"IT DOESN'T ALWAYS WORK, BUT IT HELPS": PARENTAL PERCEPTIONS OF BABY'S SCREEN EXPOSURE

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ABSTRACT. Considering the large number of children under the age of two that are constantly exposed to digital screens, concerns about child development have been emerging and becoming the focus of academic and clinical discussions. In order to understand the reasons why parents expose their infants to digital technologies, we conducted in-depth interviews with mothers and fathers of infants aged between 10 and 17 months living in the metropolitan region of Porto Alegre, Brazil. Despite the guidelines of local pediatric societies, our data points to divergences between what is recommended by the board of pediatrics and the patterns of screen exposure documented in our study. Parents, out of unawareness and/or urgent need, introduce their babies to digital technologies. Parents claimed to be concerned with the future of children and perceived early access to digital technology as an important tool to improve cognitive skills and to strength family bonds. Conversely, parents had concerns in face of technology at the expense of other forms of play. Our findings highlight that parents need additional guidance and support, while professionals should weight needs and daily challenges experienced by families when formulating guidelines.

Keywords: Toddlers; screen exposure; parenting.

"NEM SEMPRE FUNCIONA, MAS AJUDA": PERCEPÇÕES PARENTAIS SOBRE A EXPOSIÇÃO DO BEBÊ ÀS TELAS

RESUMO. Frente ao número crescente de crianças menores de dois anos expostas às telas, preocupações com o desenvolvimento dos bebês têm emergido e sido foco de discussões acadêmicas e clínicas. Para buscar compreender as razões que levam os pais a disponibilizarem as mídias digitais aos bebês, entrevistas foram conduzidas com mães e pais de crianças com idades entre dez e 17 meses, domiciliados na região metropolitana de Porto Alegre, Brasil. Apesar das orientações das sociedades de pediatria, verifica-se discrepância entre a divulgação deste conteúdo e o acesso a ele. Os pais, por desconhecimento e também por necessidade, disponibilizam diferentes mídias ao bebê, que é percebida em diversas situações como positiva e facilitadora nos cuidados com a criança; os pais alegam que o acesso precoce pelo bebê é importante para aprimorar a destreza cognitiva e capaz de gerar interação familiar. Por outro lado, apresentam preocupações diante do uso de telas em detrimento de outras formas de brincar. Evidencia-

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se que os pais precisam de orientações e suporte, assim como os profissionais devem considerar as necessidades das famílias ao elaborar diretrizes a fim de orientá-los.
Palavras-chave: Bebês; exposição às telas; parentalidade.

"NO ES SIEMPRE QUE FUNCIONA, PERO AYUDA": PERCEPCIÓN PARENTAL SOBRE LA EXPOSICIÓN DEL BEBÉ A PANTALLAS

RESUMEN. Frente al creciente número de niños menores de dos años expuestos a las pantallas, preocupaciones sobre el desarrollo de los bebés han sido el foco de discusiones académicas y clínicas. Para comprender porque madres y padres exponen a sus hijos a tecnologías digitales se han realizado entrevistas en profundidad con madres y padres de bebés con edades entre 10 y 17 meses, domiciliadas en la región metropolitana de Porto Alegre, Brasil. A pesar de las pautas recomendadas por las sociedades pediátricas sobre al acceso a las pantallas, los padres muestran discrepancia acerca de las mismas. Los progenitores, debido tanto a la falta de conciencia, como a la necesidad comparten sus dispositivos con los bebés. Los padres afirman estar preocupados por el futuro de los niños y perciben el acceso temprano a la tecnología como una herramienta importante para mejorar las habilidades cognitivas y fortalecer los lazos familiares. También señalaron que las potencialidades en el uso para generar interacciones familiares, destacando la supervisión de los padres. Por otro lado, los padres manifiestan preocupación ante el uso de la tecnología a expensas de otras formas de juego. Los progenitores necesitan orientación y apoyo, al igual que los profesionales deben considerar las necesidades de las familias al formular recomendaciones.
Palabras clave: Bebés; exposición a pantallas; parentalidad.

Introduction

Digital media, designed to entertain and inform young adults, has gained new followers. Over the past decade, there has been an exponential increase in infant's exposure to technological devices, raising questions about potential repercussions on children's health and their interactions with caregivers. The exposure of children to digital media in the first two years of life is now facilitated by parents and caregivers themselves, who, for different reasons, provide the child with an animated screen - either from a smartphone or a television – that can be accessed anytime and anywhere, offering unlimited entertainment at the user's simple command (Kabali et al., 2015). Furthermore, evidence in the literature suggests that parents introduce digital media into an infant's daily life within the first six months of life (Kabali et al., 2015; Kiliç et al., 2019). Early screen exposure is often driven by parental needs (Radesky et al., 2016; Mallmann & Frizzo, 2019), as it serves as an aid to childcare and are perceived by parents as a form of technological babysitting (Plowman & McPake, 2013). In addition to handling smartphones, infant's exposure to television screens has long been a known phenomenon. However, it has increased in recent years due to the variety of children's content available on cable television channels and, more recently, through streaming platforms.

Given the rise of digital media and the increasingly earlier access of children to various devices, pediatric societies worldwide have been speaking out to alert parents and

professionals about potential risks of exposing children to screens during their first two years of life (American Academy of Pediatrics [AAP], 2016; World Health Organization [WHO], 2019). However, regarding these guidelines, some aspects appear fragile, pointing to the need to consider realities of families. The American Academy of Pediatrics (AAP) advises against exposure to digital media until a child reaches 18 months of age (AAP, 2016). In Brazil, following a similar approach to the American one, the Brazilian Society of Pediatrics (SBP) recommends avoiding passive screen exposure for children under the age of two, especially during meals and the hours leading up to sleep (Sociedade Brasileira de Pediatria [SBP], 2019). On the other hand, the Royal College of Paediatrics and Child Health [RCPCH] (2019), in the United Kingdom, suggests that families manage children's screen time, considering child's needs. This approach seems less prescriptive and more accessible to implement. Furthermore, the British guideline is based on the absence of scientific evidence regarding potential side effects of screens on children's health, who are still in their early stages of development, emphasizing the need for new studies exploring the use of new media since a significant portion of studies has focused on television exposure.

The literature has been investigating repercussions of early screen exposure on infant's health, as highlighted by reviews conducted by Coyne et al. (2017) and Stiglic and Viner (2019). These reviews pointed out that studies published in the last decade have indicated associations between excessive use of digital media in early childhood and obesity. Delays in language acquisition, as well as impacts on cognitive and motor development, have also been reported (Lin, Cherng, & Chen 2017), with a particular emphasis on learning difficulties and a higher incidence of vision problems, as children are induced to interact with the device through images. Children, especially infants, tend to exhibit many of the same symptoms associated with screen use observed in the adult populations, as the demands of screens exceed their visual skills (Kozeis, 2009). Other negative aspects associated with early exposure to electronic media highlighted in studies conducted in the last decade, include effects on regulation of the circadian rhythm and exposure to age-inappropriate content (Radesky, Silverstein, Zuckerman, & Christakis, 2014; Vijakkhana, Wilaisakditipakorn, Ruedeekhajorn, Pruksananonda, & Chonchaiya, 2014).

On the other hand, the potential benefits of young children using screens have also been reported. Digital media not only provides access to a variety of applications, but also enables video calls (Anderson & Hanson, 2013), facilitating an infant's connection with family members living in distant locations, such as grandparents. Richert, Robb, Fender and Wartella (2010), who investigated the effectiveness of media like DVDs in vocabulary learning for children aged 12 to 25 months, also pointed out that from the age of six months, an infant is capable of recognizing images of the real world on screens, allowing the child to connect with family members.

Despite indications in the literature, there is a lack of studies exploring how infants use screens in Brazil (Mallmann & Frizzo, 2019), justifying the importance of this study, which aims to understand the reasons that lead mothers and fathers to provide, or not, provide digital media to their infants during the first two years of life. Furthermore, no studies in Brazilian literature were found on this phenomenon considering fathers' participation. Understanding the perception of mothers and fathers is crucial to provide support to them. Studies of this nature are also important to support clinical practice of psychologists, pediatricians, and other healthcare professionals committed to child development and family

well-being. Similarly, by becoming aware of the real needs of Brazilian families, it will possible to update guidelines aimed at this audience and tailor them to their specific needs.

Method

Design and Participants

This research consists of an exploratory, descriptive, and cross-sectional study with a qualitative approach. Five couples (five mothers (M=32.2 years) and five fathers (M=35.8 years)) from the metropolitan region of Porto Alegre, RS, Brazil (Figure 1) were selected by convenience. The number of participants was predefined and is appropriate for this type of study, given the study does not aim to generalize findings. The inclusion criteria were as follows: 1. parents over 18 years old; 2. ownership and use of a mobile device with internet access; and 3. having a child between 6 and 18 months old. Exclusion criteria included: 1. couples with more than one child; 2. single-parent families; 3. children diagnosed with a chronic illness or health condition that may affect interaction. Child's age range followed Brazelton (1994). Children in this age group depend more on their parents, requiring supervision and specific care. During this period, the child is in the process of language acquisition and developing sensory-motor skills, necessitating greater availability and responsiveness from their caregivers. Aligned with this and to limit the study to screen usage by infants aged 6 to 18 months, families with only one child were selected. It was decided to include both mothers and fathers, considering the limited number of studies that include the paternal perspective, as well as the possibility of exploring possible agreements between the couple regarding the provision of screens to the baby, which justifies the exclusion of single-parent families.

Participants		Age	Race/ Ethnicity	Education al level	Socio economical level	Devices available at home	Devices available to children	Infant's age	Infant's first screen exposure
Couple A	Mother A	42 years-old	White	Higher education	Upper middle class	Television Smartphone Tablet Smartwatch Computer	Television Smartphone Tablet	17 months-old	7 months-old
	Father A	56 years-old	White	High school					
Couple B	Mother B	31 years-old	White	High school	middle class	Television Smartphone Computer	Television	11 months-old	They did not report
	Father B	38 years-old	White	High school					
Couple C	Mother C	34 years-old	White	Higher education	middle class	Television Smartphone Tablet Computer	Television Smartphone Tablet	12 months-old	10 months-old
	Father C	28 years-old	White	High school					
Couple D	Mother D	26 years-old	White	High school	middle class	Television Smartphone Computer	Television Smartphone	10 months-old	6 months-old
	Father D	30 years-old	White	High school					
Couple E	Mother E	28 years-old	White	Primary education	lower class	Television Smartphone	Television Smartphone	13 months old	Three days
	Father E	27 years-old	Black	Upper secondary education					

Figure 1. Participants.
Source: The authors.

Data collection procedures and instruments

After obtaining approval for the project from the University's Research Ethics Committee, submitted under CAAE number 03834818.4.0000.5344, the study was promoted on social media platforms. This promotion was carried out on social media such as Facebook and Instagram, and through sharing in WhatsApp groups, spanning five months (January to May 2019). Families interested in participating in the study were contacted, and at this point, home visits were scheduled to address any questions. Data collection was initiated upon the parents' signature of the Informed Consent Form and lasted for two months. During this period, 2 and 3 meetings were planned.

During the first meeting, the couple jointly responded to the Socio-Demographic and Family Data Questionnaire, which covered socio-demographic characteristics and other family information, including digital technology data. Additionally, on this day, one of the parents answered semi-structured interview regarding digital technologies, which addressed personal use of digital technologies and questions related to family routines. In the second meeting, the interview was conducted with the other parent. In some families, a third meeting was necessary to finalize interviews. Interviews were conducted separately to provide an opportunity for individualized listening, reducing potential influence from partners.

Data analysis procedures

The chosen data analysis procedure was thematic analysis (Braun & Clarke, 2006). Thematic analysis is an analytical method used in psychology research to explore patterns emerging from narratives. During data analysis, all ~~the~~ steps proposed by Braun and Clarke (2006) were prioritized.

Initially, interviews were recorded and subsequently transcribed in their entirety. Transcription process resulted in a 251-page document (9.2 hours of recording, or 552 minutes). Notes were taken during the transcription process, and all transcriptions were subsequently cross-checked with the original audio by a second reviewer. After a thorough reading of the transcribed interviews, codes were defined. Codes were grouped by similarity, identifying three major themes and their respective subthemes, as explained in Figure 2.

Themes and subthemes	Definition
Theme 1 **Information**	It refers to the level of information parents have regarding the provision of digital technologies to the infant
Theme 2 **Reasons for not exposing infants to screens**	It refers to the stance that parents take regarding the non-provision of digital technologies to the infant
Theme 3. **Reasons for providing screens to infants**	It encompasses the perspective of parents for providing screens to their children under the age of two.
Subtheme 3.1 **Technology for Parental Relief**	It refers to the provision of technologies as a parental necessity.
Subtheme 3.2 **Technology for Calming down and distracting**	It addresses the provision of technologies as a resource for taking care of the child and generating entertainment.
Subtheme 3.3 **Technology for Stimulating**	It refers to the use of digital technologies, especially specific apps for infants used to child stimulation
Subtheme 3.4 **Technology to Promote Family Interaction**	It refers to the provision of digital technologies with the intention of promoting the child's interaction with other family members and within the family itself.

Figure 2. Themes and subthemes.
Source: The authors.

Results

1. Information

Among the five interviewed couples, only one couple reported receiving information from the child's pediatrician, emphasizing that the pediatrician advised them to reduce child's screen time. The other parents stated that they did not receive guidance from a pediatrician or any other healthcare professional responsible for the infant's care regarding early exposure to technology. All information regarding screen exposure was found on the internet, on news websites, and on blogs focused on parenting. Parents (Mother A, Mother B, Father B, Mother C, Father C, and Mother D) highlighted the need for discernment in making decisions about what is suitable for the child, as there is not much available material, as stated by Father C: "We read a bit when we started letting her watch TV. There is some information, but maybe it doesn't reach parents as it should". Mother B added: "We have to filter it and see what is better for us".

Some parents (both mothers and fathers) mentioned that the decision to expose the infant to screens or not, as well as controlling exposure time and the type of exposure, are reached through consensus within the couple. Parents based their decisions on individual beliefs about the impact of technology on their lives and the infant's life. Family values, as well as experiences and practices from other parents, were also cited as factors influencing these decisions, as highlighted by Mother C (who provides screen time) and Father B (who avoids screen time): "Through interaction with other babies, we get to know how it happens in other families, but there was no guidance from a pediatrician, really" (Mother C, baby 12 months).

> The decision was ours [...] in our family, the upbringing was different, it has our culture. So, we had to be on the table at the right time, so we carry some of that. So, we think it's the best way to raise him (Father B, baby 11 months).

2. Reasons for not expose infants to screens

All participating fathers and mothers ave already provided some form of digital media to their babies, except for the couple B, who reported not having provided a smartphone yet. The mother's statement reflects the couple's perspective: "We're completely against it, you know. It's like chocolate, if you can avoid it, you will avoid it, even though you know he will eat it one day. I'm going to try to raise him with as little technology as possible" (Mother B, baby 11 months).

Although they know that they will eventually provide mobile devices to the child, the couple that is in favor of not providing mobile devices believes it's better to postpone it due to their fear of how the child will react to devices with touch screens: "Since I don't know what his reaction will be with the cell phone, because he will touch it, he will interact with it, change the screen, and all that, so I don't know how it will be, that's why it's better to avoid it" (Father B, baby 11 months).

On the other hand, they do not seem to mind allowing the child to watch television: "He has contact with the Television; we put on cartoons when he's here" (Father B, baby 11 months). Smartphones are seen as villains by both mothers and fathers since they are associated with addictive behaviors, as Father B pointed out throughout the excerpt from the interview.

> Researcher: You mentioned not letting him use the phone, but you said he can watch TV. Is there any difference between the two regarding his interaction with technology? I would like to understand.

> Father B: There is a difference. The phone has that addictive quality.

While some parents (Mother D, Father C) reported resorting to screens during mealtimes, most participants expressed a contrary opinion regarding screens during these moments, as highlighted by Mother B: "One thing we are very cautious about is not introducing any electronic devices. Mealtime is for eating" Some mothers (Mother B, Mother C, and Mother D) revealed that, to avoid relying on technological resources, they seek other forms of child entertainment, such as talking to the baby when they are fussy, offering comfort, engaging them with animals, or providing toys, as mentioned by Mother B:

> We speak louder to him like this, but we do not shout, and he already understands that. So, he situates himself. We pick him up and show him the dogs if he is agitated. He eventually calms down. We do our best not to give in to his whims (Mother B, baby 11 months).

In contrast to Mother B, who appears to have a more authoritative attitude towards a resistant child, Mother C reveals an understanding that the baby has needs and desires. She believes that the role of parents involves understanding the child's mental state, focusing on understanding what may or may not please the baby in specific circumstances, as evidenced in the following passage:

> What makes her eat is letting her eat by herself. Sometimes we give her a spoon to hold, see what she likes, and then she gets distracted and starts eating. That's our 'technology.' We must try to understand what they like, right?

3. Reasons for providing screens to infants

3.1 Technology for Parental Relief

Participants, especially mothers, have mentioned they offered digital technologies to their children to ease the completion of their household tasks. They also use technology to engage in activities that do not involve the baby, as pointed out by Mother D:

> [...] There are moments when we, for instance, need to do something else, like washing the dishes, and at that moment I don't have anything to do with him. So I turn on a device for him, and he is safe, you know?

Similarly, they mentioned that it's a way to relieve themselves from the excessive demands of parenting, which was more prevalent among mothers: "Some parents, they leave the child with a cellphone for a bit, you know? Like, they leave the child with the cellphone sometimes so that they can have a little break, right?" (Mother E, baby 13 months).

In addition to mothers, some fathers also provided references that giving screens to the baby allows the couple to have a few minutes of 'peace', especially when they are out of the house, such as in a restaurant:

> Using the phone is a trend we always see, even with friends. If you go to a restaurant, you should not even bring a smartphone, but it is all to have some peace. You want to sit down and have a peaceful dinner, and technology helps significantly with that (Father A, baby 17 months).

The provision of screens to children is justified due to the parental difficulty in tolerating child's frustrations, as well as an alternative in face of limited resources or when other entertainment options have been exhausted and proven unsuccessful, as the following statements illustrate: "I do not think it is a bad thing. If you use it consciously, I think it is a good thing today, for when I do not have anything else to offer him, you know? But these moments are rare" (Mother D, baby 10 months). One of the mothers who opposes early screen exposure believes that parents use technology to meet their own needs rather than the child's, as the following excerpt suggests:

> This exhaustion drains parents, and they end up taking the easier path. When they come home at night, instead of sitting down, giving attention, and talking, no... they give the cell phone because they want peace, and the children will also throw tantrums and cry if they do not get the cell phone (Mother B, baby 11 months).

Mothers and fathers reported that digital media are valuable resources, especially for first-time parents who sometimes feel insecure and unsure about how to interact with their baby and navigate the world of technology: "Maybe it is wrong, I do not know, but he likes to watch 'Lottie Dottie chicken', and considering we are first-time parents, it helps. I will tell you, it is not the solution, and it does not always work, but it helps. It helps a lot" (Father D, baby 10 months).

3.2 Technology for Calming down and distracting

Mothers have reported that digital technologies are an alternative resource when the baby is particularly "fussy". They mention offering interactive videos only after numerous unsuccessful attempts to calm the child. This decision comes when both the mother and the child are visibly physically and emotionally exhausted, as illustrated by the following vignettes:

> Once, I used to say that she had to go to sleep by 9:30, and it would be a struggle, she would keep resisting it until about 10. So, you know what? I let her stay up until around 10, watching TV, and I lie down, and both of us have fun. Why keep on fighting, right? I turn on the TV or give her the tablet to look at some pictures, she calms down, and then she falls asleep (Mother A, baby 17 months).

In a similar manner to how mothers mentioned resorting to these resources when children are being particularly resistant, fathers also pointed to child's behavior as a reason for giving them a mobile phone, which is associated with a parental difficulty in dealing with the child, as indicated in the following excerpt:

> In the first few days, we could not calm her down because she was suffering with allergies. So, my wife and I (pause) we stayed up all night, our daughter just cried, screamed like she was in despair, you know? It was all day, all night. Only cartoons helped. So, we would play a little movie on the phone for her to watch and for us to have some peace (Father E, baby 13 months).

Among the participating families, two couples (Couple C and D) mentioned that they provide screens to their child when baby is sick and needs to be distracted, either to undergo a mementioned providingdical procedure or to take medication, as illustrated by the statement of this father:

"We play a movie for those 5 seconds. Because since it's something new, we play the movie, and he gets interested, and then we can give him the medicine. Our son never spit the medicine out" (Father B, baby 11 months).

In situations that expose the child to higher stress levels, the provision of technological resources was also mentioned. One father emphasized that he provided videos for the baby when they cut their hair: "We play 'Lottie dottie chicken'on the phone; it's a strategy. That's about five minutes, and then he's ready. The haircut is done. I put away the phone, and that is it" (Father B, baby 11 months).

To calm the baby, some couples mentioned using apps or providing musical children's videos. Mother C reported using music apps to create a soothing environment during the child's bath, promoting relaxation: "Sometimes during her bath, we also play music, calmer songs, to help her relax. I play it on YouTube or Spotify" (Mother C, baby 12 months).

3.3 Technology for Stimulating

Technology has also been used as a resource to teach children and expand their repertoire of cognitive and motor skills. Both mothers and fathers have mentioned the use of baby-oriented apps to provide a variety of activities aiming to accelerate child's learning process, whether child's vocabulary or achieving developmental motor milestones, as expressed in the following excerpt:

> I use an app to stimulate her. It offers the activities to her age and is very specific to each baby. It asks a few questions monthly, and based on that, it provides activities to develop something. There are very simple activities, like, pick up a toy and shake it in front of her. It works with sounds [...] from a very young age, there are various stimuli (Mother C, baby 12 months).

Children's videos were also mentioned to stimulate the infant since they are educational tools in the parental perception. The following excerpt from an interview with Mother A illustrates this understanding:

> They learn a lot. Moreover, it is very stimulating, right? [...] There is the 'Lottie Dottie Chicken', and we do not need to sing; we just play the videos. There are cartoons and those traditional children's songs that we used to sing. Furthermore, the whole show goes along with the dynamism of things. 'Lottie Dottie Chicken' constantly changes the image, designed to capture the child's attention. The colors, the movement, the shapes. It is impressive, right? It is all tailored for them, a world designed for babies (Mother A, baby 17 months).

Technology, as a facilitator of learning, is perceived by parents as a tool capable of preparing the baby for the future, highlighting the child's needs to meet adults' expectations and demands:

> Today, technology is designed for that; for children being engaged. 'Lottie Dottie chicken' teaches what? - Colors, numbers, letters, everything. Everything, everything. My child probably knows more today than I did in my first grade (Father D, baby 10 months).

On the other hand, given the multitude of apps developed for babies, which, in the participants' view, stimulate the child and make the parental task of playing with them more accessible, some parents expressed concerns about the prioritization of technological resources over other activities, such as traditional playtime. Mother C pointed out:

> We have a big fear that she becomes too attached to technology and does not value other things as much, which is a fear we have nowadays because we see many children, as they say, 'they're born already knowing how to use a cellphone'. However, it is different. You must hold back and limit their contact with it as much as possible (Mother C, baby 12 months).

3.4 Technology to Promote Family Interaction

Less frequently mentioned in the interviews was the use of digital technologies to facilitate family interaction. Three couples pointed out that technology enables baby's communication with a distant parent, grandparent, or aunt or uncle. In this case, technology brings people closer and enables interaction, as suggested by Mother C, when referring to using it for the child to communicate with the father: "Sometimes my husband is working, and I'm with her, and I want to send a video to him, so we record a little video and send it to daddy, we talk to daddy, or to my mom as well" (Mother C, baby 12 months).

Couple D seems to be aware of the limits of use and suggests that occasional use serves as a facilitator of communication between the child and their family:

> Of course, it is upbeat, but there must be some limit. I cannot let him hang on the screen all day doing this. However, since we talk very little with my in-laws, it's like twice a week only, which is good. He sees his cousins, and he recognizes them.

To provide entertainment and interaction for the mother-father-baby trio, Father C mentioned couple's engagement when it comes to exposing the baby to screens: "We use these resources sometimes, like, let us enjoy a song, let us interact with the song. However, we all participate together in everything".

Adding to what the father pointed out, Mother C emphasizes that technology can be a creative and integrative alternative, capable of generating fun and imagination, and strengthening bonds through interaction. She also highlights the importance of being with the baby while mediating the use of technology:

> Technology even gives you a more creative alternative than just playing with toys, so it's an extra activity that you add. Even with the cartoons, we watch together. We comment on it, we are cartoon commentators too (laughs). For example: Look at the chicken, look at what they are doing (Mother C, baby 12 months).

In contrast to what was mentioned by couple C, Father A described family use as the time of day when everyone is connected to some device. However, there was no mention of family interaction in front of the screens, as indicated in the following excerpt: "There are times when we are all together in the living room, each one on their phone, and the TV is on for her, and each one is using their device, together, but each one watching their things separately".

Discussion

Parents (both mothers and fathers), emphasized that decisions regarding whether to provide technology to their baby or not to provide are made through a consensus within the couple. Information search on the internet is driven by curiosity and absence of guidance from the baby's pediatrician. Parents mentioned that they had yet not received guidance from a pediatrician, except for one couple. However, it is known that due to the increased exposure of young children to screens in recent years, pediatric societies worldwide have been expressing their concerns and developing orientations. For example, the American Academy of Pediatrics, through the Council on Communications and Media (AAP, 2016), and the Brazilian Pediatric Society (SBP, 2019) have issued guidelines in this regard.

According to the Brazilian guideline (SBP, 2019), children up to two years of age should not be exposed to electronic media. From age two, it is advised to limit screen time to a maximum of one hour per day, always under the supervision of parents and/or caregivers. The current recommendations suggest that, from this age, parents should act as mediators, helping children to understand the content, which was mentioned by one couple as a practice. In Brazil, the Pediatric Society of Rio Grande do Sul has approved a law (440/2019) that establishes the requirement for warning labels in mobile devices, indicating moderate screen use for children up to 10 years old, stressing that protective measures are being taken to ensure that information reaches families, contradicting what some parents mentioned. The lack of guidance reported in the study,–highlights the need of updating current guidelines and disseminate them among healthcare professionals working with families and babies. There is evidence in literature that recommendations from pediatric societies have not been as effective, and there is a need to consider the specific circumstances of families (Brown & Smolenaers, 2018; Vittrup, Snider, Rose, & Rippy, 2016), which emphasizes the importance of tailoring advice and support to the unique needs of families when it comes to technology use by young children.

Television was mentioned as the most used resource by mothers and fathers, since television provides a sense of familiarity, being a resource used by families for more than four decades. Television was also part of the childhood of these parents, unlike mobile phones, which emerged more recently. Today, with its multitasking capabilities, parents still perceive television as an educational and safe pastime for young children, just as it was reported in the 1990s by Brazelton (1994).

According to Byeon and Hong (2015), in a study conducted in South Korea that investigated the relationship between early exposure of infants to television and language delays, there were positive associations between language impairments and excessive screen time. Language delays were identified in South Korean infants exposed to screens for equal to or more than two hours. A study conducted by Skaug, Englund and Wichstrøm (2018) regarding excessive television exposure in the early years found negative impacts on child's social interactions with parents and peers. Decreased in the engagement between parents and child in playtime activities have been seen. They also highlighted that screen time reduces a child's time engaging in other activities that can foster social bonds, which aligns with the concerns expressed by the parents in the present study that excessive technology use might overshadow other ways of playing and exploring the world. This parental concern about excessive use of technology at the expense of other forms of play was also stressed by mothers in the study conducted by Mallmann and Frizzo (2019). Considering that playtime is a structuring element for children, capable of integrating them into the cultural and symbolic world and contributing to their subjective development (Winnicott, 2007), parents believe that children heavily involved with technology might have their development impaired, as other explorations would be inhibited, and it could also hinder creativity.

While it is advised not to expose infants under two years of age to screens, the reports of the mothers and fathers participating in the study suggest that parental needs seem to be the primary driver behind providing devices to their babies, which was indicated by Mallmann and Frizzo (2019). Since–screens engage babies, it allows parents not to have to engage with their child, so giving screens to babies is an alternative–parents find to gain free time and escape, for a few moments, from the routine and the overwhelming demands of parenthood (Radesky et al., 2016). On the other hand, it is also necessary to consider the

demands of these families and the existence of a support network, as in certain circumstances, some parents may need another resource to turn to. Another aspect to be highlighted is the role that different technologies play in families' routines, which can be explained from a materialist perspective (Barad, 2003). Nowadays, with the omnipresence of various media, there is no longer a clear distinction between the human and the non-human. Digital media, therefore, play an active role in social interactions, breaking away from an anthropocentric perspective, which allows for a broader understanding of the phenomena that encompass the presence of technology in human relationships, including parent-child relationships.

Currently, digital media, as an extension of adults' bodies, are becoming parental assistants in caregiving the children, entertaining them, and allowing parents to take breaks from their parental duties (Radesky et al., 2016; Mallmann & Frizzo, 2019). Additionally, children with more challenging temperaments, characterized by high impulsivity, difficulty adapting to new situations, and negative affect, may trigger inconsistent parenting. This inconsistency can lead parents to turn to digital technologies to cope with the difficulty of engaging with their children, as noted in the findings of Johnson and Hetlein (2019) and Radesky et al. (2014). As per Radesky et al. (2014), parents trying to calm more agitated babies with screens may reduce parent-baby interactions, which could positively impact child development. In their attempt to calm these babies through screens, parents inadvertently contribute to intensifying regulatory challenges, leading to increased screen use. In this way, children's behavior and screen usage mutually influence each other.

The reflections emerging from the narratives suggest that mothers and fathers need support, prompting the question: What care can be offered to those who also require care themselves? Technologies often play the role of a digital babysitter because mothers and fathers lack the psychological resources to handle all the demands and challenges of their new and significant role: parenthood (Radesky et al., 2016; Davis-Kean & Tang, 2015). A more significant complaint comes from mothers about the demands and challenges of motherhood. The demands of motherhood, especially for primiparous mothers, combined with the demands of work and household and family-related activities (often performed by women), can lead to an overload, affecting the quality of care provided to the child (McDaniel, Coyne, & Holmes, 2012; Newsham, Drouin, & McDaniel, 2020). Most mothers also reported turning to apps designed for babies. These apps, while seen as one of the benefits of new technologies by providing activities and information about baby's developmental stage, also correspond to the adults' need to stimulate the baby, ensuring their development and learning of new things (Brown & Smolenaers, 2018; Plowman & McPake, 2013; Poveda et al., 2020).

In moments when the child is tired, sick, or needs to face a specific stressful situation, technology is turned to for its versatility and effectiveness. According to most parents, many problems can be resolved when this resource is available. In these specific cases, mothers and fathers emphasize using devices to calm and distract the baby. They stress that this use is occasional and specific, and it does not lead to significant harm to child's development. Two families mentioned using devices to entertain the baby while medicating them. This practice is employed in pediatric hospitals worldwide to entertain children in a hospital environment and facilitate surgical procedures. Lee et al. (2012) reported the use of electronic devices in the hospital environment to entertain children with cartoons, alleviating childhood anxiety during anesthesia induction, for example. From a palliative care perspective, Weekly, Walker, Beck, Akers e Weaver (2018), reported the benefits of using

apps in palliative care for young children, emphasizing apps for calming and relaxation. The literature findings confirm that with the availability of child-oriented apps, technology can be used to benefit mothers, fathers, and the baby, minimizing the child's suffering and the parents' distress during delicate and complex family moments.

In other situations, when the baby is dissatisfied or exhibiting what the parents in the study referred to as being 'fussy', devices are also turned to, as reported by the participants. This practice aligns with studies by Radesky et al. (2014) and Mallmann and Frizzo (2019). Most couples mentioned providing videos on their phones or the television when the baby was resistant, such as during mealtimes, a recurring parental practice, as highlighted in the review conducted by Coyne et al. (2017). Despite recommendations to avoid exposing the child to technology during these times, some parents (mothers and fathers) provided evidence that this practice is sporadic and justified by the lack of alternatives.

Another function found for technology was assisting parents during infant's sleep, especially when child is agitated and resistant, as pointed out in other studies (Radesky et al., 2014; Coyne et al., 2017). Based on participants' reports, which are also common in other cultures, some research has sought to explore the effects of a baby's screen exposure in the hours preceding sleep, showing negative impacts (Vijakkhana et al., 2014). According to researchers, excessive screen use by the baby inhibits child development, negatively affecting sleep quality, sleep-wake cycle regulation, and neurological maturation. Sleep, one of the primary activities for a child in the early years of life, plays a crucial role in a child's neurological and cognitive development. It is also essential for synaptic plasticity. Therefore, it is essential to pay attention to sleep quality. Other physiological harms observed are vision problems (Kozeis, 2009; Coyne et al., 2017).

Mothers and fathers, concerned about their babies' future, especially regarding their children's future professional success, believe that providing technology can stimulate the child's cognitive development, facilitate the learning process, and positively impact their future achievements. This belief aligns with findings in other studies. According to Plowman and McPake (2013), many parents offer technology to their children from an early age as an attempt to ensure that cognitive skills that parents did not master themselves will be overcome by the child, guaranteeing a promising future. Poveda et al. (2020), focusing on the perspective of parents regarding the use of television and tablets by children under three years old, argued that child's access to technology is essential for the development of new skills in childhood, promoting instrumental knowledge that can have a positive impact on cognitive performance, especially in future stages of child's development. Mallmann and Frizzo (2019), in a study exploring the use of digital technologies by mothers with their babies, also reported that mothers use these resources to provide new learning experiences for their children.

Finally, the participating couples also reported providing screens to promote family interaction, emphasizing the use of video apps to reduce geographical barriers and bring the child closer to family members who live far away. This practice is often reported in other studies and is not contraindicated by pediatric societies (AAP, 2016; Coyne et al., 2017). Also, to provide family entertainment, one couple mentioned that they narrate children's video content to their children. They also use interactive music videos that generate fun and stimulate the child, highlighting their awareness that, as mentioned by Davis-Kean and Tang (2015), symbolically immature children with developing attention skills may have difficulty processing images and may not learn from them without the mediation of an adult.

Final considerations

Based on what was evidenced in this study, it becomes clear that providing digital media to a baby stems from an adult's demand. Mothers and fathers reported that they turn to screens to relieve themselves, whether from emotional tensions or the demands of parenthood. Screens allow the baby to assume a passive role, enabling parents to carry out their activities with peace of mind. It also allows parents to take a break from exclusive baby care, which can be exhausting for some parents, especially when they do not have a support network. A gender difference can be pointed out, as mothers reported more complaints of overload, primarily related to work, household, and motherhood, which drives more excellent screen time for the infant.

When children experience stressful events such as hospitalization or other illnesses that emotionally destabilize the infant, parents note screen time as a positive and acceptable practice. Mothers and fathers also pointed out that using digital media can be positive when it benefits the family. It allows the child to interact with distant relatives through video calls and use apps and videos focusing on cognitive and motor stimulation. Under parental supervision, these activities can benefit the child and the family.

Despite pediatric societies worldwide disseminating guidelines to protect children from the risks of screen time, the statements from mothers and fathers reveal inconsistencies in disseminating these guidelines. Furthermore, only some parents demonstrated knowledge about these recommendations and possible consequences of screen exposure during the early years. Thus, misguided screen time, such as before sleep or during meals, and excessive use may be associated with a need for more awareness about the potential effects on child development.

On the other hand, these findings emphasize the need to listen to mothers and fathers to understand why they use these resources, which allows guidelines to be reconsidered and tailored to different needs based on their demands and realities. The study also provides a foundation for clinical practice of psychologists and pediatricians, who can support and advise these families. Further research is suggested to explore associations between early screen exposure and sociodemographic variables such as parental education and socioeconomic status.

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