

Asociaciones entre la exposición a pantallas y la autorregulación de niños: una revisión sistemática y metaanálisis.

Gago Galvagno, Lucas Gustavo, Lee, Florencia, Castillo, María del Pilar, Boscolo, Martina y Elgier, Angel Manuel.

Cita:

Gago Galvagno, Lucas Gustavo, Lee, Florencia, Castillo, María del Pilar, Boscolo, Martina y Elgier, Angel Manuel (2022). *Asociaciones entre la exposición a pantallas y la autorregulación de niños: una revisión sistemática y metaanálisis*. XIV Congreso Internacional de Investigación y Práctica Profesional en Psicología. XXIX Jornadas de Investigación. XVIII Encuentro de Investigadores en Psicología del MERCOSUR. IV Encuentro de Investigación de Terapia Ocupacional. IV Encuentro de Musicoterapia. Facultad de Psicología - Universidad de Buenos Aires, Buenos Aires. Dirección estable: <https://www.aacademica.org/000-084/333>

ARK: <https://n2t.net/ark:/13683/eoq6/y6m>

ASOCIACIONES ENTRE LA EXPOSICIÓN A PANTALLAS Y LA AUTORREGULACIÓN DE NIÑOS: UNA REVISIÓN SISTEMÁTICA Y METAANÁLISIS

Gago Galvagno, Lucas Gustavo; Lee, Florencia; Castillo, María del Pilar; Boscolo, Martina; Elgier, Angel Manuel
Universidad de Buenos Aires. Facultad de Psicología. Buenos Aires, Argentina.

RESUMEN

La autorregulación cognitiva y emocional son habilidades esenciales durante los primeros años de vida ya que predicen el desarrollo posterior de otras habilidades cognitivas, el rendimiento académico y la presencia de psicopatología. Dado que la exposición a los dispositivos tecnológicos ha aumentado en los últimos años, en la edad adulta como en la niñez, es importante metaanalizar los estudios sobre este tema para evaluar cómo su uso se asocia con la autorregulación temprana. Para ello se realizó una revisión sistemática y metaanálisis con las investigaciones de los últimos 10 años (2011-2021) sobre el aporte de los dispositivos tecnológicos a la autorregulación de niños/as con desarrollo típico. Hubo un total de 13.408 niños de 0 a 12 años. Se encontraron 20 resultados de asociaciones, en 15 estudios. Los tamaños del efecto se midieron como correlaciones (r). Los resultados mostraron que cuanto más tiempo frente a una pantalla pasaban los niños/as, menor era la puntuación en las pruebas de autorregulación (tiempo de pantalla [$n = 20$; $r = -0,18$ (IC 95%, -0,26 a -0,09)], con altos niveles de heterogeneidad entre estudios. Los hallazgos muestran que es necesario seguir las recomendaciones de las asociaciones pediátricas y realizar más investigaciones para analizar posibles moderadores.

Palabras clave

Autorregulación - Pantallas - Infancia - Metaanálisis

ABSTRACT

ASSOCIATIONS BETWEEN SCREEN EXPOSURE AND CHILDREN SELF-REGULATION: A SYSTEMATIC REVIEW AND METANALYSIS
Cognitive and emotional self-regulation are essential skills during the first years of life as they predict the later development of other cognitive skills, academic performance and the presence of psychopathology. As the exposure to technological devices has increased in recent years, both in adulthood and early childhood, it is important to metaanalyze studies on this topic to assess how their use is associated with early self-regulation. For this, a systematic review and meta-analysis was carried out with the research of the last 10 years (2011-2021) on the contribution of technological devices to the self-regulation of infants with typical development. There was a total of 13,408 children

from 0 to 12 years of 20 different associations outcomes. Effect sizes were measured as correlations (r). The results showed that the more time in front of a screen, the lower the scores on the self-regulation tests will be (screen time [$n = 20$; $r = -0,18$ (95% CI, -0,26 to -0,09)], with higher levels of interstudy heterogeneity. These findings show that it is necessary to follow the recommendations of pediatric associations and conduct more research to analyze possible moderators.

Keywords

Self-regulation - Screens - Infancy - Metanalysis

BIBLIOGRAFÍA

- Cerniglia, L., Cimino, S., & Ammaniti, M. (2021) What are the effects of screen time on emotion regulation and academic achievements? A three-wave longitudinal study on children from 4 to 8 years of age. *Journal of Early Childhood Research*, 19(2), 145-160. <https://doi.org/10.1177/1476718X20969846>
- Clifford, S., Doane, L. D., Breitenstein, R., Grimm, K. J., & Lemery-Chalfant, K. (2020) Effortful control moderates the relation between electronic-media use and objective sleep indicators in childhood. *Psychological Science*, 31(7), 822-834. <https://doi.org/doi.org/10.1177/0956797620919432>
- Corkin, M. T., Peterson, E. R., Henderson, A. M., Waldie, K. E., Reese, E., & Morton, S. M. (2021) Preschool screen media exposure, executive functions, and symptoms of inattention/hyperactivity. *Journal of Applied Developmental Psychology*, 73, 101237. <https://doi.org/10.1016/j.appdev.2020.101237>
- Coyne, S. M., Shawcroft, J., Gale, M., Gentile, D. A., Etherington, J. T., Holmgren, H., & Stockdale, L. (2021) Tantrums, Toddlers, and Technology: Temperament, Media Emotion Regulation, and Problematic Media Use in Early Childhood. *Computers in Human Behavior*, 120, 106762. <https://doi.org/10.1016/j.chb.2021.106762>
- de Lucena Martins, C. M., Bandeira, P. F. R., Lemos, N. B. A. G., Bezerra, T. A., Clark, C. C. T., Mota, J., & Duncan, M. J. (2020) A network perspective on the relationship between screen time, executive function, and fundamental motor skills among preschoolers. *International Journal of Environmental Research and Public Health*, 17(23), 8861. <https://doi.org/10.3390/ijerph17238861>

- Duch, H., Fisher, E.M., Ensari, I., Font, M., Harrington, A., Taromino, C., ... & Rodriguez, C. (2013) Association of screen time use and language development in Hispanic children: a cross-sectional and longitudinal study. *Clinical Pediatrics*, 52(9), 857-865. <https://doi.org/10.1177/0009922813492881>
- Gago Galvagno, L. G., De Grandis, M. C., Jaume, L. C., and Elgier, A. M. (2020) Home environment and its contribution to the normative capacities of early childhood. *Early Childhood Development and Care*, 1-14. <https://doi.org/10.1080/03004430.2020.1796655>
- Gago Galvagno, L. G., Miller, S. E., De Grandis, C., & Elgier, A. M. (2021) Emergent coherence and communication relationships between executive function tasks in young children: evidence from a Latin American sample. *Infancy*, 26(6), 962-979. <https://doi.org/10.1111/infa.12421>
- Gordon-Hacker, A., & Gueron-Sela, N. (2020) Maternal use of media to regulate child distress: A double-edged sword? Longitudinal links to toddlers' negative emotionality. *Cyberpsychology, Behavior, and Social Networking*, 23(6), 400-405. <https://doi.org/10.1089/cyber.2019.0487>
- Han Pin, L. Chen, K. L., Chou, W., Yuan, K. S., Yen, S. Y., Chen, Y. S., & Chow, J. C. (2020) Prolonged touch screen device usage is associated with emotional and behavioral problems, but not language delay, in toddlers. *Infant Behavior and Development*, 58, 101424. <https://doi.org/10.1016/j.infbeh.2020.101424>
- Hu, B. Y., Johnson, G. K., Teo, T., & Wu, Z. (2020) Relationship between screen time and Chinese children's cognitive and social development. *Journal of Research in Childhood Education*, 34(2), 183-207. <https://doi.org/10.1080/02568543.2019.1702600>
- Katie, L. Y., Hendry, A., Fiske, A., Dvergsdal, H., & Holmboe, K. (2021) Associations between touchscreen exposure and hot and cool inhibitory control in 10-month-old infants. *Infant Behavior and Development*, 65, 101649. <https://doi.org/10.1016/j.infbeh.2021.101649>
- Krcmar, M. (2014) Can babies and toddlers learn words from repeated exposure to a DVD aimed at babies? *Journal of Broadcasting and Electronic Media*, 58(2), 196-214. <https://doi.org/10.1080/08838151.2014.906429>
- Lin, B., Liew, J., & Pérez, M. (2019) Measurement of self-regulation in early childhood: relationships between laboratory and performance-based measures of effortful control and executive functioning. *Early Childhood Research Quarterly*, 47, 1-8. <https://doi.org/10.1016/j.ecresq.2018.10.004>
- López-Gil, J. F., Oriol-Granado, X., Izquierdo, M., Ramírez-Vélez, R., Fernández-Vergara, O., Olloquequi, J., & García-Hermoso, A. (2020) Healthy lifestyle behaviors and their association with self-regulation in Chilean children. *International Journal of Environmental Research and Public Health*, 17(16), 5676. <https://doi.org/10.3390/ijerph17165676>
- Madigan, S., McArthur, B. A., Anhorn, C., Eirich, R., & Christakis, D. A. (2020) Associations between screen use and children's language skills: a systematic review and meta-analysis. *JAMA Pediatrics*, 174(7), 665-675. <https://doi.org/10.1001/jamapediatrics.2020.0327>
- Nigg, J. T. (2017) Annual Research Review: On the relationships between self-regulation, self-control, executive functioning, effortful control, cognitive control, impulsivity, risk-taking, and inhibition of developmental psychopathology. *Journal of Child Psychology and Psychiatry*, 58 (4), 361-383. <https://doi.org/10.1111/jcpp.12675>
- Radesky, J. S. & Christakis, D. A. (2016) Increased screen time: Implications for early childhood development and behavior. *Pediatric Clinics*, 63(5), 827-839. <https://doi.org/10.1016/j.pcl.2016.06.006>
- Reed, J., Hirsh-Pasek, K., & Golinkoff, R.M. (2017) Learning on Hold: Cell phones divert parent-child interactions. *Developmental Psychology*, 53(8), 1428. <https://doi.org/10.1037/dev0000292>
- Rosenqvist, J., Lahti-Nuutila, P., Holdnack, J., Kemp, S. L., & Laasonen, M. (2016) Relationship of TV watching, computer use, and reading to children's neurocognitive functions. *Journal of Applied Developmental Psychology*, 46, 11-21. <https://doi.org/10.1016/j.appdev.2016.04.006>
- Shin, E., Choi, K., Resor, J., & Smith, C. L. (2021) Why do parents use screen media with toddlers? The role of child temperament and parenting stress in early screen use. *Infant Behavior and Development*, 64, 101595. <https://doi.org/10.1016/j.infbeh.2021.101595>
- Simaes, A. C., Gago-Galvagno, L. G., Serodio, M., Morales, L., Ducasse, A., Benitez, G., Opazo, A., & Caccia, P. (2022) Associations Between Joint Attention and Home Stimulation in the context of COVID-19. *Psicodelbate*, 22(1), 7-23.
- Supanitayanon, S., Trairatvorakul, P., & Chonchaiya, W. (2020) Exposure to screen media in the first 2 years of life and preschool cognitive development: a longitudinal study. *Pediatric Research*, 1-9. <https://doi.org/10.1038/s41390-020-0831-8>
- Tabullo, A. & Gago Galvagno, LG (2021) Early vocabulary size in Argentinean toddlers: associations with home literacy and screen media exposure. *Journal of Children and Media*, 1-16. <https://doi.org/10.1080/17482798.2021.1982742>
- Uzundag, BA, Altundal, MN, & Kessafoğlu, D. (2021) Screen media exposure in early childhood and its relationship to children's self-regulation: a systematic review. *TMS 2021 Proceedings*.