



COVID-19 in Pictures of Preschoolers


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Abstract

This study, it is aimed to determine the COVID-19 perceptions of 39-72 months old children attending preschool through the pictures they draw. The research was carried out with the document analysis technique, one of the qualitative research methods. The study group of the research consists of 49 children aged between 39 and 72 months who attend preschool in Denizli city center. Research data were collected from the pictures drawn by children in preschool about COVID-19. In the study, the children were also asked to describe what they drew in the picture. The expressions of the children describing their pictures were recorded by the researcher. In the results of the research, it is seen that the COVID-19 drawings in the pictures are quite similar to the images that can often be found in the press. It was determined that the children included concepts related to COVID-19 (mask, distance, cleaning, etc.) in their pictures. Children reflected their aspirations with colors due to the deprivation they experienced during the COVID-19 period. According to the results of the research, it was determined that girls use more optimistic elements in their paintings than boys.

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INTRODUCTION

The coronavirus disease (COVID-19), which emerged in Wuhan, China, in December 2019, affected many countries in the world quickly and was declared a pandemic by the World Health Organization in March 2020 (WHO, 2020). COVID-19 (Turken and Köse, 2020), which spread through droplets, has spread to more than 200 countries to date and caused the death of approximately five hundred million people (CNN, 2022). Country governments worldwide have taken various measures and imposed sanctions to prevent the spread of the disease and reduce deaths. These practices still differ according to the course of the disease, but they continue. COVID-19 has been an important issue on Turkey's agenda since March 2020, when the first case appeared. In Turkey, as in many other countries, practices have been implemented in which schools are closed and going out is restricted unless necessary to control this process. Although researches show that these practices are effective in reducing the number of COVID-19 transmission in various countries (Salama, 2020), this new lifestyle, which is formed by precautions, brings many negative effects that affect societies. When the studies in the literature are examined, it is seen that the changes in lifestyle since the existence of COVID-19 have caused negative effects such as panic disorder, irritability, anxiety, depression, sleep, and nutrition disorders in individuals (Bozkurt, Zeybek, and Aşkın, 2020; Huang and Zhao, 2020; Karataş, 2020; Shah et al., 2021).

When the literature is examined, although the rate of transmission of COVID-19 to children is not as high as that of adults (Bhuiyan et al., 2021), studies are indicating that school closures, curfews, practices requiring restrictions in outdoor activities can cause changes in children short-term behavior that may occur in children and can last a lifetime. (Akin Işık, Bora Güneş & Kaya, 2022; Akoğlu & Karaaslan, 2020; Arslan Dikme & Gültekin, 2021; Garcia de Avila et al. 2020; Gelir & Düzen, 2021; Imran, Zeshan & Pervaiz, 2020; Jiao et al. 2020; Ok, Torun & Yazıcı, 2021; Vasileva, Alisic & De Young, 2021). Akin Işık, Bora Güneş and Kaya (2022) stated that the pandemic process and social isolation caused problems in the psychological, emotional, behavioral, social, and academic lives of children. Imran, Zeshan, and Pervaiz, (2020) state that in situations such as pandemics, preschool children commonly display some behaviors that are not compatible with their age and developmental level, such as reluctance, and difficulty concentrating on the game, desire to use a bottle, thumb sucking. Vasileva, Alisic, and De Young (2021) stated that they observed COVID-19 in the speeches, plays, and drawings of preschool children in their research and that this process causes anxiety in children's increased arousal, vigilance, avoidance, and attachment-seeking behaviors. In preventing these undesirable situations that may occur in children, the support provided by the parents and teachers near the child has an important role. It is important to determine how children perceive the COVID-19 process so that parents and teachers know how to support children. One of the methods used in the literature to determine the perceptions of young children is children's drawings. Since Plato and Aristotle in Ancient Greece, philosophers and psychologists have expressed communication using symbols as a human skill (Deacon, 1997). In the first years of life, children with less verbal expression than adults can express their experiences, perceptions, feelings, thoughts, and observations with the pictures they draw (Cameron et al., 2020; Deguara and Nutbrown 2018). In the studies conducted in the literature, it is stated that the pictures drawn by children are an efficient way to understand their inner world. Einarsdottir, Dockett, and Perry (2009) define children's drawings as "holding a mirror to their minds" or "opening new doors to the child's world." Artistic evaluations made in early childhood can form a perspective on children's feelings and thoughts. Children's drawings can be a means of communication in evaluating children whose language skills are not sufficiently developed or who are reluctant to verbally express their feelings and thoughts. In assessments based on pictures, it is also important to interview the child about the picture he made and ensure that they talk about their own pictures (Cameron et al., 2020; Rodari, 2007). When the drawn pictures are taken orally, they can be used to determine children's anxiety (Cameron et al., 2020).

In the literature, there are studies evaluating children's drawings (Ahi, Cingi, & Kıldan, 2016; Alabay & Demirbaş, 2017; Buldu, 2006; Civek & Çakmak, 2019; Dağlıoğlu, 2011; Türkkkan, 2004). When the studies are examined, it is seen that the concept of scientists (Buldu, 2006), family perceptions (Akgün & Ergül, 2015), school perceptions (Civek & Çakmak, 2019; Yüksel et al., 2016), teacher (Ahi, Cingi, & Kıldan, 2016; Dağlıoğlu, 2011) and principal (Alabay & Demirbaş, 2017) perceptions were determined with the pictures drawn by pre-school children. These studies, in which children's drawings are evaluated in the literature, show that the pictures drawn by children in early childhood provide various information directly or indirectly from children. For this reason, in this study, children's pictures were used to evaluate the perceptions of pre-school children about COVID-19.

Yüksel Usta and Gökcan (2020), in their research evaluating COVID-19 from the eyes of children and their mothers, used children's pictures to determine children's perceptions of COVID-19. According to the results of the study conducted with 11 children aged six years, it is stated that children have negative feelings about COVID-19, they are most affected by social isolation in this process, the sources of information about the process are mostly media together with their parents, and they are aware of the terminology used about COVID-19. Among the research results, it is stated that children are hopeful about the end of the Pandemic. Bray and colleagues (2021), in their study with children aged 7-12 from six different countries, evaluated children's drawings to determine their knowledge, understanding of COVID-19, and their thoughts on measures taken to reduce transmission. In the research results, while it was stated that the children understood how the virus spreads and how to reduce the transmission, it was also stated that the children indicated the actions necessary to protect their families and the wider society in their pictures.

In the literature review, it is seen that the number of studies evaluating the pictures of pre-school children on the perception of COVID-19 is limited. However, identifying children's perceptions of COVID-19 is essential to understanding children and providing them with the right support. In this context, it is considered important to increase the number of studies to determine children's perceptions of COVID-19.

This research aimed to determine the COVID-19 perceptions of 40-72 months old children attending a preschool through the pictures they draw.

- 1- What are the general characteristics of children's drawings according to the linear developmental stage of the children (Drawing stage and pre-schematic stage)?
- 2- What are the qualities of the COVID-19-themed pictures of girls in the doodle phase?
- 3- What are the qualities of COVID-19-themed pictures of girls in the pre-schematic period?
- 4- What are the qualities of the COVID-19-themed pictures of boys in the doodle phase?
- 5- What are the qualities of COVID-19-themed pictures of boys in the pre-schematic period?

METHOD

RESEARCH MODEL

The research aims to ascertain how COVID-19 is reflected in the pictures of pre-school children. Document analysis, one of the qualitative research methods, was used in the research. Document analysis includes the analysis of materials containing information about the situation or situations that need to be investigated (Yıldırım & Şimşek, 2013). In the document analysis method, which is also defined as documentary scanning or observation, the researcher finds the sources for the purpose, collects the required information, and makes arrangements (Çepni, 2014).

STUDY GROUP

The population of the research consisted of kindergartens affiliated with the Ministry of National Education in Denizli. In qualitative research, the researcher's aim is not to generalize the results but to examine the problem in depth. In qualitative research, the sample can be determined in different ways in accordance with the purpose of the research. Criterion sampling was used in the sample selection of the study. In criterion sampling, the study group is determined purposefully by the researcher, and objects, events or documents that meet the necessary criteria for determining the sample situation are sampled (Creswell, 2017). The purpose of the criterion sampling method is to carry out the study on all cases that meet the criteria previously created by the researcher (Yıldırım & Şimşek, 2013). This study aimed to examine the pictures of pre-school children in terms of COVID-19. Two criteria were determined in the pictures to be examined. The first criterion is that the pictures are drawn by children up to 72 months at the most. The second criterion is that children reflected COVID-19 in their pictures. From this point of view, the study group consisted of 49 children (27 girls and 22 boys) aged between 39 and 72 months who attended a pre-school in Denizli city center to meet the criteria and be easily accessible. All children participating in the study show normal development. According to the teachers' opinions, it was determined that the children showed normal development.

In pre-school education institutions where the children in the study group of the research attend, the online process was started from time to time by taking into account the number of cases in the country, and face-to-face education was continued by applying measures such as the obligation to wear masks, keeping the distance, hygiene, and not using the playing materials, except for the curfews applied throughout the country in the 2020-2021 spring period.

DATA COLLECTION

Ethics Committee permission was sought before the research process started. Parental consent was obtained for the participating children to participate in the study. After the necessary permissions were obtained, the research data were collected from the pictures drawn by the children participating in the research in the preschool they attend, in May 2021. Practices were done with the children in daily education flows, which included an art activity to be held after an active activity. At the beginning of the activity, each child was presented with A4 size drawing paper and 12 colored crayons, spent time with the children, and was asked to draw a picture by giving instructions such as "Children, have you heard of COVID? What comes to mind when you think of COVID? Let's paint together about COVID, what you're going through in COVID." No time limit was applied during the drawing process. Each child drew their picture at the time they wanted, and these times were noted by the researcher. After the drawing was completed, the same researcher asked the child to describe what he had drawn in the picture. The children who did not want to tell were not forced, and the researcher recorded the words of those who wanted to tell (Children who did not want to tell were not forced, what those who wanted to tell were written down and recorded by the researcher.). The completion time of the drawings varied between 5 and 20 minutes, depending on the child's month, speed, and interest in drawing. All data were completed within ten days.

ANALYSIS OF DATA

In this study, the "descriptive analysis" technique (Yıldırım & Şimşek, 2013) was used to evaluate the data obtained. In this context, the following method was followed for data analysis in the study:

1. Children's pictures of COVID-19 are grouped and numbered in terms of gender and linear developmental stage. Children's pictures were arranged in themes and sub-themes, and frequency values were calculated and expressed in tables.

2. Validity and reliability phase: In the study, all the research processes were explained step by step, and their validity was ensured. The data obtained to determine the reliability in the formation of the themes were compared by the researcher and an expert, and the percentage of agreement was

checked. According to Yıldırım and Şimşek (2013); When the percentage of agreement in the reliability calculation is 70%, the percentage of reliability is considered to have been reached. Reliability calculation of the study was determined using Miles and Huberman’s (1994), Percent Agreement Formula [$P = (Na / Na + Nd) \times 100$] (P: Percent Agreement, Na: Amount of Agreement, Nd: Amount of Discord). The "agreement percentage" of the study was found to be 94%.

3. The pictures drawn by the children were examined according to their gender, linear developmental stage, the colors they used, whether they included certain elements, symmetry, and proportions, and were interpreted and discussed within the framework of the information in the literature.

RESULTS

In this study, how pre-school children describe COVID-19 is evaluated through the pictures drawn by the children. The general characteristics of the children's drawings that make up the study group are given in Table 1 below.

Table 1. General Characteristics of Children's Pictures that Make Up the Study Group

Linear Developmental Stage of Children	Gender	Those Who Have Composition, Harmony, Ratio/Proportion and Symmetry in Their Pictures	Those Who Include All Elements of Mask, Distance, and Cleanliness in their Pictures	Those Who Include Masks In Their Pictures	Those Who Include Distance In Their Pictures	Those Who Include Cleanliness In Their Pictures
Scribbling Phase (2-4 Ages)	7 Girls	6 Girls	5 Girls	7 Girls	5 Girls	5 Girls
	6 Boys	2 Boys	3 Boys	5 Boys	5 Boys	----
Pre-Schematic Period (4-7 Years)	15 Girls	8 Girls	5 Girls	10 Girls	7 Girls	5 Girls
	21 Boys	2 Boys	4 Boys	15 Boys	14 Boys	4 Boys

The study group consists of, in terms of linear development, 13 (7 girls, 6 boys) in the scribbling stage and 36 (15 girls, 21 boys) in the pre-schematic stage, a total of 49 (27 girls, 22 boys) children in the pre-school period. It is seen that 37 (76%) children in the study group draw COVID 19 closely resembling the drawing in Image 3, which is widely depicted in mass media (Image 1 and Image 2). This alone may be enough to say that COVID -19 has taken a central place in children's lives.

Image 1. Picture of a Girl (52 Months)



“My father always wears a mask when he goes to work and the Coronas in the sky cannot come to him.”

Image 2. Picture of a Boy (54 Months)



“I think trees protect us from Corona.”

When we look at Table 1, It is seen that there are composition, harmony (balance of color use), ratio/proportion, and symmetry qualities in the pictures of 8 children (6 girls, 2 boys) in the scribbling stage and 10 children (8 girls, 2 boys) in the pre-schematic stage.

In the flow of daily life, the most pronounced COVID discourse in mass media, official and informal discourses is the mask, distance, and cleanliness. In this context, there are 17 (35%) children, 8 in the scribbling period and 9 in the pre-schematic period, whose pictures include all the elements of the mask, distance, and cleanliness. At a first superficial glance at this ratio, it is not compatible with the rate of including the Covid-19 drawing above (76%). However, when the mask, distance, and cleanliness elements are examined separately, it is seen that different meanings emerge between the lines. The appearance of COVID-19 drawing as an embodied object in the mass media allows children to draw COVID-19 cognitively, emotionally, and physically. Similarly, it is seen that the mask, which is a tangible object, is easily included in the pictures (76%) as a drawing. The fact that both the mask and the COVID-19 drawing are at the same rate (76%) is consistent and significant in this respect.

Although the concepts of distance and cleanliness are abstract concepts in terms of cognitive and emotional development levels of children; they gave the concept of distance in children's drawings in such a way that objects and subjects do not touch each other; On another hand, it can be said that they embodied the concept of cleanliness by describing them with a piece of cloth in subjects' hands or near them. In this context, the ratio of those who give the concept of distance in their pictures is 63%, and those who give the concept of cleanliness is 29%. In this context, it can be said that the concepts of distance and cleanliness, which have concrete counterparts in social life, are successfully given in the pictures (considering the age characteristics). Although it is thought that this situation can be easily reflected in the drawing since it is experienced in a period when the whole world is closed to houses, because children are in the pre-operational period in terms of cognitive development, it allows them to be seen as a success for children.

Image 3. <https://www.klimik.org.tr/koronavirus/covid-19-salgininda-ulkelere-gore-olgu-sayilari/> 20.08.2021

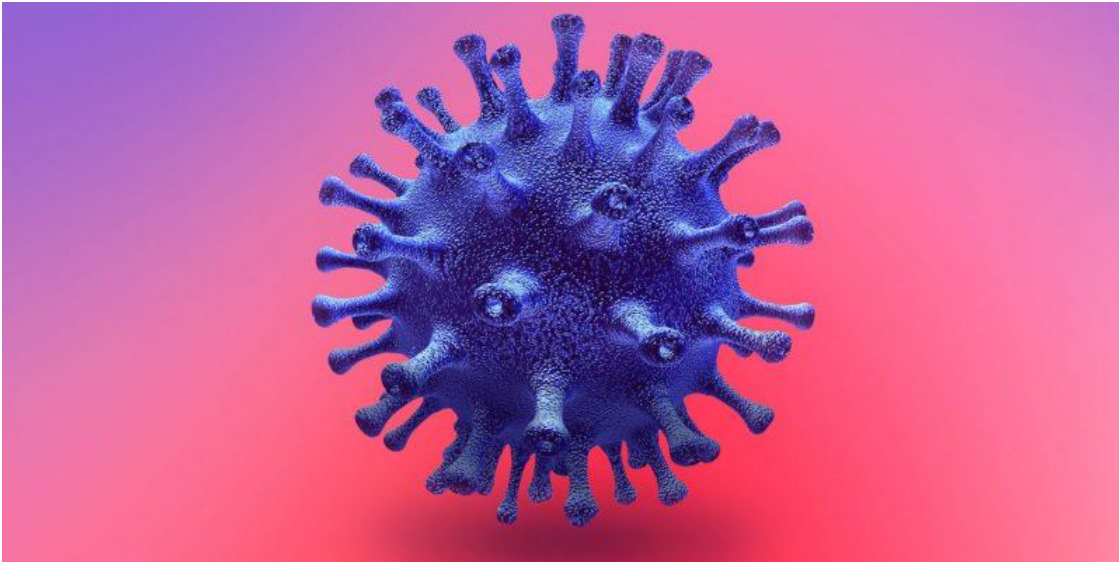


Table 2. Characteristics of Covid-19 Themed Pictures of Girls in the Scribbling Phase

Picture No	Age (as months)	Linear Development Level	Composition	Color Usage (Harmony)	The ratio in the Picture	Symmetry in the Picture
Picture 1	40	Appropriate to Scribble Phase Level	Present	Primary and Secondary Colors	Present	Present
Picture 2	46	Appropriate to Scribble Phase Level	Present	Primary and Secondary Colors	Present	Present
Picture 3	41	Appropriate to Scribble Phase Level	Present	Primary and Secondary Colors	Present	Present
Picture 4	44	Appropriate to Scribble Phase Level	Present	Primary and Secondary Colors	Present	Present
Picture 5	46	Appropriate to Scribble Phase Level	Present	Primary and Secondary Colors	Present	Present
Picture 6	39	Appropriate to Scribble Phase Level	Present	Primary and Secondary Colors	Present	Present
Picture 7	39	Appropriate to Scribble Phase Level	Absent	Primary and Secondary Colors	Absent	Absent

When we consider the COVID-19 themed pictures of girls in the scribbling stage in Table 2 as a whole, it is seen that the children are between 39-46 months of age. All children have a level-appropriate development in terms of linear development. It is seen that all children use at least one primary and secondary colour in their pictures, there is a composition in the pictures except for one child, and there is proportion and symmetry in the pictures except for one child. It is seen that all of the children use blue as the main colour and green as the secondary colour. It can be argued that blue was used as a longing for freedom and green as a longing for nature due to the effect of being closed at home during the Pandemic.

The pictures of 4 children, one boy and one girl, from the scribbling phase, and 2 children, one boy and one girl, from the pre-schematic stage, were evaluated in detail. Selected pictures were selected from among those with all the qualities such as composition, ratio/proportion, harmony.

Image 4. Picture of a Girl in the Scribble Phase (41 Months)



"Masks protect from Corona."

The scribbling period is when the hand/eye coordination is not yet completed, the drawings are not directed to any particular object or thought, and the drawing is not named or defined by the child (Collado, 1999). When we look at the picture of the girl in the scribble period in Image 4 above, in terms of surface use, it can be said that the child uses the surface of the picture freely and proportionally and that it is a composition rather than chaos in the lines.

In terms of color use, it is seen that the child has a wide range of colors and uses colors boldly. It should be considered natural to see that there is no gender discrimination in human drawings, as expected from that age. It can be said that the ratio-proportion in drawings is quite successful considering the age period and the characteristics of the population. It can be said that the phenomenon of the mask and distance is quite evident in the picture. The drawing of the COVID-19 image, smaller than the masks, is remarkable in terms of the meaning and value attached to the mask. In addition, the fact that the mask is drawn like a rainbow can be considered both as an aesthetic emphasis on masks of varicolorsurs and as a reference to the reliability of the mask. The clarity of the picture can be interpreted as cleanliness. The absence of a single unnecessary line and the absence of any drawings that will create a mess in empty spaces also strengthen this idea.

Table 3. *Characteristics of COVID-19-Themed Pictures of Girls in the Pre-Schematic Period*

Picture No	Age (as Months)	Linear Development Level	Composition	Color Usage (Harmony)	The ratio in the Picture	Symmetry in the Picture
Picture 1	55	Below the Level of Pre-Schematic Period	Absent	One color (Secondary color)	Absent	Absent
Picture 2	58	Below the Level of Pre-Schematic Period	Absent	One color (Secondary color)	Absent	Absent
Picture 3	72	Below the Level of Pre-Schematic Period	Absent	One color (Secondary color)	Absent	Absent
Picture 4	50	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Absent	Absent
Picture 5	49	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present
Picture 6	63	Below the Level of Pre-Schematic Period	Absent	Primary and Secondary Colors	Present	Present
Picture 7	62	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present
Picture 8	59	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present
Picture 9	57	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present
Picture 10	60	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present
Picture 11	53	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present
Picture 12	66	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Absent	Absent
Picture 13	56	Below the Level of Pre-Schematic Period	Absent	Primary and Secondary Colors	Absent	Absent
Picture 14	54	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present
Resim 15	52	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present

When we consider the COVID-19-themed pictures of girls in the pre-schematic period in Table 3 as a whole, it is seen that the children are between 49-72 months of age. It is seen that five children

have a development below the level in terms of linear development, and 10 children have a development appropriate to the level. It is seen that three children use one color (secondary color; two blue and one green), and the remaining 12 children use at least one primary and secondary color in their pictures. It is seen that there are compositions in the pictures except for five children, and there is proportion and symmetry in the pictures, except for six children. It is seen that all of the children use blue as the main color and green as the secondary color. It can be argued that blue was used as the longing for freedom, and green as the longing for nature, due to the effect of being closed at home during the Pandemic.

Image 5. Pre-Schematic Period Girl (60 Months)



"Greens Coronavirus. I want to go to the sea, I want to go to my friend's house, I can't."

According to Lowenfeld, the child in this period begins to explore the relationships between pictures, thinking, and reality (Malchiodi, 1998). The picture of the pre-schematic period girl above gives a very satisfying image regarding the proportional use of the surface and the vivid use of colors. The absence of people in the picture can be interpreted as a sign of closure during the pandemic period, and the vitality of the flower tree drawings emphasizes the revival of nature in the days of closure. Intense blue in the lower corner of the picture, which gives the image of rain and water, represents cleanliness and protection from the virus. The green images, which show a dense distribution in the picture, represent COVID-19. Although remarkably, the mask is not included in the picture, it is thought that the brown drawing on the intense blue was put to depict the tomb.

Table 4. Characteristics of COVID-19 Themed Paintings of Boys in the Scribble Phase

Picture No	Age (as month)	Linear Development Level	Composition	Color Usage (Harmony)	Ratio in Picture	Symmetry in the Picture
Picture 1	48	Appropriate Level to Scribble Phase	Present	Primary and Secondary Colors	Present	Present
Picture 2	42	Appropriate Level to Scribble Phase	Present	Primary and Secondary Colors	Present	Present
Picture 3	42	Appropriate Level to Scribble Phase	Present	Primary and Secondary Colors	Absent	Absent
Picture 4	43	Appropriate Level to Scribble Phase	Present	Primary and Secondary Colors	Absent	Absent
Picture 5	48	Appropriate Level to Scribble Phase	Absent	One color (Secondary color)	Absent	Absent
Picture 6	47	Appropriate Level to Scribble Phase	Absent	One color (Secondary color)	Absent	Absent

When we consider the COVID-19-themed pictures of boys in the scribbling stage in Table 4 as a whole, it is seen that the children are between 42-48 months of age. All children have a level-appropriate development in terms of linear development. It is seen that four children use at least one primary and secondary color in their pictures, and two children prefer one color, one green, and one blue. It is seen that there are compositions in the pictures, except for two children, and there is no ratio/proportion and symmetry in the pictures, except two children. It is seen that four of the children use blue as the primary color and green as the secondary color. It can be said that blue is used as the longing for freedom and green as the longing for nature due to the effect of being closed at home during the pandemic process.

Image 6. *Boy at the Scribble Stage (42 Months)*



"I held hands with my friends, there are four fish and sand in the sea, and the corona is not here."

When we consider the picture of the scribble period boy in Image 6 above, in terms of surface usage, it can be said that the child uses the surface of the picture freely and proportionally, and although there is a confusion in the lines, it has a composition in terms of characteristics belong to his period.

In terms of color use, it can be said that the child's color spectrum consists of age-appropriate primary and secondary colors. In human drawings, as expected from that age, gender determination has not been made yet, and the disproportion of the limbs should be considered natural. It can be said that the ratio in the drawings is successful considering the age period and the characteristics of the population. It can be said that the mask distance phenomenon is not emphasized quite clearly in the picture. It is seen that people are in contact with each other. The clarity of the picture and the absence of an unnecessary single line can be interpreted in terms of cleanliness.

Table 5. *Characteristics of COVID-19 Themed Pictures of Boys in the Pre-Schematic Period*

Picture No	Age (As Months)	Linear Development Level	Composition	Color Usage (Harmony)	The ratio in the Picture	Symmetry in the Picture
Picture 1	50	Below the Pre-Schematic Period Level	Absent	Primary and Secondary Colors	Absent	Absent
Picture 2	56	Appropriate Level to Pre-Schematic Period	Absent	Primary and Secondary Colors	Absent	Absent
Picture 3	54	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present
Picture 4	65	Appropriate Level to Pre-Schematic Period	Absent	Primary and Secondary Colors	Absent	Absent
Picture 5	59	Below the Pre-Schematic Period Level	Absent	Primary and Secondary Colors	Absent	Absent
Picture 6	62	Below the Pre-Schematic Period Level	Absent	Primary and Secondary Colors	Absent	Absent
Picture 7	60	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Absent	Absent
Picture 8	60	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Absent	Absent
Picture 9	52	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Absent	Absent
Picture 10	54	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Present	Present
Picture 11	49	Appropriate Level to Pre-Schematic Period	Present	Primary and Secondary Colors	Absent	Absent
Picture 12	50	Below the Pre-Schematic Period Level	Absent	Primary and Secondary Colors	Absent	Absent
Picture 13	52	Below the Pre-Schematic Period Level	Absent	Primary and Secondary Colors	Absent	Absent
Picture14	68	Below the Pre-Schematic Period Level	Absent	One colour (Secondary colour)	Absent	Absent
Picture 15	65	Below the Pre-Schematic Period Level	Absent	One colour (Secondary colour)	Absent	Absent
Picture 16	63	Below the Pre-Schematic Period Level	Absent	One colour (Secondary colour)	Absent	Absent
Picture 17	63	Below the Pre-Schematic Period Level	Absent	One colour (Secondary colour)	Absent	Absent
Picture 18	55	Below the Pre-Schematic Period Level	Absent	One colour (Secondary colour)	Absent	Absent
Picture 19	55	Below the Pre-Schematic Period Level	Absent	One colour (Secondary colour)	Absent	Absent
Picture 20	54	Below the Pre-Schematic Period Level	Absent	One colour (Secondary colour)	Absent	Absent
Picture 21	54	Below the Pre-Schematic Period Level	Absent	One colour (Secondary colour)	Absent	Absent

When we consider the COVID-19 themed pictures of boys in the pre-schematic period in Table 5 as a whole, it is seen that the children are between 49-68 months of age. It is seen that thirteen children have a development that is below the level in terms of linear development, and 8 children have a level-appropriate development. It is seen that eight children used one color (3 blue, 3 green, and 2 purple), and the remaining 13 children used at least one primary and secondary color in their pictures. It is seen that there is no composition in the pictures except for five children, there is no ratio/proportion in the pictures except for two children, and the pictures are not symmetrical except for 2 children. It is seen that all of the children use blue as the main color and the majority of the children use green as a secondary color. It can be argued that blue was used as a longing for freedom, and green as a longing for nature, due to the effect of being closed at home during the epidemic.

Image 7. Boy at the Pre-Schematic Period (54 Months)



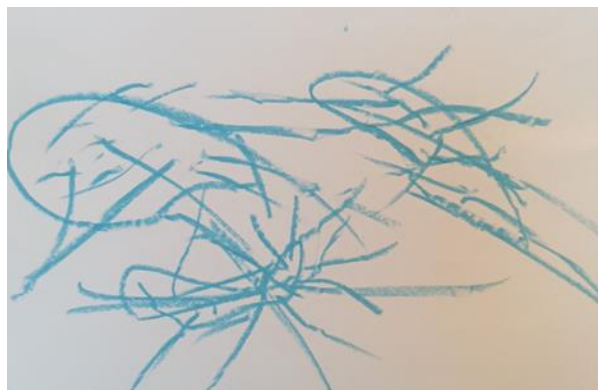
The picture of the boy from the pre-schematic period above constitutes a composition with the feature of using the surface proportionally. The absence of people in the picture can be interpreted as a sign of closure during the pandemic period, the drawing of a tree can be interpreted as a longing for the outside, and the black spot as death. It can be said that the fact that the masks are drawn quite large compared to the other objects in the picture is important in terms of indicating the importance of protection from the virus. It can be argued that the scattered red objects surrounding the picture are cleaning cloths in terms of cleaning emphasis. The vividness of the use of color gives the picture an optimistic atmosphere.

GENERAL EVALUATION OF THE PICTURES

When all children's pictures are evaluated in general, the following judgments can be made: Ten girls create an optimistic impression with their pictures by using vivid colors, smiling faces, sun, and clouds. The picture of the remaining 12 girls is chaotic, and the drawings seem pointless. It can be said that the use of color that creates noise and pollution creates a pessimistic and unhappy impression in these pictures, supported by the intense COVID image drawing that covers almost the whole picture. When we look at the pictures that currently we have, it can be argued that girls are not seriously adversely affected by COVID-19 due to the influence of the cultural child-rearing system (such as doing the housework). However, it is thought that all children should benefit from preventive guidance services to eliminate possible negative experiences that will be transferred to the future.

The five boys give an optimistic impression with their pictures by using vibrant colors, smiling faces, and images of nature. The picture of the remaining 22 boys is chaotic (i.e, image 8 and image 9), containing only the image of COVID, which causes an aimless, pessimistic and unhappy impression.

Image 8. *Picture of a Boy (54 Months)*



"I drew Coronavirus and tiny atoms"

Image 9. *Picture of a Boy (50 Months)*



"I drew the Coronas."

When we look at the pictures that we currently have, it can be argued that boys are severely affected by COVID-19 due to the influence of the cultural child-rearing system (such as being out of the house and intensified by physical activities). Due to the functioning of a male-dominated social structure, it is thought that this situation will play an important role in increasing psycho/social problems in the future.

DISCUSSION AND CONCLUSION

According to the findings of this research on how COVID-19 is reflected in the pictures of pre-school children, it has been revealed that the drawings in the pictures are quite similar to the images that can be seen frequently in the press. There are studies on many issues related to children, such as how young children are affected by the COVID 19 process in different ways, their adaptation to the pandemic process, their psychosocial needs, and health conditions (Idoiaga et al., 2020; Ratten, 2020). UNICEF (2021) stated that children are affected differently by COVID 19 with the direct transmission of the virus, the short-term socio-economic impacts of measures to stop the epidemic, and the delay in implementing the Sustainable Development Goals. Although there are many studies on the subject, very few studies reveal children's perceptions of COVID 19 based on their pictures (Bray et al., 2021). The results of this research are important because of the scarcity of studies on the subject.

It is seen that children's pictures about COVID-19 include masks, distance, and cleaning elements. Mask, distance, and cleaning are the first concepts that come to mind when COVID-19 is mentioned (T. R. Ministry of Health, 2021). This situation can be interpreted as that children know the COVID -19 process. It can be thought that children learn the basic concepts about COVID -19 from visuals such as banners and posters, from mass media such as television, and from the guidance of their families and teachers. As a matter of fact, Remley (2021), who has studies on the subject, gave advice to families and caregivers about being a model for wearing masks for children during the COVID -19 process, explaining the purpose of this protection, staying at home, and emphasizing the importance of distance. In line with the findings of this study, it can be thought that children receive appropriate guidance from their parents and teachers.

It is seen that the majority of the children participating in the study use blue as the primary color and green as the secondary color. It can be argued that blue was used as the longing for freedom, and green as the longing for nature, due to the effect of being closed at home during the epidemic. Pascal

and Bertram (2021), in their research in England, Scotland, and New Zealand, examined the wants and needs of young children in the COVID -19 process through Froebel-style storytelling techniques and children's storytelling. According to the study's findings, children stated that they missed their daily life routines, friends, playing games, and being outdoors during the pandemic period. Regarding the meaning of colors in children's pictures, Ramazan and Öveç (2017) stated that one color can be preferred in negative emotions, especially black color is preferred. In this study, children used two vivid colors. Therefore, it can be thought that children have an optimistic point of view during the COVID -19 process.

When all children's pictures are evaluated in general, the following elements can be suggested: Ten girls create an optimistic impression with images such as vivid colors, smiling faces, sun, and clouds in their pictures. The picture of the remaining 12 girls is chaotic, and the drawings seem pointless. It can be said that the use of color that creates noise and pollution creates a pessimistic and unhappy impression in these pictures, supported by the intense COVID image drawing that covers almost the whole picture. When we look at the pictures that we currently have, with the influence of the cultural child-rearing system of the girls (such as doing the housework), the five boys create an optimistic impression with their pictures, with the use of vivid colors, smiling faces and images of nature. The picture of the remaining 22 boys is chaotic, containing only the image of COVID, which causes a purposeless, pessimistic, and unhappy impression. Studies (Benner & Mistry, 2020; Elder, Johnson & Crosnoe, 2003) show that socio-historical events such as natural disasters, socio-economic disasters, and epidemics can significantly affect human development. As a matter of fact, it is stated that past epidemic diseases such as SARS and H1N1 can increase depression, anxiety, and post-traumatic stress disorder in children (Green et al., 2018; Sprang & Silman, 2013). As can be seen, the findings of this study can show parallelism with the findings of previous studies expressing the negative effects of epidemics or disasters on children. In general, within the scope of the research, it can be said that preschool children included concepts related to the subject in their COVID-19-themed pictures, they reflected their longings through colors due to their divestment during the pandemic process, and girls had more optimistic elements than boys in their pictures, boys are more negatively affected by the COVID process compared to their girl's peers. Some studies on the subject show that children may be worried about COVID-19 (Garcia de Avila et al., 2020; Idoiaga et al., 2020). The difference between girls and boys can be explained by how psychological resilience can differ according to gender. Balaban Dağal and Bayındır (2018), in their study in which they examined the psychological resilience of 775 pre-school children, found a significant difference in favor of girls. In addition, in terms of child-rearing attitude, it can be thought that raising girls with a domestic structure and boys with a perspective that allows them to be outside and concentrate on physical activities may also affect the perceptions of girls and boys during the COVID-19 process. In the literature, studies can be found in which mothers and fathers can show gender differences in child-rearing. For example, in a study conducted by Ayçiçeği Dinn and Sunar (2017), it was determined that while mothers applied more rigid control towards their daughters, fathers showed more rigid control and acceptance and less psychological control to their daughters compared to their sons. Therefore, it is thought that child-rearing attitudes, which may vary according to the gender of children, may have led to differences between genders in coping with the difficult conditions in the COVID-19 process. The study findings conducted by Yüksek Usta and Gökcan (2020) in Kütahya partially overlap with this research. Yüksek Usta and Gökcan (2020), as a result of their studies in which they interviewed mothers and conducted document analysis of children's pictures, stated that children had negative feelings about the virus, they were most affected by social isolation in the process, they were mostly informed from the media as well as parents, they were aware of the terminology related to the epidemic, and they are hopeful about the end of the process. In terms of both genders, it is important to provide guidance services to children to overcome the pandemic disease process in a healthy way and to ensure that the effects are not long-term and have negative reflections (Çaykuş and Mutlu Çaykuş, 2020). Bray et al. (2021), in their research on the subject conducted in six countries with 128 children aged 7-12, revealed that children could understand how

the virus spreads in their pictures and show that their priority is to protect themselves their families, and the community. As can be seen, it has been revealed that young children have information about COVID-19 and reflect this information on their pictures. It is seen that there may be differences according to cultures as well as the difference between genders between pictures related to COVID-19. That is, while a study conducted in Brazil (Garcia de Avila et al., 2020) determined a high level of anxiety in children's pictures, a similar study conducted in Spain (Idoiaga et al., 2020) found that sadness and restrictions were reflected in children's pictures. From this point of view, it can be said that individual and social variables such as gender and culture can affect children's perception of events and situations, and this situation can create differentiation in pictures.

Symbolic representations are among the most complex human abilities that give information to share meaning, gain new information about the world, and understand other people's perspectives (Callaghan, 2020). Through his pictures, the child tells about his perceptions, feelings, understanding of beauty, dreams, designs, sorrows, disappointments, wishes, fears, loved ones, dislikes, nightmares, and positive or negative effects (Nalinci & Yapıcı, 2020). In this research, it is seen that children's pictures can provide important information about the perception of children about the COVID-19 process in different dimensions such as content and color. Therefore, it is important to examine children's drawings in studies on the subject. It should not be forgotten how safe information can be provided by the child as a source of information about himself by revealing children's perspectives, thoughts, and perceptions, not only about COVID-19 but also on different subjects. In line with the limitations of this research, studies can be conducted in which young children's perceptions of the "new normal" are revealed through pictures. In addition, longitudinal studies can be planned based on children's pictures. Thus, it will be possible to monitor children's perceptions and feelings about a subject/situation in the long term. Pre-school teachers should be informed about the importance and characteristics of children's drawings, both during undergraduate education and through in-service training.

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AUTHOR CONTRIBUTIONS

- The first and second authors have been involved in drafting the manuscript and revising it critically for importance.
- Necessary permissions for the research were obtained by the first author.
- The second author, the third author, and the fourth author have made substantial contributions to the conception and design, analysis, and interpretation of data.
- The fifth author has made substantial contributions to the acquisition of data.

REFERENCES

- Ahi, B., Cingi M. A & Kıldan, A. O. (2016). Examining 48-60 months old children's perceptions about teacher concepts by analyzing their drawings. *Ilkogretim Online*, 15(1), 77-90. https://www.researchgate.net/publication/289756587_48-60_Aylik_Cocuklarin_Ogretmen_Kavramina_Yonelik_Algilarinin_Cizimler_Araciligiyla_Incelenmesi
- Akgün, E. & Ergül, A. (2015). Evaluation of the perception of family in drawings of 55-74 months old children. *Cukurova University Faculty of Education Journal*, 44(2), 209-228. <https://dergipark.org.tr/tr/pub/uefd/issue/26972/283529>
- Akın Işık, R., Bora Güneş, N., & Kaya, Y. (2022). Experiences of children (ages 6–12) during COVID-19 pandemic from mothers' perspectives. *Journal of Child and Adolescent Psychiatric Nursing*, 35(2), 142-149. <https://doi.org/10.1111/jcap.12355>

- Akoğlu, G. & Karaaslan, B. T. (2020). Covid-19 ve izolasyon sürecinin çocuklar üzerindeki olası psikososyal etkileri. *İzmir Katip Çelebi Üniversitesi Sağlık Bilimleri Fakültesi Dergisi*, 5 (2), 99-103. <https://dergipark.org.tr/en/pub/ikcusbfd/issue/55773/736666>
- Alabay, E. & Demırbaş, S. (2017). Defining the perception of preschool children on school principals. *Mehmet Akif Ersoy University Faculty of Education Journal*, 1(41), 78-97. <https://dergipark.org.tr/en/pub/maeuefd/issue/29057/310805>
- Benner, A. D., & Mistry, R. S. (2020). Child development during the COVID-19 pandemic through a life course theory lens. *Child Development Perspectives*, 14(4), 236–243. <https://doi.org/10.1111/cdep.12387>
- Bhuiyan, M. U., Stiboy, E., Hassan, M. Z., Chan, M., Islam, M. S., Haider, N., ... & Homaira, N. (2021). Epidemiology of COVID-19 infection in young children under five years: A systematic review and meta-analysis. *Vaccine*, 39(4), 667-677. <https://doi.org/10.1016/j.vaccine.2020.11.078>
- Bozkurt, Y., Zeybek, Z. & Aşkın, R. (2020). Covid-19 pandemisi: Psikolojik etkileri ve terapötik müdahaleler. *İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi*, 19(37), 304-318. <https://dergipark.org.tr/en/pub/iticusbe/issue/55168/753233>
- Bray, L., Blake, L., Protheroe, J., Nafria, B., de Avila, M. A. G., Ångström-Brännström, C., ... & Carter, B. (2021). Children's pictures of COVID-19 and measures to mitigate its spread: An international qualitative study. *Health Education Journal*, 80(7), 811-832. <https://doi.org/10.1177/00178969211019459>
- Buldu, M. (2006). Young children's perceptions of scientists: a preliminary study. *Educational research*, 48(1), 121-132. <https://doi.org/10.1080/00131880500498602>
- Callaghan, T. (2020). The origins and development of a symbolic mind: the case of pictorial symbols. *Interchange*, 51(1), 53-64. <https://doi.org/10.1007/s10780-020-09396-z>
- Cameron, C. A., Pinto, G., Stella, C., & Hunt, A. K. (2020). A Day in the Life of young children drawing at home and at school. *International Journal of Early Years Education*, 28(1), 97-113. <https://doi.org/10.1080/09669760.2019.1605887>
- Civek, İ., & Çakmak, Ö. Ç. (2019). Okul öncesi eğitim kurumlarına devam eden 48-71 aylık çocukların okul algılarının çizimler aracılığıyla incelenmesi. *IBAD Sosyal Bilimler Dergisi*, 5, 70-88. <https://doi.org/10.21733/ibad.603359>
- CNN, (2022). Coronavirus COVID-19 Data. Retrieved from <https://www.cnnturk.com/corona-virusu-haberleri>
- Collado F. Y. (1999): The role of spontaneous drawing in the development of children in the early childhood settings. Retrieved from <http://files.eric.ed.gov/fulltext/ED438898.pdf?accno>
- Çaykuş, E. T., & Çaykuş, T. M. (2020). Covid-19 pandemi sürecinde çocukların psikolojik dayanıklılığını güçlendirme yolları: ailelere, öğretmenlere ve ruh sağlığı uzmanlarına öneriler. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi*, 7(5), 95-113. <https://dergipark.org.tr/en/pub/asead/issue/54658/738573>
- Dağal, A. B. & Bayındır, D. (2018). Okul öncesi dönem çocuklarının ego sağlamlık düzeylerinin incelenmesi. *Erken Çocukluk Çalışmaları Dergisi*, 2(1), 132-150. <https://doi.org/10.24130/eccd-jecs.196720182169>
- Dağlıoğlu, H. (2011). A comparative study of teacher figures in 5 to 7 year-old children's drawings. *Education and Science*, 36(160), 144-159. <https://avesis.gazi.edu.tr/yayin/6c28891a-5da1-484c-a035-e1406a7d871e/a-comparative-study-of-teacher-figures-in-5-to-7-year-old-childrens-drawings>
- Deacon, T.W. (1997). *The symbolic species: The co-evolution of language and the brain*. New York: Norton.
- Deguara, J., & Nutbrown, C. (2018). Signs, symbols and schemas: Understanding meaning in a child's drawings. *International Journal of Early Years Education*, 26(1), 4-23. <https://doi.org/10.1080/09669760.2017.1369398>
- Dinn, A. A., & Sunar, D. (2017). Çocuk yetiştirme tutumları ve bağıntılarının kültür içi ve kültürlerarası karşılaştırılması. *Türk Psikoloji Dergisi*, 32(79), 95-110. <http://www.psikolog.org.tr/tr/yayinlar/dergiler/1031828/tpd1300443320170000m000020.pdf>
- Einarsdottir, J., Dockett, S., & Perry, B. (2009). Making meaning: Children's perspectives expressed through drawings. *Early child development and care*, 179(2), 217-232. <https://doi.org/10.1080/03004430802666999>
- Elder, G. H., Johnson, M. K., & Crosnoe, R. (2003). The emergence and development of life course theory. In J. T. Mortimer, & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 3–19). New York, NY: Kluwer Academic/Plenum Publishers.

- Garcia de Avila, M. A., Hamamoto Filho, P. T., Jacob, F. L. D. S., Alcantara, L. R. S., Berghammer, M., Jenholt Nolbris, M., ... & Nilsson, S. (2020). Children's anxiety and factors related to the COVID-19 pandemic: An exploratory study using the children's anxiety questionnaire and the numerical rating scale. *International Journal of Environmental Research and Public Health*, 17(16), 5757. <https://doi.org/10.3390/ijerph17165757>
- Green, E., Chase, R. M., Zayzay, J., Finnegan, A., & Puffer, E. S. (2018). The impact of the 2014 Ebola virus disease outbreak in Liberia on parent preferences for harsh discipline practices: A quasi-experimental, pre-post design. *Global Mental Health*, 5, 1–7. <https://doi.org/10.1017/gmh.2017.24>
- Huang, Y., & Zhao, N. (2020). Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry research*, 288, 112954. <https://doi.org/10.1016/j.psychres.2020.112954>
- Idoiaga, N., Berasategi, N., Eiguren, A., & Picaza, M. (2020). Exploring children's social and emotional representations of the Covid-19 pandemic. *Frontiers in Psychology* 11, 1952. <https://doi.org/10.3389/fpsyg.2020.01952>
- Imran, N., Zeshan, M., ve Pervaiz, Z. (2020). Mental Health Considerations For Children & Adolescents In COVID-19 Pandemic. *Pakistan Journal of Medical Sciences*, 36 (COVID19-S4). <https://doi.org/10.12669/pjms.36.COVID19-S4.2759>
- Jiao, W. Y., Wang, L. N., Liu, J., Fang, S. F., Jiao, F. Y., Pettoello-Mantovani, M., & Somekh, E. (2020). Behavioral and emotional disorders in children during the COVID-19 epidemic. *The journal of Pediatrics*, 221, 264-266. <https://doi.org/10.1016/j.jpeds.2020.03.013>
- Karataş, Z. (2020). COVID-19 Pandemisinin toplumsal etkileri, değişim ve güçlenme. *Türkiye Sosyal Hizmet Araştırmaları Dergisi*, 4(1), 3-17. <https://dergipark.org.tr/en/pub/tushad/issue/54680/722406>
- Malchiodi, C. A. (2005). *Çocukların resimlerini anlamak* (Understanding children's pictures). İstanbul: Epsilon Yayıncılık.
- Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis*. 2nd Ed., Newbury Park, CA: Sage.
- Nalinci, G. Z. & Yapıcı, M. (2020). Gelişimde satır araları IV: Çocuk resimlerinin dili. In H. Gülay Ogelman (Ed.), *Gelişim Bağlamında Yaşamın İlk Yılları: Erken Çocukluk Döneminde Gelişim*. (p. 633-672). Ankara: Eğitim Kitap.
- Pascal, C., & Bertram, T. (2021). What do young children have to say? Recognising their voices, wisdom, agency and need for companionship during the COVID pandemic. *European Early Childhood Education Research Journal*, 29(1), 21-34. <https://doi.org/10.1080/1350293X.2021.1872676>
- Ramazan, O., & Öveç, Ö. (2017). 66-72 aylık çocukların sevgi, mutluluk, korku, üzüntü duygularını tanımlama durumlarının ve resmederken kullandıkları renklerin incelenmesi. *Uludağ Üniversitesi Eğitim Fakültesi Dergisi*, 30(1), 265-289. <https://dergipark.org.tr/en/pub/uefad/issue/29968/323434>
- Ratten, V. (2020). Coronavirus (covid-19) and social value co-creation. *International Journal of Sociology and Social Policy* <https://www.emerald.com/insight/content/doi/10.1108/IJSSP-06-2020-0237/full/pdf?title=coronavirus-covid-19-and-social-value-co-creation>
- Remley, K. (2021). *Talking about COVID 19: 6 Tipsforparents, family members, caregivers*. Annual August 2021. Retrieved from <https://reader.mediawiremobile.com/accessibility/issues/207361/articles/612405f750e648487f672c09/reader>
- Rodari, P. (2007). Science and scientists in the drawings of European children. *Journal of Science Communication*, 6(3), 1-12. <https://doi.org/10.22323/2.06030304>
- Salama, A., M. (2020). Coronavirus questions that will not go away: Interrogating urban and socio-spatial implications of COVID-19 measures. *Emerald Open Research* 2, 14. <https://doi.org/10.35241/2Femeraldopenres.13561.1>
- Shah, S. M. A., Mohammad, D., Qureshi, M. F. H., Abbas, M. Z., & Aleem, S. (2021). Prevalence, psychological responses and associated correlates of depression, anxiety and stress in a global population, during the coronavirus disease (COVID-19) pandemic. *Community mental health journal*, 57(1), 101-110. <https://doi.org/10.1007/s10597-020-00728-y>
- Sprang, G., & Silman, M. (2013). Posttraumatic stress disorder in parents and youth after health-related disasters. *Disaster Medicine and Public Health Preparedness*, 7, 105–110. <https://doi.org/10.1017/dmp.2013.22>

- T. C. Sağlık Bakanlığı (2021). COVID-19 bilgilendirme platformu. Retrieved from <https://covid19.saglik.gov.tr/TR-73287/maske-mesafe-ve-temizlik-bu-uc-tedbirde-birleselim.html>
- Türken, M. & Köse, Ş. (2020). Covid-19 bulaş yolları ve önleme. *Tepecik Eğitim ve Araştırma Hastanesi Dergisi*, 30, 36-42. <https://dx.doi.org/10.5222/terh.2020.02693>
- UNICEF (2021). COVID-19 salgınının çocuklar üzerindeki etkileri. Retrieved from <https://www.unicef.org/turkey/documents/covid-19-salg%C4%B1n%C4%B1n%C4%B1n-%C3%A7ocuklar-%C3%BCzerindeki-etkileri>.
- Usta, S. Y., & Gökcan, H. N. (2020). Çocukların ve annelerinin gözünden Covid-19. *International Journal of Social Sciences and Education Research*, 6(2), 187-206. <https://doi.org/10.24289/ijsser.744642>
- Vasileva, M., Alisic, E., ve De Young, A. (2021). COVID-19 Unmasked: Preschool Children's Negative Thoughts and Worries During the COVID-19 Pandemic In Australia. *European Journal of Psychotraumatology*, 12 (1), 1924442. <https://doi.org/10.1080/20008198.2021.1924442>
- World Health Organisation (2020). WHO Director-General's opening remarks at the media briefing on COVID-19. Retrieved from <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- Yıldırım, A. & Şimşek, H. (2013). *Sosyal bilimlerde nitel araştırma yöntemleri (9. Baskı)*. Ankara: Seçkin Yayınevi.
- Yüksel, M. Y., Kurt, B., Gülsu, N., Akdağ, C., Aydın, F., & Erdoğan, F. (2016). Okula uyum sağlamakta güçlük çeken çocukların çizdikleri okul resimleri üzerine nitel bir araştırma. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 12 (2), 642-658. <https://dergipark.org.tr/en/pub/mersinefd/issue/24536/259928>