



RESEARCH ARTICLE

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PERCEPTION OF PARENTS ABOUT DIGITAL USE AND USE OF TECHNOLOGIES IN CHILDREN'S HEALTH

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ABSTRACT

This study aimed to know the perception of parents about digital play in their children's daily life. The instrument used for data collection was a questionnaire to promote the mapping of the daily life of children and their families and to the playful use of digital technologies. As a result, most of the respondents pointed to the Smartphone as the technology the child uses to play/play. The number of losses was greater than the number of advantages, however, most parents believe that the use of technologies for the development of skills related to cognition is beneficial.

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INTRODUCTION

Technological development has been gaining an important space in the daily lives of children, young people and adults, favoring that children perceive several activities at the same time, interacting with the environment in which they are inserted (LEMOS, 2004; ROSADO, 2006; RAVASIO; FUHR, 2013). The use of cell phones, tablets, computers, among others, becomes a priority when it comes to play compared to traditional games such as playing with dolls or strollers. Thus, play is present in different times and places and is recreated by the child through his imagination and creation. It is something that is part of your daily life, defined as spontaneous, pleasant and healthy. Therefore, it can be said that the benefits of playing are related to child development (FRIEDMANN, 2006; ROSADO, 2006; VYGOTSKY, 2011). It has been discussed for a long time and the possible negative impacts that technologies generate on children and their development are still discussed (FRIEDMANN, 2006; FUHR, 2013). In recent years, there has been a growing interest in studies that investigate positive aspects of children's use of technology and its benefits.

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The subject is still surrounded by controversy about the benefits and harms that these technologies can present for child development (FRIEDMANN, 2006; ROSADO, 2006). Researchers such as Burke and Marsh (2013) find it beneficial to use technologies such as television, video games, computers, tablets and mobile phones for young children. Other authors remain cautious due to their potential negative impact potential (VANDEWATER *et al.*, 2007). Radesky and Christakis (2016) point out that digital media is increasingly being used by children. According to the authors, in their studies show that most children used mobile devices for entertainment. While there has been decades of research into the effects of television on children's health and development, there is considerably less research on newer technology platforms and tools such as tablets, smartphones, computer games, video games, the internet, etc. Sharkins *et al.* (2015) state that children are increasingly exposed to digital media and technologies. However, little is known about the effects of this exposure and there is a lack of research on caregiver opinions about children's use of these technologies (SHARKINS *et al.*, 2015), as well as gaps in the literature about parenting being aware of the involvement of caregivers. Their children with technology (VITRRUP *et al.*, 2016). In this context, the present study aimed to know the parents' perception about digital play in their children's daily life, and

as specific objectives, to analyze the impact of the use of digital technologies on children's health and to evaluate the time that children dedicate to these technologies.

METHODOLOGY

This is an exploratory study with a quantitative approach where a random sampling was used, that is, the researcher collected data near schools and pediatric clinics, as well as open places and circulation of people, in February and March 2018. The sample consisted of 100 parents with children of preschool age, ranging from four to six years, of both sexes, who use digital technologies such as mobile phones, tablets, computer or video game. The inclusion criterion was to invite the adult to participate in the research and he should reside or live at least four hours daily with the child who play daily with digital technologies, except during the school period. The exclusion criterion was people under the age of 18 years and we chose to search for children with a minimum age of four years and a maximum age of six years. The age range is justified as it is perceived the habit of playing on the Internet in preschool children. Before starting the activities and collecting data to form the sample, all necessary procedures were explained to the participants. By agreeing to participate in the study, they signed an Informed Consent Form (ICF) and participated by completing a semi-structured questionnaire. To collect the data, in order to answer the objective of the study, we used a questionnaire based and adapted from Becker (2017) that addresses childhood, technology and playfulness and deals with children's view of the creative appropriations of digital technologies. and establishment of a contemporary playful culture. The choice of this questionnaire is justified, because with some adaptations it meets the topics to be explored in our research.

This questionnaire consisted of sixteen closed questions, covering aspects related to sociodemographic and behavioral data, also addressing the most used interactive digital technologies, frequency of use and characterization and behavior of children during play. It is also noteworthy that a pilot test was conducted with 10 parents with preschool children, ranging from four to six years old, of both sexes, who use digital technologies such as: mobile phones; tablets; and computer or video game. The pilot test validated the questionnaire, as well as subsidies for the final calculation of sample size. The collected data were gathered in an information bank and underwent analytical treatment. Data were described and quantitatively classified from sociodemographic and behavioral categories. The data generated by the answers were grouped based on the frequency of each response and analyzed using descriptive statistics. The study was submitted to the Research Ethics Committee Involving Human Beings, approved under opinion No. 2,496,853, and followed all required ethical standards.

RESULTS

Table 1 shows that almost half of the respondents related that the monthly income of the child's care givers is between 2 and 3 minimum wages per month, while 22% receive up to one salary. Regarding the relationship with the child, it can be seen that 62% of the research participants are mothers, 15% are fathers and 23% have another degree of relationship with them. Also note that a largemajority of the involved children involved (87%) attended public school and 10% attended

private school. Regarding the age of the respondent, it is noteworthy that more than two thirds (69%) of the respondents are between 18 and 40 years old, while in relation to the child, 36% and 35% are 5 and 6 years old, respectively.

Table 1. Frequency distribution of socioeconomic characteristics of the research participants

Question	Absolute frequency	Percentage
1. Monthly income of caregivers of children		
• Upuntil um s.m./month	22	22%
• 2 - 3 s.m./month	47	47%
• 4 - 5 s.m./month	21	21%
• 7 - 8 s.m./month	9	9%
• Above in 15 s.m./month	1	1%
2. Response relationship with a child		
• Dad	15	15%
• Mother	62	62%
• Other	23	23%
3. Type of school where the child studies		
• Public	87	87%
• Private	10	10%
• Do notstudy	1	1%
• Didnotanswer	2	2%
4. Respondent age		
• 18 - 25 years	10	10%
• 26 - 30 years	20	20%
• 31 - 35 years	20	20%
• 36 - 40 years	19	19%
• 41 - 45 years	9	9%
• 46 - 50 years	6	6%
• 51 - 55 years	6	6%
• 56 - 60 years	5	5%
• 61 - 65 years	3	3%
• 66 - 70 years	0	0%
• 71 - 80 years	1	1%
• Above in 80 years	0	0%
• Didnotanswer	1	1%
5. Age ofchild		
• 4 years	27	27%
• 5 years	36	36%
• 6 years	35	35%
• Didnotanswer	2	2%
6. Genderofthechild		
• Boy	56	56%
• Girl	43	43%
• Didnotanswer	1	1%

Source: prepared by the author.

Regarding the habits of technology use by children, it is shown in Table 2 that the mobile phone / Smartphone (android / IOS) was the technology most frequently cited when respondents were asked about the technologies with which the child usually plays / play, as well as when asked about the technology preferred by the child, in which 89% of them pointed out such an alternative. It should be noted that most respondents (69%) pointed out that the digital platforms in which the child usually plays / play belong to the father or mother and still 31% reported that the platforms belong to the child himself. And the activities in which the child uses the cell phone the most were playing / playing (68%) and watching videos (53%). When asked about the games and apps the child usually plays with, the most frequent terms in the answers given by the guardians were videos, children, Peppa Pig and Youtube, cited in 17%, 11%, 9% and 8% of answers, respectively. Also, regarding the children's playmates, it is noted that siblings, parents and their peers were cited by 33%, 30% and 30%, respectively, all in person. On the other hand, almost a third of respondents (36%) pointed out that children usually play alone without online or offline interaction.

Table 2. Frequency distribution of habits related to technology use by children

Question	Absolute frequency	Percentage
7. Technologies that children often play with		
• Computer/Desktop	25	25%
• Notebook/Laptop	18	18%
• Tablet/Ipad	37	37%
• Telephone cellphone/Smartphone (android/IOS)	89	89%
• Videogame - consoles (playstation, wii, xbox, etc.)	19	19%
• Videogame – portable(gameboy, psp, vita, etc.	5	5%
• Other	2	2%
8. Child's favorite technologies*		
• Computer/Desktop	1	1%
• Notebook/Laptop	1	1%
• Tablet/Ipad	17	17%
• Telephone cellphone/Smartphone (android/IOS)	89	89%
• Videogame - consoles (playstation, wii, xbox, etc.)	6	6%
• Videogame - portable (gameboy, psp, vita, etc.	0	0%
• Other	2	2%
9. Owner of the digital platforms on which the child usually plays		
• Belong to the child	31	31%
• Dad/Mother	69	69%
• Brothers	3	3%
• Otherskin (uncles, cousins)	9	9%
• Friends	1	1%
• Other	5	5%
10. Activity for which children use their cellphone the most*		
• Make a call	1	1%
• Receive call	1	1%
• Send SMS	0	0%
• Access the internet	3	3%
• Play	68	68%
• Watch videos	53	53%
• Others	2	2%
11. Games / Apps your child usually plays with (most cited terms)*		
• Videos	17	17%
• Children's	11	11%
• Peppa Pig	9	9%
• Youtube	8	8%
• Watch	7	7%
• Running	6	6%
• Drawing	6	6%
• Frozen	6	6%
• Minecraft	6	6%
12. Days per week when the child performs play activities with digital technologies		
• None	2	2%
• 1 day	1	1%
• 2 days	5	5%
• 3 days	10	10%
• 4 days	6	6%
• 5 days	13	13%
• 6 days	2	2%
• 7 days	60	60%
13. Hours per day when the child usually devotes to technology-based play activities		
• None	2	2%
• 1 hour	25	25%
• 2 hours	36	36%
• 3 hours	21	21%
• 4 hours	5	5%
• 5 hours	7	7%
• More in 5 hours	3	3%
14. Child playmates *		
• Alone, no interaction online or off-line	36	36%
• Parents, present	30	30%
• Parents, online	0	0%
• Brothers, present	33	33%
• Brothers, online	0	0%
• With your peers, present	30	30%
• With your peers, online	3	3%
• With virtual friends	0	0%
• Others	6	6%

*Some respondents pointed to more than one answer to these questions.

Source: prepared by the author.

From Figure 1, it is observed that 42% of respondents pointed out that the playful use of digital technologies by children is bad / very bad, as well as 36% classified this use as medium. Still, 21% of respondents pointed out that this use is good / very good.

Table 3 shows that just over half (53%) pointed out as advantages / benefits to development. And paradoxically, when asked about losses / harms, 15% affirmed problems in school performance.

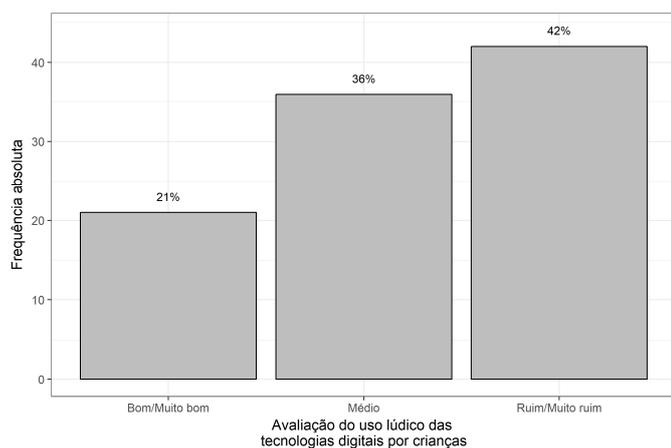


Figure 1. Bar graph of the assessment of the playful use of digital technologies by children, reported by survey participants. Source: prepared by the author

On the other hand, 24% reported no advantages / benefits. While 26% said isolation. And 17% mentioned health-related problems. In addition, 17% said there was a danger of addiction.

Table 3. Frequency distribution of the advantages and disadvantages of children with digital technologies, reported by parents and children participating in the research

Question	Absolute frequency	Percentage
15. Advantages / benefits of children with digital technologies.		
• Development	53	53%
• No advantages	24	24%
• Accesstechnology	12	12%
• Moderate use required	7	7%
• Quiet for parents	4	4%
16. Damage / harms of children with digital technologies.		
• Isolation	26	26%
• Danger of addiction	17	17%
• Health related problems	17	17%
• School related problems	15	15%
• Prejudice to the absence of limits	10	10%
• Accesstopornographic and violent websites	7	7%
• Stimulus to consumerism	4	4%
• No damage	4	4%

Source: prepared by the author.

DISCUSSION

Given the data presented, and regarding the majority of the research participants being mothers, the literature presents similar results. According to the reports of some children participating in the Becker (2017) survey, they report that mothers are more present in their lives and therefore their prevalence in the answers of the questionnaires. It is noticed that half of the adults who comment on the relationship between children and digital technologies are under 35 years old, that is, they are individuals who developed in a socio cultural context permeated by the first generation of the Internet and that still makes daily use of digital technologies (Becker, 2017). Regarding the technologies with which children usually play, we highlight the mobile phone / Smartphone (android / IOS). In this perspective, studies presented by the report ICT Kids Online (CGI.br., 2014) and Becker (2017) also identified the mobile phone / Smartphone (android / IOS) as the technology most used by children.

Still, cell phones / Smartphones were considered the technology preferred by children. And according to Becker (2017), mobile devices are becoming more widespread. Instead of the child moving to a computer to play, for example, can carry a cell phone. Regarding the activities for which the child uses the cell phone the most, it is evident playing / playing and watching videos. However, for Becker (2017) there are no virtual games, since all games are real, regardless of where they take place. Thus, the virtual environment corresponds to a context of play, as it provides countless interactive possibilities. Regarding the types of games and applications, there are videos and websites for children, which are produced for children, usually related to cartoons, television programs and educational purposes (Becker, 2013). In general, there were only games / applications that relate to the child's play, which corroborates the idea that children increasingly use these devices for playful purposes. By analyzing the distribution of the frequency of hours per day in which children usually devote their play activities to technologies, the data indicate the preponderance of two hours a day. This result is fundamental because it points to the fact that technology is present in the daily lives of children (VITRUPP *et al.*, 2016). Studies by Becker (2017) also show the prevalence of children playing daily with digital technologies, but the author points out that there is a difficulty in establishing a precise number of hours dedicated to playing with technology, because when questioned the dedicated time is considered that the child moves to a device and spends time in that activity, which does not always happen that way.

In the context of the playful activities performed with the children's companions, there is a great inter active activity between siblings, peers and parents, suggesting the negation of some assumptions that Internet play promotes social isolation (CORREA *et al.*, 2015; PAIVA; COSTA, 2015). Still, a study by Becker (2017) points out that children see technology as a means of contact with the world and with their peers. Authors such as Ching-Ting Hsin (2014), Paiva and Costa (2015), Vitrupp *et al.* (2016) discuss that technology can be a greatly in children's learning, also arousing their curiosity (YAN, 2018). For Gomez, Espinosa and Albajes (2012), digital games are important technologies for knowledge acquisition, contributing to learning, cognition and socialization. These authors corroborate the perception of just over half of parents that children's use of technology promotes benefits in child development. Reflecting on the harm of children with digital technologies, isolation and the dangers of addiction became evident. Correa *et al.* (2015) and Paiva e Costa (2015) point out in their studies consequences such as obesity and physical inactivity, social isolation and anxiety. Paiva and Costa (2015) also report that children overlook traditional activities, such as outdoor play. And Becker (2017) also points to results that relate isolation as the main disadvantage according to parents' opinion, however, the author defines that the reports collected from children in his research do not involve technology as an addiction. Moreover, the literature points to the relevance of parents and caregivers being involved and supervising what children are accessing, as there are exposures to violent images and messages, which makes children vulnerable to negative influences (VITRUPP *et al.*, 2016).

Final Considerations

The data obtained in this investigation point to interesting

reflections regarding their relationship between playful activities and digital play. It is noteworthy that the issue is not to stand for or against technology in the child universe, but how much time is being spent for children, how much adults are really willing to enter the child world and understand their real motivations, needs and interests. In this scenario, we adults may not be the most expert in analyzing children's manifestations, as we need their help to understand their experiences and their meanings. In addition to these issues, the importance of flexibility and insight to understand the changes brought about by technology is emphasized. Children use the technology available today, while parents use technology from their time. Here lies a conflict, which is the lack of mastery of current technology by parents. Another relevant aspect that deserves to be highlighted is the fact that, in research and knowledge production, there is an effective participation of children. For a study that proposes to enter the child universe, needs the participation of the subject studied. Thus, a proposal to continue this study is a research that proposes to give the right to the voice of children, giving the man effective participation in each study. Finally, we highlight the importance of conducting more comprehensive new research regarding children's digital playing habits to make more consistent inferences.

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