

## An Assessment of Screen Exposure According to Parental Acceptance and Rejection in Early Childhood

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### ABSTRACT

The purpose of this study was to examine screen exposure according to parental acceptance and rejection in early childhood. In addition, depending on this purpose, it was also examined whether children's screen exposures differed according to socio-demographic variables. The study group consisted of 297 parents with 36-59-month-old children from intact families who were attending pre-school education institutions in Turkey, İstanbul. In the study, an "Individual Information Form", and the short form of 'Parental Acceptance-Rejection Questionnaire' were administered to the parents. As a result, it was found that the duration of screen exposure differed according to the age of the child, the mother's level of education, the type of technological devices the child was allowed to use, the purpose of using these devices, whether there was a rule about watching television at home, and whether the television was always on. It was also found that the children who watched TV for at least four hours a day were rejected by their parents more than the children who watched TV less. It is thought that the findings obtained in this study may shed light on interventions related to screen exposure.

### KEYWORDS

Screen exposure; parental acceptance-rejection; early childhood.

## INTRODUCTION

The early childhood period has the characteristic of being the first and most fundamental of all developmental stages. Factors affecting development in this period impact both the development of the child in the short term and their adult life in the long term (Bee & Boyd, 2013). In this period, physiological factors, environmental conditions and psycho-social experiences affect the development of the child (Pem, 2105). Many disciplines working in the field of child development focus on the importance of children's developmental characteristics in early childhood, and supporting development with the support and guidance given to caregivers. Screen exposure, which is considered as one of the environmental stimuli within the scope of factors affecting development in this period, refers to the exposure of the child to the screen in a way and duration that is not convenient for the child's developmental level. The concept of screen in this definition includes screen stimuli such as television, computers, tablets and technological devices such as smartphones (Connell et al., 2015, Cycyk & De Anda, 2021) of which the effects on children's development continue to be a matter of concern (Duch et al., 2013a; Wolf et al., 2018). In a study conducted by Palaiologou (2016), the screen exposure of children aged 0-5 in Greece, England, Malta, and Luxemburg was examined and it was determined that there were no meaningful differences among countries in terms of frequency and type of screen exposure. The findings of this research show that screen exposure in children is a universal issue. Technology has entered the lives of both adults and children for many different purposes such as communication, education and entertainment. This increase and diversity of use has also raised questions regarding the correct use and effects of screen devices in early childhood (Edwards et al., 2017; Mantilla & Edwards, 2019). In various studies, it was determined that, if quality content and controlled screen usage are provided, screen devices can be beneficial for children's learning (Council on Communications and Media 2016; Herodotou, 2017; Kostyrka-Allchorne et al., 2017; Schmitt et al., 2018), social (Granic, Lobel, & Engels, 2014; Davies, et al., 2019) and language skills (Linebarger & Vaala, 2010; Riasati, Allahyar & Tan, 2012; Madigan et al., 2020). In particular, it has been found that computers and tablets have a positive influence on the development of children's early literacy skills (Crescenzi et al., 2014) and children's second language acquisition (Pellerin, 2013) and that activities using these technologies can enrich the children's social integration with their family and environment (Konca & Tantekin, 2021).

Computer applications and programs designed in accordance with children's developmental ages improve cognitive skills such as reasoning, analyzing and evaluating information, learning, planning, and abstract thinking (Nir-Gal & Klein, 2004). On the other hand, an unlimited, unsupervised and unregulated child-screen relationship without parental control and guidance can negatively affect the development of the child in many areas. Studies have shown that uncontrolled screen exposure causes executive dysfunction in children (Horowitz-Kraus & Hutton, 2018; McHarg et al., 2020; Rhodes, Stewart & Kanevski, 2020), learning

difficulties (Neophytou et al., 2022), attention deficit and hyperactivity symptoms (Lo et al., 2015; Krystowiak & Kathryn, 2016), problems with emotional regulation skills (Ofly et al., 2021) and prosocial behaviors (Coyne et al., 2018), aggression (Christakis & Zimmerman, 2007; Chonchaiya et al., 2015; McDaniel & Radesky, 2018), depression (Kremer et al., 2014; Liu, Wu, & Yao, 2015), and language ability (Duch et al., 2013b); developmental delays (Lin et al., 2015; Kerai et al., 2022), autism-like symptoms (Slobodin, Heffler, & Davidovitch, 2019; Heffler et al., 2020), in addition to physical health problems such as sleep disturbances (Nathanson, & Fries, 2014; Janssen et al., 2020), obesity (Mihirshahi et al., 2017; Nightingale et al., 2017; Fang et al., 2019) and diabetes (Henderson et al., 2016).

Each home environment has its own characteristics and context, and children's screen time varies according to these characteristics. In this context, variables such as the age of the child (Lauricella et al., 2015), and the socio-economic characteristics of the parents (De Decker et al., 2012; Konca & Tantekin Erden, 2021) may influence children's screen exposure. In most households, screen exposure occurs through televisions that are left on all the time and parents leave them on even when they are not watching (Akkuş et al., 2015; Brown et al., 2011). In fact, screen exposure is a concept that incorporates both "front-of-screen time", which describes the amount of time spent in front of a screen, and "back-screen time", which indirectly defines screen exposure in the environment where the screen is on (Anderson & Pempek, 2016). However, according to McLaughlin (2011), families do not perceive "back-screen exposure" as screen exposure. Contrary to this common belief among families, studies reveal that "back screen exposure" negatively affects attention and focus, causing difficulties with language development and behavioral problems (Schmidt et al. 2008; Thompson & Tschann, 2016). Another important factor is parents' attitudes towards their children's use of digital technologies and whether they supervise screen time and content watched. That is, parents use some mediation strategies in determining the amount of screen time and content their children watch. Some parents actively negotiate the content viewed with the child and some parents watch the content with the child, while some others set rules about the content, location and duration of viewing in a restrictive manner. On the other hand, some do not set any limits or rules (Livingstone et al., 2015; Nikken & Jansz, 2014). It can be assumed that parents with involved attitudes set rules and limits on their children's screen time, whereas uninvolved and indifferent parents either do not exercise any control or their control may be insufficient. As a result of a qualitative study conducted with the mothers of four-five-year-old children attending preschool education institutions regarding the use of technology, it was found that parents with neglectful attitudes did not impose any restrictions on television viewing time and these parents did not impose any restrictions on the content watched (Cengiz Saltuk & Erciyes, 2020).

While parents' strategies for determining the amount of screen time and content their children watch vary, there is a clear necessity for a comprehensive delineation of the parameters defining screen exposure. The World Health Organization (2020) has published considerations regarding early childhood screen exposure. Accordingly, the opinion that children should not be

exposed to screens during infancy was expressed, and rules such as controlled screen exposure at the age of about two years, accompaniment of a parent, not exceeding one hour of daily use, having quality content, and being independent of basic needs such as sleep and nutrition were suggested. When these conditions are not met, screen exposure causes children to be deprived of developmental opportunities such as experiencing by doing and they also face various developmental risks (Pagani et al., 2010). The occurrence of screen exposure in accordance with the specified rules and limitations enriches the child's environment and supports their development by contributing as an environmental stimulus. Environments with stimuli suitable for the developmental characteristics of the child play both a protective and supportive role (Baroncelli et al., 2010; Berument, 2013). Within the home setting, basic developmental determinants such as stimuli, conditions, and interaction are provided by the parents. This effect of the family on the development process has been discussed by many theorists and numerous studies have been conducted on the importance of the parent-child interaction. One of these theories is the Parental Acceptance and Rejection theory put forward by Rohner (1986). This theory emphasizes that the acceptance or rejection of the child by the parents affects all areas of development, particularly the socio-emotional and cognitive development of the child, and aims to predict the long-term consequences of parental acceptance rejection in childhood. The theory basically examines the quality of parenting as well as the consequences of parental behavior in childhood and adulthood (Rohner, 2005; Rohner & Khaleque, 2002). Accordingly, the basis of children's attitudes and behaviors towards themselves and others is the quality of care they receive from their parents (Rohner, 2004).

The theory considers the quality of parenting as a two-pronged component with parental acceptance at one end and parental rejection at the other end (Rohner, Khaleque, & Cournoyer, 2012). Parental acceptance is defined as the warmth, interest and care shown by the parent to the child, while parental rejection is conceptualized as the withdrawal or lack of this warmth and concern. This rejection manifests as coldness, indifference and neglect when the parents display an unresponsive, uninvolved and unsympathetic negative attitude towards their child (Rohner & Cournoyer, 1994). Such parents do not respond to their children's needs in a timely and adequate manner, ignore the child and cause them to be emotionally alone. On the other hand, the theory emphasizes how the child perceives and experiences these behaviors rather than the objective reality of the behaviors the child receives from the parents (Khaleque & Rohner, 2002). The child perceives that they are not loved, valued and cared for by their parents (Rohner, 2016). In children experiencing parental rejection, internalizing and externalizing behavior problems (McCarty et al., 2005; Rohner, Khaleque, & Cournoyer, 2005; Yu et al., 2024), and problems related to self-adequacy (Rohner et al., 2009), social competence and emotion regulation (Bayindir et al., 2017), social adaptation (Rohner & Lansford, 2017) may occur. Furthermore, perceived parental rejection during childhood has been associated with depression, anxiety and other psychological problems in adulthood (LoParo et al., 2023).

Acceptance and rejection behaviors may also occur in a bipolar structure ranging from excessive restrictiveness to excessive permissiveness (Rohner & Pettengill, 1985). Overly restrictive parents control their children's behavior in the smallest detail, while overly permissive parents rarely control their children and allow all kinds of freedom in their behavior (Rohner & Rohner, 1981). Accordingly, it can be suggested that parents who exhibit rejecting attitudes and behaviors may not be applying rules or control their children's screen exposure and could be using the screen as a caregiver to provide care that they do not. When the literature is examined, it is seen that a limited number of studies have addressed the attitudes exhibited by parents as one of the determinants of screen exposure in early childhood (Fatima & Muhammad Akram, 2022; Yildiz & Yalcin, 2024). However, given the increase in digitalization and changes in parent-child relationships in today's society, despite the fact that this topic represents a very important area of research, only one study (Erat Nergiz et al., 2020) to date have addressed children's screen exposure in the context of parental rejection, and these studies have focused only on mothers instead of addressing the family as a whole. It is of particular significance for elucidating the pivotal factors shaping children's psychological and social development. In the extant literature, these two concepts are frequently addressed separately. An examination of the dynamics between them may contribute to the literature by providing a more comprehensive understanding of the effects of both parental rejection and screen time on child development. From this point of view, the present study aimed to assess 36-59 month-old children's screen time according to their parents' acceptance and rejection as it is hypothesized that children with more screen time are more likely to have higher levels of rejection by their parents. In addition, depending on this main purpose, it was thought that children's screen time may differ according to socio-demographic variables, and in this context, it was aimed to examine whether children's screen time differed according to socio-demographic variables related to children and parents.

## METHOD

### Study Group

The study group consisted of 297 parents with 36-59-month-old children from intact families who were attending pre-school education institutions in Turkey, Istanbul and did not have any special needs. The participants in the study were selected using the convenience sampling method. This method, which relies on the selection of a sample of individuals with whom the researcher has convenient access, while limiting the generalizability of the results, is based on practical considerations and the number of accessible participants (Golzar et al., 2022). In this context, the selection of the parents was determined by reference to the sample sizes of previous studies of a similar nature, the resources available for the research, and the requirements of the analysis. Moreover, the schools where the parents were selected were determined according to the criteria of accessibility in the city center and having heterogeneous socio-cultural characteristics representing the general population.

In the study, the parents were recruited through pre-school education institutions. In the process of selecting the schools that the study was planned to be implemented, the National Education Ministry was consulted to obtain information about the socio-demographic characteristics and population of the schools in the city center of Istanbul, Turkey. Based on the information provided, three schools that were suggested to represent the overall population were chosen. The socio-demographic information about the parents who participated in the study is presented in Table 1.

*Place Table 1 here.*

### **Instruments**

In the study, an *Individual Information Form* was implemented to the parents to collect socio-demographic data and screen exposure in addition to the *Parental Acceptance-Rejection Scale (PARQ)-Parent Form* in order to assess their levels of acceptance and rejection towards their children.

*Individual Information Form:* There is no standardized measurement tool in Turkish that assesses children's screen time. For this reason, initially a literature review on this concept was conducted and a two-part information form was prepared by the researchers. In the first part, questions such as gender, age, education level, and income level of the family were included. In the second part, questions about screen exposure such as which technological devices the parents allow their children to use, duration of screen time allowed and whether the parents set rules in terms of the duration and content of use of technological devices were asked. Income level was determined by self-assessment of the parents by giving low, medium and high options on the Form.

Two experts in the field of child development and one expert in of psychology were then consulted on the draft form, and the experts were asked to elaborate the items in the form in terms of their adequacy in evaluating the concept of screen time, to make corrections to the statements that they did not understand or find inadequate, and to suggest new statements instead. Then, all the feedback from the experts was collected in a response sheet and analyzed. As a result, the items with 70-80% agreement of the experts were included in the form by making revisions in line with the suggestions. The items where at least 90% of the experts agreed were included in the form without any changes. In addition to the expert opinions, it was observed that the answer options in an item related to screen time overlapped with each other, and the responses of this item were revised. After the initial draft of the form was finalized, the form was administered to 12 parents with children aged 36-59 months in a pre-pilot study. The parents who participated in the administration were asked to read the items and evaluate whether the items were comprehensible or not, to mark the statements that they could not understand, and to indicate their suggestions for making these items comprehensible. In line with the parents' suggestions, minor revisions were made to some items and then the pilot implementation was commenced (Please see Table 2 for all items and their responses in the form).

*Parental Acceptance-Rejection Scale (PARQ)-Parent Form:* The scale was originally developed by Rohner et al. (1981) in order to assess the perceptions of the parents with regard to accepting and rejecting their child. The scale consists of 24 4-point Likert items, which are scored from almost never correct (1) to almost always correct (4). The scale assesses warmth/affection, indifference/neglect, hostility/aggression, and undifferentiated rejection of the parents. The highest score that can be obtained from the scale is 24, and the lowest is 96. Low scores indicate high acceptance, whereas high scores indicate high rejection. The coefficients for the Cronbach's alpha of the original PARQ were found to range among .72 and .90 (Khaleque & Rohner, 2013; Rohner, 2005). The Turkish adaptation of PARQ was conducted by Erdem (1990) and the coefficients of Cronbach's alpha varied between .78 and .90. In the present study, coefficients of the Cronbach's alpha varied between .60 and .88.

### **Procedure**

Prior to the commencement of data collection, permission was sought from the authors of the PARQ scale to administer it. Subsequently, the administrators of the selected schools and the classroom teachers were informed about the objectives of the study and their consent to collect data was obtained. The data of the study was collected during the pandemic period. Therefore, data were collected through the school administration without direct contact with parents and children. Forms including data collection tools and consent forms were handed to the children in sealed envelopes to be delivered to their parents and they were asked to return the completed forms to their teachers at school. Some forms were handed to the parents who came to the school to pick up their children. Schools were visited ten days later to collect the completed forms handed in by parents or returned with the children. An additional one-week period was allowed for forms that had not yet been completed or handed in, and the schools were visited again after one week. Out of the distributed 550 forms, a total of 309 were returned. The forms that did not comply with the inclusion criteria of the study and included a large number of omitted items were excluded, and as a result, a total number of 297 parent forms were included in the study.

### **RESULTS**

In this study, since there is no standardised measurement tool in Turkish to assess screen exposure and the relevant data were collected using a questionnaire form, the majority of the data, except for the PARQ, consisted of discontinuous variables. It is argued that SEM, or path analysis, leads to poor measurement when there are too many latent variables in the equation. Furthermore, although theoretically possible, it is argued that the magnitude of RMSEA estimates is largely affected by the number of variable categories (Monroe & Cai, 2015). In addition to these, due to the categorical nature of the variables of the study, it was preferred to make comparisons between groups instead of correlation analysis and to use hypothesis tests accordingly. In this respect, firstly, a preliminary test was conducted to test the normality hypothesis before starting the data analysis. The results of the test revealed that the study data

was non-parametric. Within this scope, Kruskal-Wallis H Test was run to examine whether there were significant differences between the means of the dependent variable (parental acceptance-rejection) of three or more independent groups in intergroup comparisons. In addition, the chi-square method, a non-parametric test for comparing categorical variables, was performed. The data were subjected to analysis using the Statistical Package for the Social Sciences (SPSS) 25.

Initially, a comparison of demographic variables by the duration of screen exposure of children per day is performed. The results are presented in Table 2.

*Place Table 2 here.*

When Table 2 is examined, it is seen that the duration of screen exposure differ according to the child's age ( $\chi^2=12.511$ ,  $p=.002$ ), the mother's education level ( $\chi^2=22.149$ ,  $p=.001$ ), the type of technological devices the child was allowed to use ( $\chi^2=49.646$ ,  $p=.000$ ), the purpose of using these devices ( $\chi^2=37.094$ ,  $p=.000$ ), whether there is a rule about watching television at home ( $\chi^2=13.434$ ,  $p=.001$ ) and whether the television is always on ( $\chi^2=8.163$ ,  $p=.017$ ). When the results are examined, it is seen that children aged 48-59 months have greater exposure to screens in general of up to four hours per day (54.3%). Additionally, the rate of 36-72-months-old children who are exposed to screens for two-three hours a day was 46.6%. When the educational level of the parents was analyzed, it was observed that the children of mothers with lower educational level were more exposed to the screen. While the daily screen exposure time of the children of mothers who were university graduates was 39%, this rate increased to 76.9% for children of mothers with primary school degrees and 83.3% for children of mothers with secondary education. When the types of technological devices that children are allowed to use in a day are examined, it is seen that the duration of exposure to the screen increases for television and tablet use; specifically, the rate of watching television for four or more hours was 47.5% and the rate of using a tablet was 56.1%. On the other hand, it was found that children who were allowed to use technological devices for reasons such as eating more easily (47.4%), not getting bored on public transport (66.7%), calming down quickly when crying (75%), having fun (50%) were exposed to screens for four or more hours a day. The screen exposure time increased to four hours in households where there are no rules or control in terms of the duration and content of use of technological devices (73.5%) and the TV is left on even when nobody is watching (57.1%).

The Kruskal Wallis-H Test results related to the comparison of children's screen time according to their acceptance and rejection by their parents' are presented in Table 3.

*Place Table 3 here.*

Table 3 shows the Kruskal-Wallis H Test results performed to compare children's screen time according to their parents' level of acceptance and rejection. According to the findings, there are statistically significant differences among the mean ranks of the children ( $\chi^2=10.750$ ;  $p>.05$ ). A further analysis for comparison by performing the Mann Whitney-U test showed that



the children who used screens for 4 hours or more per day had statistically significantly higher scores for rejection on the Parental Acceptance-Rejection Scale (PARQ)-Parent Form."

## DISCUSSION

In the study, it was aimed to examine screen exposure of 36–59-month-old children according to their parental acceptance and rejection. In addition, depending on this purpose, it was also examined whether children's screen exposures differed according to socio-demographic variables. As a result, it was found that the duration of screen exposure differed according to the child's age, the mother's level of education, the type of technological devices the child was allowed to use, the purpose of using these devices, whether there was a rule about watching television at home, and whether the television was always on. It was also found that the children who watched TV for at least four hours a day were rejected by their parents more than the children who watched TV less.

When the findings are examined, it was seen that 48-59-month-old children are exposed to screens more than other children with exposure time of four hours or more per day (54.3%). On the other hand, the fact that 46.6% of the 36-72 month old children are exposed to screens for 2-3 hours a day is also noteworthy. The findings of many others studies concur with the findings of this study and reveal that television exposure increases as the age of the child increases (Akkuş et al., 2015; Lauricella et al., 2015; Ofcom, 2017; Öztürk & Karayağız-Muslu, 2007; Zhao et al., 2018). In a systematic review study examining 29 separate studies on the screen exposure time of preschool children aged between two and five, it was found that screen exposure in the preschool period exceeds the recommended time (Vanderloo, 2014). Findings showed that children's screen time frequently exceeded the one-hour daily limit recommended by WHO and other guidelines. Additionally, it was seen that there was a wide range of screen time across studies examined, with some children reported to spend more than two to three hours per day in front of a screen. Notably, television viewing was the most common screen activity.

According to the findings of this study, the majority of children in early childhood have a screen exposure time of more than one hour per day, which is the recommended time. It is believed that this increase in exposure time in early childhood may be a result of the increase in the use of modern information technologies in every age group. According to the Household Information Technologies Survey of the Turkish Statistical Institute (2021a), between 2011-2021, home internet access increased every year and reached 92% in 2021, while the number of individuals using it increased to 82.6%. According to the results of the Information Technologies Research in Children, another study of the Turkish Statistical Institute (2021b), the rate of internet use of children between the ages of 6-15 was examined reached 82.7%. These two studies also showed that the rate and variety of information technologies (television, smart phone, tablet, etc.) entering houses increased in different age periods. Considering that the data of the present study were collected during the pandemic period, it could be suggested that the

pandemic conditions may also have increased screen exposure. In Turkey during the pandemic, early childhood education was carried out online, as in many other countries. Hence, along with all other factors, it is thought that the continuation of education online during the pandemic may be an important factor that increased screen exposure.

The study group of the present research comprised the 36–59-month age group in early childhood education. According to the formal education statistics of the Ministry of National Education (2022), the schooling rate in the pre-school period in Turkey is increasing and the schooling rate in the 3-5 age group has increased compared to previous years reaching 48%. When the educational level of the parents was analysed in the study, it was found that the children of mothers and fathers with low educational level were exposed to the screen for a longer period of time. While the daily screen exposure time of the children of mothers who were university graduates was 39%, this rate increased to 76.9% for the children of mothers who graduated from primary school and 83.3% for the children of mothers who were secondary school graduates. In various studies, it has been stated that the education level of parents affects the duration of screen exposure, and low parental education is associated with longer screen exposure (Thompson et al. 2013, Przybylski & Weinstein, 2019). In a study conducted by De Decker et al. (2012) in which 122 children and their families from six different countries participated, it was found that most parents with lower socio-economic status did not express concern about the amount of time that their children watched TV and the effect of screen exposure on their development. It can be suggested that the differentiation of children's exposure to the screen according to the educational level of the parents includes the quality of this time along with the amount of time spent in front of a screen. In some studies, it is emphasized that the education level of the parents is an important factor in determining the effect of screen exposure, and as the education level of the mother increases in particular, parental behaviors such as controlling the content of the program watched, accompanying the child during watching, and paying attention to the rules regarding the child-screen interaction increase (Inanli, 2009; Gural & Onder 2015). From this point of view, it can be suggested that the low level of education of the parents may increase the time spent on the screen and negatively influence the child-screen relationship.

Another result obtained in the present study is related to the type of technological tools used. Accordingly, it was found that the duration of children's screen exposure was higher in television and tablet use. The rate of watching television for children who are exposed to the screen for four hours or longer was 47.5% while the rate of using a tablet was 56.1%. It is thought that reasons such as the fact that mobile screen devices such as tablets and smart phones provide more opportunities for individual use, that they can be easily manipulated and they are easy to use may increase the use of tablets. Additionally, in today's world, almost every household has a television. Therefore, it can be argued that the widespread use of televisions in every home may be one of the factors that increases the exposure to screens.

In the study, when the duration of exposure to screens was examined according to the purpose for which the child is allowed to use technological devices, it was seen that the children who are allowed to use technological devices to calm down quickly when crying (75%), not get bored on public transport (66.7%), have fun (50%) and eat more easily (47.4%) are exposed to the screen for four or more hours a day. In various studies, it was shown that, besides using screens for entertainment and educational purposes, many parents use screens as an “electronic babysitter” when their children need leisure time activities and are bored (Gundogdu et al., 2016; Lin et al., 2020; Papadakis, Zaranis, & Kalogiannakis, 2019). When the findings of these studies are examined, it is seen that the reasons for screen use in general relate to situations in which parents have difficulties in caring for the child. This suggests that parents prefer to use screens, albeit momentarily, as a problem-solving method. The situations in which the parents generally have difficulties are reported to include physical and mental difficulties of the parent (not meeting the basic needs, physical, mental burden, etc.), lack of social support such as family and spouse, economic problems, the burdens of work and home-related responsibilities, and problems related to routines such as eating-nutrition-sleep for the child (Tombeau-Cost et al., 2020; Yasaci & Mustafaoglu, 2020; Ockwell, 2022). In the study of Chen et al. (2020) in which they examined the relationship between the screen exposure of Chinese preschool children and parental activity, it was found that the negative perception of parents about their own parenting and factors including having a low socio-economic level decreased the tendency of parents to spend effective and qualified time with their children. In addition, it was shown that there was an increase in the time spent by children with screens in these families.

Studies investigating the connection between parents’ media use and children’s behavioral difficulties reveal that the mother’ intensive use of information technologies may result in low parental responsiveness and interruption of interaction with the child (Hiniker et al., 2015; Mcdaniel & Redesky, 2018; Poulain et al., 2019). Interrupted interaction can cause the parent-child interaction to become dysfunctional and increase existing problems. That is, parents may turn to screen use when they feel inadequate about their parenting attitudes, and dysfunction may occur in their interactions with the child due to their intense screen use. When evaluated in this context, it is thought that parents’ perceptions of parenting are negatively affected by the developmental difficulties they experience or the problems they experience with routines and problems for which they cannot find a solution, and this in turn may affect children’s screen exposure in terms of both duration and quality.

In the present study, it was revealed that children are exposed to screens for four hours or more in homes where there are no rules or control in terms of usage time and content of technological devices (73.5%) and where the television is turned on even though it is not being watched (57.1%). In studies comparing families with and without rules regarding screen exposure, it has been revealed that there is a significant association among rules and exposure time, and that the duration of screen exposure is lower in families with established rules (Goh,

2016; Celik, 2017). It was also found in the present study that the majority of families did not apply any rules and controls regarding screen exposure. Screen exposure without content control and rules can cause many developmental losses in children (Fatima & Akram, 2022). It is important for families to set rules; however, it is also of great importance that these rules are appropriate for the age and developmental levels of the children and compatible with their developmental characteristics. However, it should not be forgotten that the quality and appropriateness of the rules are as important as the setting of the rule. The American Academy of Pediatrics (2016) makes suggestions for screen use, emphasizing that determining the time, content, duration and conditions, taking precautions regarding safety and taking into account daily life routines are important aspects should form the framework of the rules.

Finally, screen time was analyzed according to children's acceptance and rejection by their parents, and it was seen that parental rejection was higher in children with higher levels of screen exposure than in other children. In the literature, it is seen that the importance of parenting attitudes has been emphasized in various studies examining screen exposure. Lauricella et al. (2015) stated that parental attitudes affect children's screen time, and that children who are exposed to screens for a long time may have problems in mother-child interaction, and in such cases, it is necessary to focus on parent-child interaction. In another study examining excessive screen exposure and the maternal rejection behaviors of children aged 2-5 years, it was found that mothers' rejecting attitudes and behaviors towards their children were related to the duration of screen exposure (Erat Nergiz et al., 2020). On the other hand, in a study examining the excessive screen exposure of preschool children and their parents' parenting styles, it was revealed that there was a significant association among low screen exposure and mothers' democratic attitudes, in addition to the relationship between excessive protective and permissive attitudes and excessive screen exposure (Caylan et al., 2021). When the results obtained in the study and the findings in the literature are evaluated together, it can be concluded that children who experience parental rejection are more exposed to screens because they use screens as a tool to fill emotional gaps caused by lack of love, attention and support. Considering that parental rejection generally refers to low parental involvement and lack of quality time with the child, it can be thought that the child experiencing rejection lacks a guide who can control screen use, and since they cannot receive the necessary emotional support from their parents, they may turn to technological devices to meet their need for social relationships.

## CONCLUSION

When the results obtained in this study and the findings obtained in the literature are reviewed, it is seen that whether children are exposed to screens and how long they are exposed to screens are mostly related to parental attitudes and behaviors. In addition, it can be posited that parental control and acceptance-rejection behavior are related and the positive interaction of the parent with the child may reduce the screen exposure time. Accepting and supportive

parenting often contributes to the development of healthier screen habits, while rejecting attitudes or apathy can lead to children spending more time in front of screens. It can be suggested that accepting parents can more effectively meet their children's emotional and social needs, preventing them from seeing screen use as a coping tool. In contrast, rejecting or indifferent parental attitudes may lead children to try to fill the emotional void with screens. The parent's rejecting behaviors towards the child can lead to results such as the child withdrawing into their own world and experiencing problems in emotion regulation (Rohner, et al., 2012). It can be argued that this situation may pose the risk of increasing the time spent with screens even more. However, drawing a definite conclusion regarding the relationship between screen exposure and the development of the child, whether it is positive or negative, depends on the content, nature, and parental attitudes towards screen exposure. It should be taken into account that screen use under parental supervision, limited to age- and developmentally appropriate content, can support children's development from the age of three. In particular, parents spending screen time with their children and chatting about the content watched can have positive effects on children's language development and social interaction skills (Kirkorian et al., 2008). For instance, limiting screen time and carefully selecting content can encourage children to spend more time in physical activity, supporting their overall health (Celik et al., 2022). A study by Madigan et al. (2019) also showed that prolonged screen exposure may negatively affect the development of language and socialization skills in children aged 1-3 years. However, parental supervision of screen time and age-appropriate selection of content can limit these negative effects and support children's cognitive and social development.

The present study is important in that it reveals that the screen communication of children in early childhood is influenced by both parents and socio-economic factors. In this context, the complex nature of screen exposure and parental attitudes and behaviors should be taken into account in further studies and interventions on screen exposure. In these studies, it is important to consider the family as a whole. The few studies examining the relationship between screen exposure and parental acceptance and rejection have only focused on mothers (Erat Nergiz et al., 2020; Guzel & Osmanoğlu, 2024). The fact that this study included both mothers and fathers is another significance of this study. Considering that children in early childhood shape their own experiences by observing the adults around them, it is important to provide awareness and informative family trainings on screen-child interaction and parenting attitudes to adults, especially parents and educators, who act as models for the children. In line with the results obtained in the study, it is recommended that screen use should not be preferred as a tool for daily life skills and routines such as nutrition, sleeping and cleaning. In addition, it is necessary to conduct studies aimed at increasing parental knowledge, skills and awareness regarding practices suitable for age and developmental characteristics. In line with the age, developmental characteristics, interests and needs of the child, which affect the screen preference of the child, it is recommended that interventions and supportive services are implemented that will increase the family interactions.

## Limitations

In addition to the aforementioned significance, it is imperative to highlight some limitations of the study. The child–parent interaction has a complex nature. In the study, socio-economic factors and parental acceptance rejection that may affect children’s screen exposure were evaluated as independent constructs. In future studies, considering that parental attitudes may also be affected by the same socio-economic factors, the confounding, mediating and moderating effects of these factors on parents’ acceptance-rejection behaviors should be considered. In addition, the mental and physical health status of the parents, which may affect the parent-child interaction, were not checked and only intact families were included in the scope of the study. Considering that the duration of screen exposure may be longer in children of divorced or separated parents and parents with mental or physical health problems, it is recommended that all parents are included in future studies. Furthermore, parents' own screen time may also be an important factor that influences children's screen time. It is suggested that this factor should also be taken into account in future studies. In the study, data on the duration of screen exposure and socio-demographic variables were obtained categorically. This led to the inability to use more complex analysis methods, such as SEM or path analysis, that can provide different and detailed information. In particular, it is recommended that data are collected related to the screen exposure variable as a continuous variable. Finally, it should be mentioned that no services were offered for the children who were identified to be at risk. Future studies should also offer preventive and protective services for at-risk families. It can also be suggested that raising awareness about screen use and improving parenting skills through supportive interventions can be effective in coping with problems related to screen exposure.

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## APPENDIX

**Table 1.***Demographic Characteristics of the Children and the Parents*

<b><i>Socio-Demographic Characteristics</i></b>		<b><i>n</i></b>	<b><i>%</i></b>
Children	<i>Gender</i>		
	Female	152	50.7
	Male	148	49.3
	<i>Age Group</i>		
	36-47 months	134	44.7
	48-59 months	166	55.3
Parents	<i>Mother's education status</i>		
	Primary school graduate	13	4.3
	Secondary school graduate	13	4.3
	High school graduate	41	13.7
	University graduate	187	62.3
	Master's/Ph.D. graduate	46	15.3
	<i>Father's education status</i>		
	Primary school graduate	6	2.0
	Secondary school graduate	17	5.7
	High school graduate	69	23.0
	University graduate	163	54.3
	Master's/Ph.D. graduate	45	15.0
	<i>Family Income</i>		
	Low	32	10.7
	Average	250	83.3
	High	18	6.0

**Table 2.***Comparison of Demographic Variables By The Duration of Screen Exposure of Children Per Day*

Variables	Duration of Screen Exposure Per Day				$\chi^2$	p
	0-1 hours % (n)	2-3 hours % (n)	4 hours and more % (n)	Total % (n)		
<i>Child's gender</i>						
Girl	14.1 (21)	42.3 (63)	43.6 (65)	100 (149)	.756	.685
Boy	11.5 (17)	40.5 (60)	48 (71)	100 (148)		
<i>Child's age</i>						
36-47 months	18 (24)	46.6 (62)	35.3 (47)	100 (133)	12.511	.002*
48-59 months	8.5 (14)	37.2 (61)	54.3 (89)	100 (164)		
<i>Family income</i>						
Low	12.5 (4)	31.2 (10)	56.2 (18)	100 (32)	2.185	.702
Average	13 (32)	42.1 (104)	44.9 (111)	100 (247)		
High	11.1 (2)	50 (9)	37.4 (7)	100 (18)		
<i>Mothers' education status</i>						
Primary school graduate	0 (0)	23.1 (3)	76.9 (10)	100 (13)	22.149	.001*
Secondary school graduate	0 (0)	16.7 (2)	83.3 (10)	100 (12)		
High school graduate	7.3 (3)	29.3 (12)	63.4 (26)	100 (13.8)		
University graduate	15.2 (35)	45.9 (106)	39 (90)	100 (231)		
<i>Fathers' education status</i>						
Primary school graduate	16.7 (1)	0 (0)	83.3 (5)	100 (6)	10.095	.121
Secondary school graduate	11.8 (2)	23.5 (4)	64.7 (11)	100 (17)		
High school graduate	7.4 (5)	44.1 (30)	48.5 (33)	100 (68)		
University graduate	14.6 (30)	43.2 (89)	42.2 (87)	100 (206)		
<i>The types of technological devices the child is allowed to use</i>						
Television	9.4 (15)	43.1 (69)	47.5 (76)	100 (160)	49.646	.000**
Tablet	7.3 (3)	36.6 (15)	56.1 (23)	100 (41)		
Smart phone	14.9 (11)	40.5 (30)	44.6 (33)	100 (74)		
Computer	0 (0)	70 (7)	30 (3)	100 (10)		
None of the above	75 (9)	16.7 (2)	8.3 (1)	100 (12)		

**Continued from Table 2**

Continued from Table 1

Variables	Duration of Screen Exposure Per Day				$\chi^2$	p
	0-1 hours	2-3 hours	4 hours	Total		
	% (n)	% (n)	and more % (n)	% (n)		
<i>Whether parents know about optimal screen time</i>						
Yes	14 (36)	42 (108)	44 (113)	100 (257)	3.750	.153
No	5 (2)	37.5 (15)	57.5 (23)	100 (0)		
<i>The purpose of allowing the child to use technological devices</i>						
To feed the child easily	10.5 (4)	42.1 (16)	47.4 (18)	100 (38)	37.094	.000**
To help the child spend time in transport vehicles	3.3 (1)	30 (9)	66.7 (20)	100 (30)		



To calm the child	0 (0)	25 (1)	75 (3)	100 (4)		
To entertain the child	12.7 (13)	37.3 (38)	50 (51)	100 (102)		
To educate the child	10.8 (10)	49.5 (46)	39.8 (37)	100 (93)		
I don't allow it	66.7 (6)	22.2 (2)	11.1 (1)	100 (9)		
Other reasons	19 (4)	52.4 (11)	28.6 (6)	100 (21)		
<i>Rules and control on screen time at home</i>						
Yes	14.4 (38)	43.3 (114)	42.2 (111)	100 (263)	13.434	.001*
No	0 (0)	26.5 (9)	73.5 (25)	100 (34)		
<i>The TV is always on at home (even when not being watched)</i>						
Yes	8.2 (8)	34.7 (34)	57.1 (56)	100 (98)	8.163	.017*
No	151. (30)	44.7 (89)	40.2 (80)	100 (199)		

Note. \*\*=  $p < 0.01$ ; \*= $p < 0.05$

**Table 3.**

*The Kruskal Wallis-H Test Results Related to the Comparison of Children's Screen Time According to Their Acceptance and Rejection by Their Parents'*

Screen Time	n	MR	$\chi^2$	df	p	Difference
0-1 hours	38	132.54				
2-3 hours	123	134.51	10.750	2	.005*	1-3
4 hours and more	136	166.71				2-3
Total	297					

Note.\* $p < 0.05$