

## **The Effect of Distance Education and Technology Use in Online Family Education Program during the COVID-19 Pandemic**

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### **Abstract**

Family involvement and school-family cooperation are essential determinants in a child's learning process in early childhood have further increased the significance of family involvement in the distance education process. This study aims to investigate the effects of the "Distance Education and Technology Use during the Pandemic" online education program on the parents' views on their children's technology use and online education. In the present study, the research study group, which has a convergent mixed method parallel research design, consisted of 10 mothers and 10 fathers with five-year-old children who attended kindergarten in a province in the inner Aegean region of Turkey and participated in online education during the COVID-19 pandemic. The Parents' Views on Preschool Children's Technology Use Scale and Online Education Evaluation Forms were used as data collection tools for this research. This research revealed a positive change in the views of parents on family guidance in technology use, benefits of technology, using technology, harms of technology, ability to use technology, and suggestions after the education they attended. The parents' views participating in the education about their children's use of technology and their skills changed positively and that the awareness of parents about their roles regarding their children's use of technology increased.

**Keywords:** COVID-19, distance education, family education, technology, parents

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## Introduction

The rate of spread of the novel coronavirus (COVID-2019), which was declared a worldwide pandemic by the World Health Organization (WHO) on March 11, 2020, has been tried to be prevented by different practices, such as maintaining social distance, social isolation, working from home and flexible working in many countries (United Nations Children's Fund [UNICEF], 2020a). Preschool children have been considered the most sensitive group regarding education during the COVID-19 pandemic. They are in a critical period of their social and cognitive development and often cannot respond to distance education (Silverman et al., 2020). The fact that early childhood is a critical period in which the skills of coping with emotions and establishing social relations which are learned explain the social-emotional sensitivities of children during the pandemic (Jalango, 2021).

Children who have been adversely affected by the pandemic also experienced difficulties in accessing distance education (UNICEF, 2020b). With distance education, concepts and processes related to digital technologies, which have a great place in children's lives, have begun to be reconsidered. Children, who are defined as digital natives born into the digital world and have no difficulty in using technological tools, establish a parent-child relationship with their parents, who are referred to as digital immigrants that adopt the media tools later (Prensky, 2001). Despite the significant differences between the knowledge and skills of today's children and their parents in using technological tools, parents had to be a model and guide children in using digital technologies during the pandemic. Parental support is necessary for young children to participate in distance education. Under these circumstances, how parents support distance education and what opportunities they offer their children have become an important issue. Studies conducted in different countries and cultures have determined the views and attitudes of parents of preschool children (Akkaş Baysal et al., 2020; Brom et al., 2020; Burke & Dempsey, 2020; Dong et al., 2020; Lau & Lee, 2021) towards distance education to be both positive and negative. However, to our knowledge, no studies have been conducted in the literature on parents guiding their children in distance education and technology use and supporting their learning during the pandemic. This study will focus on an education program organized for parents during the pandemic.

The sudden changes in education, especially during the pandemic, have left families with limited time to support their children's education (United Nations Children's Fund, 2020). During the pandemic, parents had to organize childcare and at the same time support the distance education of their children. Since the parents did not go through any training and preparation process, they faced many difficulties in this period (Lau & Lee, 2021). Stating that they have difficulty supporting their children's

distance education experiences, parents expressed that they find the parenting processes more stressful than before the pandemic (Spinelli et al., 2020). Moreover, many families have stated that coping with distance education and sudden changes in routines are stressful (American Psychological Association [APA], 2020) and negatively affecting their mental health (Patrick et al., 2020). While parents were concerned about the increase in their children's internet use (Başaran & Aksoy, 2020; Tuzcuoğlu et al., 2021) and desire to watch television continuously (Demirbaş & Koçak, 2020; Ghosh et al., 2020) during the pandemic, children started to use technological tools more intensively at home (Nevski & Siibak, 2016) in the distance education implemented in line with the measures taken throughout the country. Parents should be positive role models for children to use digital tools effectively (Wu et al., 2014). This situation has created a greater need for well-equipped parents for the effective use of technological tools (Neumann, 2015).

Technology use, beliefs, thoughts, and attitudes of parents who introduce technological tools to their children and control their use (Nikken & Schols, 2015), also affect their children's technology use (Levine et al., 2019). Besides studies reporting parents' positive attitudes and thoughts about using technological tools at home (Kumpulainen & Gillen, 2019; Livingstone et al., 2015; Majlinda et al., 2020; Sharkins et al., 2016), some studies document that parents have fears and concerns about technology use (Bentley et al., 2016; Işıkoğlu Erdogan et al., 2019; Jiang & Monk, 2016). Parents need to change themselves before their children and learn to use technology effectively. It is crucial to evaluate parents' attitudes and views towards technology in distance education. Distance education in early childhood may cause several problems, such as online dangers, digital addiction (Radesky et al., 2016) social isolation, lack of interaction and participation (Khurana, 2016). Young children participate in distance education without physical or direct interaction with their teachers and friends. They need to be more active and motivated to learn and use technological products effectively in this process. Considering the developmental characteristics of children, it is challenging for them to have good time management in distance education. Besides, teachers do not have the opportunity to give continuous feedback to children (Kruszewska et al., 2020). Nouwen and Zaman (2018) state that parents have roles, such as determining the rules regarding the use of technology and observing children's media use to regulate children's online activities and prevent possible dangers. Parents' views on the role and importance of distance education will directly affect the quality of education and children's learning experiences (Işıkoğlu Erdogan et al., 2019). Since distance education with digital technologies is a part of children's lives during the pandemic, especially parents should be informed about the use of technology and how different applications can be implemented (Dong et al., 2020).

Families are of critical importance in ensuring harmony between home and school and minimizing the adverse effects of distance education during the pandemic. There are studies in the literature on preschool teachers' (Akkaş Baysal et al., 2020; Aral & Kadan, 2021; Hartarik & Biayuni, 2020; Kim et al., 2020) views on distance education. In a limited number of studies examining the views of parents on distance education during the COVID-19 period (Dong et al., 2020; Lau & Lee, 2021; Yıldırım, 2021), it was stated that families faced many difficulties in this process without any preparation and training. Like the rapid changes seen in every subject today, the difficulties experienced during the pandemic have also differentiated the educational needs of families (Ministry of National Education Preschool Education Program (2013) [MoNE]). To our knowledge, there is no research in the literature regarding family education on distance education during the pandemic period.

**Purpose of the Research:** This study aims to investigate the effect of the “Distance Education and Technology Use during the Pandemic” education program on the parents’ views on their children’s technology use and online education.

**Significance of the Research:** During COVID-19, it is necessary to provide the essential guidance for families to effectively support their children in both distance education and technology use. Determining the effect of the education program prepared for families, one of the critical stakeholders of preschool education will be significant in ensuring effective school-family cooperation and raising the necessary awareness in families.

**Sub-problems:** In this study, answers to the following questions were sought:

What are the effect of the online family education program “Distance Education and Technology Use during the Pandemic” on parents’ views on their children’s technology use?

What are the parents’ views on the role of parents in technology use after the family education program?

What are the parents’ views on online education content after the family education program?

What are the parents’ views on the differences between online and face-to-face education after the family education program?

## **Method**

### **Research Design**

This research had a convergent parallel design, one of the mixed research method designs. In this design, qualitative and quantitative data were collected simultaneously during the research, the data were analyzed separately, and the results were integrated

within the interpretation part (Creswell & Plano Clark, 2015). The quantitative dimension of this study comprised a quasi-experimental method without a single group, a pre-test-post-test control group, and the qualitative dimension included a case study (Büyüköztürk et al., 2020). This study followed a quasi-experimental design as it aimed to examine the effect of the online family education program on the parents' views on their children's use of technology. The qualitative dimension of the present research, on the other hand, included a case study. In a case study, one or a few situations limited to a specific period were examined in depth. As this study aims to examine parents' views on online education during the COVID-19 pandemic period, a case study was used (Creswell, 2013).

### **Participants**

Criterion sampling, one of the purposive sampling methods, was used to create the research study group. Participation criteria were that parents' children attend pre-school education institutions and participate in online education during the pandemic period. The research study group consisted of 10 mothers and 10 fathers with a five-year-old child attending kindergarten in a province in the inner Aegean region of Turkey. The determination of the study group was based on voluntary participation, and a consent form was obtained from the parents.

### **Instruments**

In the present research, "Personal Information Form" developed by the researcher and "Parents' Views of Preschool Children's Technology Use Scale" developed by Kılınc (2015) was used to collect personal information about parents. Personal Information Form developed by the researcher contains questions about the child's gender and the parent's education level and profession. The form was filled in by the parents. Parents' Views on Preschool Children's Technology Use Scale developed by Kılınc (2015) consists of six sub-dimensions and 25 items: family guidance in technology use, benefits of technology, areas of use of technology, harms of technology, ability to use technology, and suggestions. The items in the scale were rated on a five-point Likert scale (1-Strongly Disagree, 2-Disagree, 3-Undecided, 4-Agree, 5-Strongly Agree). The Cronbach's alpha reliability coefficient for the whole scale was .73. The researcher prepared four evaluation forms consisting of four questions at the end of each online training to determine the views of the parents on the subject discussed. The questions in the forms were prepared according to the themes in the online education content. The forms were presented to three field experts to ensure internal validity. Evaluation forms were prepared in line with the opinions of field experts.

## **Procedure**

Necessary permissions were obtained from the ethics committee of a university in the inner Aegean region of Turkey. The research data were collected between November 2020 and January 2021. The scale and evaluation forms used in this research were delivered to the participants via Google Forms. Families received the online education program between December 1 and December 29, 2020.

### **“Distance Education and Technology Use During the Pandemic” Online Family Education Program**

The relevant literature was first reviewed while preparing the online family education program “Distance Education and Technology Use during the Pandemic” (Burris, 2019; Kewalramani et al., 2020; Neumann, 2018; Sariođlan, 2020). After the literature review, the relevant topics were determined, and an education program consisting of 12 sessions was prepared. Each session’s subject, purpose, and importance and the methods used are presented in Table 1. Different methods were used to improve parents’ level of knowledge and awareness on the issues, keep their interest in family education alive, ensure their continuity, and enable them to apply what they learned from the sessions at home during the pandemic period. Sessions included methods and techniques, such as case studies, question-answer, brainstorming, sentence completion, assignments including feedback stages, and posters and brochures were prepared for some sessions. The online education program was implemented between December 1 and December 29, 2020. It was applied for four weeks, three sessions per week. For each session, 12 videos of 15-20 minutes were prepared on the purpose and importance of the subject. A Whatsapp group was established with the parents participating in the program, and videos and activities related to the topic were shared in the Whatsapp group at the beginning of each session. The researcher answered the families’ questions on the subject through the group, and posters, brochures, and assignments in the session were shared. At the end of each week (at the end of each three sessions), online education was provided to families four times via Zoom. The online training sessions lasted approximately 35-40 minutes. The researcher answered the families’ questions, suggestions were made to the families, and feedback was given about their assignment.

Table 1  
*Family education program*

Subject	Aim	Method-Techniques	Online Training Content
Technology use at home	Increasing parents' level of knowledge and awareness about technology use at home	Brochure, sentence completion, brainstorming	Parent's role in technology use
Online programs-digital games for children	Increasing parents' level of knowledge and awareness about online programs and digital games	Q&A, case study, assignment	
Digital addiction in children	Increasing parents' awareness about digital addiction	Poster, sentence completion, case study	
Preparing for online education at home	Informing parents about what they can do in the preparation process for online education	Q&A, case study, assignment	Parent guidance in online education
Guiding the child in online education	Informing parents about how they can guide their children in online education	Case study, brainstorming, poster	
Home environment during online education	Increasing parents' level of knowledge on how to prepare a home environment in online education	Sentence completion, assignment	
Time management in online education	Informing parents about the effects of online education on the physical/emotional development of children	Brainstorming, Q&A	Features of online education
Attention span of children in online education	Informing parents about what they can do to increase their children's attention span/motivation in online education	Q&A, sentence completion, assignment	
Children's learning process in online education	Informing parents about how they can support their children's learning in online education	Q&A, case study, assignment	
Methods/techniques used in online education	Informing parents about the methods/techniques used in online education	Brainstorming, Q&A	Differences between online and face-to-face education
Online education vs. face-to-face education	Informing parents about the differences between online and face-to-face education	Sentence completion, Q&A, Brochure	
Parents' attitudes towards online education	Increasing parents' level of knowledge and awareness about parental attitudes in online education	Q&A, case study, assignment	

## Data Analysis

Descriptive statistics, such as frequency and percentage, were used to evaluate the demographic characteristics of the parents. Shapiro-Wilk normality test was used to determine whether the scores obtained from the scale were normally distributed. Since the scores obtained from the scale were normally distributed, the t-test was used to compare groups. When examining the difference between groups, 0.05 was accepted as the significance level, and the difference between the groups was considered significant when  $p < 0.05$  and insignificant when  $p > 0.05$ . (Büyüköztürk et al., 2020). Content analysis was used to analyse the data obtained from the evaluation forms.

The data obtained from this research were analyzed using data analysis steps defined by Creswell (2013), namely (a) organizing and preparing the data, (b) making general sense of information, (c) coding, (d) describing, (e) representing and (f) interpreting. In the first stage, all recorded interviews were converted into written texts. Interview transcripts were read and coded separately by the researcher and another independent researcher. Based on the codes obtained in the second stage, themes were created, and a consensus was reached on the themes. The data obtained from this research were arranged according to the codes and themes in the third stage, and it was agreed that there was no separate theme other than the previously determined themes. In the last stage, the findings obtained according to the determined themes were reported by directly quoting the participants' views (Yıldırım & Şimşek, 2016).

## Validity and reliability of the research

The reliability coefficient of the scale used in the quantitative dimension was calculated as 0.79. The data collected for the validity of the qualitative dimension are reported in detail (Yıldırım & Şimşek, 2016). Direct quotations were made from the views of the parents, in accordance with the ethical elements in the quotations, without using the names of the participants, and the prospective teachers were coded, such as M1, M2, F1 (Creswell, 2013). For the reliability of the research, the interview transcripts were read one by one and the coding was made by two independent researchers. The reliability formula proposed by Miles and Huberman (1994) was used to calculate the intercoder reliability ( $\text{Reliability} = \frac{\text{Consensus}}{\text{Consensus} + \text{Disagreement}}$ ). The intercoder reliability was calculated as .82.



## Findings

### Findings Related to Scale

Table 2  
*T-test results of parents' pre-test and post-test scores*

Sub-dimensions	n	$\bar{X}$	Med.	Min.	Max.	ss	t test	
							t	p
Ability to use technology sub-dimension pretest	20	12,80	12,50	9,00	16,00	2,78		
Ability to use technology sub-dimension posttest	20	16,50	16,50	15,00	18,00	,85	-5,061	0,001
Suggestions sub-dimension pretest	20	8,80	8,50	6,00	13,00	2,15		
Suggestions sub-dimension posttest	20	12,60	12,50	11,00	15,00	1,26	-5,589	0,0001
Harms of technology sub-dimension pretest	20	13,20	14,00	10,00	15,00	1,81		
Harms of technology sub-dimension posttest	20	17,70	17,50	15,00	20,00	1,57	-6,708	0,0001
Benefits of technology sub-dimension pretest	20	17,20	17,50	12,00	20,00	2,74		
Benefits of technology sub-dimension posttest	20	25,10	25,50	22,00	28,00	1,91	-12,338	0,0001
Areas of use of technology sub-dimension pretest	20	8,40	8,00	6,00	11,00	2,01		
Areas of use of technology sub-dimension posttest	20	12,20	12,50	10,00	13,00	1,03	-6,413	0,0001
Family guidance in technology use sub-dimension pretest	20	16,60	18,00	9,00	21,00	3,84		
Family guidance in technology use sub-dimension posttest	20	22,70	23,00	19,00	25,00	1,77	-6,515	0,0001
Total pretest	20	77,00	79,00	60,00	88,00	9,94		
Total posttest	20	106,80	107,00	103,00	110,00	2,20	-10,01	0,0001

As shown in Table 2, comparing the pre-test and post-test mean scores, the post-test mean scores of family guidance in technology use, the benefits of technology, the areas of technology use, the harms of technology, the ability to use technology, and suggestions were significantly higher ( $p < 0.05$ ).

## **Findings Related to Evaluation Forms**

### **Views on the parent's role in technology use**

Seventeen of the parents (85%) stated that it is necessary to be careful in selecting games/online programs. While one of the mothers drew attention to the evaluation of experts, saying that *"It should be carefully examined, and the ones approved by child development experts should be preferred."* (M4), one of the fathers said, *"Care should be taken as not all of them are presented with the same content."* (F10). All of the parents (%100) stated that technology addiction was harmful. One of the mothers (M2) said, *"It is definitely very dangerous. It may lead to negative consequences that cannot be compensated in the future. Such as communication problems, delay in language development, lack of attention."*, and (F9) from the fathers said, *"It is dangerous, of course, the development of children is adversely"* affected. Nine of the parents (45%) stated that they tried to evaluate them while downloading game applications according to their children's age and developmental levels. (M8) exemplified, *"To be suitable for the child's age and development,"* and (F10) *"Reliable and age-appropriate."* Five parents (25%) stated that they tried to choose educational games for their children. Four of the parents (16%) stated that they paid attention that the games are non-violent. (M9) explained, *"It should not be violent,"* and (F5) *"I make sure that there is no dangerous content that is not age-appropriate."* It was seen that after the online education, parents began to realize that they should pay attention to some criteria in the selection of games/programs for their children, and they began to be aware of their roles in the use of technology.

### **Views on parental guidance in online education**

Sixteen parents (80%) stated that they were with their children during online education and tried to guide them. Some of the parents expressed their views as follows:

*"We should be with our children in the online education process and consider their shortcomings and interests."* (M10)

*"We should follow their homework, their activities. We should help."* (F6)

*"We should be with them."* (F10)

Four of the parents (20%) stated that appropriate environments should be prepared for their children during online education. (M8) explained, *"We can support by preparing an environment suitable for education,"* and (F1) indicated that *"A suitable environment should be provided."* A mother (M9) stated that she was trying to support *"Against technical problems that may occur in live lessons,"* and a father (B3) indicated

that supporting their children in line with their development was necessary by saying that *"We have to look at their development."*

Fifteen of the parents (75%) stated that their children asked them for help with technical issues in online education. (M7) said, *"She asks for help when she cannot connect,"* and (F1) said, *"We help with internet problems."* One mother and one father explained that they were trying to help their children with the instructions given in online education. (M4) said, *"I help where he does not understand and cannot do,"* and (F4) said, *"He asks for help where he doesn't understand."* One mother and one father stated that their children did not need help in online education. It was determined that most parents tried to guide their children in online education by being with them and helping their children, especially in technical problems.

#### **Views on the content of online education**

**Eleven of the parents (55%) stated that** they did not find the content of online education qualified. (M1) said, *"I think that face-to-face education is better in terms of quality,"* and (F7) said, *"I think face-to-face education is more qualified."* Six parents (30%) stated that online education was an alternative method. One of the mothers was *"undecided,"* while two of the fathers found online education *"qualified."* In addition, 12 of the parents (60%) stated that they found the **teaching** methods used in online education inadequate. M3 and F5 expressed their views as follows:

*"I don't think it's sufficient. I try to support as much as I can, but the education given does not appeal to more than one sense organ of the children."* (M3)

*"Insufficient."* (F5)

On the other hand, eight of the parents (40%) stated that they found the methods sufficient. It was seen that most parents did not find the content of online education and the **teaching methods used sufficient.**

#### **Views on the differences between online and face-to-face education**

Nineteen parents (95%) stated that they found face-to-face education more effective than online education. Some of the parents' views are as follows:

*"Of course, face-to-face education. By doing-living, feeling and experiencing."* (M10)

*"I think that more efficiency will be obtained from face-to-face education."* (F1)

*"Face-to-face education is more permanent."* (F3)

Seven of the parents (35%) thought that technology addiction increases in online education compared to face-to-face education. M5 explained this situation as, “*Technology addiction is increasing day by day,*” and F4 said, “*Our children become more and more dependent on technological devices.*” In addition, seven parents stated that their children’s social interactions decreased. From parents, F2 said, “*Socialization has decreased,*” and M8 explained the situation by saying, “*For me, the most important problem is that distance education cannot contribute to their socialization [...]*” Six of the parents (30%) stated that their children are more distracted. M1 said, “*Their attention spans are shortened,*” F6 said, “*It caused them to lose their attention.*” Almost all parents noted that face-to-face education was more effective. Some of them explained the differences between online education and face-to-face education regarding technology addiction, social processes, and attention spans.

## **Discussion**

Distance education delivered at all educational levels during the COVID-19 pandemic (Hughes, 2020) affecting the whole world should be evaluated regarding the stakeholders of preschool education. Family involvement and school-family cooperation are essential (Ma et al., 2016) determinants in a child’s learning process in early childhood have further increased the importance of family involvement in the distance education process. This can be explained by realizing that children need the support of their parents because they cannot participate in the distance education process on their own due to their developmental characteristics. This research on distance education and technology use during the COVID-19 pandemic revealed a positive change in the views of parents on family guidance in technology use, benefits of technology, areas of use of technology, harms of technology, ability to use technology, and suggestions after the education they attended. Similar to this study, related studies in the literature reported that parents think that their children should use technology under their guidance, determine the duration of technology use themselves, and choose games and programs together with their children (Çelik, 2021; Goodwin, 2018; Neumann, 2018).

It is noted that parents develop new roles to control and direct their children’s use of technology (Nevski & Siibak, 2016), protect them from possible risks, and ensure effective use of technology (Livingstone et al., 2015). In this situation, parents who take an active role display a supportive attitude by talking to their children about the content, asking questions, and choosing valuable activities. Some studies have determined that parents have low levels of guidance (Helsper et al., 2013; Rideout et al., 2005) and awareness (Hatzigianni & Margartts, 2014; Vittrup, 2009) regarding their roles in technology use and that they exhibit restrictive attitudes (Seo & Lee, 2017; Zehir et al., 2019) such as time limits and not allowing the use of technological tools. It is seen that

parents need education for the conscious use of technology to support the development of the child (Burris, 2019; Özyürek, 2018). In this study, parents' awareness of their roles in technology use after online training reveals the effectiveness of the education provided.

Given that technology use is family-oriented, parents' attitudes towards technology will also be considered. The present study determined that parents who participated in online education about their children's technology use areas and skills have changed. In addition, it was seen that parents' knowledge about the benefits and harms of technology increased. Parents stated that children could benefit from technology with appropriate programs and that uncontrolled use of technology could negatively affect children physically and socially. Related studies determined that parents thought that their children's positive attitudes towards technology use (Bulut, 2020; Gjelaj et al., 2020; Majlinda et al., 2020; McClos et al., 2018), should be used to support their academic skills and future life skills (Furman et al., 2019). Studies that concluded that technological tools might cause psychological, physical, and cognitive problems (Günüç & Atli, 2018; Lepinic & Samec, 2013; Sayan, 2016) in children when used unlimitedly support the results obtained from this research. Considering that to benefit from technology effectively (Papadakis et al., 2019; UNICEF, 2017) parents should be informed about the accurate use of technological tools and the selection of educational content, this family training organized during the pandemic has achieved positive results.

Most of the parents participating in this research stated that they guided their children in online education. Consistent findings have been obtained in studies examining the views of parents on distance education during the pandemic (Hapsari et al., 2020; Lau & Lee, 2021; Novianti & Garzia, 2020). It has been determined that some families face problems in distance education due to insufficient technical knowledge and skills (Akbulut et al., 2020; Novianti & Garzia, 2020) and lack of experience with the programs (Brown et al., 2020) used in distance education. Here, the importance of family education studies that will provide school-family cooperation to solve families' problems and guide their children more effectively comes to the fore (Gündoğdu, 2021). Another finding is that parents do not find the content and methods of online education sufficient. In the study conducted by Akkaş Baysal, Ocak and Ocak (2020), parents of preschool children stated that the content of distance education, the activities performed and the materials used were insufficient. In their study examining Chinese parents' views about online education, Dong, Cao and Li (2020) concluded that families did not find online education content interesting for children and had challenges supporting their children. Parents participating in the research conducted by Yıldırım (2021) stated that different materials should be used for an effective education during the pandemic, activities with different content should be prepared, and communication with families should be incorporated. Almost all parents participating in the present study emphasized that face-to-face

education was more effective than online education and that online education limited children's social interaction and attention span, which is consistent with the studies in the literature (Dong et al., 2020; Kruszewska et al., 2020; Zhou & Li, 2020).

It is crucial to reduce parents' stress levels (Griffith, 2020) and provide the necessary support to children during the pandemic (Lau & Lee, 2021). Moreover, it has been determined that parents who think that their children have good distance education experiences and are satisfied with the opportunities offered by the school have lower parenting stress and increase the quality of family involvement (Tao et al., 2019). Processes prepared in line with the needs of families and guiding them on issues, such as arranging learning environments and how to support children's learning processes will ensure that distance education is more productive for children and parents.

## **Conclusion**

During the COVID-19 pandemic, distance education in early childhood has been implemented for the first time in a long time and on a large scale. Today, where technology and online programs spread rapidly in early childhood (Silverman, 2020; Zalaznick, 2019) discussions on this subject continue. The results of this research, which aims to investigate the effect of Distance Education and Technology Use during the Pandemic on the parents' views on their children's technology use and online education, are thought to be crucial in terms of ensuring effective school-family cooperation and raising the necessary awareness of the families in the pandemic. The findings obtained in the present study suggest that the views of the parents participating in the education about their children's use of technology and their skills changed positively and that the awareness of parents about their roles regarding their children's use of technology has increased. It was also concluded that the parents did not find the content and methods of online education sufficient and tried to guide their children.

The present study has some limitations. Due to differences between countries and between parents' views on COVID-19 early childhood distance education, the results of this study cannot be generalized since it has been conducted only with parents in Turkey, reflecting culturally specific characteristics. The use of a single scale and self-report, the inability to obtain the opinions of other stakeholders (e.g., teachers and children), and the inability to diversify the data are the other limitations of this research. Another limitation is the limited online training content given during distance education in Turkey during the COVID-19 pandemic.

## Recommendations

To our knowledge, this study is the first study to evaluate family education regarding distance education and the use of technology during the COVID-19 pandemic period, will be beneficial for educators, politicians, and experts. Based on the present study findings, the following recommendations have been made:

- The Ministry of National Education and education politicians may seek families' opinions with different conditions (e.g., socio-economic and regional) in arranging the content of online programs and distance education to be developed for young children in crises, such as the pandemic.
- Programs to be prepared may include sections that require family guidance and studies that comprise family participation. Given the positive effects of this research, guides for families on online education and technology use can be prepared by experts.
- Educators can work on how families can support online education in the digital age, develop studies in which parents can support school-family cooperation through the media, and increase family involvement.
- Researchers working on technology in early childhood can plan studies using a wide variety of scales that delve deeper into the views of parents, teachers, and children on online education and examine the effects of online education concerning education stakeholders.

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