ORIGINAL ARTICLE

Child and Teenage Screen Exposure: Recommendations, Limits, and Controversies in the Context of Enforced Social Distancing. A Qualitative Study

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ABSTRACT

Introduction: screen use during childhood and potential harm concerns have increased in recent years. Advice not to allow more than two hours of screen use per day was contested during the COVID-19 pandemic. The primary purpose of this research was to probe the opinions and attitudes of professionals regarding the use of screens and to understand how these changed during the pandemic.

Materials and methods: this exploratory study, with a qualitative approach and theory-based strategy, was made between 2020 and 2021, and involved the participation of 23 professionals (pediatricians and general practitioners) in four focus groups.The recorded material was analyzed for content interpretation. The analysis included generating codes that were grouped into five thematic areas.

Results: the resulting axes were: 1) the issue of screens in the outpatient practice of healthy children; 2) perception of harm; 3) perception of benefits; 4) screens in times of Preventive and Compulsory Social Isolation (ASPO, for its acronym in Spanish); and 5) contradictory thoughts and actions on the use of screens.

Discussion: when making recommendations regarding screen exposure, the interviewees' intuition predominated over available scientific evidence. They recognized that the ASPO context highlighted some of the benefits associated with the connectivity provided by these devices.

Conclusion: our results show that awareness of screen displays is becoming increasingly neutral concerning the trade-off between their risks and benefits, prompting practitioners to become more flexible in their recommendations.

Key words: screens, computer, cell phone, children, teenagers, child development, quarantine, COVID-19, perceptions.

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INTRODUCTION

The use of screens by children and adolescents (CA) has increased substantially during this century[1,2]. Although the available evidence on their potential harm is insufficient, several national and international pediatric and psychiatric organizations have made guidelines on how many hours a day they should be used[3-9]. The rationale for this is the potential adverse effects linked to their use, such as nutritional deterioration and poorer quality of life[10].

Several qualitative studies[11-15] in other countries have investigated the perceptions of medical professionals, mothers, and fathers regarding screen-based mediause and documented that the recommendations in force before 2020 were limiting and difficult to comply with.

This reality, coupled with the ever-increasing inclusion of screens in our daily lives and the situation of *Aislamiento Social Preventivo y Obligatorio* (ASPO, or Preventive and Compulsory Social Isolation) in Argentina due to the onset of the COVID-19 pandemic, led us to propose as the main objective of this study to explore the opinions and attitudes of medical professionals who treat children and adolescents (CA) concerning the use of screens and to understand how they have changed in the context of ASPO.As secondary objectives, we set out to investigate the bibliographic sources on which professionals base their recommendations to the families they serve, to explore their views on the feasibility of implementing these recommendations, and to analyze the guidelines they currently choose to implement in their clinical practice and to understand the reasoning behind this choice.

MATERIALS AND METHODS

An exploratory study with a qualitative approach and within a grounded theory framework[16,17], carried out between July 2020 and September 2021.Twenty-three health professionals working in the care of children and adolescents participated in the study, mainly selected for their role as leaders within the medical team. Some recruited using the snowball technique, a non-probabilistic sampling technique in which the individuals chosen to be studied would enlist new participants among their acquaintances. In this way, we recruited peers from different jurisdictions in Argentina. We conducted four focus groups via the Zoom digital platform according to theoretical sampling and saturation criteria[18]. We recorded the interviews for later analysis.

Most of the participants were female (90%), 30 to 40 years old (56.5%), specialists in General/Family Medicine (60.9%), and with less than ten years of seniority in the profession (56.5%). Approximately one-half of them worked mainly in the public sector (52.2%) and cared for the middle-class population (47.8%). Half of the interviewees were mothers and fathers of children and adolescents(52.2%) of various ages with whom they lived (Table 1).

We recorded the interviews and transcribed the dialogues into Word documents, then uploaded them to the cloud version of the Atlas.Ti® program. This web platform allows for collaborative text analysis, thus enabling the different researchers to work together. The process consisted of different phases. First, successive readings were made of the material collected in the fieldwork, allowing each researcher to interpret the information and gather the common questions that arose in the interviews. We created codes to classify discourse and then discussed it with the researchers. In the end, we selected some codes and modified or discarded others. Subsequently, the remaining codes were split into five categories that eventually became our thematic axes[19]. These are closely connected and share some criteria.

The resulting axes were: 1) the subject of screen time in the outpatient consultation of healthy children: how this subject arises in the consultation, whether bibliographic sources are used and which ones, and what recommendations were usually given by professionals according to the age of the patients, 2) perception of harm: screens perceived as causes of different problems such as obesity, pain, and others, 3) perception about benefits: screens as an agent of communication, 4) screens in times of ASPO: screens as a facilitator or barrier for education and health and 5) contradictory thoughts and actions on the use of screens: the use of screens as a skill is remarkable, but within certain limits. At the same time, there is debate over whether to set these limits as to quantity or quality. Use is restricted for children but not for the adults in charge.

We conducted the study following the Declaration of Helsinki and its amendments. Participants were sent an individual informed consent form in advance of the interview. The protocol (Project No. 002920) was evaluated and approved by the Ethics Committee of University Research Protocols of the Instituto Universitario del Hospital Italiano.

RESULTS

Below are the five thematic axes built from the interpretative analysis of the information collected in the focus groups. Table 2 shows the most representative verbatims of each axis.

1. The subject of screen time in the outpatient consultation of healthy children

The professionals interviewed mentioned that the use of screens is a frequent subject of consultation in outpatient clinical practice, which arises fundamentally from a complaint by family members or because the screen itself, as an object, intrudes into the visit. However, beyond this complaint, the length of time or circumstance of exposure to screens is not a topic that is systematically investigated, partly due to the short duration of the appointments, or that it is not considered a priority topic, or that the evidence regarding its potential harm or benefits lacks solid scientific evidence.

Table 1. Demographic characteristics of the 23 people interviewed

Category	Subcategory	Quantity(n)interviewees
Sex	Female	21 (90%)
Age	50-60 years	1 (4.3%)
	40-50 years	6 (26%)
	30-40 years	13 (56.5%)
	20-30 years	3 (13%)
Specialty	General Medicine	14 (60.9%)
	Pediatrics	9 (39.1%)
Years of post-residency professional trajectory	20-30 years	2 (8.7%)
	10-20 years	8 (34.8%)
	Less than10years	13(56.5%)
Work environment	Mainly Public	12 (52.2%)
	Private and Health Insurance	11 (47.8%)
Social class assisted	Low	3 (13%)
	Lower-Middle	7 (30.4%)
	Middle	11 (47.8%)
	Upper-Middle	2 (8.7%)
Children	Yes	12 (52.2%)
Children age	Under 1 year	1 (4.3%)
	1-5byears	5 (21.7%)
	6-11byears	6 (26%)
	12-18byears	4 (17.4%)
Cohabitation children	Yes	11 (47.8%)
	Partial*	1 (4.3%)

*They live together some days a week without specifying how many.

Most of them mentioned having read the recommendations of the Sociedad Argentina de Pediatría (SAP), although stated that they do not update periodically and that they use "common sense" or "experience" to make recommendations in the clinic. On the other hand, in addition to the SAP recommendations, they mentioned other bibliographic sources that they considered relevant, such as the Programa Nacional de Actualización Pediátrica[20], the recommendations of the Sociedad Española de Pediatría[5] and the United Nations Children's Fund's guide "¿Mucho, poquito, o nada? "[21], as well as conferences at congresses.

Some opinions appear linked to the age group of patients. For example, those treating infants and preschoolers recommend avoiding screens, and those treating older children choose to review content and parental supervision. Their rationale for this advice is that "harder" recommendations would be impossible to comply with.

In the case of supervision of adolescents, they mentioned that it is a very tricky point since they handle technology better than their caregivers. In these cases, professionals implement advice such as inviting adults to educate by example or reducing home wifi connectivity at certain times. They also commented that some families request the intervention of the physician to regulate the use of devices at home as if her/his voice were more effective than that of the parents.

2. Perception of screen-associated damages

Professionals -without distinguishing between use, misuse, or abuse- usually give screen timeexposure a "causal relationship" for some problems, for example, as a causal factor of unhealthy habits (sedentary lifestyle, unhealthy diet), overweight and obesity, as well as tension or postural pain (cervical pain, back pain, low back pain, headache, wrist pain, among others.), visual disturbances (visual fatigue, blurred vision, altered visual development, insomnia, altered sleep-wake rhythm, among others), visual disorders (visual fatigue, blurred vision, altered visual development, altered sleep-wake rhythm, among others) and sleep disturbances (insomnia, altered sleep-wake rhythm), visual disturbances (visual fatigue, blurred vision, disturbance in visual development), and sleep (insomnia, sleep-wake rhythm disturbances).

Table 2. *Verbatims* que describen los principales ejes

Axes	Verbatims
The subject of screen time in the outpatient clinic for healthy children	[…] Of course, let's see, it depends on whether there is time in the consultation and whether there are no more urgent issues that we need to address... (General Medicine) […] It happened to me that at the end of my residency year, we had to do a bibliographic search on the subject, and then, well, I had the opportunity - otherwise, I don't think I would have done it - to really search what articles there were, and that's when I realized that there was nothing conclusive or at least of good quality that would make me say "yes, the reality is that this recommendation applies to the clinic, it applies to all families and can be universal"… (General Medicine) […] So maybe this question of "zero screen before the age of two", we found out that it was not real. One could suggest it, but it is not the real thing. Two, three hours among children under five is not real either. Teenagers, no way... (Pediatrics)
Perception of screen-associated damages	[...] I remember that at no time did they say: "I think he uses the screen a lot, he uses the smartphone a lot."The truth is that I don't remember any parent ever expressing this to us. But it does happen to me that, in the questioning for a specific problem, the excessive usage of screen-based media ends up being the cause or the consequence. (Pediatrics) […] I do not only believe that more screen time promotes the issue of sedentary lifestyles but also the issue of content that one receives through the screen. The issue of advertisements: we know that out of every ten advertisements they receive, nine are for unhealthy foods... (General Medicine) […] I have had many patients, I would say, more than 30, who passed through this medium-risk clinic, where they had an initial diagnosis of an autism spectrum disorder and, in fact, the problem lay in the excessive use of the tablet or cell phone... (Pediatrics).
Perception of the benefits associated with the screens	[…] ...I live in a city like Buenos Aires, where there is no such thing as a safe square, a public space where you can send your children to socialize so easily, so given the impossibility of going to other people's houses, digital media in some way partially replace that, no? (Pediatrics) [...] Today my daughters, the hours I used to spend reading, now they consume content, but maybe the screen is new but they are either watching something, they are learning something or reading, or they do their homework with it... out of the pandemic period, I mean... (General Medicine) […] And I don't know if it's necessarily negative because these kids are going to be exposed to this all their lives, and at some point, I think there's something positive about them getting used to this technology from an early age. (...) I think there are ways of using screens that can actually be positive (General Medicine).
Screensin times of *aislamiento social preventivo y obligatorio*	[…] I believe that what is happening now clearly shows the benefits. I mean, we are living at a time when children have not been attending school for 120 days, right? and, better, worse, with their limitations... let's say, clearly there is a difference according to access... Children have had academic continuity. (General Medicine) […] With the pandemic, the shifts got more spaced out. Before, we had them every 15 minutes, now they are every half an hour and the reality is that on the one hand, I have more time to talk about it and on the other hand, I also saw that there was much more screen exposure, so I started to incorporate it from the very youngest because now what I am seeing is almost all babies under one year old;... I started to systematize it with the pandemic. (Pediatrics) […] I ask less now because I have become much more tolerant. In fact, I understand that the screen, especially because (...) my children, also becomes a way, a means of sustaining social bonds. That is to say, the kids, through the PlayStation when they play, talk to each other, or through WhatsApp they chat. So they have a certain possibility of sustaining something very valuable for them and that was lost from the moment they started to be isolated, so now, in fact, I ask about it much less and now is when parents are the ones who bring it as a concern... (Pediatrics)

(*continue*)

(*continued*)

Axes	Verbatims
Contradictory thinking and actions about screen use	[…] We are more concerned than parents about the issue of screen time (Pediatrics). […] I also believe that the maturational patterns to be measured will surely be different. […] The guidelines we know from the PRUNAPE by Lejarraga in 1990 […] taken from 1000 healthy children, well... Now we will take 1000 healthy children and there may be some questions about the raisin inside the bottle that may not be a maturational guideline, or the maturational percentile may be different, I don't know. (Pediatrics)... I also thought that a child who spent all his time with smartphones and so on was going to do very badly later in life and then I realized that some have done very well, has aspired to enter good schools, and suddenly... it was there that I started to relax my rigidity a little regarding "no more than two hours because your child will have a thousand problems" and then they do not have those thousand problems... (General Practice)

On the other hand, they commented on mood changes related to screens (irritability, psychomotor agitation, anxiety, depression) in the social sphere -in this case, directly related to the use/misuse of social networks- (social isolation, violence exercised through social networks, cyberbullying, grooming) and neurological (language delay, overdiagnosis of the autistic spectrum disorders).

3. Perception of the benefits associated with screen time

There was a unanimous perception that screens represent an excellent means of communication. They are a ludic and practical option to maintain a social life in the case of families living in insecure environments. Participants mentioned that they function as instruments to favor stimuli through applications that could help children with neurological problems affecting speech or social interaction. Another highlight was the possibility offered by the Internet for accessing information and educational content.

The interviewees considered it appropriate for children and adolescents to become familiar with technology and learn to use different digital tools and pointed they tend to do so intuitively.

On the other hand, screen-based media make it possible to access health content, such as remote medical consultation by telemedicine or through social networks that disseminate the activities of a health center or a community intervention.

4. Screen-based media in times of *aislamiento social preventivo y obligatorio* (ASPO)

It emerged in the interviews that during the period of confinement in Argentina, a central issue was the absence of face-to-face school activity for almost a year, with differences depending on the jurisdictions. At this point, the screens made distance classes possible, becoming the link to make remote education effective due to health emergencies. Some interviewees mentioned the increase in consultations due to sleep disturbance in adolescents. Those who work with the low-income population observed that the education gap had widened and noted that Zoom classes for preschool children were failing, resulting in an overload for their caregivers, generally mothers.

Regarding medical care for children and adolescents, they said that health check-ups for children over one year stopped, and they only provided emergency consultations. Despite this withdrawal of the clinic, they remarked that social networks brought health services closer to the population. They highlighted that the teenage population began to make more consultations compared to the periods preceding the pandemic.

When inquiring about the change in how to address the "screen time" issue within the practice, the positions adopted for screening were conflicting. All the interviewees in this study decided to relax their recommendations on screen time use and preferred not to be as directive with parents as before the COVID-19 pandemic. Other professionals began systematically tracking device use. These generally said they chose to "negotiate" with each family according to prior norms and contexts. This attitude was seen mainly in those professionals who, at the same time, have children in this age group (CA).

5. Contradictory thoughts and actions about screen time exposure

Interviewees think the concern about screen exposure comes more from the medical community than those in parenting roles. Some physicians feel that parents intuitively sense that screens are not entirely healthy but note that they do not accept responsibility for this use. Respondents believe that it seems to be a concern that arises from adult caregivers when it comes to school-aged children and adolescents. Instead, they accept screen handling as a remarkable skill in younger children and add that, in their practice, they observe that adults offer devices to their children when they need to "calm them down."

In the focus groups, there was some consensus on the importance of promoting a reduction in potential risks,

advising the supervision of content, maintaining certain basic routines, or providing alternatives to screens. It is worth noting that some of the professionals who initially considered the situation of increased screen exposure during the ASPO as problematic, at some point in the interview, expressed some uncertainty about its full impact on children's health.

They said that the use of electronic devices affects everyone. The professionals participating in the study and who are mothers or fathers got feedback from their children regarding the excessive use of cell phones. These same professionals stated that it is very challenging to maintain in their homes the principles they prescribe in their consulting rooms.

One topic in which they showed interest was that of social networks: they perceive them as "a double-edged sword" because, although they represent a platform that enables connection, the creation of networks and the expression of the more timid, the professionals believe that they are not good allies when it comes to establishing interpersonal relationships.

Some participants questioned the maturational patterns of current measurements, and doubts arose about whether it would be more appropriate to address the basic handling of some technologies as part of a child's development. Others strongly disagreed with this idea. It is clear from the interviews that smartphones are perceived to be more harmful than television.

Finally, personal insights emerged during the interviews about prejudices overcome, introspections, and new perspectives, all summarized in Table 2.

DISCUSSION

Before 2020, recommendations for children and adolescents (CA) about screen use were very restrictive in terms of exposure time (Table 3)[3-9] because we had publications documenting that their usage was associated with several adverse effects (Table 4)[10]. However, in the context of ASPO measures during the COVID-19 pandemic, these recommendations were relaxed[22].

One of the limitations of this study is perhaps the failure to incorporate the opinion of selected groups according to generational homogeneity or specialty bias. The analysis did not initially intend to identify possible differences according to specialty, seniority, gender, or life stage (maternity, paternity, parenting role), elements -among many others- that build the individual

Table 3. Summary of recommendations on screen-based media usage in childhood

Age	Institution	Recommendation
Under two years of age	SAP[3]	Not recommended under 18 months of age
		Use under supervisión of contents: 18 to 24 months
	AAP[4]	Not recommended under 18 months of age
	AEP[5]	Use under supervision of contents: 18 to 24 months (video chat allowed)
	CPS[6]	Use discouraged
	RCPCH[7]	Exposure regulated by the family
Two to five years	SAP[3]	Up to 1h/day. Supervision and accompaniment
	AAP[8]	Up to1 hour of high quality programming with parent present. Discouraged during meals and 1 hour before bedtime
	CPS[6]	Up to1 h/day. Avoid screens one hour before bedtime
	RCPCH[7]	Exposure regulated by the family
Five to 18 years	SAP[3]	Establish a place in the house with no screen-based media and a plan for family use
	AAP[9]	Develop and follow a family media plan in the presence of parents (set a limit of h/day, type of media and content, and establish a media-free time and space) Avoidin-room electronic devices and screen use 1 hour before bedtime. Discourages usage of the screen while doing homework
	AEP[5]	–
	CPS[6]	Up to 2 h/day
	RCPCH[7]	Exposure regulated by the family

SAP: Sociedad Argentina de Pediatría, AAP: American Academy of Pediatrics, AEP: Asociación Española de Pediatría, CPS: Canadian Paediatric Society, RCPCH: Royal College of Paediatrics and Child Health

Table 4. Degree of evidence of identified associations between screen exposure and various adverse outcomes.

		Degree of evidence
Nutricional aspects	Increased obesity/adiposity	Moderately strong
	Poorer diet quality/higher caloric intake	Moderate
Psychosocial sphere	Poorer quality of life	Moderate
	Poorer mood	Moderately strong

Adapted from: Stiglic N, Vine rRM. Effects of screen time on the health and well-being of children and adolescents: a systematic review of reviews[10].

professional worldview. Therefore, due to its epistemic-methodological framework, the results of this research are significant and contextually situated and may not be extrapolated to other universes.

Recently, local[23] and international[24] literature have documented the rise in screen-based media exposure time and the prevalence and progression of some associated conditions, such as visual problems[25-27] and chronic pain. In this context, the SAP issued a statement[28] warning about rising functional disorders in children and adolescents during ASPO. Of course, the question arises regarding what consequences the ASPO would have had on children and adolescents in a counterfactual scenario where screens would not have existed during such confinement.

In contrast to our findings, research conducted in the United States[29] and Turkey[30] on a sample of mothers, fathers, and teachers showed a predominance of negative aspects, mainly concern about exposure time and screen addiction, over the content consumed and the skills learned.

The questions that arise around the use of screens remind us of the fears that usually surround the emergence of new technologies. Perhaps we should continue to review whether the robustness of the evidence is sufficient to sustain rigid recommendations on the use of individual screens by revising, for example, how our opinion might change if, when we talk about a screen, we think of an electronic book or a smartphone. Regarding nutritional habits, they are more sensitive to policies restricting advertisements of unhealthy foods aimed at children and adolescents than limiting the time children spend in front of screen devices.

CONCLUSION

The professionals interviewed stated that they were guided more by personal intuition than the available evidence when recommending screen exposure. Our interviewees acknowledged that the CPSI context allowed the visibility of some benefits associated with the connectivity provided by this type of device. Although they expressed some caution in releasing the use, our results show that the perception of screens is becoming increasingly neutral about the balance of their risks and benefits, leading professionals to be more flexible in their recommendations on the subject.

Conflict of interest: the authors declare no conflict of interest.

REFERENCES

1. Waisman I, Hidalgo E, Rossi ML. Uso de pantallas en niños pequeños en una ciudad de Argentina. Arch Argent Pediatr 2018;116(2):e186-e195.
2. Hysing M, Pallesen S, Stormark KM, et al. Sleep and use of electronic devices in adolescence: results from a large population-based study. BMJ Open. 2015Feb 2;5(1):e006748. doi: 10.1136/bmjopen-2014-006748. PMID: 25643702; PMCID: PMC4316480.
3. Krynski L. Bebés, niños, adolescentes y pantallas: ¿qué hay de nuevo? Archivos Argent Pediatr [Internet] Febrero de 2017 [citado en mayo 2022]. Vol. 117. Disponible en: http://dx.doi.org/10.5546/aap.2017.404
4. Brown A. Media Use by Children Younger Than 2 Years. Media C on CA, Council on Communications and Media. PEDIATRICS [Internet] Noviembre de 2011 [citado en mayo 2022]. Vol. 128,. p. 1040–5. Disponible en: http://dx.doi.org/10.1542/peds.2011-1753
5. Sedentarismo, falta de sueño y alteración en el desarrollo cognitivo, social y emocional, consecuencias del uso inapropiado de las nuevas tecnologías en niños. [Internet] [citado en mayo 2022] Disponible en https://www.aepap.org/sites/default/files/noticia/archivos-adjuntos/final_np_aepap_uso_tecnologia.pdf
6. Tremblay MS, Chaput J-P, Adamo KB, et al. Canadian 24-Hour Movement Guidelines for the Early Years (0–4 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep. BMC Public Health [Internet] Noviembre de 2017 [citado en mayo 2022]. Vol. 17. Disponible en: http://dx.doi.org/10.1186/s12889-017-4859-6
7. The health impacts of screen time: a guide for clinicians and parents. Royal College of Paediatrics and Child Health. [Internet] Enero de 2019 [citado en mayo 2022]. Disponible en: https://www.rcpch.ac.uk/resources/health-impacts-screen-time-guide-clinicians-parents
8. Media CONCA, COUNCIL ON COMMUNICATIONS AND MEDIA. Media and Young Minds. Vol. 138, Pediatrics. 2016. p. e20162591. [Internet] Noviembre de 2016 [citado en mayo 2022]. Disponible en: http://dx.doi.org/10.1542/peds.2016-2591
9. COUNCIL ON COMMUNICATIONS AND MEDIA. Media Use in School-Aged Children and Adolescents. Pediatrics [Internet]. 2016Nov;138(5). Available from: http://dx.doi.org/10.1542/peds.2016-2592
10. Stiglic N, Viner RM. Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews. BMJ Open [Internet]. 3 de enero de 2019 [citado en mayo 2022];9(1):e023191. Disponible en: http://dx.doi.org/10.1136/bmjopen-2018-023191.
11. Carson V, Clark M, Berry T, Holt NL, Latimer-Cheung AE. A qualitative examination of the perceptions of parents on the Canadian Sedentary Behaviour Guidelines for the early years. Int J Behav Nutr Phys Act [Internet]. 2014 May 17;11:65. [citado en mayo 2022] Disponible en: http://dx.doi.org/10.1186/1479-5868-11-65

12. [citado en mayo 2022] Disponible en: http://dx.doi.org/10.1186/s12889-017-4853-z
13. Hinkley T, McCann JR. Mothers' and father's perceptions of the risks and benefits of screen time and physical activity during early childhood: a qualitative study [Internet]. Vol. 18, BMC Public Health. 2018.. [citado en mayo 2022] Disponible en: http://dx.doi.org/10.1186/s12889-018-6199-6
14. Carson V, Barnes J, LeBlanc CMA, Moreau E, Tremblay MS. Increasing Canadian paediatricians' awareness and use of the new Canadian Physical Activity and Sedentary Behaviour Guidelines for ages 0 to 17 years [Internet]. Vol. 22, Paediatrics & Child Health. 2017. p. 17-22. [citado en mayo 2022] Disponible en: http://dx.doi.org/10.1093/pch/pxx006
15. Gentile DA. Well-Child Visits in the Video Age: Pediatricians and the American Academy of Pediatrics' Guidelines for Children's Media Use [Internet]. Vol. 114, PEDIATRICS. 2004. p. 1235–41. [citado en mayo 2022] Disponible en: http://dx.doi.org/10.1542/peds.2003-1121-l
16. Charmaz, K. Constructing grounded theory: A practical guide through qualitative analysis (2nd ed.). London, England: SAGE. (2014)
17. Kornblit, A L. (coord.) Metodologías cualitativas en ciencias sociales. Buenos Aires: Biblos. Marradi, A.; Archenti, N. y Piovani, J. I. (2007). Metodología de las Ciencias Sociales. Buenos Aires: Emecé. (2004)
18. Martínez-Salgado, C. El muestreo en investigación cualitativa: principios básicos y algunas controversias. Ciência & Saúde Coletiva [online]. 2012, v. 17, n. 3 [Accedido 24 Noviembre 2022] , pp. 613-619. Disponible en: <https://doi.org/10.1590/S1413-81232012000300006>. Epub 23 Mar 2012. ISSN 1678-4561. https://doi.org/10.1590/S1413-81232012000300006.
19. Maxwell, J A. Diseño de investigación cualitativa. Editorial Gedisa, 2019.
20. Programa Nacional de Actualización Pediátrica (PRONAP). [Internet] 2015 [citado en mayo 2022] Disponible en: https://www.sap.org.ar/novedades/58/novedades-del-pronap.html
21. Trenchi N. ¿Mucho, poquito o nada? Guías sobre pautas de crianza para niños y niñas de 0 a 5 años de edad. Fondo de las Naciones Unidas para la Infancia (UNICEF). 2011. [Internet] 2011 [citado en mayo 2022] Disponible en: https://aticounicef.org.uy/publicaciones/mucho_poquito_nada_completo.pdf
22. Uso de pantallas en tiempos del Coronavirus. Recomendaciones elaboradas por el Comité Nacional de Crecimiento y Desarrollo y la Subcomisión de Tecnologías de Información y Comunicación – Mayo 2020. SAP. [Internet] 2020 [citado en mayo 2022] Disponible en: https://www.sap.org.ar/uploads/archivos/general/files_uso-pantallas-epoca-covid_1589324474.pdf
23. Calzado M., Cirulli A. y Lio V. "La ventana al exterior en la pandemia: tecnologías, hábitos y confianza informativa en Argentina", Revista Iberoamericana de Ciencia, Tecnología y Sociedad [Internet] 2021 [citado en mayo 2022] – CTS, número especial: "Periodismo y divulgación científica en la era de la desinformación", pp. 83-100. Disponible en: https://docplayer.es/217194824-De-ciencia-tecnologia-y-sociedad.html
13. Ribner AD, Coulanges L, Friedman S, et al. Screen Time in the COVID Era: International Trends of Increasing Use Among 3- to 7-Year-Old Children, The Journal of Pediatrics [Internet]. Agosto de 2021 [citado en mayo 2022]. Disponible en: DOI: 10.1016/j.jpeds.2021.08.068
25. Mingming Ma, Shuyu Xiong, Shuzhi Zhao, et al. COVID-19 Home Quarantine Accelerated the Progression of Myopia in Children Aged 7 to 12 Years in China. Investigative Ophthalmology & Visual Science [Internet]. Agosto de 2021 [citado en mayo 2022], Vol.62, 37. Disponible en: DOI: https://doi.org/10.1167/iovs.62.10.37
26. Rui Li, Bowen Ying, Yingxiao Qian, et al. Prevalence of Self-Reported Symptoms of Computer Vision Syndrome and Associated Risk Factors among School Students in China during the COVID-19 Pandemic. Ophthalmic Epidemiology [Internet] Agosto de 2021 [citado en mayo 2022]. Disponible en: DOI: 10.1080 / 09286586.2021.1963786
27. Amit Mohan, Pradhnya Sen, Swapnil Jain, et al. Prevalence and risk factor assessment of digital eye strain among children using online e-learning during the COVID-19 pandemic: Digital eye strain among kids (DESK study-1). Indian Journal of Ophthalmology;69:140-4 [Internet] Diciembre de 2020 [citado en mayo 2022]. Disponible en: DOI: 10.4103 / ijo.IJO_2535_20
28. Aumentaron los trastornos funcionales en los niños y adolescentes en el marco de la pandemia. SAP. [Internet] Julio 2021 [citado en mayo 2022] Disponible en: https://www.sap.org.ar/uploads/archivos/general/files_trastornos-funcionales-06-21_1625090870.pdf
29. Hammons A, Villegas E, Robart R. "It's Been Negative for Us Just All the Way Across the Board": Focus Group Study Exploring Parent Perceptions of Child Screen Time During the COVID-19 Pandemic. JMIR Pediatr Parent [Internet] Abril de 2021 [citado en mayo 2022];4(2):e29411. Disponible en: DOI: 10.2196/29411
30. Serap D, Zeliha H. Technological Addiction or Technological Competence? Investigation of Young People's Approaches to Technology Use in the Context of Increasing Screen Time Due to the Covid-19 Pandemic. - Communication and Technology Congress – CTC 2021 (April 12th-14th, 2021 – Turkey, Istanbul) - [Internet] Abril de 2021 [citado en mayo 2022] Disponible en: DOI: 10.17932/CTCSPC.21/ctc21.029