HH, Kamel IH, Sherif LS. Sleep quality and anxiety symptoms in Egyptian children and adolescents during COVID-19 pandemic lockdown. *Bulletin of the National Research Centre*. 2021 Jul 23;45(1).
50. Chong WW, Abd Rahman FN, Harun NA. Screen time of children with speech delay: a cross-sectional study in a tertiary center in Kuantan, Malaysia. *Pediatrics International*. 2022 Jan;64(1).
51. Bahadur Eİ, Akkuş PZ, Yoldaş TÇ, Özmert EN. How effective is family counselling on screen exposure of pre-school children? *The Turkish Journal of Pediatrics*. 2021;63(2):282.
55. Narasimhan U, Anitha F, Janakiraman A, Janakarajan N, Tamilselvan P. Association of digital media exposure and addiction with child development and behavior: A cross-sectional study. *Industrial Psychiatry Journal*. 2021;30(2):265.
56. Hetherington E, McDonald S, Racine N, Tough S. Longitudinal Predictors of Self-Regulation at School Entry: Findings from the All Our Families Cohort. *Children*. 2020 Oct 16;7(10):186.
57. Wong RS, Tung KTS, Rao N, Ho FKW, Chan KL, Fu K-W, et al. A Longitudinal Study of the Relation between Childhood Activities and Psychosocial Adjustment in Early Adolescence. *International journal of environmental research and public health* [Internet]. 2021 May 16;18(10). Available from: <https://web.a.ebscohost.com/ehost/detail/detail?vid=13&sid=98bdbe56-363a-4232->

[a6bea0c93d6eba97%40sessionmgr4007&bdata=JkF1dGhUeXBIPWlwLHNzbyZzaXRlPWVob3N0LWxpdmUmc2NvcGU9c2l0ZQ%3d%3d#AN=34065751&db=mdc](#)

60. Mayne SL, Virudachalam S, Fiks AG. Clustering of unhealthy behaviors in a nationally representative sample of U.S. children and adolescents. *Preventive Medicine*. 2020 Jan;130:105892.
61. Almuaigel D, Alanazi A, Almuaigel M, Alshamrani F, AlSheikh M, Almuhana N, et al. Impact of Technology Use on Behavior and Sleep Scores in Preschool Children in Saudi Arabia. *Frontiers in Psychiatry*. 2021 May 21;12.
64. Lammers SM, Woods R, Brotherson SE, Deal JE, Platt CA. Explaining Adherence to AAP Screen time Recommendations with Caregiver Awareness and Parental Motivation Factors: A Mixed Method Study (Preprint). *JMIR Pediatrics and Parenting*. 2021 Mar 25;
65. Sawa S, Sekine M, Yamada M. Social and Family Factors as Determinants of Sleep Habits in Japanese Elementary School Children: A Cross-Sectional Study from the Super Shokuiku School Project. *Children*. 2021 Feb 5;8(2):110.
68. Wang H, Abbey C, She X, Rozelle S, Ma X. Association of Child Mental Health with Child and Family Characteristics in Rural China: A Cross-Sectional Analysis. *International Journal of Environmental Research and Public Health*. 2021 May 12;18(10):5107.
69. Wang J, Wang H, Lin H, Richards M, Yang S, Liang H, et al. Study problems and depressive symptoms in adolescents during the COVID-19 outbreak: poor parent-child relationship as a vulnerability. *Globalization and Health*. 2021 Apr 6;17(1).
72. Bouchtein E, Langberg JM, Cusick CN, Breaux RP, Smith ZR, Becker SP. Technology Use and Sleep in Adolescents With and Without Attention-Deficit/Hyperactivity Disorder. *Journal of Pediatric Psychology* [Internet]. 2019 Jan 4; Available from: <https://academic.oup.com/jpepsy/advance-article-abstract/doi/10.1093/jpepsy/psy101/5273623>
74. Munzer TG, Miller AL, Peterson KE, Brophy-Herb HE, Horodyski MA, Contreras D, et al. Media Exposure in Low-Income Preschool-Aged Children Is Associated with Multiple Measures of Self-Regulatory Behavior. *Journal of Developmental & Behavioral Pediatrics*. 2018 May;39(4):303–9.
76. Yamamoto M, Mezawa H, Sakurai K, Mori C. Association between Media Use and Bedtime Delays in Young Children: An Adjunct Study of the Japan Environment and Children's Study. *International Journal of Environmental Research and Public Health*. 2022 Aug 2;19(15):9464.

77. Benita N, Gordon-Hacker A, Gueron-Sela N. Sleep Through Toddlerhood. *Journal of Developmental & Behavioral Pediatrics*. 2020 Jun 24; Publish Ahead of Print.
79. Goldstone A, Javitz HS, Claudatos SA, Buysse DJ, Hasler BP, de Zambotti M, et al. Sleep Disturbance Predicts Depression Symptoms in Early Adolescence: Initial Findings From the Adolescent Brain Cognitive Development Study. *Journal of Adolescent Health*. 2020 May;66(5):567–74.
81. Simonato I, Janosz M, Archambault I, Pagani LS. Prospective associations between toddler televiewing and subsequent lifestyle habits in adolescence. *Preventive Medicine* [Internet]. 2018 May [cited 2019 Apr 24];110:24–30. Available from: <https://www.sciencedirect.com/science/article/pii/S0091743518300355>
85. Tanti S, Troost JP, Samuels E, Mckay A, Kowalski-Dobson T, Vereen D, et al. Parental Perspectives Regarding the Impact of the COVID-19 Pandemic on Their Children. *Childhood Obesity*. 2022 Apr 21;
88. Fitzpatrick C, Harvey E, Cristini E, Laurent A, Lemelin J-P, Garon-Carrier G. Is the Association Between Early Childhood Screen Media Use and Effortful Control Bidirectional? A Prospective Study During the COVID-19 Pandemic. *Frontiers in Psychology*. 2022 Jun 27;13.
93. Widyastari DA, Kesaro S, Rasri N, Saonuam P, Katewongsa P. Learning Methods During School Closure and Its Correlation With Anxiety and Health Behavior of Thai Students. *Frontiers in Pediatrics*. 2022 Mar 28;10.
95. Pagani LS, Jalbert M, Derevensky JL. From one year to the next: Video gaming lifestyle predicts subsequent psychosocial risk in adolescent boys and girls. *Journal of Paediatrics and Child Health*. 2022 Jun 3;58(9):1554–60.
96. Domingues-Montanari S. Clinical and psychological effects of excessive screen time on children. *Journal of Paediatrics and Child Health*. 2017 Feb 6;53(4):333–8.
98. Silva AO da, Oliveira LMFT de, Santos MAM dos, Tassitano RM. Tempo de tela, percepção da qualidade de sono e episódios de parassonia em adolescentes. *Revista Brasileira de Medicina do Esporte*. 2017 Sep;23(5):375–9.
99. Aishworiya R, Kiing JS, Chan YH, Tung SS, Law E. Screen time exposure and sleep among children with developmental disabilities. *Journal of Paediatrics and Child Health*. 2018 Apr 19;54(8):889–94.
100. de Souza S, Cristina Marques K, Priscila Reuter C. Screen time above recommendations in children and adolescents: analysis of the associated nutritional, behavioral and parental factors. *Revista Brasileira de Crescimento e Desenvolvimento*

Humano [Internet]. 2020 Sep 1 [cited 2021 Aug 13];30(3):363–70. Available from: <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=1&sid=1932251b-7dde-4895-a82b-3bab269d6306%40sessionmgr4008>

101. Jones RA, Hinkley T, Okely AD, Salmon J. Tracking Physical Activity and Sedentary Behavior in Childhood. *American Journal of Preventive Medicine*. 2013 Jun;44(6):651–8.

102. Eduarda Serafim Crispim M, Carolina Libório Crispim M, Pontes Guerra R, Braga Santos G, Nunes Gomes L, Grisi de Andrade B. Children's overuse of screens post-COVID-19: Psychological and child development impacts. *Estudos Interdisciplinares em Ciências da Saúde*. 2022;86–93.

103. Media and Children Communication Toolkit [Internet]. AAP.org. 2019. Available from: <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Pages/Media-and-Children.aspx>

103.StackPath [Internet]. www.sbp.com.br. Available from: https://www.sbp.com.br/fileadmin/user_upload/_22246c-ManOrient_-_MenosTelas_MaisSaude.pdf