

# The investigation of screen-viewing on young children: Before and during the Covid-19 pandemic

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## ABSTRACT

The aim of the current study is to investigate the use of screen in young children before and during the pandemic and the attitudes of mothers towards their children's screen-viewing time. To achieve this, 20 mothers who have children between 1.5 and 6 years-old included in the study. The design of this qualitative study is phenomenology to collect more extensive and rich descriptions of experiences. These mothers were selected through convenient sampling method and due to the Covid-19 pandemic; interviews were carried out with one-on-one phone call. 21 open-ended interview questions were used to get information about the participants' views and practices. The findings showed that there are differences between mothers' expectations and practices about the screen meeting of their children, they could not implement their expectations on their own children, and their children met the screen at an earlier age. Also, findings revealed that mothers are conscious about the influences of screen-viewing and it has both physical and behavioral consequences for their children.

**Keywords:** Early childhood, screen-viewing, pandemic, addiction.

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## INTRODUCTION

We are in the age of technology. However, how we use technology is a matter of debate. Children of this age, in particular, spend most of their time on the screen, which is a major concern for parents. In fact, the fondness for the screen has reached a very young age. For this purpose, based on the early effect of screen addiction, this study was discussed to examine the screen addiction of early age children, how they become screen addicts, and the effect of their families on this situation. In this study, to determine the screen addiction of 0-6 year old children, how this screen addiction affects children (cognitive, emotional, social, physical), to evaluate the positive or negative consequences of these effects, to determine the responsibilities of families in this regard, and how, if any, disappear. Solution proposals for the ideas about its removal are searched and compiled.

Technology has become an indispensable part of life today. As such, smart screens, color monitors, and keys enable families to handle their work in a practical way, while attracting the attention of young children more. Children who watch their parents using these tools have

learned to use these tools before their time and have become surprised them too. While we are happy with our children who learn and practice in such a short time, we have also come to have conflicts about exposing them to these tools and their harmful influences early. While some parents never allow the screen and its derivatives and do not consent to the fact that they fall behind their peers after a while; some people think that they should learn, but I should know enough amount, and there may be panic when things get out of control. While some families turn a blind eye to its negative influences, others are trying to control the will to dominate the screen and the development of their children by already realizing how they can use the screen effect that seems negative. Considering the benefits and harms, parents almost never allow their children to contact with the screen during their infancy, and afterwards, by setting a time limit and supervising the programs they watch, they take precaution in a way that will not create an obstacle in their development and sometimes benefit. In general, it can be said that as the level of parent education

increases, children's addiction to computer games decreases. This result can be attributed to the fact that mothers with high levels of education are more conscious about the effects of computer games, are more effective in determining rules, and are more aware of the developmental characteristics of their children (Ulum, 2016).

Experts do not ever recommend children aged 0-2 to spend time on screen; after the age of 2, they think that it can be increased in proportion to their age and that they should not spend hours in front of the screen. The American Academy of Pediatrics (2016) states that children under the age of two should never watch television. Today, computers and mobile devices have also joined near to the television, which has been in the first place among technological threats for a long time.

Now we also encounter parents who cannot take their personal digital assistant, smartphone or tablet computer from their children even under two-year-olds. However, it is inevitable that the passive or inactive time spent while busy with digital media has a negative effect on cognitive, physical and psychosocial development. Because young children imitate adults and appropriate behaviors they see in the environment in the way of communicating and building social relationships. Again, while away from digital media, there are many game options that make significant contributions to their physical development. The time spent in front of the computer should not prevent these developmental experiences that children should definitely go through. Thus, there is a differentiation or abnormality in the development of children who do not experience sufficient social stimulation or physical activity in the density of digital media (Arslan et al., 2014).

Nowadays, while parents mostly watch television, children use the internet, use social media and play digital games (Çalışkan and Özbay, 2015). With this in mind, it would not actually be enough to just consider kids' use of these smart screens. Therefore, it is better to approach children with a parent-oriented approach. For this reason, the current study was carried out by taking mothers into consideration.

### Screen addiction

Addiction can be defined as the person's use of a substance or the continuation of a behavior, and the inability to control them, despite the harmful consequences. Behavioral addiction is a state of addiction in which behavioral characteristics involving substance seeking are exhibited without being addicted to a substance (Sevindik, 2011). Videos watched for two minutes to sober up from sleep mode as soon as waking up in the morning; checking news, friend messages, photo likes or curiosity of their shares; televisions, which are opened in the evening so that the whole family is

gathered or the child does not get overwhelmed, even if guests come, always accompany the conversation with them with their sound and image. While we have electronic devices that we constantly control with one corner of our hands and eyes while having dinner as a family, the fact, it can be said that we are addicted to screens. The culmination of the impasse in our lives is that when we do these things, they become world routines that seem like we have to do more than we want to do. The researches in the article of Ertemel and Aydın (2017) reveal that a typical user spends about 22 hours a day on their phone and 80% of the users check their phone as the first thing they get up in the morning (Facebook and IDC, 2013). These findings observed in developed countries like the US, is also valid for Turkey. Settled 16th place according to the longest time spent on the internet, more than 5 hours per day at the computer was spent in front of the computer while the average daily rate of watching television was determined to be 4.5 hours (T.C. Ministry of Family and Social Policies, 2013). What do we expect from children, who are recording our every move and doing what we do and as we do these? One minute, two, three... while he/she was looking for a little bit over there, I said I should do this; after a while, we have included the screen and its derivatives into children's lives as friends.

With the research conducted by Rideout (2011), it was emphasized that today's babies and preschool children, met mobile devices, in addition to all technologies, from their infancy. A study on the subject conducted at the USA found that, 29% of babies under one year old spend an average of 90 minutes a day in front of the screen (Rideout, 2011). It is also among the available data that children between the ages of 2 and 6, which are the most critical period for the healthy development of children, spend an average of 4 hours on the screen (Wartella et al., 2003). Because the screen interest in the early years in Turkey is decreased, the situation in the US should be considered to be the same for Turkey.

As the age of meeting and bonding with the screen has gone down, families are constantly questioning what effects it will have for their children. The conscious influence of families is effective in transforming this situation into benefit rather than harm. What could be the effects that lead to this addiction? According to Ertemel and Aydın (2017), the screen, which is not found in written media such as books, magazines and newspapers, has attractiveness and four addictive elements. These are as follows:

- Absence of stop sign
- Fear of missing out the progress
- Variable rewards
- Habit cycle

The absence of a stop sign, that is, the lack of stimuli that indicate that a movie or a book is coming to the end leads

to continuity and endless consumption. In other words, the fact that the page can be scrolled down on devices such as tablets and phones and that the ongoing videos are not cut back and forth always serves this purpose. It prepares the base for children to switch from cartoons or videos to one another. Another addictive element is the fear of missing out the progress. This feature mostly affects users of older ages. The feeling of getting news from the activities they are interested in, increases the addiction and the connection established with the screen. Thirdly, variable rewards, digital platform owners who know that reward is the oldest way of gaining habit on living beings, provide symbolic gifts and souls to be more connected to the game. While this is effective in young children, the desire to see the likes in social media in adults also binds them to itself in this way. Finally, the habit cycle, repeating cycles in the way the brain perceives, and the methods applied by reinforcing with rewards are pushed to be repeated by the brain after a while. Digital masters who know the effects of these methods on humans, use the flow of the brain to make the addiction to the screen as a routine even if we don't want it (Nikken and Schols, 2015). However, the crowd, who cannot understand how the time passes in front of the screen with the phone, tablet or remote have taken in hand, cannot believe how the 2-3 hours pass, while they have prepared themselves for only 5 minutes to go out or just glance before going to bed.

### **Negative sides of the screen**

The screen takes hold of a person in some way regardless of his/her age. With their sounds and music on babies; then with its rapid flow, colors and bright lights; with pictures and cartoons as the age gets older; with its games and activities during the school period; then it continues to influence people with social media, ease of communication with friends, easy access to information, and entertainment elements such as movies and TV series. Even in his old age, even took on the task of being the best friend with its old lace.

Experts recommend that babies should never be in front of the screen in terms of triggering many diseases between the ages of 0-2. Babies who are in the 0-18 month period do not realize how much they eat in front of the screen may not be able to adopt eating habits on their own and may face obesity problem in the future (Fielden et al., 2011). Television watched in early childhood may cause developmental delays. Also, when the television is on in the house, the bond between parents and children can be damaged.

For children who are introduced to games, the fact that they transfer the violence in the games to the real world, the length of the games have an addictive effect and reduce their face-to-face interactions, may lead them to the individualized lonely child feature. Studies show that

children who play computer games become addicted and their mental, emotional and physical development is negatively affected. Children addicted to computer games experience emotional distress (Akbulut, 2013). Mustafaoğlu et al. (2018) emphasized that it causes attention problems, aggressive behaviors, physical inactivity, obesity, and sleep problems for preschool children and more older. In addition, it is thought that the child who is exposed to the screen causes delays in acquiring language skills. The sleep quality of children, who are in front of the screen, decreases and it shortens their long sleep time (Bentley et al., 2016). Because the physically active period of the child who is exposed to the screen is shortened, changes in the musculoskeletal system can be observed, and weight gain sometimes leads to obesity (Fielden et al., 2011). In addition, as it is known, too much time or a close look at the screen is known to cause fatigue and deterioration in the eyes.

### **Positive sides of screen**

Of course, there are those who mention the beneficial aspects of the screen as well as those who address its harm. There is an opinion that if the child is able to use the screen correctly within a created safe environment, rules and time limits set by the parents, it will contribute to him instead of harm. Although some studies show that it affects the language development of babies negatively, Gülünç and Atli (2017) suggests that the language skills of babies are supported in order to accelerate their language development or to support their language skills. Parents of babies who meet screen early stated that technology supports their babies' cognitive skills such as number, color, music, and early literacy. In addition, it emphasizes that babies who closely witness their parents' use of computers and telephones can use these devices faster, this emphasizes that they develop quickly mentally.

There are opinions in the literature that children should not use computers and internet until the age of 7 to be able to fulfill their developmental tasks. On the other hand, it is recommended that publications with these views do not completely restrict the use of computers and the internet; it is emphasized that some controlled and efficient experiences are needed in order to give children a perspective on computers and the internet to create familiarity with them (Buldu and Ceyhan, 2011). For example, Li and Atkins (2004) emphasized that dealing with computers and the internet in preschool period plays an important role in preparing for school. According to Akbulut (2013), prohibiting to go swimming instead of teaching children to swim supports those who claim its beneficial effect.

As explained above, debates on screen viewing continue. Although it has been revealed that it has certain harms and benefits, what happened to children and

families before and during the pandemic period created a new problem. Due to the precautions taken for this disease, the quarantine period has begun to be implemented as an unprecedented practice in our country and in all around the world. Thus, in order not to spread rapidly, people did not go out and started to work from their homes, crowded places, places of worship and schools were closed and distance education practices were started. It is aimed to prevent the increase of the disease by not leaving their homes for at least two months, thus reducing the density in hospitals, by relieving the treatment of people with the disease, and to overcome the disease faster.

The aim of this study is to investigate the use of screen in 0-6 age group children before and during the pandemic and the attitudes of mothers towards their children's screen time. So, the main research question of the current study was what are the attitudes of mothers who have children in the 0-6 age group towards screen-viewing and how has it changed?

## METHODOLOGY

The aim of this study is to examine the use of screen in 0-6 age group children before and during the pandemic and the attitudes of mothers towards their children's screen time, including television, tablet, computer and smart phone, the positive and negative effects of these habits, the degree of addiction to the screen, the attitudes of their mothers in using screen through a qualitative research. Qualitative approach is one of the most appropriate ways of understanding what participants know and what they do in their real life (Fraenkel et al., 2012). It was more suitable for the study because the goal was to collect more extensive and rich descriptions of experiences to gain an abundant amount of knowledge (Lewis, 2015).

The design of the study is phenomenological research method offers a system to describe lived situations (Schwandt, 2007; Van Manen, 1990) and it is used to describe the essence of a phenomenon by exploring it from the perspective of those who have experienced it in terms of what was and how it was (Teherani et al., 2015). Because the phenomenology is reflective in nature and seeks to highlight an aspect of a person's life (Schwandt, 2007), it provides a powerful way of describing what mothers of preschoolers (aged 0-6) think and do about screen addiction. 14 mothers and 6 fathers volunteered to participate in the study. 21 open-ended interview questions were used to collect the data.

### Participants

For the current research, the study samples 20 mothers

who have children between 0-6 years-old. These mothers were selected through convenient sampling method because it offers a straightforward sample frame with an economically beneficial contact procedure (Vercauysen, 2014). The age range of the children whose mothers participated in the study vary between 1.5 years-old and 6 years-old. Due to the global pandemic of the Corona Virus (Covid-19), the interviews, which are normally planned to be made face to face, were carried out with one-on-one phone call. Table 1 represents the demographic information of the participating mothers.

The number of mothers participate in the study were 20 and their children's age ranges were between 1.5 years-old to 6 years-old. The demographic characteristics of the mothers are given in Table 1. According to these features, 80% of the mothers have bachelor degree (16 people), 10% have master degree (2 people), and 10% of them have high school degree (2 people).

### Data collection instrument and process

Data were collected through semi-structured interview questions. Semi-structured interviews are "organized around a set of predetermined open-ended questions, with other questions emerging from the dialogue between interviewer and interviewee/s" (DiCicco-Bloom and Crabtree, 2006) and used to explore interviewees' experiences (Hatch, 2002). 21 open-ended interview questions were prepared by the researchers within the framework of the information obtained from the literature review. After creating the semi-structured interview protocol, two experts from early childhood education were consulted and questions were edited and adjusted to finalize according to expert feedbacks. Then, pilot study was conducted with 4 mothers who have children between 2 to 5 years-old. Pilot study results showed that all the interview questions were clearly understood and no alteration was made.

After selecting the participants of the study, data were collected between the 4th and 20th of May 2020. The purpose of this semi-structured interview was to determine the parallelism and difference between the information provided by the mothers interviewed and to make comparisons accordingly, and to determine the attitudes of 0-6 years old children towards the screen, the preference of technological devices, and the reason for using technological devices, and their mothers' opinions and observations on this issue. In addition, research and interviews also answer the question of how much the use of technological devices has increased during the pandemic period. Each interview was lasted between 15 and 20 minutes. Due to the global pandemic of the Corona Virus (Covid-19), all the interviews, which were normally planned to be made face to face, were carried out with one-on-one phone call and the participant responses were audio-taped with their permission.

**Table 1.** Demographic information of mothers.

Child	Age of the child	Mother educational degree	Mother profession
C1	3 years-old	Master's Degree	Teacher
C2	3.5 years-old	Bachelor Degree	Teacher
C3	4 years-old	Bachelor Degree	Project manager
C4	4 years-old	Bachelor Degree	Teacher
C5	1.5 years-old	Bachelor Degree	Teacher
C6	5 years-old	Bachelor Degree	Journalist
C7	3.5 years-old	Bachelor Degree	Psychologist
C8	1.5 years-old	Bachelor Degree	Journalist
C9	2 years-old	High School Degree	Graphic designer
C10	4.5 years-old	Bachelor Degree	Banker
C11	6 years-old	High School Degree	Contract staff
C12	4 years-old	Bachelor Degree	Journalist
C13	4 years-old	Bachelor Degree	Office clerk
C14	4.5 years-old	Bachelor Degree	Housewife
C15	6 years-old	Master's Degree	Biology, Teacher
C16	3 years-old	Bachelor Degree	Teacher
C17	6 years-old	Bachelor Degree	Preschool Teacher
C18	4.5 years-old	Bachelor Degree	Housewife
C19	4 years-old	Bachelor Degree	Psychologist
C20	5 years-old	Bachelor Degree	Geophysical engineer

## Data analysis

In this study, mothers' views about use of screen in 0-6 years-old age group children before and during the pandemic towards their children's screen time were analyzed in order to produce detailed descriptions about their views and practices.

The data collected from the participant mothers was transcribed transformed into text format by the researchers and initial thoughts and ideas were noted which is an important stage in analysis (Riessman, 1993). The transcribed data was analyzed thematically (Braun and Clarke, 2006). It was read and re-read several times by the researchers and then categorized in the light of the information obtained from the literature and the research purposes, and included in the analysis.

## FINDINGS

Results are presented under seven main headings: expectations and practices of mothers' about the screen meeting of their children, different devices children prefer to use and their content preferences, screen viewing time of children and the change in it during the Covid-19 pandemic, influences of screen viewing on children's behavior, discomfort in child who views screen for a long time, for what purpose mothers allow their children to view screen and the change during Covid-19 pandemic, and mothers' attitudes towards their children's requests to spend time in front of the screen.

When looking at mothers expectations and practices about screen meeting in the study, it has been observed that there are differences between mothers' expectations and practices. According to the information obtained from the participant mothers interviewed within the scope of the study, it was determined that they could not implement their expectations on their own children, and their children met the screen at an earlier age. As provided in Table 2, 10 out of 20 mothers said "after 3 years of age they should meet with the screen". However, 7 of these children were introduced to the screen after the age of 1, 2 of them at the age of 2, and 1 at the age of 3. So the difference between practice and expectation is obviously seen. In addition to these, 4 mothers said "they should meet after the age of 6". Of these children, 2 were met at 3 years-old, 1 was before the age of 1, and the other one was 2 years old. Two people stated that they should meet after the age of 4 or 5. However, one of those mothers' child was met with the screen when she was 7 months old and the other mother's child was introduced to the screen at 1.5 years-old. In addition, there are 2 mothers whose expectations and practices were overlapped. One of those mothers' expectations was 1 years-old and the practice age was also 1 years-old. The other mother stated that "he should meet screen in preschool period" and her child met at the age of 3.5. To conclude, the practice of 18 mothers in total is opposite to their expectations and the remaining 2 mothers' expectations and practices were coherent.

Table 3 represents the children's preferences on screen-type and content. Findings show that 9 children

**Table 2.** Expectations and practices of mothers' about the screen meeting of their children.

<b>Children</b>	<b>Mother expectations</b>	<b>Mother practices</b>
C1	After 3 years-old	2 years-old
C2	After 3 years-old	1.5 years-old
C3	1 years-old	1 years-old
C4	4 or 5 years-old	1.5 years-old
C5	After 36 months	1 years-old
C6	2 years-old	2 years-old
C7	After 3 years-old	2.5 years-old
C8	After 6 years-old	Before 1 years-old
C9	After 4,5 years-old	7 months
C10	After 3 years-old	1 years-old
C11	After 3 years-old	1.5 years-old
C12	During primary school	2 years-old
C13	6 years-old	3 years-old
C14	After 6 years-old	3 years-old
C15	After 3 years-old	3 years-old
C16	After 3 years-old	2 years-old
C17	After 3 years-old	1 years-old
C18	2 or 3 years-old	2 years-old
C19	3 years-old	1 years-old
C20	During preschool period	3.5 years-old

**Table 3.** Different devices children prefer to use and their content preferences.

<b>Participant children</b>	<b>Screen preference</b>	<b>Content preference</b>
C1	TV	Cartoon
C2	TV	Cartoon and repair documentary
C3	TV	Cartoon
C4	TV and Tablet	Cartoon
C5	Smart-phone and TV	Music, Cartoon and video talk
C6	TV	Listening songs and dance on YouTube
C7	Smart-phone	Cartoon
C8	None	Listening songs without video clips
C9	Smart-phone	Cartoon
C10	TV	Cartoon
C11	Tablet	YouTube
C12	Smart-phone	Cartoon
C13	Smart-phone	YouTube video
C14	Tablet	Watching youtubers
C15	TV	Playing games
C16	Smart-phone	Cartoon and video talk
C17	Smart-phone	Cartoon YouTube
C18	Smart-phone	YouTube Cartoon and video talk
C19	Smart-phone	Tutorial Videos on YouTube
C20	Smart-phone	Cartoon

prefer to use smart-phone, 6 children watches TV, 2 children use tablet, 1 child prefers to watch both TV and uses tablet, 1 child prefers both tablet and smart-phone type a lot, and 1 child do not prefer any type of screen-

viewing. In terms of content, 8 of the children watch cartoons, 5 of them watch educational videos, songs, dances, and YouTubers on YouTube, 3 of them make video talks, watch cartoons and YouTube, 1 person only

plays games, 1 child watches cartoons and repair documentaries, 1 child only plays songs without video clips, and 1 child watches cartoons and YouTube videos. When we consider the preferences on Table 3, it is seen that most preferred screen type is smart-phone, and children use smart-phones more. The second ranking is television and in the third row is the tablet. In terms of content, it is seen that cartoons and YouTube videos are mostly preferred by participant mothers' children.

Due to the Covid-19 pandemic which affects the whole world deeply and can be fatal in some cases, regardless of whether an adult or a child, everyone is forced to stay at home. This situation affected many orders in the homes, as well as the order of the children. According to the information we received from the mothers, we can see to what extent time spent with screen-viewing before and after the pandemic. As seen in Table 4, the duration of 15 children's time spent on screen-viewing increased by almost 80%. There was no change in the time of remaining 5 children in front of the screen.

The Table 5 represents whether the children of participant mothers' were affected by what they watched, and if so, how they were affected. Responses to the interview questions given by the mothers shows that 100% of the children are affected by what they watch. While most of the mothers in the study group see the way that their children are affected positively, 10% of them said negative and 10% stated that it is both positive and negative. Some of those who stated their children affected in a positive way stated that it increases children's creativity, support children's imagination and

contribute to their language development; while some of those who states it affects negatively states that their children use violence, become more combative, and do what YouTubers they watched do. In addition, mothers who observed their children in front of the screens stated that their children may affected both positively or negatively, it depends on what their children watch.

One of the prominent issues in the interview responses was the discomfort of the child who stays in front of the screen for a long time. As represented in Table 6, 8 mothers stated that the discomforts that occur in their children are physical; 5 of these physical discomforts were related to the eyes. These mothers stated as "When my child stays in front of the screen too long, his eyes blush, itch, and blink." One of other 3 mothers stated that her child had too much urination and incontinence as a result of being on the screen too much, one of them had neck pain and speech disorder, and another said that her child had sleep problems. 6 mothers stated that their children had mental problems. These 6 mothers said that their child was irritated, aggressive, absent-minded, dreaming of what they watched, and mental fatigue, along with being in front of the screen too much. On the other hand, 2 people stated that their child had both physical redness in the eyes and mental problem. The remaining 4 people stated that their child was not affected in any way.

While families were previously checking children's screen-viewing time themselves, they found the solution by leaving the child in front of the screen while they were working at home because of the pandemic.

**Table 4.** Children's screen-viewing time and the change in it during the covid-19 pandemic.

Participant child	Before Covid-19	After Covid-19
C1	10 minutes	2 hours
C2	3 hours	Whole day
C3	1 hour	1-2 hours
C4	2 hours	5-6 hours
C5	20-30 minutes	20-30dk
C6	1 hour	2 hours
C7	1 hour	3-4 hours
C8	never	never
C9	3-4 hours	5 hours
C10	1 hour	6-7 hours
C11	40-50 minutes	3-4 hours
C12	1 hour	4 hours
C13	1,5 hours	1,5 hours
C14	2 hours	4-5 hours
C15	2 hours	3-4 hours
C16	3.5 hours	3,5 hours
C17	4 hours	5 hours
C18	3 hours	5 hours
C19	3-4 hours	Half of the day
C20	45 minutes	2-3 hours

**Table 5.** How children are influenced by what they watch on the screen?

<b>Participant child</b>	<b>Influenced or not?</b>	<b>Positive / Negative</b>
C1	Yes	Positive, Using violence
C2	Yes	Positive, getting strong
C3	Yes	Positive
C4	Yes	Positive, Making cake
C5	Yes	Positive, dancing
C6	Yes	Imitates positive speech
C7	Yes	-
C8	Yes	Imitates positive speech
C9	Yes	Positive
C10	Yes	Sometimes positive, sometimes negative
C11	Yes	Positive, role playing
C12	Yes	Negative
C13	Yes	Negative
C14	Yes	Negative, YouTuber imitation
C15	Yes	Positive, imagination is developing
C16	Yes	Positive
C17	Yes	Sometimes positive, sometimes negative
C18	Yes	Sometimes positive, sometimes negative
C19	Yes	Sometimes positive, sometimes negative
C20	Yes	Positive, improves creativity

**Table 6.** Discomfort in a child who views screen for a long time.

<b>Participant child</b>	<b>Discomfort</b>
C1	Physical- eyes blushing
C2	Physical - Itchy eyes
C3	Physical - pee incontinence
C4	Physical- eyes
C5	Physical- eyes
C6	Physical - Blinking eyes
C7	Mental- Bad temper
C8	Mental- absent-minded
C9	Nothing
C10	Physical-Neck pain, speech disorder
C11	Mental- aggressive
C12	Mental- aggressive-irritated
C13	Nothing
C14	Mental-dreaming of what he/she watched
C15	Physical-Insomnia
C16	Nothing
C17	Mental- aggressive-irritated, mental fatigue
C18	Nothing
C19	Physical-eyes blushing, Mental- irritated
C20	Physical - getting tired and exhausted, Mental- irritated

On the other hand, children attending pre-school institutions are exposed to more screens as they continue their distance education in front of the screen. Most importantly, the screen is sometimes a savior for the

family and child who are bored at home for 24 hours. Changing rules in families in these aspects are indicated in this Table 7.

According to the findings, 9 of the children are in front



**Table 7.** For what purpose mothers allow their children to view screen and the change during COVID-19 pandemic.

Participant child	Normally order	Influence of Covid-19
C1	With family	While parents are working
C2	In spare times	While parents are working and at spare times
C3	In spare times	Distance education
C4	With family	With family
C5	With family	With family
C6	While eating	At spare times
C7	While eating	At spare times
C8	While eating	Not changed
C9	In spare times	Not changed
C10	With family	Not changed
C11	Always watching	Distance education
C12	While eating	At spare times
C13	While eating	Not changed
C14	In spare times	Distance education
C15	At the time of his own programs	At spare times
C16	While eating	Not changed
C17	While eating	At spare times
C18	While eating	At spare times
C19	While eating	Distance education
C20	In spare times	At spare times

**Table 8.** Mothers' attitudes towards their children's requests to spend time in front of the screen.

Participant child	Warning pattern
C1	Verbally – making explanation
C2	Operational-screen off
C3	Verbally – expiration of allowed time limit
C4	Verbally - making explanation
C5	Verbally - Operational
C6	Verbally -warning
C7	Verbally -caution
C8	Verbally - distract attention
C9	Verbally - distract attention
C10	Operational-screen off
C11	Verbally - making explanation, sometimes Operational-screen off
C12	Verbally - making explanation
C13	Verbally - distract attention
C14	Verbally - warning
C15	Verbally - making explanation
C16	Verbally - persuasion
C17	Verbally - distract attention
C18	Acting flexible
C19	Verbally - persuasion
C20	Stipulating

of the screen while eating. Here, the explanation of the mothers, "My child is a difficult child about eating, but when I turn on the screen, he/she becomes inattentive and I can feed him/her". While 5 children are in front of

the screen in their spare time, 3 people watch the screen only with the family when the family watches, 1 child turns on the screen when his/her program starts, one child watches whenever their family allows him/her to

watch, and one person watches every hour at all times. It is seen in Table 7 that Covid-19 influenced children's screen-viewing time. It is seen from the findings that, apart from watching all these, 4 children were viewing screen for distance education during pandemic, 7 children stayed in front of the screen in all their free time and it is seen that they start watching more programs because they are at home. It is understood that when one child spends time in front of the screen while his/her parents were at work, 1 child watches screen while his/her parents working from home, one child is watching with the family, and 4 children do not change the purpose of their screen viewing.

The Table 8 represents the mothers' attitudes towards their children's requests to spend time in front of the screen. According to the interviews with the mothers, 15 of the mothers verbally warn their children. These warnings are in the form of explanation, warning, distraction, persuasion. Two mothers, on the other hand, use the caution method in action and in action usually turns off the screen directly. One of the mothers, on the other hand, both verbally explains and sometimes reacts by turning off the screen. One of the mothers stated that she is flexible when she has trouble closing the screen down and does not persist with her child. And also, one another mother stated that she stipulates before turning the screen on.

## DISCUSSION

The aim of this study was to investigate the use of screen in 0-6 age group children before and during the pandemic and the attitudes of mothers towards their children's screen time. For this purpose, the study mainly aimed to answer what are the attitudes of the mothers who have children in the 0-6 age group towards screen viewing and how it has changed. Parallel to this main purpose, screen-viewing through television, tablet, computer and smart phone, the positive and negative effects of these habits, the degree of addiction to the screen, influences of their families on screen use and the obtained information about the attitude of their mothers were examined and in the light of in-depth interviews with mothers of children aged 0-6, it is seen that almost every child has an interest in the screen in some way. Covid-19 pandemic caused extreme changes in our daily lives (Eyimaya and Irmak, 2020). It has been observed that the time we lived in against the Covid-19 pandemic has also increased their interest in the screen. The rules set by the mothers considering the best for their children had to be bended or be violated during this period. While determining the goals that will contribute to the development of their children in the best way regardless of their profession and educational background, the system, conditions and the charm of the screen show that they are not the system of parents' dreams about their

children.

When looking to the expectations and practices of mothers' about the screen meeting of their children, the answers given by mothers whom most of them have bachelor degree in this study, stated that their expectations are 3 years-old and older, but in practice it was seen that their children met with the screen at a younger age. Parents who have at least one television, a tablet / computer, and two smartphones in their home frequently use screens for business, social media, and entertainment purposes. They do not want to give too much permission to their children because they see it inconvenient for them. This is reflected in the same effect on their children because they are role models in every way with their actions. To give an example to support this inference, results of a study by Tang et al. (2018) among a sample of Canadian families about relationship between parenting practices about media and children's screen usage found that practices of parents influence the amount of children's amount of time on screen-viewing.

Looking at children's screen preferences, most of the children choose smart-phones. It can be in the first place as it is the most used tool by their parents and it provides convenience in terms of accessibility. Television comes second, which has an impact on gathering family members when they come together in the evening. Cartoons are the favorite type of content for children due to their ages. Families are able to present cartoons according to their age level, so they feel comfortable having fun in front of cartoons within the specified time limit. It has been observed that YouTube is preferred by children as the second choice, offering consecutive options during and after the videos may be the reason for this preference. Children can move on to the next video by demonstrating small muscle skills at an early age. Even if parents try to protect children, children who want to continue watching in the face of the advertisements and the fascination of the next video makes it more difficult for both parents and children.

Considering the time spent in front of the screen after Covid-19 entered our lives, the screen-viewing time of 15 children increased, while only 5 children's did not change. The reason for this may be the fact that many governments all around the world are enforcing strict quarantines and digital device usage to increased time spent indoor (Wong et al., 2020), so parents have to work at home and children have to spend time in front of the screen is the only activity they can linger for a long time while their parents are busy.

It is mentioned by mothers that what children watch mostly influence children in a positive way. Mothers appreciate their children's imitating implementation of the positive behaviors of the characters they watch on screens. On the other hand, 10% of mothers are uncomfortable when their children learn about violent and anger behaviors by mentioning that they have negative

effects. In addition, other 10% of mothers mentioned that their children can be affected positively or negatively. It shows that if the parents make the right choice for their children, it will increase their positive feelings about screen-viewing.

It was said by experts that staying in front of the screen for a long time causes physical posture disorders (Bozzola et al., 2018), eye discomfort, as well as behavioral effects such as insomnia and aggressiveness. In addition, electronic media through early childhood period causes increased behavioral and physical problems for children (Bozzola et al., 2018) and also Toumbourou (2011) stated that discomforts during early childhood period are associated with later outcomes, like depression and aggressive behavior.

The findings of this study also show that children who have been in front of the screen for a long time have physical discomfort, especially in the eyes, causing itching and redness, as well as neck pain, and behavioral changes such as incontinence due to pee retention, sleep problems, speech disorders are also observed. A study conducted by Thomée et al. (2010) supports these findings that long hours media usage interfere sleep quality, causes muscular pain, neck posture, and headache. Apart from this, there are also those who say that they experience bad temper, aggressiveness, absent-mindedness, seeing what they watch in their dreams and mental fatigue, along with being in front of the screen for a long time. Despite all this, there are also those who say that screen-viewing did not cause any change on their children, because when children want to stay in front of the screen longer than the time given to them, the methods of persuasion are mostly used by verbal warning. Families are being conscious about time and usage of these technologies prevents the addiction to the screen and helps to transform the screen into a useful form for children. Screens, internet and other technological devices are inevitable parts of daily life and are increasingly being active day by day.

The more constructive the warnings that families give to children as part of the precautions they take, the less likely they are to resist. Child will stop insisting after a while with the perception that "my family is thinking what is right for me". On the other hand, a harsh, strict warning will also prolong the negative attitude of the child. Instead of allowing one day off and restricting the other, they should keep the same limit each time to support the attitude of families. When they are together, at least when they are with their children, effectively using that time with their children will also reduce children's addiction to the screen. In this way, families who restrain themselves on the screen can only expect repetition of the same behavior from their child as an exemplary behavior. When the Covid-19 pandemic is over for children, some precautions can be taken to reduce their addiction for the screen during the day by providing an environment where they can socialize and play with their peers. According to Ergüney (2017), internet and other mass media should

not be seen by parents as 'electronic babysitter', in order to calm the child, sit down or entertain the child (Timisi, 2011). Children's relations with the screen should take place within the time set by their parents and under their control. Thus, it is possible to minimize the harmful effects of the screen and turn it into benefit. While the screen surrounds us every day, we need to consciously learn and teach how to live with it.

## CONCLUSION AND IMPLICATIONS

Today, the risks and advantages of the screen and the internet, which are closely related to children and families, are actually a matter of debate. The family has a very important role in protecting children and young people from negativity in every aspect (Güler, Bayzan and Güneş, 2016). In this regard, families have great responsibilities. The family should not be content with just protecting their child from outside physical negativity. It should also be protected from internet and screen addiction, which parents put it into the house and is not clear how bad it will be if it is not used properly. Families cannot protect children from the negativity of the outside world by imprisoning them in front of the screen and not taking them outside. Families should follow what their child watches and determine the duration. The existence of the danger requires taking precautions, not where it comes from. Where the danger comes from creates differences only in the options to be used in taking precautions (Güler, Bayzan and Güneş 2016: 5). Technology has become an indispensable part of life today. As such, smart screens, color monitors, and keys enable families to handle their work in a practical way, while attracting the attention of young children more. The important thing for the family here is that they should provide children to watch useful content without creating a screen addiction.

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