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Screen Time in Children Aged 0–6 in Türkiye: A Systematic Review Study

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ABSTRACT

With the continuous development of technological devices, it is thought that the time children spend in front of screens has increased. This increased screen time may cause various positive or negative effects on children. The aim of this systematic review is to provide information about the average screen time spent by children aged 0-6 years in Türkiye and to examine the effects on children due to the increase in this time. PRISMA guide was used in this systematic review study. A literature search was conducted between November 2023 and December 2023 in the TRDizin and Google Scholar databases using the keywords "Screen time in children", "Screen exposure in children", "Screen time", "Screen exposure", "Screen", and "Exposure" in Turkish to include research articles. As a result of the search, 77 studies were found. They were evaluated in accordance with the selection criteria determined for this study and 6 articles that met the criteria were included in the study. The selected articles were analysed in terms of the sample characteristics, the measurement tools used, the variables examined and the results obtained. Across the reviewed studies, children's screen time was found to vary according to age, parental education level, socioeconomic status, and maternal employment. Screen use was also associated with sleep duration, language development, and parents' own screen habits. These findings suggest that screen exposure in early childhood has multifaceted effects on children's development. Therefore, the results underline the importance of limiting and carefully monitoring children's screen time during early childhood.

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KEYWORDS

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digital exposure;
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INTRODUCTION

The rapid evolution of technology and the widespread use of digital screens have become central to our daily lives. This situation, especially influenced by recent developments, has led technological devices to become an inseparable part of both adults' and children's lives (Clarkson & Zierl, 2018; Çetintaş & Turan, 2018). Today, factors such as the increasing variety of these devices and their portability have paved the way for ease of use in various areas. Technological tools have started to attract attention across all age groups and have especially become a subject of curiosity for young children, continuing to do so (Zimmerman et al., 2007). From an early age, screens such as televisions, computers, smartphones, tablets, and video game consoles are playing an increasingly prominent role in children's lives. This has also led to changes in the social and physical contexts in which children interact with screens (Robin et al., 2017).

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However, the impact of these developments on children, particularly during the critical 0-6 age period when fundamental skills are acquired and development is shaped, has become a significant concern. Screen time (ST) is defined as the amount of time an individual spends using electronic/digital environments (Connell et al., 2015; Schmidt et al., 2020; Smith et al., 2021). The Oxford English Dictionary defines screen time as "time spent using a device such as a computer, television, or game console." Screen exposure, on the other hand, is defined as encountering devices such as phones, tablets, computers, and televisions (McGough, 2022). This exposure can occur on various digital platforms such as television, computers, tablets, smartphones, and video game consoles. Studies have shown that screen exposure can be a significant factor affecting an individual's developing cognitive, social, and emotional processes, particularly during childhood (Jones et al., 2019). In this context, screen exposure is an important concept for understanding an individual's interaction with digital media and the potential effects of this interaction. The effects of excessive screen exposure during the critical period of brain development (ages 0-6) have started to be confirmed through necessary research studies (Black et al., 2017). Within this scope, it has been supported by research that technological devices have both positive and negative effects on children. In recent years, while children's daily exposure times to screen-based technological devices have increased, the age of initial exposure has been observed to decrease (Dumuid, 2020). According to studies conducted by the American Academy of Pediatrics regarding the increase in screen time, it has been found that children spend an average of 16–17 hours per week in front of screens (American Academy of Pediatrics, 2011). The World Health Organization (WHO) has recommended that children aged 2 to 5 should be exposed to screens for no more than 1 hour per day (WHO, 2019).

Current literature focuses more on the negative effects of screen time and has revealed that increased screen time leads to developmental issues in children across various domains (Christakis et al., 2016). In a study by Tanrıverdi (2014), it was concluded that technological devices could weaken children's thinking skills and pose a barrier to socialization. Other similar studies have observed that spending excessive time in front of screens may harm children physiologically and lead to problems such as sleep disturbances and eating disorders (Akçay, 2017; Sourtiji, 2018). Studies by Gündoğdu and others (2016) have shown that screen exposure in children is associated with developmental issues in speech and delays in self-expression. A 2023 study by Torun Yeterge demonstrated a relationship between prolonged screen exposure in children and autism spectrum disorder symptoms. A review of the relevant literature shows that the harmful effects of screens on children's cognitive development (Tomopoulu et al., 2010; Radesky & Christakis, 2016) and academic achievement (Hancox et al., 2005; Poulain et al., 2018) have been supported by research findings. At the same time, the duration of screen use and exposure in children has been linked to sleep (Cain & Gradisar, 2010; Radesky & Christakis, 2016; Brockmann et al., 2016) and eating disorders (Coley et al., 2013; Hingle & Kunkel, 2012; Veldhuis et al., 2012), as supported by various studies.

Considering these studies, it appears that the increasing screen time among children may lead to difficulties in the development of speech skills and a rise in the severity of autism spectrum disorder symptoms. However, when examining the relevant literature regarding the potential positive effects of screen exposure, it is also evident that screen use can positively influence children's physical, socio-emotional, motor, and language development. Studies conducted by Anderson et al. (2001) demonstrate that children who regularly watch educational programs show improvements in their social and language skills, as well as in school readiness. In an experimental study involving six-year-old children attending preschool, the impact of computer-assisted instruction on concept development was investigated. In the experimental group, children received computer-assisted instruction once a week over a period of 15

weeks, while the control group did not receive a similar intervention. According to the research conducted by Ayhan and Aral (2009), the concept development scores of the children in the experimental group differed significantly from those in the control group. These findings suggest that computer-assisted instruction can positively contribute to the conceptual development of six-year-old children.

Another important finding is that time spent in front of screens does not always have to be a passive and sedentary experience. On the contrary, digital media can promote and support physical activity. Particularly from the age of three, children are able to imitate and participate in activity-based applications designed for them (Moody et al., 2010). These findings underscore the importance of parents and professionals in managing and limiting screen use in a balanced manner. During childhood and adolescence, screen use can have a significant impact on development; therefore, managing screen time in a qualitative way is essential for supporting a healthy lifestyle (Brown & Harris, 2020). When evaluated in the context of the aforementioned studies, it is evident that screen time can lead to multiple effects. Among these, the negative effects appear to be particularly prominent. Based on the studies reviewed, the hypothesis that excessive screen time negatively impacts children's development is supported by empirical findings.

Taking all of these studies into account, the aim of this systematic review is to present information about the average screen time of children in Türkiye and to examine the negative consequences of increased screen exposure on children. To this end, the effects of screen time on children aged 0–6 were explored through a comprehensive literature review.

Research Questions

1. 1.What data collection tools and procedures have been used in national-level studies examining screen time in children aged 0–6?
2. 2.What problems are associated with excessive screen time among children aged 0–6 in national studies?
3. 3.To what extent does increased screen time affect children aged 0–6 at the national level?

METHODOLOGY

This research is a systematic review study conducted to examine screen time among children aged 0-6 in Türkiye at a national level. A systematic review, one of the types of review, involves systematically and objectively screening studies conducted on a specific topic within defined criteria, evaluating the identified studies, and combining them within the set criteria (Çınar, 2021). In this context, searches were conducted in the TRDizin and Google Scholar databases, and studies that met various inclusion criteria were included in the research. The studies included in the research were analyzed using the document analysis method, one of the qualitative research methods. The document analysis method is a technique used to collect, examine, question, and analyze different written texts (O'Leary, 2017).

A structured literature review was conducted in the research framework to identify the studies to be examined. The literature review was conducted in Turkish between November 2023 and December 2023, focusing on research articles published in the TRDizin and Google Scholar databases. To identify studies related to screen time in children aged 0-6 in Türkiye, terms such as "Screen time in children," "Screen exposure in children," "Screen time," "Exposure to screens," "Screen," and "Exposure" were used in the Turkish literature. The search keywords used in the literature review are presented in Table 1.

Table 1. *Search Keywords Used in the Scope of the Literature Review*

Database	Search Terms	Document Type	Full Text

TRDizin	"Screen time in children" "Screen exposure in children" "Screen time" "Screen exposure" "Screen" "Exposure"	Research Article	+
Google Scholar	"Screen time in children" "Screen exposure in children" "Screen time" "Screen exposure" "Screen" "Exposure"	Research Article	+

Different inclusion criteria were considered when determining which studies obtained from the literature review would be included in the scope of the study. The inclusion criteria used for selecting the studies to be included in the research are presented in Table 2.

Table 2. *Inclusion Criteria Used for the Selection of Studies to Be Included in the Research*

1.	Quantitative studies on screen time and screen exposure in children aged 0–6 were included in the scope of the research.
2.	Research articles available in the TRDizin and Google Scholar databases were included in the scope of the study.
3.	Studies conducted in Türkiye were included in the scope of the research.
4.	Articles written in Turkish were included in the scope of the research.
5.	Studies conducted between 2018 and 2023 were included in the scope of the research.
6.	In the database search, the articles were analyzed in terms of their titles and keywords.

As a result of the literature review, a total of 77 studies were identified. From these studies, 6 research articles were included in the scope of the research, considering the inclusion criteria. The study group of the research consists of 6 research articles on screen time in children aged 0–6 in Türkiye, available in the TRDizin and Google Scholar databases. Information regarding the citations of the studies examined in the research is presented in Table 3.

Table 3. *Studies Examined in the Scope of the Research*

Author and Year	**Title**
Keskindemirci & Gökçay/2020	Screen exposure in children with language delay: Results of pilot study
Yasacı & Mustafaoğlu/2020	Does dıgıtal technology exposure affect children's sleep duratıon?
Çelen Yoldaş & Özmert/2020	Evaluating the habits of playing, reading with child and screen viewing of families applying to health centers at different levels
Gökçe, Arslan, Ülgen Öz, Mete, Taşçı & Yengil Taci/2021	Mobile screen exposure in children under seven years of age
Yıldız, Öztora & Dağdeviren/2022	Use of technological devices and their parents' attitude and behavior among kindergarten children
Kebir & Özkaya/2023	Investigation of the effect of screen exposure on language development in children between 16-36 months

In the study, the flowchart of the systematic screening process of the articles is presented in Figure 1.

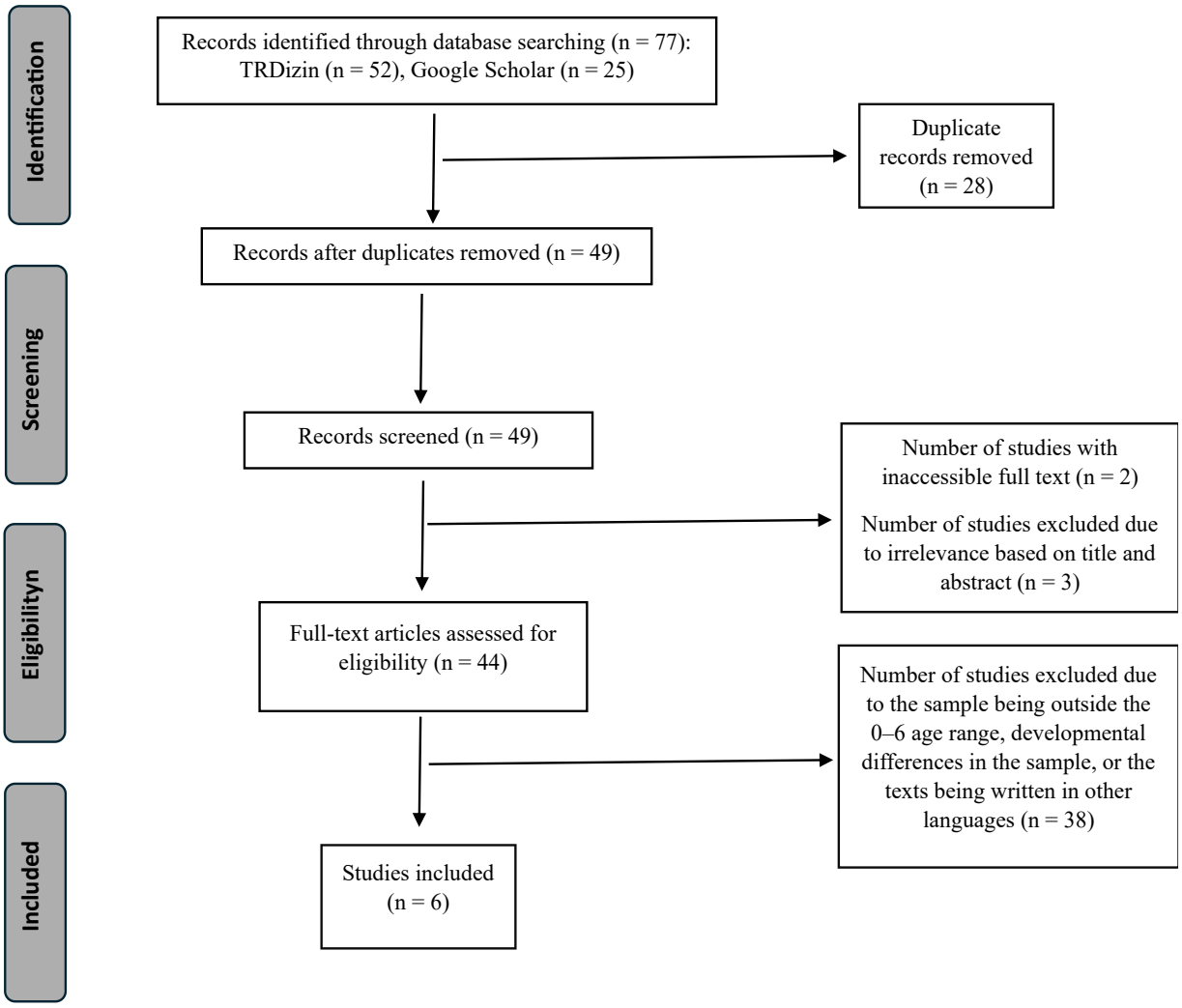

Figure 1.*PRISMA Flowchart for Article Screening in the Scope of the Study*

Findings

Within the scope of this study, six research articles focusing on screen time among children aged 0–6 in Türkiye were selected and analyzed. The characteristics of the selected studies are presented in Table 4.

Table 4. Characteristics of the Articles Reviewed Within the Scope of the Study

Title of the Article	Author / Year	Sample	Measurement Tools	Examined Variables	Findings / Results
Screen exposure in children with language delay: Results of pilot study	Gonca Keskindemirci, Gülbin Gökçay/2020	N=187 Children aged 18 to 36 months who presented to the Child Health Monitoring Outpatient Clinic of the Department of Social Pediatrics, Istanbul University Istanbul Faculty of Medicine	Social Communication Area Screening Test, Modified Checklist for Autism in Toddlers (M-CHAT)	Language Development Level, Screen Exposure (Minutes), Background Screen Exposure (Minutes), Gender	The average daily screen time was found to be 120 minutes in the case group and 60 minutes in the control group. As a result, the risk associated with screen exposure duration was observed to be 1.01 times higher in the case group compared to the control group.
Does dıgıtal	Zeynal Yasacı,	N=128 Children	Semi-Structured	Screen Time/Exposure	The use or exposure

technology exposure affect children's sleep duratıon?	Rüstem Mustafaoğlu/ 2020	aged 1 to 96 months	Assessment Form	Duration, Presence of Digital Technology in Children's Bedrooms, Sleep Duration, Sleep Quality, Age, Frequency of Parents' Use of Technological Devices	to technological devices was found to be highest in children aged 25 to 48 months, with an average of 157.3 minutes.
Evaluating the habits of playing, reading with child and screen viewing of families applying to health centers at different levels	Tuba Çelen Yoldaş, Elif Özmert/2020	N=151 Children between the ages of 1 and 6	The Questionnaire Form prepared by the researchers and the Hollingshead-Redlich Scale	Play Habits, Reading Habits, Screen Exposure Habits, Child's Age and Gender, Mother's Age and Educational Background, Socioeconomic Status and Referred Institution, and the Child's Development	The findings indicated that children's average daily screen time was 2.64 hours, with a marked increase observed after the age of 36 months.
Mobile screen exposure in children under seven years of age	Aksanur Gökçe, İsmail Arslan, Sema Ülgen Öz, Uğur Mete, Damla Taşçı, Duygu Yengil Taci/2021	N=300 Children aged 6 to 84 months who presented to the Family Medicine outpatient clinics of Ankara Training and Research Hospital	The questionnaire form designed by the researchers	Mobile Screen Exposure Duration [categorized as children who actively use mobile devices and those who do not, as well as those who use them for playing games and those who do not], Mobile Screen Exposure Timing [categorized based on whether the child watches screens while eating or not, and whether the child watches screens immediately after waking up or not], Parental Monitoring of Screen Content, Maternal Employment Status, Use of Mobile Devices with Internet Access, Age, Gender	Findings revealed that 92.7% of the children were exposed to some form of technological device, with an average daily screen time of 186.2 ± 132.2 minutes.
Use of technological devices and their parents' attitude and behavior among kindergarten children	Hüsniye Yıldız, Serdar Öztora, Hamdi Nezih Dağdeviren/ 2022	N=942 Children and their parents enrolled in all public/private kindergartens and pre-schools in the central district of Edirne	The questionnaire developed by the researchers	Child's Gender, Child's Age, Parents' Educational Level, Family's Income Level, Parents' Screen Time, Children's Use of Tablets While Falling Asleep, Children's Use of Tablets While Eating, Parents' Use of Technological Devices as Rewards or Punishments for Children, Restrictions on Children's Use of Technological Devices	Findings indicated that 42.1% of the children had a total daily screen time exceeding one hour.
Investigation of the effect of screen exposure on language development in children between 16-36 montsa	Ceren Kebir, Hilal Özkaya/2023	N=90 Children aged 16 to 36 months who presented to the Department of Pediatrics at Başakşehir Cam and Sakura City Hospital, Health Sciences University	The questionnaire developed by the researchers and the Turkish Communication Development Inventory-II (TİGE-II Scale)	Screen Time, Digital Screen Exposure, Digital Media Exposure, Language and Speech Skills, Maternal Employment Status, Maternal Education Level, Paternal Education Level, Gender, Age of First Exposure to Screen, Age of First Interaction with Screen, Enrollment in Preschool Education, Number of Children in the Household, Subscales of the TİGE-II Scale [Categorized into subcategories such as Words and Sentences Used by Children and Children's Grammar]	The study found that 88.9% of the children were exposed to screens before the age of 2. Furthermore, 55% of the children had an average daily screen time that exceeded one hour.

Sample

In the study conducted by Keskindemirci and Gökçay (2020), the research group consisted of children aged 18-36 months who presented to the Pediatric Health Follow-up Clinic of the Department of Social Pediatrics at Istanbul University Istanbul Faculty of Medicine between January and March 2018. Among those who presented during this period, children diagnosed with isolated language development delay and children with age-appropriate healthy development formed the experimental and control groups. A total of 187 children presented to the Pediatric Health Follow-up Clinic, 22 of whom were diagnosed with isolated language development delay and were included in the experimental group. The control group consisted of 21 healthy children whose development was age-appropriate. The control group consisted of 57.14% boys and 42.86% girls, while the experimental group consisted of 68.18% boys and 31.82% girls.

In the study conducted by Yasacı and Mustafaoğlu (2020), a research group of 147 children aged 1-96 months was formed, based on various inclusion and exclusion criteria, between January and May 2019. To gather information about children in this age group, research was conducted with voluntary parents of children aged 1-96 months. Due to 19 parents filling out the form incompletely, 128 children were included in the study, and complete information was obtained from 128 parents. Of the children included in the study, 51.6% were boys, 47.7% were girls, with an average age of 43.5 months.

The research conducted by Çelen Yoldaş and Özmert (2020) included 451 children aged 1-6 years between January 2015 and January 2016. For this age group, research was conducted with parents who sought medical services for their children. Of the children included in the study, 51% were boys, 49% were girls, with an average age of 37 months.

In the study conducted by Gökçe et al. (2021), the participants were 300 children aged 6-84 months who presented to the Family Medicine outpatient clinics at Ankara Training and Research Hospital between June and August 2017. To gather information about children in this age group, research was conducted with voluntary parents of children aged 6-84 months. Of the children included in the study, 50% were boys, 50% were girls, with an average age of 48 months.

In the study conducted by Yıldız, Öztora, and Dağdeviren (2022), inclusion and exclusion criteria were established to form the study group. Children and parents registered in all public and private kindergartens and pre-schools in the central district of Edirne in October-November 2019 were included. The study aimed to be conducted with 1,892 children and parents registered in 30 kindergartens and pre-schools, but 942 individuals who completely filled out the form provided by the researchers were evaluated within the scope of the study.

Measurement Tools

In all of the selected studies, a demographic information form was used. Each of these demographic forms included age and gender characteristics. The information gathered through the demographic forms is presented below:

Keskindemirci and Gökçay (2020) collected demographic information related to the child’s age, gender, development, medical and family history, nutrition, and vaccinations (with a unique health record for each child) in their study.

Yasacı and Mustafaoğlu (2020) designed a semi-structured assessment form in their study. This form consists of three sections. The demographic information section includes details about the child's age, gender, parents' education levels, and the number of children. The technology usage section gathers information about the frequency of device usage by both the parent and child, the age at which the child began using technological devices, and the presence of technological devices in the child's bedroom. The

sleep-related behavior section includes data on the child's daily sleep duration, sleep onset time, and screen time before sleep.

Çelen Yoldaş and Özmert (2020) created a 13-item questionnaire for their study. This form collected demographic information such as the child's age, gender, mother's age, father's age, mother's education level (categorized into primary school, secondary school, high school, and university), father's education level (categorized into primary school, secondary school, high school, and university), father's occupation, marital status, and socioeconomic status. In addition to this, the form included the following key questions:

- Do you play age-appropriate games (such as toys, cars, house play, puzzles, hide and seek) with your child to support their development?
- Do you read books to your child every day?
- If you do read books to your child, when did you start?

How many hours does your child spend in front of a screen (TV, computer, tablet, phone, etc.) on a daily basis?

In the study conducted by Gökçe and colleagues (2021), a 15-item questionnaire consisting of multiple-choice and fill-in-the-blank questions was developed. This questionnaire collected demographic information regarding the children's age, gender, and the parents' ages and occupations. Additionally, it included questions about how many hours the children spent per day using devices such as TV, tablets, mobile phones, and computers, the appropriateness of the content they watched for their age, the parents' opinions on whether the content contributed to the children's healthy development, and whether the parents monitored the content the children were exposed to. The questions included:

- Does the child have their own phone and/or tablet?
- If the child has their own phone and/or tablet, is it used with internet access?
- At what times of the day does the child use technological devices? (Immediately after waking up? During meals? Before sleeping?)
- For what purposes does the child use technological devices? (Games? Cartoons?)

In the study conducted by Yıldız and colleagues (2022), a 59-item questionnaire was prepared. The first page of the questionnaire included an informed consent form, which was completed by the parents. The remaining section of the form gathered demographic information, including the child's gender, age, marital status of the parents (categorized into married and single), working status of the mother (categorized into working, not working, and no response), working status of the father (categorized into working, not working, and no response), educational level of the mother (categorized into illiterate, literate, primary school graduate, secondary school graduate, high school graduate, and university graduate), educational level of the father (categorized into illiterate, literate, primary school graduate, secondary school graduate, high school graduate, and university graduate), and who cares for the child when the parents are not at home (mother, father, grandmother/grandfather, caregiver, and other). The questionnaire also included questions regarding the attitudes and behaviors of the parents and children related to technological devices and the internet.

In the study by Kebir and Özkaya (2023), a 25-item questionnaire was prepared. This questionnaire collected demographic information regarding the child's age, gender, working status of the mother (categorized into working and not working), educational level of the mother (categorized into primary school and below, secondary school, high school, undergraduate, and graduate), educational level of the father (categorized into primary school and below, secondary school, high school, undergraduate, and graduate), occupation of the mother, occupation of the father, and family income. The questionnaire also

included questions related to the screen time of the child and parents, as well as the parents' opinions on screen usage.

When examining the scales used in the selected studies, it was observed that three of the six studies employed different scales. In one study, the Social Communication Area Screening Test developed by Sertgil and colleagues (2015) and the Modified Early Childhood Autism Screening Test (M-CHAT) developed by Kara and colleagues (2015) were used (see Keskindemirci and Gökçay, 2020). In another study, the Hollingshead Redlich Scale developed by Hollingshead and Redlich (2007) was used (see Çelen Yoldaş and Özmert, 2020). In one study, the Turkish Communication Development Inventory-II (TİGE-II Scale), developed by Aksu Koç and colleagues (2019), was employed. This scale was divided into two subcategories: Words and Sentences Used by Children, and Children's Grammar (see Kebir and Özkaya, 2023).

Examined Variables

This study aims to conduct a systematic review of the studies conducted on screen time for children aged 0-6 years in Türkiye. Therefore, all the selected studies include the variables of "screen time" or "screen exposure" and "age." In addition to these two variables, the selected studies also investigate several other variables, including gender (see Keskindemirci and Gökçay, 2020; Çelen Yoldaş and Özmert, 2020; Gökçe et al., 2021; Yıldız et al., 2022; Kebir and Özkaya, 2023), language development level (see Keskindemirci and Gökçay, 2020; Kebir and Özkaya, 2023), the presence of digital technology in children's bedrooms, sleep duration and quality, the frequency of technological device use by parents (see Yasacı and Mustafaoğlu, 2020), playing habits, reading habits, screen viewing habits, maternal age, the institution consulted, child development (see Çelen Yoldaş and Özmert, 2020), parents' education level (see Çelen Yoldaş and Özmert, 2020; Yıldız et al., 2022; Kebir and Özkaya, 2023), socioeconomic status, mobile screen exposure time (see Gökçe et al., 2021; Yıldız et al., 2022), parents' monitoring of the content viewed, using mobile devices with internet access (see Gökçe et al., 2021), maternal employment status (see Gökçe et al., 2021; Kebir and Özkaya, 2023), parents' screen time, use of technological devices as reward or punishment for children (see Yıldız et al., 2022), age at which the child was introduced to screens, preschool attendance, and the number of children in the household (see Kebir and Özkaya, 2023). These variables were all included in the study.

Results of the Selected Studies

When examining the results of the selected studies, information regarding screen time for children aged 0-6 years was found in six studies (see Keskindemirci & Gökçay, 2020; Yasacı & Mustafaoğlu, 2020; Çelen Yoldaş & Özmert, 2020; Gökçe et al., 2021; Yıldız et al., 2022; Kebir & Özkaya, 2023). In one study, findings indicated a significant relationship between age and screen time (see Gökçe et al., 2021), while another study found no significant relationship between these variables (see Yasacı & Mustafaoğlu, 2020). Among the studies that used language development as a variable, no relationship was found between children's screen time and language development in one study (see Keskindemirci & Gökçay, 2020), whereas another study identified a significant relationship (see Kebir & Özkaya, 2023). Two studies found no significant relationship between screen time and gender (see Keskindemirci & Gökçay, 2020; Gökçe et al., 2021), while one study found a significant relationship between these variables (see Yıldız et al., 2022). One study observed a significant relationship between screen time and the timing of screen use (e.g., watching while eating, upon waking, before sleep) (see Gökçe et al., 2021), while another study found no significant relationship between the use of technological devices during meals and sleep with screen time (see Yıldız et al., 2022). Screen time or screen exposure was found to be related to sleep duration (see

Yasacı & Mustafaoğlu, 2020), the activity level of mobile devices and their use for gaming (see Gökçe et al., 2021), parents' educational level (see Yıldız et al., 2022; Kebir & Özkaya, 2023), income level (see Yıldız et al., 2022), maternal employment status (see Gökçe et al., 2021), and the relationship between parents' screen time and children's screen time (see Yıldız et al., 2022). No significant relationship was found between screen time before sleep and sleep onset or duration (see Yasacı & Mustafaoğlu, 2020), nor between parents' frequency and duration of technology use and children's use of technological devices (see Yasacı & Mustafaoğlu, 2020; Yıldız et al., 2022). Additionally, it was observed that the supervision of what children watched by their parents and whether the content was deemed suitable for children's development did not correlate with screen time (see Gökçe et al., 2021). Furthermore, it was found that children's screen time varied according to the healthcare institution they attended (see Çelen Yoldaş & Özmert, 2020). In cases where parents were engaged in other tasks, children's screen time increased, and it was observed that parents who used technological devices as rewards or punishments for their children also allowed greater use of these devices (see Yıldız et al., 2022).

Discussion, Conclusion, and Recommendations

In recent years, the increasing integration of technology into human life has brought about several issues. The rapid development of technology has had a profound impact on children's daily lives. In particular, access to electronic devices such as computers, tablets, smartphones, and televisions has become an important part of children's daily routines. This situation raises the issue of screen exposure in children, leading to many discussions regarding the positive and negative effects of this exposure.

This systematic review study aims to compile research on screen time among children aged 0-6 in Türkiye. Upon reviewing the relevant literature, it was found that the results of studies on screen exposure and screen time yielded both positive and negative outcomes. The results of the studies analyzed in this research showed that the findings regarding the variables related to screen time differed and also had some similarities. Although the selected studies diverged on certain points, overall, the effects of screen exposure and screen time use on children aged 0-6 align with similar findings in the existing literatüre. One of the variables examined in this review was language development. Kebir and Özkaya (2023) found a relationship between screen exposure and screen time and language development. Looking at the literature, it was observed that there are studies that show a relationship between language development and screen time (Perdana et al., 2017; Linebarger & Vaala, 2010; Byeon & Hong, 2015). However, in Keskindemirci and Gökçay's (2020) study, no such relationship was found. Similar results were observed in other studies as well (Zhang et al., 2022; Vohr et al., 2021). In the study by Gökçe et al. (2021), which examined the relationship between screen time and age, no significant relationship was found. Similarly, in the study by Yasacı and Mustafaoğlu (2020), no relationship was found between screen time and age. A review of the related literature revealed that the relationship between screen time and age varies across different studies (Kaur et al., 2019; Robidoux et al., 2019; Shah et al., 2019).

In this systematic review, the study conducted by Gökçe et al. (2021) found a significant relationship between screen time and screen duration. On the other hand, in the study by Yıldız et al. (2022), the relationship between screen time and the duration of children's use of technological devices was examined, but no significant relationship was found.

When reviewing studies on the relationship between screen time and sleep, a connection between screen time and sleep has been observed (Tandon et al., 2019; Laurson et al., 2014; Olieve et al., 2022; Reyna Vargas et al., 2022). The results of the studies conducted by Yıldız et al. (2022) and Yasacı & Mustafaoğlu (2020) in this review align with the findings of the studies mentioned above. Parents' technology usage habits play a significant role in determining how much time children spend in front of

screens during the day. Children may adopt an interest in technology through modeling by their parents, which in turn can influence the amount of time they spend on screens. Yasacı & Mustafaoğlu (2020) found no relationship between the frequency and duration of parents' technology use and the frequency and duration of children's use of technological devices. A study conducted in China found a relationship between parents' screen use and the screen time of their children, with the results suggesting that parents' screen time and children's screen time mediate this relationship. Supporting studies were also observed (Hu, Jhonson, & Wu, 2018; Gentile & Walsh, 2002; Hill et al., 2016; Lee & Chae, 2007). In a national representative study conducted in the United States, researchers concluded that parenting styles had a mediating effect on the connection between excessive screen time exposure and executive functions in children (Linebarger et al., 2014). The findings suggest that parenting styles could be linked to increased screen time through changes in executive functions in children. Therefore, these results indicate that parenting styles may have an indirect influence on children's screen usage habits.

In recent years, the issue of screen time exposure among children aged 0–6 has garnered increasing concern and attention from parents, pedagogues, and researchers. Given that this developmental period lays the foundation for children's cognitive, emotional, and social growth, the potential effects of exposure to screen technologies have become a significant topic of investigation. Studies have demonstrated that excessive screen time in early childhood may negatively impact language development, attention span, and social interaction skills. Furthermore, it has been emphasized that interactive and concrete experiences—more suitable for learning and development during this critical period—should be prioritized over passive screen viewing. Within this context, it is essential that parents assume responsibility for guiding their children toward healthy engagement with technology. However, further research and expert insights are required, as the rapid evolution of technology continuously shapes how children adapt to and interact with these tools.

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