

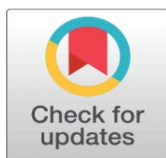
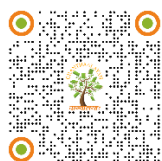
MEDIA USE AND EXPOSURE: A CROSS-SECTIONAL STUDY OF PRESCHOOL CHILDREN

Yahya Ergezen ¹✉ , Halil Ibrahim Tasdemir ²✉, Ayse Urcan ³✉, Emir Can Dundar ³✉, Gamze Karaagac ³✉, Senanur Canbaz ³✉

¹ Department of Pediatric Nursing, Faculty of Nursing, Akdeniz University, Turkey

² Department of Pediatric Nursing, Bucak Health School, Burdur Mehmet Akif Ersoy University, Turkey

³ Department of Child Development, Bucak Health School, Burdur Mehmet Akif Ersoy University, Turkey



Received 20 March 2024

Accepted 30 April 2024

Published 31 May 2024

Corresponding Author

Yahya Ergezen,
ergezenyahya@gmail.com

DOI

[10.29121/granthaalayah.v12.i5.2024.5650](https://doi.org/10.29121/granthaalayah.v12.i5.2024.5650)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Copyright: © 2024 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



ABSTRACT

This cross-sectional study aimed to investigate the media use and exposure of preschool children and its association with parental monitoring. A total of 420 children and their parents from independent kindergartens in Bucak district, Turkey, participated in the study during the 2023-2024 academic year. Data were collected using a General Information Form and a Media Usage Level Child and Parent Interview Form. Descriptive statistics, t-tests, and ANOVA were used for data analysis. Results showed that children watched TV for an average of 110.5 minutes per day, used computers for 92.3 minutes per day, and had a total media exposure time of 186.6 minutes per day. The majority of children had their TV program content monitored by their mothers. Maternal employment status, age, and educational level were found to be associated with children's media use patterns. Working mothers were associated with longer TV watching and phone usage times compared to non-working mothers. Older mothers were more likely to have children with longer TV watching and phone usage times. University graduate mothers were associated with lower TV watching times but higher computer and phone usage times compared to other educational groups. University graduate mothers were also more likely to monitor the content of media usage. These findings suggest the importance of parental monitoring in influencing children's media use habits. Effective guidance is needed to help parents establish healthy media habits and minimize potential negative impacts on children's development. Further research with larger samples is recommended to explore these findings in more depth.

Keywords: Preschool Children, Media Use, Parental Monitoring, Screen Time, Digital Media

1. INTRODUCTION

Media is defined as the use of mass media to inform, entertain, and create public opinion. Excessive screen media exposure in childhood is associated with parent-reported self-regulation difficulties [Munzer et al. \(2018\)](#). In the past, mass communication tools were only radio and television, whereas today there are many

tools referred to as technological tools. Today, rapid developments and advances in technology have facilitated access to these tools [Bal \(2010\)](#), [Kuyucu \(2017\)](#). These rapid advances in technology and the ease of transportation have facilitated the entry of media tools into human life at the same speed, and media tools have been able to reach the remotest corners [Akbiyik & Karadüz \(2014\)](#). These rapid advances in media tools have not only affected adults, but also children [Wu et al. \(2014\)](#).

Children are growing up in an era of increasing exposure to digital screen media (e.g., television [TV], computers, and mobile devices). Indeed, preschool-aged children are estimated to watch an average of 1 to 4 hours of TV per day, the majority have their own TV and mobile devices,¹ and many are exposed to TV in early childcare settings. Currently, the American Academy of Pediatrics recommends limiting preschool-aged children's screen media exposure to less than 1 hour per day of high-quality programming and covieing media with a caregiver [Munzer et al. \(2018\)](#).

Exposure to digital screen media in early childhood has been associated with adverse health outcomes, which may persist into adulthood, including obesity, diabetes risk, language delays, lower school readiness, deficits in attention, and externalizing behavior problems [Chonchaiya et al. \(2015\)](#), [Munzer et al. \(2018\)](#), [Verlinden et al. \(2012\)](#). Although children are generally affected by media tools, especially children in the preschool period can be affected more due to a number of factors. In addition to the fact that the preschool period has very important effects on human personality, all the habits that the child will acquire in this period can have an impact on his/her whole life in the following years [Supanitayanon et al. \(2020\)](#). One of these habits is media use habits. Sometimes parents use these tools to influence their children, to get them to eat, and children do not make any effort without these tools. [Vodopivec \(2011\)](#). In addition to all these reasons, another factor that determines children's use of media tools is the extraordinary sound and visual effects in games, cartoons, and advertisements [Cesur & Paker \(2007\)](#). Whatever the reason for children's desire to use media tools, it is obvious that this should be kept at a minimum limit and the child should be directed to more active activities. Based on this idea, the aim of this study was to determine the level of media use of preschool children.

2. MATERIALS AND METHODS

In the study, a cross-sectional research method, one of the quantitative research methods, was used to determine the media usage levels of preschool children. The cross-sectional research model is a data collection method that allows gathering information over a broad group within a certain period.

2.1. STUDY GROUP

The research was conducted with preschool children and their families attending independent kindergartens in Bucak district, affiliated with the Burdur Provincial Directorate of National Education, during the 2023-2024 academic year. The sample of the study consisted of 420 children and their parents. Of the children, 268 (63.8%) were girls, and 152 (36.2%) were boys. Among the 420 mothers who participated in the study, 51 (12.1%) were aged 20-28, 292 (69.5%) were aged 29-37, and 77 (18.3%) were aged 38 and above. Among the mothers, 126 (30.0%) had one child, 185 (44.0%) had two children, 67 (16.0%) had three children, and 42 (10.0%) had four or more children. The mothers, 58 (13.8%) had completed primary school, 46 (11.0%) had completed middle school, 156 (37.1%) had

completed high school, and 160 (38.1%) were university graduates. Additionally, 172 (41.0%) of the mothers were working, while 248 (59.0%) were not working.

2.2. DATA COLLECTION TOOLS

In the research, the "General Information Form" was used to determine the sociodemographic characteristics of the children and their parents, and the "Media Usage Level Child and Parent Interview Form" was used to determine the media usage levels of the children. These forms were created by the researchers.

- **General Information Form:** This form was developed by the researchers to determine the children's age, gender, and the parents' age, educational status, and other demographic information. Demographic data included the mother's employment status, age, educational level, and number of children.
- **Media Usage Level Child Interview Form:** This form was developed by the researchers and finalized with input from expert faculty members to determine which media devices children use and how frequently they use them. This form consists of questions prepared to determine the technological device usage of preschool children. Closed-ended questions were asked to the mothers to indicate the daily TV viewing time and computer usage time of their children in hours. The obtained durations were converted into minutes. Total technological device usage was obtained by summing TV viewing time and computer usage time. The ability to monitor the content of technological device usage was collected with a closed-ended two-option question (1 = I could not control, 2 = I could control). Expert opinions were obtained from three academics working in the field regarding the form. After the adjustments based on expert feedback, a pilot study was conducted with five people. Data collection started following the pilot study.

2.3. DATA COLLECTION

After obtaining the necessary ethics committee approval and institutional permissions for the research, the purpose of the study was explained to school administrators and teachers. Through the school, parents were reached, and the aim of the research was explained to them, and the necessary verbal permissions were obtained. After collecting the permissions and consent forms, researchers spent a day with the children in the classrooms to establish a trust environment between the researchers and the children. Once the children's trust was gained, data were collected through individual and face-to-face interviews with the children and their parents. Forms filled out by individuals other than the mothers were not included in the study. A total of 420 mothers and children were included in the study. Data from the survey forms were transferred to Microsoft Excel. The children's daily TV viewing time and computer usage time were calculated in minutes, and the data were transferred to the SPSS 26.0 statistical software package.

2.4. ETHICAL CONSIDERATIONS

Approval for conducting the research was obtained from the Ethics Committee of a University (06.03.2024; protocol no: GO 2024/163). Written permission was also obtained from the District Directorate of National Education in the Bucak district of Burdur province, where the research was conducted. Informed consent

was obtained from the parents constituting the research sample after providing necessary explanations about the purpose, method, duration, and significance of the research, in line with the principle of voluntariness. The research was conducted in accordance with the principles of the Declaration of Helsinki.

2.5. DATA ANALYSIS

A normality test was conducted to check whether the data were normally distributed. Since the study group consisted of more than 50 people and to examine the normality assumptions of the tests used, the Kolmogorov-Smirnov Test was conducted. According to the results of the Kolmogorov-Smirnov Test and the skewness-kurtosis distributions, it was assumed that the data were normally distributed. According to these assumptions, the Independent Sample t-test was used to determine whether the children's TV viewing time, computer usage time, total technological device usage time, and the ability to monitor technological device usage contents differed according to the mothers' employment status. The analysis of whether the children's TV viewing time, computer usage time, total technological device usage time, and the ability to monitor technological device usage contents differed according to the mothers' age, educational level, and number of children was performed using variance analysis (ANOVA). The Bonferroni test was applied to determine between which groups the differences occurred following the variance analysis results.

3. RESULTS

Table 1 shows that the children's daily TV watching time ranges from a minimum of 20 minutes to a maximum of 600 minutes, with an average of 110.5 ± 10.2 minutes. The daily computer usage time ranges from a minimum of 15 minutes to a maximum of 370 minutes, with an average of 92.3 ± 9.6 minutes. The total daily media usage and exposure time ranges from a minimum of 10 minutes to a maximum of 720 minutes, with an average of 186.6 ± 11.9 minutes.

Table 1

Table 1 Children's Daily Use of Technological Devices (n=420)				
	n	Min (Minutes)	Max (Minutes)	Mean \pm SD
TV	420	20	600	110.5 \pm 10.2
Computer	420	15	370	92.3 \pm 9.6
Mobile phone	420	20	480	120 \pm 10.5
Total	163	10	720	186.6 \pm 11.9

As seen in Table 2, the TV program content of 298 children (71.0%) was monitored by their mothers, while the content of the TV programs watched by 122 children (29.0%) was not monitored by their mothers. The content of the phones used by 202 children (48.1%) was monitored by their mothers, while the content of the phones used by 218 children (51.9%) was not monitored by their mothers.

Table 2

Table 2 Controlling the TV Content Children Watch and the Computer and Phone Content they Use			
Media usage	Controllability	N	%
Watching TV	Yes	298	71.0

	No	122	29.0
	Total	420	100.0
Using a computer	Yes	254	60.4
	No	52	39.6
	Total	420	100.0
Using mobile phone	Yes	202	48.1
	No	218	51.9
	Total	420	100.0

In **Table 3**, it was determined that children's TV watching time and phone playing time significantly differed according to the mother's employment status ($t=1031.251, p<0.001$; $t=986.562, p=0.003$, respectively). Children's TV watching time and phone usage time significantly varied in favor of working mothers. It was found that children's computer usage time did not significantly differ according to the mother's employment status ($t=2889.235, p=0.231$). The total media usage and exposure time of children showed a statistically significant difference according to the mother's employment status ($t=2087.010, p=0.018$). Additionally, it was observed that the monitoring of technological device usage content significantly differed according to the mother's employment status ($t=1201.141, p=0.006$).

Table 3

Table 3 Examination of Children's Media Usage Time and Content Control According to Mother's Working Status

Media usage	Working status	n	Mean ± S.D	t	p
TV	Yes	172	96.32±11.65	1031.251	0.001*
	No	248	148.22±13.01		
Computer	Yes	172	82.25±09.65	2889.235	0.231
	No	248	88.27±10.02		
Mobil phone	Yes	172	156.85±12.75	986.562	0.003*
	No	248	214.12±13.01		
Total time	Yes	172	146.02±146	2087.010	0.018*
	No	248	128.06±11.14		
Controllability	Yes	172	128.87±08.16	1201.141	0.006*
	No	248	87.41±09.15		

* $p<0.05$

Table 4 shows that children's TV watching time significantly differed according to the mother's age ($X=11.512, p=0.008$). Further analysis to determine the source of this difference revealed that children of mothers aged 36 and above had significantly longer TV watching times compared to other groups. It was found that children's computer usage time did not significantly differ according to the mother's age ($X=0.798, p=0.568$). Children's phone usage time significantly differed according to the mother's age ($X=13.854, p=0.003$). Further analysis to determine the source of this difference revealed that children of mothers aged 36 and above had significantly longer phone usage times. It was found that the monitoring of media usage content significantly differed according to the mother's age ($X=8.144, p=0.014$). Further analysis to determine the source of this difference revealed that children of mothers aged 36 and above had significantly more monitored usage times.

Table 4

Table 4 Examining Children's Media Usage Time and Content Control According to Mother's Age						
Media usage	Age (years)	n	Mean±SD	X²	p	Differences*
TV	20-25 ^a	51	78.64±8.41			
	26-35 ^b	292	89.62±6.85	11.512	0.008	c>b>a
	36 and over ^c	77	116.48±10.32			
Computer	20-25 ^a	51	88.28±9.23			
	26-35 ^b	292	91.04±7.65	0.798	0.568	
	36 and over ^c	77	86.51±8.16			
Mobil phone	20-25 ^a	51	82.22±8.45			
	26-35 ^b	292	98.04±8.98	13.854	0.003	c>a,b
	36 and over ^c	77	116.25±10.25			
Controllability	20-25 ^a	51	93.71±9.19			
	26-35 ^b	292	81.66±7.16	8.144	0.014	c>a>b
	36 and over ^c	77	124.15±11.24			

*Bonferroni correction

According to [Table 5](#), it was found that children's TV watching time significantly differed according to the mother's educational level ($X=17.752$, $p=0.002$). Further analysis to determine the source of this difference revealed that children of university graduate mothers had significantly lower TV watching times compared to other groups. It was found that children's computer usage time significantly differed according to the mother's educational level ($X=7.725$, $p=0.021$). Further analysis revealed that children of mothers with middle school and high school education had significantly higher computer usage times compared to children of mothers with primary school and university education. It was found that children's phone usage time significantly differed according to the mother's educational level ($X=16.341$, $p=0.003$). Further analysis revealed that children of university graduate mothers had significantly lower phone usage times compared to other groups. It was found that the monitoring of media usage content significantly differed according to the mother's educational level ($X=19.140$, $p=0.001$). Comparisons between university and middle school, and university and high school, revealed that university graduate mothers significantly differed in favor of monitoring technological device contents.

Table 5

Table 5 Examining Children's Media Usage Time and Content Control According to Mother's Education Level						
	Education level	n	Mean ± SD	X²	p	Differences*
TV	Primary school ^a	58	106,81±12.4			
	Middle school ^b	46	101.44±10.8	17.751	0.002	d<a,b,c
	High school ^c	156	92.82±9.9			
	University ^d	160	76.01±7.6			
Computer	Primary school ^a	58	72.17±6.5			
	Middle school ^b	46	93.15±8.4	7.725	0.021	a,d<b,c
	High school ^c	156	101.22±9.1			
	University ^d	160	79.53±7.2			
Mobil phone	Primary school ^a	58	115.46±12.1			

	Middle school ^b	46	94.74±10.8	16.341	0.003	d<b,c<a
	High school ^c	156	105.14±10.1			
	University ^d	160	82.22±9.2			
Controllability	Primary school ^a	58	86.74±8.5			
	Middle school ^b	46	67.45±6.7	19.14	0.001	b<a,c<d
	High school ^c	156	82.21±8.1			
	University ^d	160	107.15±10.3			

*Bonferroni correction

4. DISCUSSION

The objective of our research is to investigate the level of media use of preschool children. It is a research conducted to find out which social media are effective on children's behaviors and how much they are monitored.

The use of mobile screen environments such as smartphones and tablets by young children is increasing rapidly. However, research on the effects of screen time exposure on children's development has lagged behind the rate of increase in use [Radesky et al. \(2015\)](#). Prolonged screen time in preschool children has been associated with attention problems, aggressive behaviors, physical inactivity, obesity, and sleep problems [Poitras et al. \(2017\)](#). Spending too much time in front of the screen negatively affects muscle movements, fine and gross motor development, and hand and eye coordination deteriorates in children in the developmental age. Sharing skills do not develop in children who cannot cooperate, and the emotional development of children whose ability to take responsibility is negatively affected is at risk [Mustafaoğlu et al. \(2018\)](#). In some studies, it is seen that parents find the screen useful in increasing the time children spend in front of the screen, evaluate it as a care tool and supportive of children's development, and allow children to watch it to eat, calm down and distract themselves [Ateş & Saltah \(2019\)](#), [Papadakis et al. \(2019\)](#), [Yoldaş & Özmert \(2020\)](#).

In a study conducted by [Akkuş et al. \(2015\)](#), 155 parents with children aged 3-60 months were evaluated and it was found that 21.2% of the children did not watch TV at all, 31% watched TV up to two hours a day and 47.7% watched TV for two hours or more [Akkuş et al. \(2015\)](#). This study was determined that the average TV viewing time of these children was 110.5 minutes, the average computer viewing time was 92.3 minutes and the average phone use time was 120 minutes. Since TV content and computer games can also be watched and used on phones and tablets, the durations were taken together and named as mobile screen exposure. The results of research by the European Kids Online project group show that from 2010 to 2015, the number of children using online devices in Turkey doubled and the age of first use of the internet decreased from five to two years old [Aslan & Karakus Yilmaz \(2021\)](#). The fact that the children who participated in our study were exposed to media use for an average of 186.6 minutes shows how big a place mobile screens have in our lives.

This study was determined that children's TV watching time and phone playing time significantly differed according to the mother's employment status. The total media usage and exposure time of children showed a statistically significant difference according to the mother's employment status. Further analysis to determine the source of this difference revealed that children of mothers aged 36 and above had significantly more monitored usage times.

In order to protect children from the negative effects of the content they watch, parents as well as content producers and educators have great responsibilities.

Cognitive functions such as impulse control, self-regulation, mental flexibility, and the ability to understand the thoughts and feelings of others are negatively affected in children who stay in front of the screen alone. Children's imagination, language development and information processing skills may also lag behind developmentally [Mustafaoğlu et al. \(2018\)](#). Yalçın et al. found that 42.7% of parents watched TV with their children and shared the content of the programs with their children. In order to minimize the dangers awaiting preschool children, the digital games played and cartoons watched by children should be examined by families in advance and even watched together. Parents should constantly check the applications installed on their phones and tablets, limit the time the child spends in front of the screen and should not leave the child alone in digital environments [Akça & Çilekçiler \(2019\)](#). It is recommended that families should raise awareness, set limits on screen time in line with their children's needs, play games with their children and increase the time allocated for games, and increase the time children spend with their peers in order to reduce the time children spend in front of screens and prevent the negative effects of screen exposure. Screen time should not always be alone time and parents should know which platforms their children use in the virtual environment and which websites they visit [Akca & Ayaz Alkaya \(2019\)](#).

[Lin et al. \(2021\)](#) examined the effects of parent training on screen time, sleep disturbances and psychosocial adaptation in preschool children. The parent training program helped to effectively reduce screen time among preschool children. It also effectively improved children's sleep quality and attention score, but did not produce a significant difference in internalizing or externalizing scores. A study in southern Taiwan found that young children who spent too much time with touchscreen devices had increased emotional problems, anxious/depressive symptoms, somatic complaints, social withdrawal symptoms, attention problems and aggressive behaviors [Lin et al. \(2021\)](#). [McArthur et al. \(2020\)](#) found that low maternal education and high levels of maternal screen use were associated with high levels of persistent screen use in children [McArthur et al. \(2020\)](#). In the study conducted by [Kühhirt & Klein \(2020\)](#), as the education level of parents increases, the time they allow their children to use screens decreases [Kühhirt & Klein \(2020\)](#). This study, it was determined that as the level of education of parents increased, children's TV time decreased. It was found that children's TV watching time significantly differed according to the mother's educational level. Further analysis to determine the source of this difference revealed that children of university graduate mothers had significantly lower TV watching times compared to other groups. Comparisons between university and middle school, and university and high school, revealed that university graduate mothers significantly differed in favor of monitoring technological device contents.

5. CONCLUSION

As a result of the increase in mobile devices in all areas of our lives, children's media exposure and the time children spend with mobile devices have increased. According to the data we obtained in this study, children's media exposure is increasing. This study shows that parental control has a positive effect on media exposure. As parental control over their children increases, the duration of media exposure decreases. Effective guidance should be provided to families to improve the quality of time spent with mobile devices, minimize harmful effects as much as possible and maximize the beneficial effects. Families should be informed to establish healthy communication with their children, especially when feeding them and before putting them to sleep. This study may provide insight into the mobile

screen viewing habits of preschool children in Turkey; however, comprehensive studies with a larger number of children, including school-age children, can examine all dimensions of mobile screen exposure.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

The authors would like to thank parents and children their kind support during.

REFERENCES

- Akbıyık, C., & Karadüz, A. (2014). A Comparison of Reception of 5th Grade Students on Television Commercials With Respect to their Critical Thinking Levels. *Mustafa Kemal University Journal of Institute of Social Sciences*, 11(25).
- Akca, A., & Ayaz Alkaya, S. (2019). Effects of Screen Exposure in Early Childhood. *International*, 23, 49-55.
- Akkuş, S., Yilmazer, Y., Şahinöz, A., & Sucaklı, İ. (2015). Investigation of Television Viewing Habits of Children Aged 3-60 Months. *Hacettepe University Faculty of Health Sciences Journal*.
- Akça, F., & Çilekçiler, N. K. (2019). The Cartoon Characters that Preschool Children are Most Influenced by and the Digital Dangers that can be Caused by Their Identification with These Characters. *Addicta: The Turkish Journal on Addictions*, 6(2), 403-433. <https://doi.org/10.15805/addicta.2019.6.2.0053>
- Aslan, A., & Karakus Yilmaz, T. (2021). Changes in Safer Internet Use of Children in Turkey between 2010-2015 and Impact of Contextual Issues. *Malaysian Online Journal of Educational Technology*, 9(1), 1-18. <https://doi.org/10.17220/mojet.2021.9.1.238>
- Bal, O. (2010). The Effects of Technology on Socio Economic Structure. *Journal of Academic Overview*, (20).
- Cesur, S., & Paker, O. (2007). Television and Children: Children's Preferences for TV Programs. *Electronic Journal of Social Sciences*, 6(19), 106-125.
- Chonchaiya, W., Sirachairat, C., Vijakkhana, N., Wilaisakditipakorn, T., & Pruksananonda, C. (2015). Elevated Background TV Exposure Over Time Increases Behavioural Scores of 18-Month-Old Toddlers. *Acta Paediatrica*, 104(10), 1039-1046. <https://doi.org/10.1111/apa.13067>
- Kuyucu, M. (2017). Generation Y and Technology: Generation Y's Habits of Using Communication Technologies. *Gümüşhane University Faculty of Communication Electronic Journal*, 5(2), 845-872. <https://doi.org/10.19145/e-gifder.285714>
- Kühhirt, M., & Klein, M. (2020). Parental Education, Television Exposure, and Children's Early Cognitive, Language and Behavioral Development. *Social science research*, 86. <https://doi.org/10.1016/j.ssresearch.2019.102391>
- Lin, Y.-M., Kuo, S.-Y., Chang, Y.-K., Lin, P.-C., Lin, Y.-K., Lee, P.-H., Chen, S.-R. (2021). Effects of Parental Education on Screen Time, Sleep Disturbances, and Psychosocial Adaptation Among Asian Preschoolers: A Randomized Controlled Study. *Journal of Pediatric Nursing*, 56, e27-e34. <https://doi.org/10.1016/j.pedn.2020.07.003>
- McArthur, B. A., Browne, D., Tough, S., & Madigan, S. (2020). Trajectories of Screen use During Early Childhood: Predictors and Associated Behavior and

- Learning Outcomes. *Computers in Human Behavior*, 113. <https://doi.org/10.1016/j.chb.2020.106501>
- Munzer, T. G., Miller, A. L., Peterson, K. E., Brophy-Herb, H. E., Horodyski, M. A., Contreras, D., Radesky, J. (2018). Media Exposure in Low-Income Preschool-Aged Children is Associated with Multiple Measures of Self-Regulatory Behavior. *Journal of Developmental & Behavioral Pediatrics*, 39(4), 303-309. <https://doi.org/10.1097/DBP.0000000000000560>
- Mustafaoğlu, R., Zirek, E., Yasacı, Z., & Özdiñçler, A. R. (2018). Negative Effects of Digital technology use on Children's Development and Health. *Addicta: The Turkish Journal on Addictions*, 5(2), 1-21. <https://doi.org/10.15805/addicta.2018.5.2.0051>
- Poitras, V. J., Gray, C. E., Janssen, X., Aubert, S., Carson, V., Faulkner, G., Tremblay, M. S. (2017). Systematic Review of the Relationships Between Sedentary Behaviour and Health Indicators in the Early Years (0-4 Years). *BMC Public Health*, 17, 65-89. <https://doi.org/10.1186/s12889-017-4849-8>
- Radesky, J. S., Schumacher, J., & Zuckerman, B. (2015). Mobile and Interactive Media use by Young Children: the Good, the Bad, and the Unknown. *Pediatrics*, 135(1), 1-3. <https://doi.org/10.1542/peds.2014-2251>
- Supanitayanon, S., Trairatvorakul, P., & Chonchaiya, W. (2020). Screen Media Exposure in the First 2 Years of life and Preschool Cognitive Development: A Longitudinal Study. *Pediatric Research*, 88(6), 894-902. <https://doi.org/10.1038/s41390-020-0831-8>
- Verlinden, M., Tiemeier, H., Hudziak, J. J., Jaddoe, V. W., Raat, H., Guxens, M., Jansen, P. W. (2012). Television Viewing and Externalizing Problems in Preschool Children: the Generation R Study. *Archives of Pediatrics & Adolescent Medicine*, 166(10), 919-925. <https://doi.org/10.1001/archpediatrics.2012.653>
- Vodopivec, J. L. (2011). Some Aspects of Teaching Media Literacy to Preschool Children in Slovenia from a Perception Standpoint of Teachers and Parents. *Acta Didactica Napocensia*, 4, 69-78.
- Wu, C. S. T., Fowler, C., Lam, W. Y. Y., Wong, H. T., Wong, C. H. M., & Yuen Loke, A. (2014). Parenting Approaches and Digital Technology Use of Preschool Age Children in a Chinese Community. *Italian Journal of Pediatrics*, 40, 1-8. <https://doi.org/10.1186/1824-7288-40-44>