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Distance Education Experiences of Preschool Teachers during the COVID-19 Pandemic in Turkey*

Elif Zeynep OZBEY** Oğuz KELES***

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Abstract: With the COVID-19 pandemic, it has been attempted to conduct distance education at all grades worldwide. This study aims to examine the distance education processes of preschool teachers in Turkey. An instrumental case study was used in the research with ten female private kindergarten teachers selected using the criterion-based sampling method. Interviews were conducted with a semi-structured form on the Zoom platform. It was concluded that teachers experienced infrastructure and technical problems, increased workload in distance education, and economic difficulties. During online education, teachers felt that they were monitored by parents and had privacy concerns. Teachers had problems with classroom management, experienced anxiety with increased screen time, and could not adapt measurement and evaluation practices. The requirements for distance preschool education were divided into four categories: knowledge, interaction, physical space, and material. The recommendations for limitations and future research are indicated in the study.

Keywords: Preschool education, COVID-19 pandemic, preschool teachers, distance education

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** *Corresponding Author: Graduate student, Turkey* elifzeynepozbey@gmail.com, ORCID: 0000-0003-2029-5929

*** İstanbul 29 Mayis University, Turkey, okeles@29mayis.edu.tr, ORCID: 0000-0003-0698-7734

Introduction

The coronavirus outbreak, also known as COVID-19, first appeared in Wuhan, China, in December, 2019 and spread rapidly. In studies conductedon cough and respiratory problems observed in a group of people, authorities identified COVID-19 on January 13, 2020 (Guan et al., 2019; Ministry of Health, n.d.; Ministry of Health, 2020). As of March 11, 2020, the World Health Organization (WHO) announced that COVID-19 cases had been seen in 114 countries and had been declared a pandemic (Özer, 2020). The rapid transmission of COVID-19 from person to person through droplets or respiration increases the severity of the disease. For example, they were in contact with a person showing respiratory symptoms such as sneezing or coughing at a short distance, defined as one meter, which increases the risk of becoming infected (WHO, 2020). To ensure the control of outbreaks and reduce the risk of possible contamination, some prevention meauseres were taken in Turkey and worldwide. For instance, Chinese cities were quarantined collectively due to COVID-19 to mitigate the epidemic's impact (Brooks et al., 2020). As another example, the Ministry of Health of Turkey informed the public about isolation and social distance through mass media. It explained the appropriate use of masks and hand washing techniques to reduce the effect of the virus via printed and visual media. In addition to this information, the competent authorities and institutions introduced curfews and travel restrictions. COVID-19 has effects on critical issues such as economics, social areas that directly or indirectly affect the society, and especially health. Education is negatively affected by COVID-19 worldwide, along with specific areas like economics and social fields. As of March 27, face-to-face education interruptions due to the pandemic affected more than 1.5 billion students in 188 countries (Dayal & Tiko, 2020). Institutions suspended face-to-face teaching and continued online education in the next period. The Ministry of Health announced the first case in Turkey on March 11, 2020. The Ministry of National Education paused the education on 17 March, 2020. Formal education had not been reopened throughout the spring term. However, as of March 23, 2020, distance education activities started for students studying primary and secondary classes.

There are different approaches to preschool distance education used worldwide. For example, the Economic Cooperation and Development Organization (OECD) published a report on the continuation and support of education during the pandemic process in 2020. The researchers presented 72 educational contents in the study. There were resources such as videos and interactive learning modules among the proposed contents. The “Education Perfect” application is one of these resources. The application includes language, mathematics, science, technology, health, and humanities content. The contents are created based on a full learning model in which students are adapted to learning processes. In this context, students who use the application can access structured materials according to their levels. The application, which includes advanced thinking processes, supports independent and collaborative learning activities and functions. Through the application, teachers can plan their lessons, give homework, and provide feedback on the submitted assignments. The application, which is also available as a free version, appeals to all levels and offers 80 language options (Reimers et al., 2020).

In the report, 21 different content examples were also presented to support and ensure the continuity of education and improve distance education skills. Another education application is prepared by benefiting from technology opportunities in the VR Room, augmented reality (virtual reality). The app offers content on how to implement learning activities in home-routine activities such as cooking. Parents with preschool children can use this app. The application is free and covers development areas such as science, mathematics, fine motor skills, music, language, and literacy. It also supports skills that require cognitive processes such as critical thinking, problem-solving, analysis, logical reasoning, interpretation, decision-making, and executive functions (Reimers et al., 2020).

The Chinese government created online education programs for students to continue their education at home and broadcast them via television and the internet (Wang et al., 2020). In Sweden, parents and teachers shared responsibilities regarding the education and training process and acted together. For example, when the pandemic started during the COVID-19 period, kindergartens came together with an advisory board of teachers and parents to create a guiding action plan (Samuelsson et al., 2020). In Pakistan, several practices have been put into the process to minimize the disadvantages experienced by disadvantaged socio-economic groups during the distance education process throughout the pandemic. One of these practices is a distance education radio program called "Listen to Learn, " prepared to cooperate with a foundation and a private institution. The program's main objective is to ensure sustainability and continuity in the distance education process and eliminate the opportunity gap in education. The program is intended for families and students and is a 12-week non-formal education program. The target audience is children with limited internet access for distance education. The program, implemented in 45-minute lessons, aims at active and collaborative learning. It consists of listening exercises, speaking activities, riddles, music, stories, and poems. The objectives of these activities are to promote children's cognitive, emotional, linguistic, cultural, and social development. The materials needed for the "Listen to Learn" radio programs are radio and radio transmission (Najib & Ranjan, 2020).

The Education Information Network (EBA) is used for remote teaching activities in Turkey. EBA includes various materials, such as e-books and curriculum-related videos, and has been operating as a digital content platform since 2011. Educators and policymakers are currently trying to continue to provide education to mitigate the adverse effects of the pandemic in education due to children staying at home and taking different measures to prevent disadvantaged groups from falling behind in their education. In this context, the Ministry of National Education took some steps in Turkey: Strengthening the EBA infrastructure, providing a psychosocial support system for families and adults, granting free internet up to 8 GB to login to the EBA platform, and the transition to life lessons for students preparing for high school and university exams (Özer, 2020). Distance education was implemented at the primary and secondary education levels. For the preschool period, distance education activities could not be carried out centrally and in a planned manner as in advanced levels. Thus, remote teaching was not applied in public preschools, especially at the beginning of the pandemic period. For instance, in

the study conducted with 24 preschool teacher candidates during the COVID 19 period, pre-service teachers' views regarding the implementation process were examined. Although pre-service teachers prepared their daily plans, they could not find the opportunity to practice these plans due to the pandemic period (Kalkan & Yıldız, 2022). The reason pre-service teachers do not continue their implementation process may be inadequate infrastructure and preparation for online education. Another study conducted with 24 preschool teachers showed that there are problems related to the distance education process for teachers, especially due to insufficient infrastructure. It has also been revealed that children do not participate in online education and that families have prejudiced attitudes towards online education (Aral & Kadan, 2021).

On the other hand, distance education at the preschool level was carried out by private preschools. Revealing the effects of the COVID-19 process on teachers, students, and parents and the needs brought about by these effects will help demonstrate the effectiveness of the actions to be taken in case of any pandemic. Families received help from teachers with online education during the pandemic process. There was a study conducted with 15 families from different socio-economic levels regarding the pandemic experiences of parents and children. The study revealed that families had problems with the homeschooling process and received support from teachers (Karademir, 2021).

Researchers wanted to draw attention to the social reality experienced during the pandemic processes and made suggestions accordingly. This study has been prepared within the framework of a pragmatic paradigm, with the idea of how to be more beneficial to society.

The study's main aim is to understand how distance education takes place in Turkey and in this context, to determine the problems and needs of preschool teachers in the COVID-19 process. The research questions asked for this purpose are as follows.:

What are the practices of preschool teachers regarding online education during the COVID-19 process?

What problems do private preschool teachers experience during the COVID-19 process?
What are the needs of private preschools teachers during the COVID-19 process?

Method

Research Design

The research methodology is the case study. Yin (2004) claimed that the case study is used to provide a framework for comprehending a current phenomenon. There are three types of case studies: internal, instrumental, and integrated, depending on the content of the subject to be researched (Stake, 2005). What is essential in the instrumental case study is the process experienced within the situation, the structure of the process, and the activities practiced, rather than the condition itself. Within the scope of this research, an instrumental case study was used to reveal the distance education processes of teachers during the pandemic process, their process experiences, and the situations they

encountered during the implementation phase.

Study Group

This research study was determined using a criterion-based approach (Johnson & Cristensen, 2012). Accordingly, teachers working in private preschool education institutions and providing distance education were included in the study. Furthermore, this research was carried out with female teachers working in private schools in different districts of Istanbul. As a result, 96.5 percent of teachers working in private preschool education institutions are female, and 3.5% of teachers are male in Turkey (MoNE, n.d.). Information about the teachers in the study group is shown in Table 1 below. As seen in Table 1, all the teachers are early childhood education department graduates. The teachers involved have between 1 and 18 years of experience. All the teachers participating in the study have computers and internet access. The number of children in the classrooms of the teachers participating in the study varies between 9 and 21. The children are between the ages of 2 and 6. The schools' curricula where teachers work are the national curriculum, the school's specific program based on MoE curricula, and the Reggio Emilia and Waldorf curricula. As of June 2020, the Ministry of National Education has given permission to start the educational processes in preschool education institutions (İnan, 2020). The group of the study was limited to private schools, as they adapted to online education earlier in the pandemic process in private schools

Table 1

Information on Demographic Details of Teachers Participating in The Study

Respondents	Graduated Department	Years of Experiences	Home Internet	Home Computer	Class Size	Age Group	Curriculum
R1*	PST**	3	YES	YES	20	3-6	MoE (MEB) Curriculum
R2	PST	4	YES	YES	21	5-6	Montessori
R3	PST	2	YES	YES	16	5	School's Own Program
R4	PST	18	YES	YES	12	4-5	School's Own Program
R5	PST	2	YES	YES	19	5-6	MoE (MEB) Curriculum
R6	PST	3	YES	YES	9	4	School's Own Program
R7	PST	1	YES	YES	15	2	Reggio
R8	PST	4	YES	YES	10	5-6	School's Own Program
R9	PST	2	YES	YES	17		Waldorf
R10	PST	2	YES	YES	13	5-6	School's Own Program

*R: Respondent, **PST: Pre-school Teaching - Bachelor's Degree.

Research Instruments and Procedures

In this study, data were collected through one-on-one interviews. The interviewing technique was used as a data collection tool in the study. Expert opinions on the questions were obtained before the data collection phase. The questionnaire also included open-ended questions, and interviews were conducted with the participants using this form. A total of 8 questions were asked under the main headings of the current situation, problems, and needs regarding distance education. Some interview questions are: How was your employment status affected during the COVID-19 pandemic? What did you do for the education of children during the COVID-19 pandemic process? What have you done to overcome the problems you faced? Before starting the interview questions, demographic datawas collected about the department where the participants graduated, the year of study, the number of children in their classes, and whether they have computers and internet at home.

Before the data collection process, the participants determined the meeting date and time. Interviews were held with four teachers at noon, while six teachers were interviewed at night. Eight of the interviews were completed on the weekend, and two of the interviews were conducted on weekdays. The interviews took place on the Zoom application in August and September 2020 and were recorded with the consent of the participating respondents. The interviews lasted between 19 minutes and 58 minutes. The average interview time was 36 minutes. The interviews at night were carried out after the distance education programs of the teachers during the day. The order of questions followed the same order for all participants and was not changed during the interviews.

Researchers and their roles in this research

The first researcher conducted all interviews. After the interviews, she completed the transcriptions and participated in the study's reporting processes, such as the literature review. The second researcher contributed to the study's content analysis, the formation of the methodological structure, and the discussion and reporting of the obtained data. The second researcher created the codes. Before the themes were created, the two researchers worked together and determined the themes by forming a consensus.

The role of researchers in the qualitative study is to reveal the participants' current situation during the pandemic period and to shed light on the problems and needs they experience. Continuing education through distance education during the pandemic period is not an easy task. It is more challenging to continue distance education from a developmental perspective. It is complex for teachers to keep children's attention on the screen for hours or uninterruptedly, share the activities with children, give instructions without being physically in the same environment, and ensure that the instructions are understood. While it is very new to the pandemic's effects and teachers are going through an intense mental and physical process during this period, it may be difficult for them to convey their experiences. Also, since the participants work in private schools, it may not make them feel comfortable regarding confidentiality when sharing their experiences with the administration or school. Therefore, another role of researchers is to protect

participants' information and data confidentiality. Data privacy protection is one of the primary priorities in this study.

Data Analysis

NVIVO 11, a computer program for qualitative data analysis, was used to analyze the data. Steps of content analysis were followed in this research study. The data obtained in the first step was converted into a written document. Significant and correlated data were combined under the same code. Codes were created from correlated codes. The codes created were grouped into categories. The creation of codes was made systematic and practical with the program. It was ensured that the codes under the codes appeared in integrity, and the relationships between them were revealed. Correlations were established between the categories and codes created and were presented in the findings section under the research questions.

Trustworthiness and Ethics

To ensure validity and reliability in qualitative research, the research must first be carried out ethically (Merriam, 2009). In this context, the publication ethics committee of Istanbul 29 Mayıs University, the institution where the second researcher works, was consulted. The publication ethics committee decided that there is no ethical harm in the decision dated September 2, 2020,and numbered 2020/2. In addition, attention was paid to the volunteerism of the participating respondents, and they were informed about the research. During the research process, the respondents' identities were kept confidential, codes were given to the participants, and their confirmation was received for the data collected.

Four strategies could be used to ensure the validity and reliability of a qualitative study, and participant confirmation was an indicator of internal validity (Lincoln and Guba, 1985). Another internal validity strategy, the researchers' stance, was given in detail in the "researchers and their roles in this research" section. Thus, internal validity was tried to be provided. The transferability strategy was observed within the scope of external validity. The findings obtained were described in detail, and direct quotations were included. The determination of the research methodology, preparation of data collection tools, implementation processes, data collection, and analysis stages were explained in detail following the consistency strategy for internal reliability. And within the scope of external reliability, raw data, coding, and recording of the interviews made within the scope of the research were kept by researchers to confirm those concerned by the verifiability strategy. As the steps of content analysis were carried out using NVIVO 11, verifiability became easier.

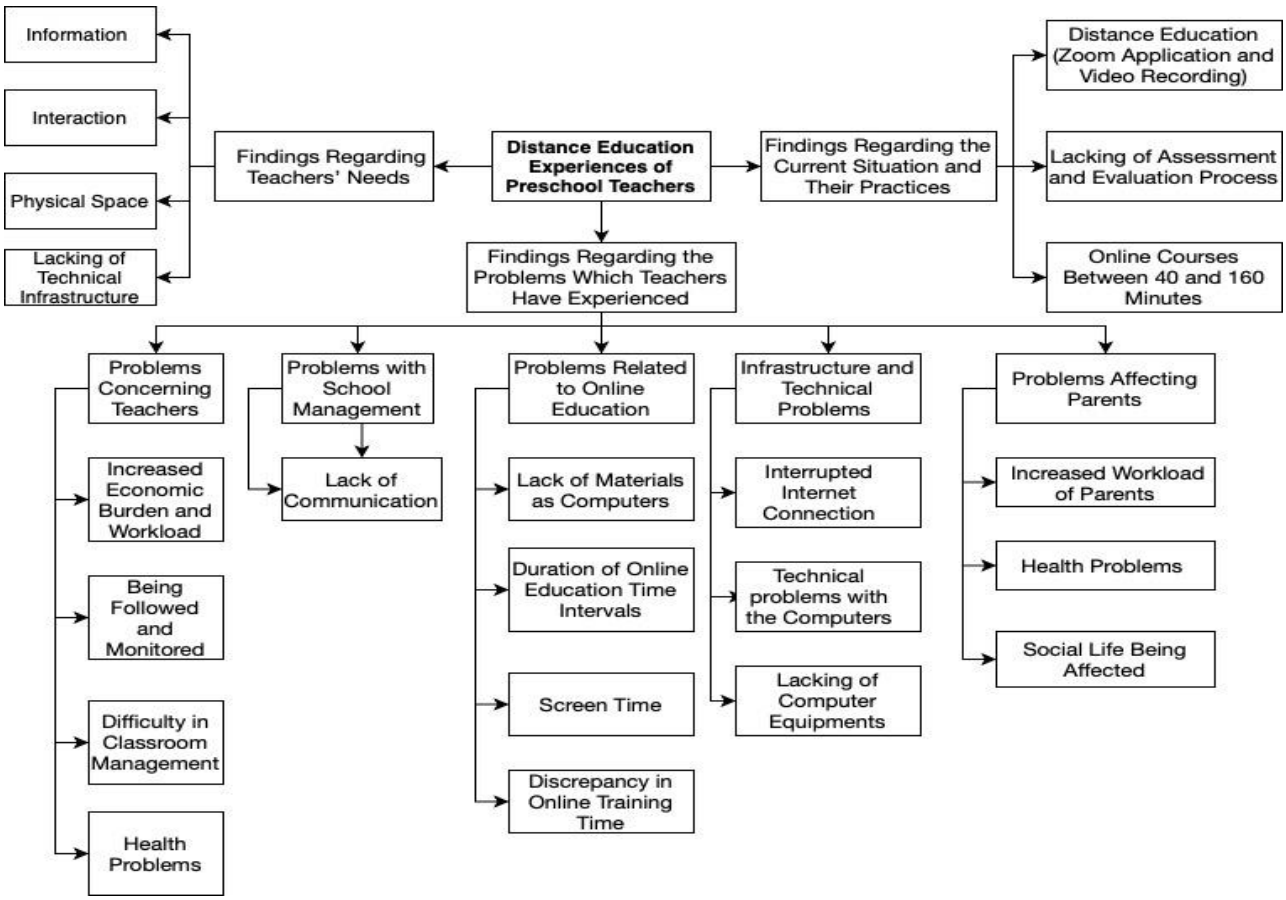
Results

The findings obtained through the interviews conducted with teachers are presented under three headings: teachers' current situation and practices in the pandemic process; the problems teachers have experienced during the process; and the findings regarding teachers' needs during the process.

Findings Regarding the Current Situation and Their Practices

As seen in Figure 1, as a result of the interviews conducted with the teachers, it was determined that all of them took part in distance education. All of the teachers stated that they used the Zoom application in the distance education process. More than half of the teachers said they also carried out activity hours offline by shooting videos in addition to online classes. Some teachers said they prepared an education program for home as well as in school but gave up this practice because it could not be appropriately implemented. When the distance education hours of the teachers were examined, it was seen that this duration ranged between 40 minutes and 160 minutes. K1, which has a class size of 20 among all the teachers, stated that he/she divided the class into two and taught three classes per day; R3, on the other hand, said that he or she divided the class into two and taught two classes per day. All but one of the teachers stated that they could not assess and evaluate the children's development or the effectiveness of the learning process. On the other hand, one teacher stated that he or she invited the children to the institution for half a day and assessed and evaluated the children's development. According to the data obtained from teachers, children felt anxious during the pandemic process.

Figure 1



Distance Education Experiences of Preschool Teachers

R1 expressed this situation as follows: "Everyone is aware of what is going on. There is something outside, and I have to be clean. They are aware of this, but did they internalize it with fear or with a more peaceful situation? We don't know that." Another feeling that children have been experiencing intensely in the process is the feeling of longing. R2 expressed this situation as follows: "The children missed being at school. They said it at every opportunity." Some teachers stated that children spent more time with their parents during this process, which had some positive effects. R9 expressed this situation as follows: "We thought the children would complain about this process. However, the children whose parents worked were together because their parents were at home during the COVID period. They were happy to spend time at home."

On the other hand, some teachers stated some behavioral reflections due to the children's need to move and play more. R3 expressed this situation: "They got angry ; sitting at home bothered them. Staying at home for so long... They wanted to play games... They are of age to play games; that's normal."

Findings Regarding the Problems That Teachers Have Experienced

Based on the opinions received from the teachers, it was determined that the problems they experienced consisted of the following five categories: infrastructure and technical problems; problems concerning the teachers, problems related to online education; problems caused by the school administration, problems caused by parents. Each of the problem categories consists of the following codes: Infrastructure and technical problems - interrupted internet connection, a technical problem with the computers, lack of computer equipment; problems concerning the teachers - increased economic burden and workload, being followed and monitored, difficulty in classroom management, health problems, and social life being affected; problems related to online education - lack of materials, duration of online education time, going outside of their curriculum, screen time, and discrepancy in online training time; problems caused by school management - lack of communication; and problems caused by parents as the last category - health problems, social life being affected and increased workload of parents.

It was observed that the first category of infrastructure and technical problems consisted of an interrupted internet connection, a technical problem with the computers, and a lack of computer equipment. Many teachers stated that they had connection problems due to an interrupted internet connection. The R5 expressed this situation as follows: "If I was recording, it was okay, but my Wi-Fi connection was causing a lot of trouble. My class was being cut off. If I tried to record, the connection would freeze and break. For example, my Zoom program was interrupted. The screen was turned off during the live broadcast... I was turning it on again." Half of the teachers stated that their current computers broke down or were insufficient in the process. R8 expressed this situation as follows: "Then my computer broke down. I tried to find another computer." Half of the teachers stated that the lack of computer equipment caused problems. R2 expressed this situation as follows: "Sometimes we had to deal with such absurd electronic details. Missing things make people very nervous. The computer freezes... We say, "What will I

do now when I see such a message on the screen?" And, of course, I actually wish the school gave us more."

It was observed that the second category of problems concerning the teachers consisted of the following six codes: increased economic burden and workload, being followed and monitored, difficulty in classroom management, health problems, social life being affected, and inability to ensure the continuity of children. Most teachers stated that there were some cuts in their salaries due to the interruption of face-to-face education and added economic difficulties. R6 expressed this situation as follows: "For example, your salary is 4000 TL. Half of that 4000 TL is deposited by the state and the other half by the school. They even deposit it piece by piece. That got on my nerves. Because if I attend the online education at the agreed time every day, you have to pay my salary directly too. That's why they continued this online thing. For example, while they should have paid 2000 lira within the month, they deposited 100 TL, 200 TL, and 500 TL. This decreases the energy and motivation of the teacher. Frankly, that was what I meant by financial and moral support." Almost half of the teachers stated that their workload increased during the distance education process, so they had many difficulties. R1 expressed this situation as follows: "We normally work between 8.00-17.00; in addition to this, we had to work from 20.00 until 02.00-03.00 at night. This is very weary for the working person. Apart from that, I tried to adapt to a new process." All the teachers stated that being followed and monitored created a problem for them, and they felt seriously uncomfortable with it. R3 expressed this situation as follows: "I am doing my lesson here. The woman is also sitting here and watching me. There's a pair of eyes watching you all the time. Naturally, it was uncomfortable." Some teachers stated that they had difficulties with classroom management during online education. R2 expressed this situation as follows: "I think it was much more difficult to be an administrator, gather the children together, draw their attention, and maintain control, compared to the control in the classroom." Half of the teachers stated that their social lives were negatively affected and that they had health problems during the pandemic process. R3 expressed this situation as follows: "I am also affected by the virus. Everyone is locked in their houses. My wedding was cancelled. For example, my sister caught the coronavirus. I also had many problems. I was also stressed inside the house. And I was trying to explain things that needed to be physically told on the screen without reflecting this stress on any of the children. I was trying to do all these things." Finally, almost all of the teachers stated that some of the children did not participate in the distance education process and ceased their education. One of the teachers expressed this situation as follows: "But we were still 17 students. One or two children left within a month. They quit lessons. I remember that there were 13 people left."It was observed that the third category of problems related to online education consisted of the following four codes: lack of materials, duration of online education time, going outside of their curriculum, screen time, and discrepancy in online training time. Almost half of the teachers stated that the lack of materials used in online activities, that is — not being ready during the activity-—posed a problem. R1 expressed this situation as follows: "We went beyond this and started to say: "Prepare these materials in advance. We will do this with the child." The child comes to class, and the materials are not ready. For example, we will make

maracas and then dance with them. I will explain mathematics with shapes that I will stick on the maracas. I'm trying to make it a little more active for the kid. But we had difficulties at these points." Half of the teachers stated that online activity hours were long and could not be maintained. R1 expressed this situation as follows: "This is not a sustainable thing either. A person has a mother, a father, or a child at home. Nobody will walk behind you on Zoom for six or eight sessions. You will cheerfully teach in a quiet environment that can attract children's attention. It doesn't make much sense to expect such a thing to happen."

On the other hand, some teachers stated that they had to go beyond the education curriculum they usually applied at school and that this was a problem. R7 expressed this situation as follows: "For example, it was challenging for us to implement our curriculum in the COVID process because we are in the Reggio curriculum. We started planning for the child's curiosity, but we prepared an activity. And we are currently doing activities. I was upset to see that this is not Reggio." While nearly half of the teachers advised parents to use a screen for a maximum of 40 minutes before the distance education process, they stated that the compulsory increase in screen use in the distance education process is both a critical problem and a contradiction. R6 expressed this situation as follows: "We were persistently talking about something called screen time. Now we have locked the kids to the screen. And that's a contrast."

It was observed that the fourth category of problems caused by school management consisted of "lack of communication" as a theme. Some of the teachers stated that they had communication problems with the school administration during the process, and they had problems arising from not getting any feedback. R5 expressed this situation as follows: "I wrote a letter to my manager in April. I explained the mood of a teacher and sent it to the assistant principal. I wrote about my troubles there. Because no one has paid attention to us.You are my manager. I've been working for a month and a half, and I have a purpose in doing this. Has there been any feedback? Say something, say "you are doing well" or "you are not doing so well"... But tell me something. Let me feel better or try to correct my mistakes. I have never seen such support."

It was observed that the fifth category of problems affecting parents consisted of the following two codes: health problems, social life being affected, and increased workload for parents. More than half of the teachers stated that the parents of the children experienced health and social problems caused by the pandemic. They noted that the parents working in the field of healthcare services were more affected by this situation. K5 expressed this situation as follows: "There were difficulties in their lives as well. For example, I had a parent who was a nurse. The woman was already working hard and had to be separated from her children. The father could not go to work because he took care of the children. This time, this situation has reflected on the children. At that moment, you are talking to the parent as a teacher. There is a possibility that the woman will catch Corona and die in a week or two. There were also such difficulties." Some of the teachers stated that the parents' workload increased, especially the parents with more than one child who had difficulties. R2 expressed this situation as follows: "They also had

a hard time. Suddenly, everyone stayed at home. There were parents with four children, for example. And they were trying to keep up with everyone's classes."

Findings Regarding Teachers' Needs

In line with the opinions received from teachers, it was observed that the needs in the online education process consisted of the following four categories: information, interaction, physical space, and lack of material. The information category consisted of codes such as guidance, content preparation, and technology literacy; the needs in the interaction category consisted of codes such as physical contact; the needs in the physical space category consisted of codes such as the lack of rooms; and the needs in the category of lack of materials consisted of codes such as technical infrastructure.

The first category, the need for information, was grouped under three codes: guidance, content preparation, and technology literacy. Half of the teachers stated that they needed guidance in this process and should have been guided more. R2 expressed this situation as follows: "I think the school could prepare something like a guide. For example, even on the second day, people asked how to attend class, where to press, etc. We explained it in detail and showed it step by step. But families are either very busy or do not want to be too interested in these things. They are still very confused. I think such a guide would be good for them." Almost all teachers stated they needed content preparation and appropriate examples. R9 expressed this situation as follows: "In the early days, we were thinking about what we did. We apply something and see that the children react to it a lot. I can't get their attention. Then we're changing it. I don't remember what we did at the beginning. After changing the program two or three times, we could give it its final form. I asked other friends what they were doing?" More than half of the teachers stated they needed information on technology literacy.R1 expressed this situation as follows: "Also, people want us to prepare things using Photoshop programs. But even for people who know how to use Word properly, preparing a brochure or those bulletins in Word is only about knowing how to use Word. Then, for example, I passed it on to friends when I could not do what was very difficult for me. I told them how to do it, but most of them couldn't. Because most of them were trying or doing it for the first time in their lives."

Discussion and conclusion

As a result of the research conducted with teachers, it was concluded that teachers are concerned about what, when, and how they should do in the COVID-19 process. In line with this finding, Dayal and Tiko (2020) also determined that teachers are concerned about their professional duties. It is thought that teachers are worried about what to do due to a lack of knowledge about what to do in a similar situation.

It was concluded that the teachers do not include assessment and evaluation processes in their practices. It is thought that this is because there are no examples of assessment and evaluation in distance education processes, and they do not have a command of distance assessment and evaluation processes. On the other hand, it was concluded that during the pandemic, children experience different emotions, such as anxiety and

longing, and some children are positively affected by this situation. Dayal and Tiko (2020) study also revealed that families and children are affected at different levels during the pandemic. For instance, some children are thought to be positively affected by this process as they spend more time with their parents during the pandemic Before COVID-19, due to parents' long working hours, some children did not have a chance to spend time with their parents. With the pandemic, some parents started to work at home, and children spent more time with their parents compared to pre-COVID-19. It was concluded that some children need to move and play more since, with the COVID-19 precautions, they were unable to go outside and were negatively affected socially and emotionally. The body of literature also supports the results of the study. According to the measures taken to prevent the pandemic, situations such as prolonged lockdowns at home, the closure of schools, and restrictions on social activities adversely affect children's physical and psychological health (Brooks et al., 2020; Wang et al., 2020). Post-traumatic stress disorders and anger are symptoms among the adverse psychological effects of quarantine on individuals. Factors such as the duration of the quarantine, the fear of being infected, and the boredom experienced are some of the reasons for these effects (Brooks et al., 2020). Due to the epidemic, there are restrictions on children's physical activities who now have to spend time at home. Studies show that decreased physical activity, increased screen time or sedentary time, sleep patterns, and similar behavioral changes are associated with children's weight gain (Brazendale et al., 2017). A decrease in children's physical activity is observed when they are not attending school, such as on weekends and summer holidays, compared to when they attend school. Accordingly, behaviors such as increased time spent sedentary, such as screen time, disturbance of sleep patterns, and disruption of eating behaviours come into the picture. And these behaviors accelerate weight gain and lead to the emergence of heart and respiratory health problems (Brooks et al., 2020 ; Wang et al., 2020). Studies show that children and parents who are quarantined develop post-traumatic stress disorders four times more than those who are not quarantined (Brooks et al., 2020; Sprang & Silman, 2013; Wang et al., 2020).

It was concluded that teachers have infrastructure and technical problems in the distance education process. The study revealed that teachers are affected socially and emotionally, have economic difficulties, have increased workloads, have privacy concerns due to being followed and monitored, and have classroom management problems. In line with our findings, Dayal and Tiko (2020) determined that teachers experience strong emotions, such as fear of getting sick or losing their jobs. As in all other sectors, workforce losses were experienced in the education sector, and many people were unemployed. The reason for this concern was thought to be the uncertainty of how long the pandemic would last.

The results showed that the teachers went beyond the applied curriculum during online education. They are worried about screen time and lack certain materials. With online education, children spend more time with the screens as , such as tablet or computer screens. Teachers were looking for a balance of screen time to limit the negative effects of excessive screen usage. It was also concluded that parents' social lives are affected

and they have health problems. Besides, the results demonstrated that the increased workload of parents during the distance education process poses a problem for them.

The online education process concluded that the needs are gathered in the following four areas: knowledge, interaction, physical space, and material. In their study, Karabacak and Sezgin (2019) stated that there is a digital transformation in education and that it is necessary to accelerate the courses and practices that will increase digital literacy for this transformation. Gillen et al. (2018) stated in their research that teachers should be given training on technology. It was determined that teachers need to prepare content in a digital environment and present the prepared content to children through devices. The results showed that teachers need guidance, content preparation, and technology literacy information. Different researchers also expressed that the training needs of educators in such situations are quite substantial (Baytiyeh, 2018; Saavedra, 2020). Kardeş (2020) stated that digital literacy is beneficial for preschool teachers and contributes to the child's development, and digital literacy training should be provided. All in all, it was determined that teachers need to make physical contactby touching and need physical space and technical infrastructure to carry out the distance education processes in a healthy way. In this context, some recommendations have been made due to the research study.

The adverse effects of the COVID-19 pandemic, especially on education, show its impacts worldwide. Countries can benefit from each other's education programs to reduce the negative impacts of the COVID-19 pandemic on education and provide a faster transformation. States can use the programs, curricula, and applications they have created by benefiting from each other's experience. Countries should be open to change and adapt quickly to it to overcome the problems encountered in education during the pandemic process (Schleicher, 2020).

Recommendations and future directions

The study observed that the participants had difficulties applying distance education in the preschool period. Thus, opening courses on distance education in early childhood for preschool teacher undergraduate programs and addressing online education in early childhood, both theoretically and practically, within the scope of this course. Opening such courses is also crucial for the effective use of technology in the post-pandemic early childhood period. Providing teachers with technology and infrastructure support for online education is a basic need. Schools should provide teachers with technological devices such as computers and microphonesfor distance education processes. In cases where teachers carry out their education from home, support such as billing support and an internet package should be provided. Schools should offer a suitable environment option for teachers who do not have a quiet or convenient environment to conduct distance education at home. Developing direct assessment and evaluation tools for distance education programs in early childhood is necessary for the effectiveness of the learning process. When face-to-face education is suspended, such as during pandemic periods, finding tools to directly evaluate children for teachers to directly assess children's development is critical for the effectiveness of the education process. For example,

adequate measurement tools can be created through gamification, considering the achievements and developmental goals of curricula or programs. Measurement and evaluation practices prepared in early childhood without literacy can be used effectively after the pandemic. The study was carried out only with private school teachers. Therefore, future studies can be done with teachers in public schools. Studies with a larger number of participants and teachers working in different regions can produce a broader range of results.

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Authors

Researcher Elif Zeynep OZBEY

The researcher is a graudate student in the Early Childhood Education Department.

Contact

Boğaziçi University

Bebek/ İSTANBUL

E-mail: elifzeynepozbey@gmail.com

Assist. Prof. Oguz KELES

İstanbul 29 Mayıs University/ Primary Education Department

Elmalıkent District. Elmalıkent Street. No:4 34764 Ümraniye / İSTANBUL

E-mail: okeles@29mayis.edu.tr