



PERCEPTIONS OF MOTHERS ABOUT THE USE OF SCREENS BY THEIR CHILDREN OR ADOLESCENTS¹

Luana Félix dos Santos*

Luana Vieira Coelho Ferreira**

Luiza Maria Rabelo Silva***

Alexandra de Paula Rothebarth****

Ruth Noêmia Paula Biork*****

Leandro Felipe Mufato*****

ABSTRACT

Objective: to know the perceptions of mothers regarding the use of screens by their children, children or adolescents. **Methodology:** this is a descriptive-qualitative study conducted in a city in the Midwest region, Brazil, with mothers of children and adolescents who used screens. Data were collected from interviews opened by online video calls made between January and March 2022 with 11 mothers selected after active search. Thematic content analysis resulted in four categories: mothers' perception of the impacts of the use of technological devices on their children's daily lives; mothers' perception of the impacts of mobile devices on their children's health; knowing the limits and control of mothers about the use of screens by their children in routine activities; mothers' perception about how the use of technology affects the interpersonal relationships of their children. **Results:** the negative points of the use of screens emerge in the discourse. The mothers identified that the use of screens brought their children vision problems, poor sleep quality, drop in school performance, irritability, aggressiveness, among other situations. **Final thoughts:** it can be identified that mothers are aware, in different degrees of knowledge, of the risks that the indiscriminate use of electronic devices can cause in their children.

Keywords: Child Behavior. Adolescent Behavior. Smartphone. Internet Addiction Disorder.

INTRODUCTION

Information technology is increasingly inserted in the daily life of the population, completely changing the contemporary lifestyle and the way people communicate. The current generation of children and adolescents suffers a huge influence in this technologically based universe, exploring the virtual space in a progressive and unbalanced way everywhere⁽¹⁾.

Scientific evidence regarding the damage that devices such as smartphones and tablets can cause is inconsistent because they are more recent than computers, already commonly used by a large portion of the generation of the 1990s and 2000s⁽²⁾. The use of electronic devices by children and adolescents is currently worrying

for health, because they are in the development phase (childhood and youth), not only of the physical body, but in construction of ethical and moral values, as well as their personality.

Exposure to screens has led to a behavioral change that can lead to obesity, as it implies a sedentary lifestyle and lack of physical activity. In addition, exposure to canvases may contribute to increased attention deficit and fragility in family and social bonds⁽³⁾. Virtual social media can involve adolescents in situations that impair self-image and their personal relationships; moreover, these means can corroborate with the promotion of self-harm and suicide⁽⁴⁾.

In addition to the aforementioned situations, it should be noted that excessive use of screens, especially smartphones and tablets, is a risk

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*Nurse. E-mail: luana.felix@outlook.com ORCID iD: 0000-0003-0689-9988.

**Nurse. Master in Environment and Agricultural Production System. Professor in the Department of Nursing, State University of Mato Grosso, Brazil. E-mail: luana.ferreira@unemat.br ORCID iD: 0000-0001-6374-6246.

***Nurse. Specialist in Multiprofessional Residency in Adult and Elderly Health, Master's Student of the Postgraduate Program in Nursing at the Federal University of Mato Grosso. E-mail: luh.rabelo@hotmail.com ORCID iD: 0000-0003-2420-1838.

****Nurse. Master in Nursing. Assistant Professor in the Department of Nursing, State University of Mato Grosso. E-mail: alexandra.rothebarth@unemat.br ORCID iD: 0000-0001-9053-3166.

*****Psychologist. E-mail: ruth_npbiork@outlook.com. ORCID iD: 0000-0003-0760-7473.

*****Nurse. Doctor in Nursing. Professor in the Department of Nursing at State University of Mato Grosso. E-mail: leandro.mufato@unemat.br. ORCID iD: 0000-0002-8693-5637

factor for myopia. Myopia is increasing worldwide, with half of humanity predicted to have myopia by 2050. This factor can be explained by the new way of study and work of the last decade, in which children, adolescents and adults use the screens for long periods of constant exposure, which affects the ocular musculature and hinders the relaxation necessary to be able to see objects at a long distance⁽⁵⁾.

Studies show that excessive screen time changes gray matter and white volumes in the brain, increasing the risk of mental disorders such as cognitive problems (language, concentration and school performance), emotional (anxiety and aggression), behavioral disorders and physical changes (obesity and lower cardiovascular conditioning). In adolescents and young adults, excessive use of mobile devices has negatively influenced attention, concentration, learning, memory, emotional regulation and social functioning^(1,6).

In addition, the use of the smartphone before sleep leads to a shorter sleep duration, decreasing its quality⁽⁷⁾. It is also worthy to mention the alert of the Brazilian Society of Pediatrics about some “jokes” or “challenges” online that can cause serious consequences and the risks that can lead to the pathological use of electronic games, that is, when games cease to be an entertainment and begin to influence the loss of empathy, or increased irritability or aggressiveness⁽⁸⁾.

The family exerts a strong influence on the identity formation of each being, from childhood to adulthood, in which the individual finds a reference of values, customs and beliefs. In the family context, when screens are consumed in a balanced way and with orientation, they provide benefits for creativity, learning, empathy and emotions⁽⁹⁾. The use of electronic games related to education and healthy lifestyle, “improves the cognitive functioning of the child, and the development of analytical and strategic skills”⁽¹⁰⁾.

In this sense, studies focused on investigating mothers’ understanding of the problems that excessive use of screens can cause in their children, and if they know recommendations for limits of screen use, contribute to a better description of a current problem in society. Given this assumption, this research sought to

answer the following problem: What are the perceptions of mothers about the use of screens by their children? This production aimed to know the perceptions of mothers regarding the use of screens by their children, children or adolescents.

METHODOLOGY

Adoption of descriptive study, qualitative approach. The objective of the qualitative method is the search for social reality, through the observation of the meanings, motives, beliefs, values and attitudes of respondents⁽¹¹⁾.

The investigation was carried out in a medium-sized municipality in the Midwest region of Brazil. The search of the participants took place through active search in a local school, by the first author of the study, where the first mother was found and subsequently was asked to indicate other people through telephone contact (snowball and for convenience). By phone, it was explained about objectives, risks and benefits of the research by WhatsApp. When mothers responded by signaling that they would accept to participate in the study, the Informed Consent Form (ICF) was sent by message and the date of the interview was scheduled.

Being the mother of children and adolescents who used screens in their daily lives was the inclusion criterion. The number of study participants was defined by the criterion of data saturation, understood as the moment when the empirical material collected allowed a better understanding of the research topic from the perspective of the study participants and the scope of the objective⁽¹²⁾. The time of use of screens was not a criterion for the choice of participants, mothers whose children were up to eighteen years old were included.

Data were collected by the first author of the study, from January to March 2022, through an open online interview lasting between 15 and 20 minutes, by video call recorded through WhatsApp, individually. The open interview can be defined as an informal conversation with intentionality⁽¹¹⁾. To characterize the participants, data were collected on: age, color, schooling, number of children, age of children, quantities of screens at home accessed by the children. The guiding question of the interview was: Tell me

what do you know about the impacts that excessive use of smartphones, tablets, television and computers can have on your children? Questions about benefits and limits of use were also performed.

For data analysis, thematic content analysis was used after data transcription, and it was composed of the stages of pre-analysis, exploration, coding and interpretation of the data⁽¹¹⁾. The thematic analysis of the contexts resulted in the construction of thematic axes that were grouped into four categories: mothers' perception of the impacts of the use of technological devices on their children's daily lives; mothers' perception of the impacts of mobile devices on their children's health; knowing the limits and control of mothers about the use of screens by their children in routine activities; mothers' perception about how the use of technology affects the interpersonal relationships of their children.

All phases of the research valued the anonymity of the participants, being identified by the code name "Mother" and a number assigned by the ordination that the interviews occurred. The research was submitted for consideration by the Research Ethics Committee (REC) of the State University of Mato Grosso (UNEMAT), opinion n. 5.100.175.

RESULTS

The participants are characterized as 11 mothers aged between 30 and 47 years, six self-declared white and five black; most have as a degree of instruction the complete Higher Education and the others, the complete High School. Six are educators, four are home activities and one of them is administrator. The interviewees had between one and three children, with fashion being the value three. The children were between five and eighteen years old, with a mean age of 10.95 years. The amount of screen tools used by children ranged from two to five, with fashion being the number of three possible devices.

Mothers' perception of the impacts of the use of technological devices on their children's daily lives

Some mothers stated that the use of

smartphones has impacted school performance, denoting a decrease in it, which is impairing learning, because children have not shown more interest in other activities, such as: reading books and school tasks:

Performance at school has dropped sharply. (Mother 3)

From my own experience, when I let go of the cell phones, nobody cares about schoolwork, reading a book, nobody cares about anything. (Mother 6)

He spends a lot of time on his cell phone and this is distracting him at school, because he doesn't have the patience to study, simple things, he doesn't pay attention to learn. (Mother 9)

The mothers identify that the use of screens is causing a harmful environment due to fragile human interactions, that is, the use of screens hinders exchanges and sharing between them the children:

I take it around my house, I think teenagers are too attached to social networks, virtual friends, and forget to talk to their family. My daughter, for example, forgets to talk to me, to vent about their affairs. (Mother 5)

I suffered a lot with the older one, I couldn't maintain a dialogue, not even asking: 'what are you doing?', it already irritated him. (Mother 7)

It has happened that we spend a lot of time with the screen messing with applications and forgetting about each other (Mother 1)

Some interviewed participants stated that the use of technological devices has caused negative impacts on their children's lives. A relevant concern of the mothers refers to the isolation of the child and the sedentary lifestyle, as well as the psychological effects arising from such as: disinterest in the activities of the house and lack of maturity to process and elaborate the excess of information they receive virtually:

They get very lazy, accommodated, slow, irritated, when you take them out of that place they are living. They stay all day if you let them, they stop feeding. (Mother 7)

They get very irritated, because they get stuck and don't spend energy, accelerated, and they don't have enough maturity for so much information they received. (Mother 8)

They become more distracted, aggressive, lazy, they don't want to do anything, they just want to

play on their cell phones and surf the internet. (Mother 3).

Mothers' perception of the impacts of mobile devices on their children's health

The excessive use of technological devices worries mothers with regard to their impact on the health of their children; one of the approaches is vision problems. Such distress can be seen in the statements below:

There is the issue of vision health, which is harmful to the child, even the issue of the screen being close to view, my daughter had some sequelae from the brightness of the screen, she already had problems with her eyesight, headache. (Mother 1)

It's harmful for their eyes, the time he spends on his cell phone can burn that cornea of his eye. (Mother 8)

My eldest, who turned 18, has trouble seeing. (Mother 7).

Other weaknesses caused by the use of screens are changes in health status, such as severely affected sleep, sedentary lifestyle and obesity. Mothers realize that their children stay awake during the night using smartphones, that their eating habits are not adequate, or even, they fall asleep without knowing what time their children stopped using the screens to also go to sleep. As described below:

Of the 14 out of 18, he was overweight, weighing almost 100 kilos, because he stays on his cell phone until late at night, and when it's dawn when he goes to eat [...] he goes back to his room again [...], eats using the cell phone in hand, he sleeps with the cell phone, loses sleep at night. (Mother 7)

I thought that if I let him watch it, it would help him, make it easier for him to eat, and I saw that it was getting in the way because he was entertained and was eating, and sometimes, I believe he didn't even know what he was eating. (Mother 11)

At night we sleep and we can't control until what time he had his cell phone in his hand. Because we ended up sleeping and leaving him with the phone. (Mother 9)

Knowing the limits and control of mothers over the use of screens by their children in

routine activities

Regarding the benefits of using screens, mothers reported that it only has benefits if the screens are monitored and controlled. In the testimonies transcribed below, one realizes this when they report:

I see these as positive points. However, we have to know what positive points there are in that. Always check. Research question, knowledge. (Mother 2)

In well-controlled use, knowing how to use it does bring benefits. (Mother 3)

If you are disciplined, yes, you can have educational things, so in that sense, it has a positive impact because it helps with learning. (Mother 6)

Regarding the limits in the use of technologies, mothers do not know to what extent it is recommended or when it exceeds. As follows, they externalize:

I've seen some specialists explain about its use, I don't remember the exact time of day, at least my daughter spends about 6 hours a day. (Mother 1)

I'm not aware of screen limits, I've never been interested in looking. (Mother 4)

I have not yet informed myself about the limits of screens. Here it is practically all day, it is glued to the cell phone all the time. (Mother 5)

Some mothers verbalize the importance of explaining to their children the reason for having limits on time in front of screens, as can be seen in the following reports:

I always believe dialogue, I establish rules, explain the bad points of the internet [...], advise on all the risks that these screens bring. I do not believe that it is an invasion of privacy, because what is agreed, I see that it is the right thing to do. (Mother 2)

I explained to her why I left her without the cell phone. (Mother 5)

I talk to them a lot, and I tell them why there are things they shouldn't watch, so they see it's wrong and don't change it. (Mother 3)

However, there were also narratives of mothers who revealed the establishment of rules in their home, as well as the control of everything their children watch:

At home it is used with a limit, they don't have

cell phones, the television is blocked only in the age group. **(Mother 4)**

The 12-year-old is the one who uses it the most, he has a limit, he doesn't use the time he wants too, the 8- and 7-year-olds, they no longer have access, they used to have it, but today, after we are more informed, we took it away from him **(Mother 8)**

We are always supervising, there is a selection and something that will add, which is educational, we don't let him watch anything, then we make the selection. **(Mother 11)**

Mothers' perception of how the use of technology impacts their children's interpersonal relationships

In cases where there is established control and time limit, children and adolescents often do not understand the preventive measures taken and get angry, nervous and even complain when parents impose limits on the use of screens, as the mothers report below:

When I took it out, she acted really badly, she came up to me, asking for my cell phone, she got nervous. **(Mother 5)**

Whenever one stays longer than the other, he already says: 'mom, why can he play one more game and I can't?'. They cry, complain. **(Mother 6)**

When I pick up the cell phone, he gets very agitated, nervous, screams, because he doesn't have a cell phone in his hand. **(Mother 9)**

Some mothers stated that they felt a difference in their children's behavior after placing restrictions and rules on the use of screens at home, as the descriptions below express:

Today I ask her to help with the housework, the chores [...] music activity, [...] in the afternoon she plays outside, I see that today she is more independent [...], Before, she was very closed, the excess of technology does this, inhibit the child **(Mother 1)**

From the moment we started to reduce the screen, we saw improvements in his behavior. **(Mother 11)**

DISCUSSION

From the testimonies of the mothers, it is noticeable how the use of screens (smartphones, notebook, tablets and television) interferes and provides a negative effect on health in various aspects of the lives of children and adolescents. The use of the smartphone stands out as the most present and influential screen in the report of the participating mothers. This result may reflect the age of their children, from five years, which would prevent cartoons on streaming channels (online software that share media content, such as: Netflix, Disney+, Globo Play, among others), aimed at an audience of lower age group, from being cited.

In the perception of mothers, it is observed that the excess of screens in the daily life of children and adolescents affects the social coexistence and health of these children and adolescents, because according to the use, it is analyzed that they do not feed correctly, or do not do physical activities when facing technological tools. All this is aggravated mainly by those parents who cannot control the use of screens by their children. This demonstrates how social networks and the internet have affected these families biographically in their daily lives.

Regarding school performance, a survey conducted in Australia, of the longitudinal type, examined the effect of the use of electronic media in children aged eight to 11 years, and showed that watching television during a period of two hours can lead to learning deficits⁽¹³⁾. On the other hand, time spent in front of screens using social media affects good school performance; the more time children and adolescents spend in front of screens, the more their grades decrease, as they do not get enough rest and suffer from fatigue and sleep disorders, which may lead to lack of concentration⁽¹⁾. These findings corroborate and explain some dimensions of what we found in our results.

Using smartphones in the home environment can create a source of distraction that disconnects people from their real social environment. And, when it comes to the family environment, the time in which parents and children dedicate themselves to the screens can

harm the relations between parents and children⁽¹⁴⁾.

The excessive use of screens was observed in a study with young Americans, in which it was found that this exposure is resulting in anxiety, depression and lower social interaction⁽³⁾. A study conducted in the United States revealed that the increase in sedentary time is associated with less sleep and higher levels of mood disorders, stress, and changes in physical activity⁽¹⁵⁾. Getting enough sleep is a protective factor against mental and physical illness. However, evidence shows that among adolescents, the proliferation of screens has contributed to a decline in sleep quality and duration in recent decades, especially when these screens are in the bedroom of children and adolescents⁽¹⁾.

It is recommended that the average sleep duration among adolescents be at least 9h35min at night, which would be ideal for cognitive function to function correctly⁽¹⁶⁾. However, it has been noted that many adolescents are sleeping below this recommendation, ranging from 5 to 7 hours per night⁽¹⁷⁾. These studies are related to our findings, when we observe that mothers have become aware of the negative effects that the misuse of electronic devices causes, and report that, with the use, their children are more distracted, develop a tendency to eat poorly, become more difficult to relate to family members and have physical health problems.

The use of recreational use of screens by the generation of digital natives, that is, those born in digital times, is completely exorbitant and increasingly early, as there is greater ease of access to these technologies⁽⁶⁾. Children from Western countries in the age group of two years accumulate daily almost 50 minutes before the screens, and children of eight years accumulate 2h45min per day. These children are susceptible to accessing content that is not appropriate for their age, and are often targets of advertising content, which can influence and direct them to consumerism⁽¹⁾.

It is emphasized that the use of screens by children and adolescents under the supervision of an adult can bring benefits in the development of language. Other benefits of disciplined or targeted use are related to health,

such as coping with diseases through therapeutic information in the virtual world; examples of these benefits are the reduction of overweight and chronic diseases⁽¹⁸⁾.

However, in this research it was found, through reports, that there were no aspects that could point out such benefits. The Brazilian Society of Pediatrics (SBP) reports that the use of screens adequately improves the daily life of adolescents and children⁽⁸⁾. Another factor that can generate benefits is the use of electronic games, when these are related to education and healthy lifestyle⁽¹⁰⁾.

Regarding the knowledge of time and limits of screens, it is verified from the narratives of the mothers participating in this study that none could accurately inform the recommended exact amount of hours. These results lack attention, since the SBP and the World Health Organization (WHO) recommend that, for children under two years, it is necessary to avoid the exposure of screens. Children between two and five years old, if they have regular access to the screen, should be limited to less than one hour of use per day; in addition, it is advised that, whenever possible, there is supervision of parents or guardians. Between six and ten years, it is necessary to restrict to a maximum of one or two hours a day, always with supervision. For adolescents between 11 and 18 years, there is a limitation of use of screens and video games between two and three hours a day, being expressly forbidden to stay awake during the morning for hours on end. Another orientation given to parents is that they watch with their children the content accessed by them, still, it is necessary that they are attentive to the contents, giving priority to educational programs, with appropriate age group^(8,19). It is noted that such recommendations still need better dissemination in society, because the mothers of this study could not cite such forms of control over the time of use of screens by their children.

A survey conducted with Irish parents identified that 42% of them impose restrictions regarding length of stay and content accessed by their children⁽²⁰⁾. A cross-sectional study conducted in southern Australia, with self-reports of adolescents aged 12 to 18, indicated

that the existence of rules within the home environment is related to sleep earlier, enjoy longer sleep and move away from smartphones before sleeping⁽²¹⁾. On the other hand, teens whose parents don't enforce rules, often due to the work they do on long journeys, are more likely to develop dependence on the use of smartphones, because they do not have adult supervision and use their devices without rules or guidance⁽²²⁾.

FINAL THOUGHTS

This study demonstrates that mothers have knowledge about the risks that indiscriminate use of screens (such as smartphones, computers, tablets and television) can cause in their children; however, when it comes to knowledge about the recommended screen time limits, mothers did not make assertive statements. The research also found that some mothers control and limit the use of technology by their children, even not knowing the recommendations of health experts on the subject. It is evident, in the perception of mothers, the harm of the use of smartphones for a long time by their children, with reports of irritability, drop in school performance, difficulties to see, increased sedentary lifestyle and sleep disorders, smartphones being the main screen used.

Given the above, it is important to highlight the importance of including more and more health professionals in this universe of digitization with the purpose of information,

and preparing them to identify the signs and symptoms caused by the indiscriminate use of electronic devices in children and adolescents. These professionals, if prepared, can provide strategies for parental guidance, promote better interventions in the process of self-care and health education.

It is worth noting the importance of studies and interest on the part of nursing professionals, because it was possible to notice a shortage of study by these specialists, focused on the indiscriminate use of screens in childhood. Future research by nurses is suggested so that they can act in a scientifically grounded way in their professional practice, studies on the health needs of children and adolescents who are the subject of nursing interventions. In addition, such research could contribute to the development of nursing diagnoses on the problems that excessive use of screens has brought to children and adolescents. These studies can contribute to the health area on the subject, adding greater evidence with existing ones.

The present study has as limitations the fact that it is performed only with the perspective of the mothers, having excluded the fathers, who also play a fundamental role in the raising of the children, and that because of the way of selecting the participants occurred by active search/snowball at school, participants had homogeneous characteristics, such as being, in part, pedagogues. Further research should be conducted with more heterogeneous samples.

PERCEPÇÕES DE MÃES SOBRE O USO DE TELAS POR SEUS FILHOS CRIANÇAS OU ADOLESCENTES

RESUMO

Objetivo: conhecer as percepções das mães frente ao uso de telas por seus filhos, crianças ou adolescentes. **Metodologia:** trata-se de um estudo descritivo-qualitativo realizado em um município da região Centro-Oeste, Brasil, com mães de crianças e adolescentes que utilizavam telas. Coletou-se dados a partir de entrevistas abertas por videochamadas on-line feitas entre janeiro e março de 2022 com 11 mães selecionadas após busca ativa. Da análise temática de conteúdo resultaram quatro categorias: percepção das mães sobre os impactos provenientes do uso de dispositivos tecnológicos no cotidiano de seus filhos; percepção das mães sobre os impactos oriundos de dispositivos móveis na saúde de seus filhos; conhecer os limites e controle das mães sobre o uso de telas por seus filhos nas atividades rotineiras; percepção das mães sobre como o uso da tecnologia impacta as relações interpessoais de seus filhos. **Resultados:** os pontos negativos do uso de telas emergem no discurso. As mães identificaram que o uso das telas trouxe para seus filhos problemas de visão, má qualidade do sono, queda no rendimento escolar, irritabilidade, agressividade, entre outras situações. **Considerações finais:** pode-se identificar que as mães são cientes, em diferentes graus de conhecimento, dos riscos que o uso indiscriminado dos aparelhos eletrônicos pode ocasionar em seus filhos.

Palavras-chave: Comportamento infantil. Comportamento do adolescente. Smartphone. Transtorno de Adição à Internet.

PERCEPCIONES DE MADRES SOBRE EL USO DE PANTALLAS POR SUS HIJOS NIÑOS O ADOLESCENTES

RESUMEN

Objetivo: conocer las percepciones de las madres frente al uso de pantallas por sus hijos, niños o adolescentes. **Metodología:** se trata de un estudio descriptivo-cualitativo realizado en un municipio de la región Centro-Oeste, Brasil, con madres de niños y adolescentes que utilizaban pantallas. Los datos fueron recolectados a partir de entrevistas abiertas por videollamadas *on-line* realizadas entre enero y marzo de 2022 con 11 madres seleccionadas tras búsqueda activa. Del análisis temático de contenido resultaron cuatro categorías: percepción de las madres sobre los impactos provenientes del uso de dispositivos tecnológicos en el cotidiano de sus hijos; percepción de las madres sobre los impactos oriundos de dispositivos móviles en la salud de sus hijos; conocer los límites y el control de las madres sobre el uso de pantallas por sus hijos en las actividades rutinarias; percepción de las madres sobre cómo el uso de la tecnología impacta las relaciones interpersonales de sus hijos. **Resultados:** los puntos negativos del uso de pantallas se manifiestan en el discurso. Las madres identificaron que el uso de las pantallas trajo para sus hijos problemas de visión, mala calidad del sueño, caída en el rendimiento escolar, irritabilidad, agresividad, entre otras situaciones. **Consideraciones finales:** se puede identificar que las madres son conscientes, en diferentes grados de conocimiento, de los riesgos que el uso indiscriminado de los aparatos electrónicos puede ocasionar en sus hijos.

Palabras clave: Comportamiento infantil. Comportamiento del adolescente. *Smartphone*. Trastorno de Adicción a Internet.

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Corresponding author: Leandro Felipe Mufato. Rua Cinquenta. N172. Apto 102. Residencial Mônaco. Jardim Europa. Tangará da Serra, Mato Grosso, Brasil. CEP: 78300164. E-mail: leandro.mufato@unemat.br

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