An Examination of Anxiety Levels Among Families of Children Aged 0-6 with Special Needs During the COVID-19 Pandemic [1]

COVID-19 Pandemisi Sürecinde 0-6 Yaş Aralığında Özel Gereksinimli Çocuğa Sahip Ailelerin Kaygı Düzeyinin İncelenmesi

Seval ERCİYAS

Uzman ◆ University of Exeter, Special Needs Education ◆ sevalerciyas@gmail.com ◆ ORCID: 0000-0002-9318-7542

İbrahim H. DİKEN

Prof. Dr. ◆ Anadolu Üniversitesi, Engelliler Araştırma Enstitüsü ◆ ihdiken@anadolu.edu.tr ◆ ORCID: 0000-0002-5761-2900

Uğur Onur GÜNDEN

Uzman ◆ Anadolu Üniversitesi, Engelliler Araştırma Enstitüsü ◆uogunden@anadolu.edu.tr ◆ ORCID: 0000-0001-7733-391X

Abstract

The purpose of this study is to investigate the state and trait anxiety levels of families with children aged 0–6 who have special needs during the COVID-19 pandemic, as well as the relationship between these anxiety levels and various demographic and situational factors. Families in the Turkish province of Ankara with children aged 0–6 with special needs make up the study population. The Demographic Information Collection Form and the State-Trait Anxiety Inventory were applied online to 101 parents. The study employed a relational screening model, and the data obtained from 101 participants were analyzed using correlation, t-tests, ANOVA, and Kruskal-Wallis tests. Parents' state and trait anxiety levels were revealed to be positively correlated by the study. However, when the means of these two variables were compared using a paired samples t-test, no statistically significant difference was found. When comparing mothers and fathers, it was determined that women had significantly greater anxiety levels than fathers. Furthermore, it was determined that the anxiety levels of families increased as the age of their children with special needs decreased. Despite the lack of significant relationships with other variables, job status during the pandemic was found to have a significant impact on anxiety levels.

Keywords: Anxiety Levels, Families, Children with Special Needs, Early Childhood, The COVID-19 Pandemic

Özet

Bu araştırmada Covid-19 Pandemisi sürecinde 0-6 yaş arasında özel gereksinimli çocuğu olan ailelerin durumluk ve sürekli kaygı düzeylerinin, ebeveynlerin durumluk ve sürekli kaygı düzeyleri arasındaki ilişkinin, kaygı düzeyinin demografik değişkenlerle ilişkisini, pandemi döneminde çalışma, Covid-19 geçirme, özel gereksinimli çocuklarını dışarı çıkarma durumlarıyla ilişkisini incelemek amaçlanmıştır. Araştırmanın örneklemini, Ankara ilinde bulunan 0-6 yaş arasındaki özel gereksinimli çocukların aileleri oluşturmaktadır. Bu araştrmada, 101 ebeveyne Demografik Bilgi Toplama Formu, Durumluk Sürekli Kaygı Envanteri çevrimiçi olarak uygulanmıştır. Araştırmanın yöntemi ilişkisel tarama modelidir. 101 katılımcıdan elde edilen veri ile korelasyon, t testi, ANOVA ve Kruskal Wallis analizleri yapılmıştır. Çalışma sonucunda ebeveynlerin durumluk

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ve sürekli kaygı puanları arasında pozitif ve anlamlı bir korelasyon tespit edilmiştir. Ancak, bu iki değişkenin ortalamaları karşılaştırıldığında (bağımlı örneklem t-testi ile), aralarında istatistiksel olarak anlamlı bir fark bulunmamıştır. Ebeveynler arası karşılaştırma yapıldığında ise annelerin kaygı puanları babalara göre anlamlı şekilde yüksek bulunmuştur. Ayrıca özel gereksinimli çocukların yaşı küçüldükçe ailelerin kaygı seviyelerinin arttığı saptanmıştır. Pandemi döneminde çalışma durumunun kaygı düzeyinde etkili olduğu saptanırken diğer değişkenler ilişkisiz bulunmuştur. Araştırma bulgularına bakıldığında ilgili literatür ile paralel bulguların olduğu görülmektedir.

1. Introduction

After COVID-19 cases were detected in Turkey, it was decided to suspend schools until the end of April 2020, starting from March 17, 2020. This decision was made under the coordination of the Ministry of National Education (MoNE), the Ministry of Health (MoH), and the Science Committee (SC). Consequently, educational institutions were closed. With the prioritization of public health and welfare, it was decided that all education in the country would continue through distance education. To support the participation of students with special needs in distance education, the necessary educational materials were prepared and made available on the Educational Informatics Network (EBA) portal (Özer, 2020). Additionally, the "Özelim Eğitimdeyim" (meaning "I am special and getting education" in English) mobile application was prepared for various content to be accessed (MoNe, 2020).

The COVID-19 pandemic prompted the implementation of measures like quarantine to curb the spread of the virus. However, these measures have led to significant societal, educational, and economic implications. Individuals with special needs have been particularly affected, facing challenges in accessing education and essential support services. Families have had to adapt to the discontinuation of professional support, taking on new responsibilities to meet the educational and care needs of their children with special needs. Social isolation has also become more prominent for these families during the pandemic.

Furthermore, children's problem behaviors have increased with triggering factors such as changing routines. The burden of struggling with this situation has been left to families (Aishworiya & Kang, 2021). Children with special needs, who are at higher risk due to their vulnerability to various health conditions, have faced serious health problems (Jesus et al., 2020; Toseeb, 2020), and diagnosis as a health service and other support services have been significantly disrupted. It is stated that the difficulties experienced in adapting to situations resulting from such a lack of knowledge, coping with situations, and accessing services have brought about the psychological support needs of families (Zablotsky, Bradshow & Stuart, 2013). Considering the pandemic period as a moment of crisis, the fact that families have to provide support, which requires quite detailed knowledge and abilities, and that they do not have them basically has led to anxiety and insecurity in families (Fegert et al., 2020). To this end, the MoNE has established a helpline to support the psychological resilience of students and parents. Guidelines have been prepared for families, adults, and young people to provide support in coping with the effects of the pandemic (Özer, 2020). Although efforts have been made to provide services for typically developing students, it can be stated that content such as online education and seminars (Sani-Bozkurt et al., 2021) prepared for individuals with special needs has remained limited due to the situation experienced (Yazçayır & Gürgür, 2021).

It can be said that anxiety is one of the possible psychological variables that parents of children with special needs may experience due to the pandemic. Anxiety is defined as an emotion

characterized by physical changes such as feelings of tension, anxious thoughts, and elevated blood pressure. Likewise, anxiety is considered a long-acting response to the future that focuses on a widespread threat in general terms (VandenBos, 2007). It is indicated that there are two types of anxiety: state and trait. State anxiety is the realistic fear where individuals give physiological reactions such as blushing and sweating due to the stressful situation they are experiencing at that moment. Trait anxiety is the feeling of tension and dissatisfaction despite the absence of a situation that will lead to anxiety according to objective criteria (Öner & Le Compte, 1983). When the studies' abstracts are reviewed, it is seen that parents of individuals with special needs are compared with parents of both disability groups and typically developing individuals. Studies have reported that the general anxiety levels of parents of children with special needs (Uğuz et al., 2004; Bumin, Günal & Tükel, 2008; Coşkun & Akkaş, 2009; Tura, 2017), their trait anxiety levels (Bumin, Günal & Tükel, 2008; Hasandayıoğlu, 2020; Keskin, 2010) and state anxiety levels (Keskin, 2010) are significantly higher. Upon examining the demographic variables regarding children's characteristics, it has been stated that the child's age (Hasandayıoğlu, 2020), child's gender (Sucuoğlu & Keleş, 2017), and child's diagnosis (Çandır, 2015; Çengelci, 2009; İçöz, 2001; Natan, 2007; Şengül & Baykan, 2013) are associated with anxiety. Considering parent-related demographic variables, the main factors associated with anxiety are gender (Artan, 2001; Avşaroğlu, 2012; Çengelci, 2009; Doğan, 2010; Fırat, 2016; Güngör, 2008), age (Kayılı, 2018), income level (Coşkun & Akkaş, 2009; Güngör, 2008; Kayılı, 2018; Üskün & Gündoğar, 2010), parent's profession (Fırat, 2016), and parent's educational level (Avşaroğlu, 2012; Coşkun & Akkaş, 2009; Çengelci, 2009; Doğru & Aslan, 2008; Güngör, 2008; Kayılı, 2018).

When studies conducted abroad are reviewed, there are studies comparing the anxiety levels of families of typically developing children and children with special needs (Dumas et al., 1991; Fisman et al., 1996; Gogoi, Ranjan & Pereina, 2017; Olsson and Hwang, 2001; Wolf et al., 1989). Studies conducted directly with families of individuals with special needs show that the anxiety levels of parents vary according to the diagnostic group of their children. It has been revealed that the anxiety scores of parents of children with cerebral palsy are higher than families of children with other disability types (Guillamon et al., 2013). Moreover, it is seen that the gender of parents affects their anxiety levels; mothers have higher anxiety scores than fathers (Machado et al., 2014; Rejani and Ting, 2015).

In the literature, there is evidence showing that families of children with special needs had a higher risk of experiencing mental health problems and were under significantly more pressure than families of typically developing children during the COVID-19 pandemic. Due to COVID-19, parents have concerns about the future of their children; they worry that their children will fall behind at school since parents do not know how to meet their children's needs and focus on who will take care of their children if they die (Asbury, 2021).

Individuals with special needs are a socially vulnerable segment of society and are a disadvantaged group likely to be more affected in terms of their social participation and well-being during the COVID-19 pandemic. Coping with the COVID-19 pandemic is difficult for all families, particularly primary caregivers of young children with special needs (Banks et al., 2021). The COVID-19 pandemic has multiple psychological consequences for individuals with special needs and their families. Therefore, a need arises to adapt to new conditions by developing dynamics that will help their well-being and cope with the tensions and concerns of such a health crisis (Tsibidaki, 2021).

Young children enrolled in special education programs have lost face-to-face special education opportunities at the beginning of the pandemic. Thus, families have new responsibilities. It may be challenging or impossible to make some adaptations in a distance education environment for families

who lack the necessary technological resources or a remote early intervention session. Young children with special needs attending rehabilitation or kindergarten and their families struggle to maintain their routines of access to education via technological means (Asbury et al., 2021). While special educators, speech-language therapists, and physiotherapists provided educational support before the pandemic, families have assumed new roles in terms of education with the pandemic and have to support their children throughout the day. After rehabilitation and school services were closed, many parents experienced insecurity and anxiety since they were not equipped to meet their children's special educational needs (Fegert et al., 2020). Parents with inadequate education and expertise make more efforts to provide academic support to their children. Furthermore, they have to struggle with their children's problem behaviors due to changing routines (Aishworiya & Kang, 2021). Considering parents' lack of knowledge about supporting the development of a child with special needs, there is a need for psychological and social support along with the need to face and adapt to new conditions and a need for various services necessary for their children's development (Zablotsky, Bradshow, & Stuart, 2013).

It can be said that it is important to determine the situation to cope with anxiety. Hence, this study aimed to examine the anxiety levels of parents of children with special needs ages 0-6 during the COVID-19 pandemic on the basis of the literature. In line with this purpose, answers to the following questions were sought:

1. Is there a relationship between parents' state and trait anxiety scores?
2. Is there a significant difference between parents' state and trait anxiety scores?
3. Is there a significant difference between parents' state, trait, and total anxiety scores according to gender?
4. Is there a relationship between the child's age, parent's age and income level, and state, trait, and total anxiety scores?
5. Is there a significant difference between state and trait anxiety scores according to working characteristics during the pandemic?
6. Is there a significant difference between state, trait, and total anxiety scores in terms of being infected with COVID-19 and/or its variants?
7. Is there a significant difference between state, trait, and total anxiety scores in terms of taking the child out during the pandemic?
8. Is there a significant difference between state, trait, and total anxiety scores according to parents' education levels?
9. Is there a significant difference between state, trait, and total anxiety scores according to children having autism spectrum disorder, intellectual disability, multiple disabilities, or other diagnostic groups?

2. Method

A correlational survey model, one of the survey model types, was employed in this study. Survey models are expressed as an approach that allows describing pre-existing or current conditions with their current forms. "The correlational survey model aims to analyze the presence and state of variables among two or more variables" (Karasar, 2005). The present study investigated the anxiety levels of parents of children with special needs between the ages of zero and six. Moreover, along with the demographic variables of gender, age, parents' educational status and income levels, the level of the relationship between state-trait anxiety levels and the age of the child with special needs, the child's disability type, working status during the pandemic, whether children with special needs went

out during restrictions, and the status of being infected with COVID-19 and/or its variants was determined.

2.1. Study Group

The study population consists of parents of children with special needs between ages 0-6 who resided in Ankara province. The criterion sampling method with an appropriate sampling method among the non-random sampling methods was employed in this study (Büyüköztürk, 2017). The criterion for inclusion in the sample was determined as follows: Being the family of a child with special needs based on the definition of an individual with special educational needs in Article 4 of the Special Education Regulation of the Ministry of National Education between the ages of 0-6. The concept of family includes parents of individuals with special needs, in other words, mothers and fathers. If individuals with special needs do not live with their mothers and fathers, the concept of family includes their primary caregivers. One hundred and seven participants filled out the State-Trait Anxiety Inventory, and children of 6 parents were not included in the study since they were older than 6 years of age. The responses of 101 parents were evaluated. Table 1 contains the participants' characteristics.

Table 1. *Percentage of the Participant Characteristics*

Demographic information	*f*	*%*
Gender		
Male	31	30.7
Female	70	69.3
Marital status		
Married	97	96
Single	4	4
Profession		
Housewife	43	42.6
Public personnel	22	21.8
Worker	11	10.9
Freelancer	9	8.9
Private sector	16	15.8
Educational status		
Primary school	12	11.9
Middle school	14	13.9
High school	25	24.8
Associate degree	29	18.8
Bachelor's degree and Postgraduate	31	30.7
Diagnosis		
Autism spectrum disorder	30	29.7
Intellectual disability	25	24.8
Multiple disabilities	20	19.8
Other	26	25.7
Number of children		
1	30	29.7

2	39	38.6
3 and more	32	31.7
Status of being infected with COVID-19 and/or its variants		
Yes	36	35.6
No	65	64.4
Taking the child out during the pandemic		
Yes	28	27.2
No	37	36.6
Partially	36	35.6

Of the participants, 69.3% were female, and 30.7% were male. Of the mothers who constituted the majority of the participants, 42.6% were housewives. Of the parents, 38.6% had two children. Considering the educational status, 30.7% corresponded to those with a bachelor's degree and a postgraduate degree. Of the children with special needs of the participants enrolled in this study, 29.7% had autism spectrum disorder, 24.8% had intellectual disability, and 29.8% had multiple disabilities. Some participants, accounting for 25.7%, fell into a broad "Other" category that includes conditions such as hearing and visual impairments, physical disabilities (e.g., cerebral palsy, orthopedic conditions), and specific learning disorders (e.g., dyslexia). This category also covers less commonly reported developmental or neurological disorders. Of the parents, 35% were infected with COVID-19 and/or its variants. At the beginning of the pandemic, 27.2% took their children with special needs out. Marital status was not considered since only four single parents participated in the study. Table 2 presents the mean values and standard deviations of the participants' continuous variables.

Table 2. *Mean Value of the Participant Characteristics*

Demographic information	$\bar{X}$	SD
Participant's age	35	6
Income	6462	5296
Child's Age	4.68	1.62

2.2. Data Collection Tools

In this study, the "Demographic Information Collection Form" was used regarding the variables affecting the anxiety level of families, and Spielberger's State-Trait Anxiety Inventory (STAI) was used to identify the anxiety level of individuals with special needs children ages between 0-6 years.

2.2.1. Demographic Information Form

In the study, a 14-item 'Demographic Information Collection Form' prepared by the researcher was used to learn the socio-economic characteristics of families of children with special needs between 0-6 years of age. The form included questions about the child's age, diagnosis, and whether the child was taken out during the restrictions and questions about the age, gender, economic status, and educational level of parents to get to know the children's families. To understand the effect of the pandemic, the parents were asked about going out, working from home, and being infected with COVID-19 and/or its variants.

2.2.2. State-Trait Anxiety Inventory (STAI)

The STAI was developed to ensure a reliable, relatively short self-assessment to evaluate state and trait anxiety in research and clinical practice (Spielberger, 1983). The STAI comprises two 20-item scales to measure the intensity of anxiety as an emotional state and individual differences in anxiety disposition as a personality trait. While responding to trait anxiety items, participants rate themselves on a 4-point scale below, reporting the intensity of their feelings of anxiety "now, at the moment" as follows: (1) Not at all, (2) Somewhat, (3) Moderately so, and (4) Very Much So. State anxiety responses require participants to indicate how they generally feel by reporting how often they experience anxiety-related feelings and cognitions on a 4-point scale: (1) Almost Never, (2) Sometimes, (3) Often, and (4) Almost Always. The scale was adapted to Turkish by Öner and Le Compte (1983). The item reliability coefficient of the State Anxiety Scale of the inventory adapted to Turkish ranges from 0.34 to 0.72, and the item reliability coefficient of the Trait Anxiety Scale ranges from 0.42 to 0.85. The reliability scores found using the test-retest method are between 0.26 and 0.68 for the State Anxiety Scale and between 0.71 and 0.86 for the Trait Anxiety Scale (Öner & Le Compte, 1983).

2.3. Data Collection Process

The research data were collected from Private Special Education and Rehabilitation Centers (PSERCs) in Ankara province. Upon consulting PSERCs, online form links were sent to families of children with special needs between years 0-6 age.

Families were informed during the data collection stage. It was expressed that the scale was made for a master's thesis, it was desired to measure the anxiety status of parents, confidentiality was essential in the research, and identity information such as name and surname was not asked. They filled out the consent form on a voluntary basis. The study data were collected in three stages. At the first stage, a demographic information form was presented to the families, and information about the parents and their children was acquired. At the second stage, the 20-item Trait Anxiety Scale was applied. At the final stage, the 20-item State Anxiety Scale was applied, and the families were requested to consider the emotions they experienced in this situation by paying attention to the time they spent with their children during the pandemic and to respond to the scale according to these criteria. We chose to administer the Trait Anxiety Scale first because trait anxiety represents a relatively stable personal characteristic. By assessing this before any other measures, we aimed to capture participants' general anxiety levels without the influence of transient emotions that might arise during the study session. We then presented the State Anxiety Scale to obtain an immediate reading of participants' feelings after becoming accustomed to the study environment.

2.4. Data Analysis

During this study, the suitability of the data was checked prior to data analysis. During the examination, the data were visually scanned, then a code key was created and made suitable for analysis. Afterward, the reverse items in the STAI were translated as recommended, and the total scores were obtained. Before initiating the analysis, it was tested whether the data exhibited normal distribution. Accordingly, skewness and kurtosis values were checked to be between +1.96 and -1.96, and the Kolmogorov-Smirnov and Shapiro-Wilks significance values ($p > .05$) were reviewed (Can, 2013). While examining the bilateral correlations between the variables, the assumptions about the direction, linearity, and extreme values of the correlation were checked in addition to the normal distribution findings. Pearson's correlation coefficients were reported when normal distribution conditions were

met, and Spearman's correlation coefficients were reported when normal distribution conditions were not met (Pallant, 2011). For comparison analysis, the effect sizes were reported by considering the conditions of normal distribution and equality of variances. To avoid type 1 error, the number of comparisons was divided by the significance level number of comparisons, and the Bonferroni correction was applied. When applying the Bonferroni correction, it is recommended to divide the *p*-value by the number of comparisons (Pallant, 2011). For continuous variables, Pearson's correlation was reported when normal distribution conditions were met, and Spearman's correlation was reported when these conditions were not met. In pairwise comparisons, the t-test was used when normal distribution was achieved, whereas the Kruskal-Wallis test was applied when it was not. For multiple comparisons, the ANOVA test was preferred.

2.5. Ethical Considerations

The present research was conducted in accordance with the Scientific Research and Publication Ethics Directive of Higher Education Institutions. Furthermore, there are no Actions Against Scientific Research and Publication Ethics stated in the second part of this directive.

The inventory's Turkish-adapted State Anxiety Scale item reliability coefficient ranges from 0.34 to 0.72, while the Trait Anxiety Scale item reliability coefficient ranges from 0.42 to 0.85. According to Öner and Le Compte (1983), the reliability ratings obtained by employing the test-retest approach range from 0.26 to 0.68 for the State Anxiety Scale and from 0.71 to 0.86 for the Trait Anxiety Scale. Indeed, as noted by Öner and Le Compte (1983), the test–retest reliability for the State Anxiety subscale can be relatively low, reflecting the measure's focus on momentary, situational anxiety rather than stable, long-term patterns. Because state anxiety fluctuates according to context, a lower reliability score is not unexpected. However, we agree this is an important consideration for interpreting the results and have acknowledged it as a limitation, emphasizing that State Anxiety scores should be viewed as snapshots of participants' immediate emotional states rather than enduring characteristics.

The research process was carried out after receiving ethics committee permission from Anadolu University Social Sciences Sub-Ethics Committee dated 08.10.2021 and serial number is 147350. Participants participated in the research voluntarily. This study was conducted in 2021.

3. Findings

3.1. Findings Regarding State and Trait Anxiety

Pearson's correlation analysis was carried out to reveal the correlations between the variables related to state and trait anxiety. As a result of the analysis, a positive, strong, and significant correlation was found between the variables of state trait, state total score, and trait total score. Table 3 contains the analysis findings.

Table 3. *Findings Regarding the Correlation Between State, Trait Anxiety, and Total Scores*

Sub Score	N	$\bar{X}$	SD	State	Trait	Total
State	101	40,6	10.26	1		
Trait		39,8	9.43	.74*	1	
Total		81	18.4	.94*	.93*	1

*$p<.01$

As a result of the analysis, a positive, strong, and significant correlation was found between the variables of state trait, state total score, and trait total score. It was investigated whether this significant correlation between trait and state anxiety indicated a significant difference between the groups. In line with this, the dependent samples *t*-test was conducted. As a result of the test, no significant difference was observed between trait ($\bar{X}$=39.8) and state anxiety ($\bar{X}$=40.6) (*t* (100)=1.11, *p*>.05).

3.2. Findings Regarding Gender and Trait and State Anxiety Levels

The independent samples *t*-test was conducted to determine whether there was a significant difference between trait and state anxiety levels in the context of gender and reveal which group the difference was in favor of. As a result of the analysis, there was no significant difference between the groups regarding state anxiety, whereas a significant difference was found in the trait and total scale dimensions. Table 4 presents details of the findings.

Table 4. *Findings Regarding Anxiety By Gender*

Sub Score	Group	N	$\bar{X}$	SD	SE	df	t	p	η2
State	Male	31	38.35	10.8	1.95	99	-1.5	.137	.02
	Female	70	41.6	9.9	1.18				
Trait	Male	31	33.8	9.3	1.67	99	-4.7	.000	.19
	Female	70	42.5	8.2	.99				
Total	Male	31	72.2	18.6	3.3	99	-3.2	.002	.09
	Female	70	84.5	17.1	2.0				

*The Bonferroni correction was performed (*p*< .05/3=0.017)

As seen in Table 4, the level of trait anxiety was lower in men ($\bar{X}$=33.8) than in women ($\bar{X}$=42.5). Likewise, concerning the total score, it was seen that men ($\bar{X}$=72.2) scored significantly lower than women ($\bar{X}$=84.5). The effect size between women and men is large in terms of trait anxiety and medium in terms of the total score (Büyüköztürk, 2016). In terms of state anxiety, no significant difference was identified between women ($\bar{X}$=41.6) and men ($\bar{X}$=38.25) (*t* (99) =1.5, *p*>.05).

3.3. Findings Regarding the Child's Age, Parent's Age and Income Level, and Trait and State Anxiety Levels

Pearson's correlation analysis was performed to reveal whether there was a correlation between the age level of children and their trait and state anxiety levels. Spearman's correlation findings were reported for the income variable for which normal distribution conditions could not be met. Table 5 contains the analysis findings.

Table 5. *Findings Regarding the Correlation Between the Child's Age, Parent's Age and Income Level, State Anxiety, Trait Anxiety, and Total Scores*

Variables	N	$\bar{X}$	SD	State	Trait	Total	Income Level	Participant's Age	Child's Age
State	101	40.64	10.26	1					
Trait		39.85	9.44	.74**	1				
Total		80.50	18.36	.94**	.93**	1			
Income Level[a]		6462.32	5296.01	.08	.03	.06	1		
Participant's Age		35.17	6.04	-.03	-.01	-.02	.02	1	
Child's Age		4.44	1.63	-.24*	-.17	-.22*	.02	.23*	1

*$p< .05$

When Table 5 is reviewed, an inverse and significant correlation is observed between the child's age and the state and total anxiety scores. Thus, as the child's age increases, the scores obtained from state anxiety and anxiety decrease significantly. No significant correlation was found in terms of trait anxiety. Likewise, no significant correlation was identified in terms of income level and participant's age, which are other variables.

3.4. Trait Anxiety, State Anxiety, and Total Score Findings According to Working Characteristics During the Pandemic

To reveal whether there was a significant difference between the working status of parents and their anxiety levels during the pandemic, their working status during this period was asked. The participants were grouped according to their responses as Group 1 "Yes, I worked in the workplace," Group 2 "Yes, I worked from home for a while," and Group 3 "No." The independent samples ANOVA test was conducted to determine whether the pandemic conditions affected anxiety scores. Before the test, the condition of variance equality was checked. Accordingly, the condition was met in terms of state anxiety (F (2, 97) = 1.63, p>.05). The condition was not met in terms of the total score (F (2, 97) = 3.62, p<.05) and trait anxiety score (F (2, 97) = 3.3, p<.05). Scheffe's test results for state anxiety and Tamhane's test results for trait anxiety and total score are presented in Table 6.

Table 6. *Findings Regarding Working Characteristics During the Pandemic*

Sub Score	Variance Source	Sum of Squares	df	Mean of Squares	F	p	η2	Significant Difference
State	Intergroup	200.9	2	100.4	.956	.388	.01	-
	Intragroup	10199.9	97	105.1				
	Total	10400	99					
Trait	Intergroup	1058.9	2	529.45	6.90	.002	.09	2-3
	Intragroup	7437.8	97	76.6				
	Total	8496.7	99					
Total	Intergroup	2129.1	2	1064.5	3.37	.038	.05	2-3
	Intragroup	30585.6	97	315.3				
	Total	32714.7	99					

*$p< .05$

As seen in Table 6, no significant difference was found between the groups in terms of state anxiety level. In terms of trait anxiety, there was a significant difference ($p<.017$) according to the answers of Group 2 "Yes, I worked from home for a while" and Group 3 "No." The effect size related to this difference was medium. Likewise, there was a significant difference ($p<.017$) in terms of the total score. Hence the trait anxiety scores of short-term home workers during the pandemic ($\bar{X}=33.25$) were significantly lower than the scores of those who did not work at all ($\bar{X}=42.01$). Similarly, in terms of the total anxiety score, the anxiety scores of short-term home workers ($\bar{X}=71.70$) were significantly lower than the scores of those who did not work at all ($\bar{X}=83.7$).

3.5. Findings Regarding the Status of Being Infected with COVID-19 and/or Its Variants

The participants were divided into two groups: individuals who had been infected with COVID-19 and/or its variants and individuals who had not. The independent samples t-test was carried out to determine whether there was a significant difference between the groups in terms of anxiety levels. After it was decided that the data were normally distributed, the condition of variance equality was tested. Accordingly, the condition of variance equality was met in terms of state anxiety ($F_{(99)} =.05$, $p>.05$), trait anxiety ($F_{(99)} =.1,54$, $p>.05$), and total ($F_{(99)} =.36$, $p>.05$) scores. Table 7 shows findings regarding the analysis results.

Table 7. *Findings Regarding the Status of Being Infected with COVID-19 and/or Its Variants*

Sub Score	Group	N	$\bar{X}$	SD	SE	df	t	p
State	Yes	36	40.39	10.46	1.74	99	-.18	.854
	No	65	40.78	10.23	1.27			
Trait	Yes	36	38.94	10.47	1.74	99	-.72	.475
	No	65	40.35	8.86	1.10			
Total	Yes	36	79.33	19.43	3.24	99	-.471	.638
	No	65	81.14	17.87	2.22			

*The Bonferroni correction was performed ($p< .05/3=0.017$)

Table 7 presents the mean scores of the participants who had been infected with COVID-19 and/or its variants and who had not. Considering the analyses conducted on these mean scores, there is no significant difference in terms of anxiety levels based on state anxiety, trait anxiety, and total scores. Accordingly, it can be said that the status of being infected with COVID-19 and/or its variants does not differ according to anxiety levels.

3.6. Findings Regarding the Status of Taking the Child out at the Beginning of the Pandemic

With the restrictions imposed at the onset of the pandemic, lockdowns started to be implemented. Accordingly, the independent samples ANOVA was applied to determine whether there was a significant difference between parents who took their children out and those who did not during this period of restrictions. Prior to the analysis, the condition of variance equality was tested after the normal distribution condition was met. As a result of the test, the prerequisite for state anxiety ($F_{(98, 2)} =.812$, $p>.05$), trait ($F_{(98, 2)} =.320$, $p>.05$), and total anxiety ($F_{(98, 2)} =.140$, $p>.05$) levels was met. As seen in Table 8, no significant difference was found between the groups who took their children out and those who did not or partially took them out during the pandemic. Table 8 shows the findings.

Table 8. *Findings Regarding the Status of Taking the Child out During the Pandemic*

Sub Score	Variance Source	Sum of Squares	df	Mean of Squares	F	p	Significant Difference
State	Intergroup	132.60	2	66.30	.62	.54	-
	Intragroup	10398.57	98	106.11			
	Total	10531.17	100				
Trait	Intergroup	1.21	2	0.60	.01	.99	-
	Intragroup	8905.56	98	90.87			
	Total	8906.77	100				
Total	Intergroup	158.48	2	79.24	.23	.79	-
	Intragroup	33558.77	98	342.44			
	Total	33717.25	100				

*The Bonferroni correction was performed (p<.05/3=0.017)

3.7. Findings Regarding Diagnostic Groups

The independent samples ANOVA test was performed to determine whether there was a significant difference between anxiety levels on the basis of trait anxiety, state anxiety, and total scores according to the diagnostic groups. After the normal distribution conditions were met, the condition of variance equality was examined. Accordingly, the condition for state anxiety (F (3, 97) = .71, $p>.05$) and the total (F (3, 97) = 2.25, $p>.05$) scores could met, whereas the condition for trait anxiety (F (3, 97) = 3.06, $p<.05$) could not be met. Analyses were performed accordingly. Findings regarding anxiety based on state anxiety, trait anxiety, and total scores are given in Table 9.

Table 9. *Findings Regarding Diagnostic Groups*

Sub Score	Variance Source	Sum of Squares	df	Mean of Squares	F	p	η2	Significant Difference
State	Intergroup	613.6	3	204.5	2.00	.119	.01	-
	Intragroup	9917.5	97	102.2				
	Total	10531.2	100					
Trait	Intergroup	356.2	3	119.7	1.36	.260	.09	-
	Intragroup	8547.5	97	88.1				
	Total	8906.8	100					
Total	Intergroup	1876.2	3	625.4	1.90	.134	.05	-
	Intragroup	31841.1	97	328.3				
	Total	33717.2	100					

*The Bonferroni correction was performed (p<.05/3=0.017)

As seen in Table 9, no significant difference was found between the diagnostic groups in terms of state anxiety levels *(*p>.017). Moreover, descriptive information of the diagnostic groups is presented. Table 10 contains the relevant descriptive information.

Table 10. Descriptive Information According to Diagnostic Groups

Sub Sore	Type of SEN	N	$\bar{X}$	SD	SE	Min	Max
State	ASD	30	40.60	11.13	2.03	22.00	63.00
	ID	25	37.12	8.83	1.77	22.00	58.00
	MD	20	44.50	11.34	2.54	20.00	70.00
	Other	26	41.12	8.96	1.76	23.00	58.00
	Total	101	40.64	10.26	1.02	20.00	70.00
Trait	ASD	30	40.50	11.80	2.15	19.00	61.00
	ID	25	37.16	7.80	1.56	21.00	52.00
	MD	20	42.70	9.29	2.08	23.00	59.00
	Other	26	39.50	7.51	1.47	25.00	54.00
	Total	101	39.85	9.44	0.94	19.00	61.00
Total	ASD	30	81.10	21.52	3.93	49.00	122.00
	ID	25	74.28	15.52	3.10	45.00	110.00
	MD	20	87.20	19.91	4.45	43.00	129.00
	Other	26	80.62	14.27	2.80	55.00	107.00
	Total	101	80.50	18.36	1.83	43.00	129.00

In terms of disability diagnostic groups, no significant difference was observed between the groups in terms of state anxiety (χ^2(4, n=101)=13.1, p>.05), trait anxiety (χ^2(7, n=101)=8.3, p>.05), and total (χ^2(7, n=101)=10.2, p>.05) scores.

3.8. Anxiety Findings Related to Other Variables

The Kruskal-Wallis test was conducted to identify the significant difference between parents' anxiety status according to their profession. Accordingly, the Kruskal-Wallis test was preferred since normal distribution conditions were not provided. As a result of the analyses, no significant difference was identified in terms of state anxiety (χ^2(4, n=101)=2.62, p>.05), trait anxiety (χ^2(4, n=101)=7.5, p>.05), and total (χ^2(4, n=101)=4, p>.05) scores. Likewise, there was no significant difference in terms of state anxiety (χ^2(4, n=101)=2.45, p>.05), trait anxiety (χ^2(4, n=101)=1.87, p>.05), and total (χ^2(4, n=101)=2.46, p>.05) scores in terms of educational status.

4. Discussion & Conclusion

The present study examined the anxiety levels of parents of children with special needs and how these findings compared with those in existing literature. Consistent with prior research, it was found that these parents frequently experience elevated levels of anxiety (e.g., Artan, 2001; Bumin et al., 2008; Doğru & Aslan, 2008; Güngör, 2008). In contrast, some studies, such as those by Guillaman et al. (2013) and Sucuoğlu & Keleş (2017), did not report significant differences between parents of children with and without special needs. This discrepancy may be attributable to methodological differences, such as the inclusion of children in inclusive education programs who exhibit milder symptoms, thereby potentially moderating parental anxiety.

During the COVID-19 pandemic, widespread increases in anxiety levels have been documented globally (Hyland et al., 2020; Salari et al., 2020), underscoring the influence of external stressors beyond caregiving burdens.

Interestingly, the study found no significant difference between state and trait anxiety scores. This may be due to the conceptual overlap between the two constructs, as trait anxiety is thought to predispose individuals to heightened state anxiety in stressful situations (Öner & Le Compte, 1983;

Spielberger, 1966). The consistency of this finding with previous literature (Avşaroğlu & Çavdar, 2018; Doğru & Aslan, 2008) lends support to the robustness of this emotional connection.

Gender differences revealed a notable pattern: while state anxiety did not vary significantly between mothers and fathers, trait and total anxiety scores were significantly higher among female participants. This aligns with earlier findings (e.g., Avşaroğlu, 2012; Güngör, 2008), but contradicts studies that reported no gender-based difference or even higher paternal anxiety (Aktürk, 2012). These inconsistencies may reflect sociocultural dynamics, caregiving roles, or differences in emotional expression. Notably, women have been found to report higher anxiety during the pandemic (Koç et al., 2021; Wang et al., 2020), possibly due to heightened emotional reactivity and greater caregiving responsibilities.

The negative correlation between the child's age and parental anxiety may suggest a developmental adaptation process, whereby parents gain more experience and develop coping strategies over time. This finding is consistent with prior studies (Artan, 2001; Fırat, 2016). Conversely, no relationship was found between parents' age and anxiety levels, despite some evidence suggesting both increasing and decreasing anxiety with age (e.g., Machoda, 2014; Coşkun & Akkaş, 2009), possibly due to differences in sample characteristics.

Regarding socioeconomic factors, income level was found to be inversely related to anxiety in some prior research (e.g., Avşaroğlu, 2012), but findings remain mixed. The inconsistencies could stem from contextual variations in financial security, public support systems, or subjective perceptions of financial adequacy.

A key contribution of this study is its focus on pandemic-related working conditions. Parents who worked from home exhibited significantly lower trait anxiety compared to those who were unemployed. This supports research indicating that remote work can provide psychological benefits, such as maintaining routines and social roles while reducing exposure to health risks (Ren et al., 2020). Conflicting findings in the literature regarding employment and anxiety may reflect differences in job types, work-life balance, or access to childcare.

Contrary to early pandemic findings (e.g., Hyland et al., 2020), having an infected family member or friend was not associated with higher anxiety in this study. This may be attributed to the availability of vaccines or increased adaptation over time, which may have reduced the initial psychological impact.

Similarly, whether parents were able to take their children outside during the pandemic did not significantly affect anxiety levels. This might be due to compensatory activities at home or scheduled outdoor permissions granted for families of children with disabilities (Tokatly Latzer et al., 2021).

Professional status and education level also did not emerge as significant predictors of anxiety. While some studies report that education buffers anxiety (e.g., Avşaroğlu, 2012), the relatively high proportion of highly educated participants in this sample may have contributed to the lack of variance, potentially masking effects that might be observed in populations with lower educational attainment.

Finally, the type of disability did not significantly influence parental anxiety levels. While some literature suggests variation in anxiety based on disability type or severity (Aktürk, 2012; Kayılı, 2018), this study's broader classification and more evenly distributed group sizes may have yielded more uniform results. Methodological factors such as sample composition and measurement tools likely contributed to the divergence from studies focusing on specific disabilities.

The findings of this study provide several important implications for both practitioners and policymakers. Firstly, the elevated anxiety levels observed among parents of children with special

needs—especially during the COVID-19 pandemic—highlight the urgent need for mental health support systems tailored to this population. Practitioners should consider integrating routine psychological screening and intervention services into special education programs, particularly targeting mothers who appear to experience higher levels of anxiety. For policymakers, these results underline the importance of formulating inclusive family support policies that not only focus on the educational needs of children with special needs but also address the psychological well-being of their parents. Policies facilitating flexible work arrangements, remote working opportunities, and access to affordable mental health services could substantially alleviate parental stress.

Theoretically, this study contributes to a deeper understanding of how situational crises, such as pandemics, exacerbate existing emotional burdens among vulnerable populations. Future research should explore longitudinal trajectories of parental anxiety to better understand how external stressors interact with internal dispositional factors like trait anxiety.

Additionally, future studies should consider larger and more diverse samples, including a wider range of disability types and socioeconomic backgrounds, to enhance the generalizability of findings. The development and validation of culturally sensitive anxiety assessment tools tailored to the experiences of parents of children with special needs would also be a valuable contribution.

Ultimately, bridging the gap between clinical findings and real-world application is crucial. By addressing parental anxiety as part of a holistic support system for families, both policy and practice can move toward more equitable and effective service delivery models.

4.1. Limitations

This study has several limitations that should be acknowledged. Firstly, although the State-Trait Anxiety Inventory (STAI) is a widely used instrument, the test-retest reliability of the State Anxiety subscale has been reported as low in some studies—with values as low as .26, according to Öner and Le Compte (1983). This indicates potential instability in measuring temporary emotional states and may have influenced the accuracy of the findings related to state anxiety in this study.

Secondly, while the STAI traditionally provides two separate scores for State and Trait Anxiety, a composite Total Anxiety score was calculated in this study by summing all 40 items. This approach, although useful for capturing a general anxiety index that aligns with our exploratory objectives, deviates from the instrument's standard scoring protocol (Spielberger, 1983). As such, this methodological choice may affect the comparability of these findings with other studies and should be interpreted with caution.

References

Aishworiya, R., & Kang, Y. Q. (2021). Including children with developmental disabilities in the equation during this COVID-19 pandemic. *Journal of Autism and d-Developmental Disorders, 51*(6), 2155-2158.

Aktürk, Ü. (2012). *Engelli çocuğu olan anne-babaların kaygı düzeyi ve başa çıkma stratejilerinin değerlendirilmesi*. Yüksek lisans Tezi. Malatya: İnönü Üniversitesi, Sağlık Bilimleri Enstitüsü.

Ar, Ö. F. (2014). *Normal gelişim gösteren çocuğa sahip ebeveynler ile otizmli çocuğa sahip ebeveynlerin evlilik uyumu ve anksiyete düzeylerinin incelenmesi.* (Yayın No. 358835) [Yüksek lisans tezi, Haliç Üniversitesi]. YÖK. https://tez.yok.gov.tr

Artan, İ. (2001). Zihinsel engelli çocukların anne ve babalarının kaygı düzeylerine etki eden etmenlerin incelenmesi. *Ufkun Ötesi Bilim Dergisi*, (2), 41-53.

Asbury, K., Fox, L., Deniz, E., Code, A., & Toseeb, U. (2021). How is COVID-19 affecting the mental health of children with special educational needs and disabilities and their families? *Journal of Autism and Developmental Disorders*, 51(5), 1772-1780.

Avşaroğlu, S. (2012). Zihinsel yetersizliğe sahip çocuğu olan anne-babaların kaygı düzeylerinin incelenmesi. *Uluslararası İnsan Bilimler Dergisi*, 9(1), 533-550.

Avşaroğlu, S. ve Çavdar, İ. (2018). Görme engelli çocuklara sahip anne-babaların kaygı düzeylerinin incelenmesi. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, (47), 105-122. https://doi.org/10.21764/maeuefd.399486

Bal U., Çakmak S. ve Uğuz Ş. (2013). Anksiyete bozukluklarında cinsiyete göre belirti farklılıkları. *Arşiv Kaynak Tarama Dergisi, 22*(4), 441–459. https://dergipark. org.tr/tr/pub/aktd/issue/2206/29337

Banks, L. M., Davey, C., Shakespeare, T., & Kuper, H. (2021). Disability-inclusive responses to COVID-19: Lessons learnt from research on social protection in low-and middle-income countries. *World Development,* 137, 105178. https://doi.org/10.1016/j.worlddev.2020.105178Get rights and content

Bozkurt, Y., Zeybek, Z. ve Aşkın, R. (2020). Covid-19 pandemisi: Psikolojik etkileri ve terapötik müdahaleler. *İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi*, *19*(37), 304-318.

Bumin, G., Günal, A., & Tükel, Ş. (2008). Anxiety, depression and quality of life in mothers of disabled children. *SDÜ Tıp Fakültesi Dergisi*, *15*(1), 6-11.

Büyüköztürk, Ş. (2016). *Sosyal bilimler için veri analizi el kitabı.* (22. Baskı). Pegem Akademi.

Büyüköztürk, Ş., Kılıç Çalmak, E., Akgün, Ö.E., Karadeniz, Ş. ve Demirel, F. (2017). *Bilimsel araştırma yöntemleri*. Pegem Akademi.

Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry research* 287 (2020), 112934. https://doi.org/10.1016/j.psychres.2020.112934

Coşkun, Y. ve Akkaş, G. (2009). Engelli çocuğu olan annelerin sürekli kaygı düzeyleri ile sosyal destek algıları arasındaki ilişki. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi, 10*(1), 213-227.

Çalık, F., Yılmaz, A., Şentürk, U., Akdeniz, H. ve Sertbaş, K. (2015). Otistik çocuğa sahip ebeveynlerin durumluluk ve sürekli kaygı. *Spor Yönetimi ve Bilgi Teknolojileri*, *10*(2), 13-21. https://dergipark.org.tr/tr/pub/sybtd/issue/11441/136540.

Çandır, G. (2015). *4-24 Yaş arası otizm spektrum bozukluğu ve down sendromu tanısı alan çocukların annelerinde depresyon, anksiyete, stres ve baş etme tutumları arasındaki ilişkinin incelenmesi.* (Yayın No. 394731) [Yüksek lisans tezi, Arel Üniversitesi]. YÖK. https://tez.yok.gov.tr

Çengelci, B. (2009). Otizm ve down sendromlu çocuğa sahip annelerin kaygı umutsuzluk ve tükenmişlik duygularının karşılaştırılması. *Ege Eğitim Dergisi*, *10*(2), 1-23.

Dilmaç, B., Çıkılı, Y., Koçak, F. ve Çalıkçı, M. (2009). Zihinsel engelli çocuğa sahip olan annelerin kaygı düzeylerini azaltıcı eğitim programının annelerin durumluk ve sürekli kaygı düzeylerine

etkisi. *Dumlupınar   Üniversitesi   Sosyal   Bilimler   Dergisi,*   (24). https://dergipark.org.tr/tr/pub/dpusbe/issue/4766/65517

Doğan, M. (2010). İşitme engelli çocuğu olan ve olmayan ana-babaların stres, depresyon ve sürekli kaygı belirtileri yönünden karşılaştırılması. *International Journal of Early Childhood Special Education*, 2(3), 231-246.

Doğru, S. S. Y. ve Arslan, E. (2008). Engelli çocuğu olan annelerin sürekli kaygı düzeyi ile durumluk kaygı düzeylerinin karşılaştırılması. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (19), 543-553.

Fegert, J. M., Vitiello, B., Plener, P. L., & Clemens, V. (2020). Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: a narrative review to highlight clinical and research needs in the acute phase and the long return to normality. *Child and Adolescent Psychiatry and Mental Health,* 14, 1-11.

Fırat, S. (2016). Otistik çocukların anne-babalarının depresyon ve kaygı düzeyleri. *Cukurova Medical Journal*, *41*(3), 539-547. https://doi.org/10.17826/cukmedj.237509

Gogoi, R. R., Kumar, R., & Deuri, S. P. (2017). Anxiety, depression, and quality of life in mothers of children with intellectual disability. *Open Journal of Psychiatry and Allied Sciences*, *8*(1), 71-75.

Guillamón, N., Nieto, R., Pousada, M., Redolar, D., Muñoz, E., Hernández, E., & Gómez-Zúñiga, B. (2013). Quality of life and mental health among parents of children with cerebral palsy: The influence of self-efficacy and coping strategies. *Journal of Clinical Nursing*, *22*(11-12), 1579-1590. https://doi.org/10.1111/jocn.12124

Güngör, E. (2008). *Özel eğitime muhtaç anne ve babalarının psikolojik ilişki ihtiyaçları ile durumluluk ve sürekli kaygı düzeyleri arasındaki ilişkiler.* (Yayın No. 219220) [Yüksek lisans tezi, Dokuz Eylül Üniversitesi]. YÖK. https://tez.yok.gov.tr

Hasandayıoğlu, G. (2020). *Otizm tanısı almış çocuğa sahip anne ve babaların anksiyete düzeylerinin incelenmesi.* Yüksek Lisans Tezi. Lefkoşa: Yakın Doğu Üniversitesi, Sosyal Bilimler Enstitüsü.

Hyland, P., Shevlin, M., McBride, O., Murphy, J., Karatzias, T., Bentall, R. P., ... & Vallières, F. (2020). Anxiety and depression in the Republic of Ireland during the COVID-19 pandemic. *Acta Psychiatrica Scandinavica*, *142*(3), 249-256. https://doi.org/10.1111/acps.13219

İçöz, A. (2001). *Zihinsel engelli bir çocuğa sahip aile bireylerinin kaygı düzeylerinin incelenmesi.* Yayınlanmamış Yüksek Lisans Tezi. Ankara: Ankara Üniversitesi Fen Bilimleri Enstitüsü.

Jesus, T. S., Kamalakannan, S., Bhattacharjya, S., Bogdanova, Y., Arango-Lasprilla, J. C., Bentley, J., ... & of the American, I. N. G. (2020). People with disabilities and other forms of vulnerability to the COVID-19 pandemic: study protocol for a scoping review and thematic analysis. *Archives of Rehabilitation Research and Clinical Translation,* 2(4), 100079.

Karacasu, G. (2019). *Çocuklarında otizm spektrum bozukluğu olan ebeveynlerin tükenmişlik düzeyi ve anksiyete ile baş etme tutumları arasındaki ilişki*. [Yüksek lisans tezi, Yakın Doğu Üniversitesi].

Karasar, N. (2012). *Bilimsel araştırma yöntemi* (24. Baskı). Nobel Yayıncılık.

Kayılı, G. (2018). Depression, anxierty and stress among parents of disabled children. *Sosyal ve Beşeri Bilimler Araştırmaları*. https://www.researchgate.net/publication/327905744

Keskin, G., Bilge, A., Engin, E. ve Dülgerler, Ş. (2010). Zihinsel engelli çocuğu olan anne-babaların kaygı, anne-baba tutumları ve başa çıkma stratejileri açısından değerlendirilmesi. *Anadolu Psikiyatri Dergisi, 11*(1), 30-37.

Koç, A., Tok, H. H., Uzun, L. N. ve Ensari, H. (2021). COVID-19 Sebebiyle bir kurumda karantina altında bulunanlarda depresyon, anksiyete, durumsal suçluluk düzeyleri ve etkileyen faktörler. *Nöropsikiyatri Arşivi*, *58*(2), 146-153. https://doi.org/10.29399/npa.27329

Lakhan, R., Agrawal, A., & Sharma, M. (2020). Prevalence of depression, anxiety, and stress during COVID-19 pandemic. *Journal of neurosciences in rural practice*, *11*(04), 519-525. https://doi.org/10.1055/s-0040-1716442

Machado Jr. S.B., Oliveira CelestinoM.I., Costa Serra J.P., Caron J., & Ponde M.P. (2014). Risk and protective factors for symptoms of anxiety and depression in parents of children with autism spectrum disorder. *Dev Neurorehabil*, 2016 Jun, 19(3), 146-53. https://doi.org/10.3109/17518423.2014.925519

MEB, (2020). "Özelim Eğitimdeyim" mobil uygulaması, OECD tarafından tüm dünyaya örnek gösterildi. https://orgm.meb.gov.tr/www/ozelim-egitimdeyim-mobil-uygulamasi-oecd-tarafindan-tum-dunyaya-ornek-gosterildi/icerik/1494 Erişim tarihi: 03.01.2022.

Moghanibashi-Mansourieh, A. (2020). Assessing the anxiety level of Iranian general population during COVID-19 outbreak. *Asian journal of psychiatry*, *51*, 102076. https://doi.org/10.1016/j.ajp.2020.102076

Natan, K. (2007). *Zihinsel engelli çocuğu olan ve zihinsel engelli çocuğu olmayan annelerin depresyon ve kaygı düzeyleri.* (Yayın No. 239336) [Yüksek lisans tezi, Maltepe Üniversitesi]. YÖK. https://tez.yok.gov.tr

Norris, F.H. (2005). Range, magnitude and duration of the effects of disasters on mental health: Review update. Research Education Disaster Mental Health. *Disaster Effects,* 1-23.

Öner, N. ve Le Compte, A. (1983). *Durumluk–sürekli kaygı envanter el kitabı*. İstanbul: Boğaziçi Üniversitesi Yayınları.

Özdin, S., & Bayrak Özdin, Ş. (2020). Levels and predictors of anxiety, depression and health anxiety during COVID-19 pandemic in Turkish society: The importance of gender. *International Journal of Social Psychiatry*, *66*(5), 504-511. https://doi.org/10.1177/0020764020927051

Özer, M. (2020). Türkiye'de COVID-19 salgını sürecinde Milli Eğitim Bakanlığı tarafından atılan politika adımları Educational policy actions by the Ministry of National Education in the times of COVID-19. *Kastamonu Education Journal*, 28(3), 1124-1129.

Pallant, J. (2011). *SPSS survival manual: A step by step guide to data analysis using SPSS.* (4th ed.). Allen&Unwin.

Reaven, J., Washington, L., Moody, E. J., Stern, J. A., Hepburn, S. L., & Blakeley-Smith, A. (2015). Examining the relationship between parental anxiety and treatment response in children and adolescents with autism spectrum disorder and anxiety. *Journal of autism and developmental disorders*, *45*(8), 2464-2473.

Ren, J., Li, X., Chen, S., Chen, S., & Nie, Y. (2020). The influence of factors such as parenting stress and social support on the state anxiety in parents of special needs children during the COVID-19 epidemic. *Frontiers in psychology*, *11*, 3413. https://doi.org/10.3389/fpsyg.2020.565393

Salari, N., Hosseinian-Far, A., Jalali, R., Vaisi-Raygani, A., Rasoulpoor, S., Mohammadi, M., … & Khaledi-Paveh, B. (2020). Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: A systematic review and meta-analysis. *Globalization and health*, *16*(1), 1-11.

Sani-Bozkurt, S., Bozkuş Genç, G., Vuran, S., Yıldız, G., Çelik, S., Diken, İ., Uysal, Ç., Gürgür, H., Kalaycı, G., Diken, Ö., Ateşgöz, N. N., İçyüz, R., Doğan, M., Şafak, P. ve Demiryürek, P. (2021). COVID-19 Salgınında Türkiye'deki özel gereksinimi olan öğrenciler ve ailelerine yönelik uzaktan özel eğitim uygulamalarına ilişkin uzman bakış açısı. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi,* 1-32. https://doi.org/10.21565/ozelegitimdergisi.786118

Sola-Carmona, J. J., López-Liria, R., Padilla-Góngora, D., Daza, M. T., Aguilar-Parra, J. M., & Salido-Campos, M. Á. (2016). Factors associated with the anxiety, subjective psychological well-being and self-esteem of parents of blind children. *PloS one*, *11*(9), e0162294.

Spielberger, C. D. (1966). Theory and research on anxiety. *Anxiety and behavior*, *1*(3), 413-428.

Spielberger, C. D. (1983). *State-trait anxiety inventory for adults*. APA PsycTests. https://doi.org/10.1037/t06496-000

Şengül, S. ve Baykan, H. (2013). Zihinsel engelli çocukların annelerinde depresyon, anksiyete ve stresle başa çıkma tutumları. *Kocatepe Tıp Dergisi*, *14*(1), 30-39.

Tokatly Latzer, I., Leitner, Y., & Karnieli-Miller, O. (2021). Core experiences of parents of children with autism during the COVID-19 pandemic lockdown. *Autism*, *25*(4), 1047-1059. https://doi.org/10.1177/1362361320984317

Tura, G. (2017). Engelli çocuğu olan ve çocuğu engelli olmayan annelerin anksiyete, depresyon ve psikolojik sağlamlık düzeylerinin incelenmesi. *Dicle Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *9*(18), 30-36.

Uğuz, Ş., Toros, F., İnanç, B. Y. ve Çolakkadıoğlu, O. (2004). Zihinsel ve/veya bedensel engelli çocukların annelerinin anksiyete, depresyon ve stres düzeylerinin belirlenmesi. *Klinik Psikiyatri*, *7*(1), 42-7.

Uskun, E., & Gundogar, D. (2010). The levels of stress, depression and anxiety of parents of disabled children in Turkey. *Disability and Rehabilitation*, *32*(23), 1917-1927.

Uyaroğlu A. K. ve Bodur S (2009). Zihinsel yetersizliği olan çocukların anne-babalarında kaygı düzeyi ve bilgilendirmenin kaygı düzeyine etkisi. *TSK Koruyucu Hekimlik Bülteni*, *8*(5), 405-412.

VandenBos, G. R. (2007). *APA dictionary of psychology*. American Psychological Association.

Wang Y., Di Y., Ye J., & Wei W. (2020). Study on the public psychological states and its related factors during the outbreak of coronavirus disease 2019(covid-19) in some regions of China. *Psychol Health Med*, 25, 1–10.

Warner-Richter, M., & Lloyd, C. M. (2020). Considerations for building post-COVID early care and education systems that serve children with

disabilities. https://www.childtrends.org/wpcontent/uploads/2020/08/ECEDisabilitiesCovid19_ChildTrends_August2020.pdf

Yazcayir, G., & Gurgur, H. (2021). Students with special needs in digital classrooms during the COVID-19 pandemic in Turkey. *Pedagogical Research*, *6*(1).

Zablotsky, B., Bradshow, C., & Stuart, E. (2013). The association between mental, stress, and coping supports in mothers of children with autism spectrum disorders. *Journal of Autism Developmental. Disorders,* 43, 1380–1393. https://doi.org/10.1007/s10803-012-1693-7

Zhou, W., Liu, D., Xiong, X., & Xu, H. (2019). Emotional problems in mothers of autistic children and their correlation with socioeconomic status and the children's core symptoms. *Medicine,* 98 (32), e16794. 10.1097/MD.0000000000016794

Geniş Özet

1. Giriş

Covid-19 pandemisinin başlamasıyla birlikte, eğitimde köklü değişiklikler yaşanmış Türkiye'de ve dünyada okulların kapatılmasıyla uzaktan eğitim uygulamalarına geçilmiştir. Bu süreçte, özellikle özel gereksinimli çocuklar ve aileleri ciddi zorluklarla karşı karşıya kalmıştır. Milli Eğitim Bakanlığı (MEB), Eğitim Bilişim Ağı (EBA) ve "Özelim Eğitimdeyim" mobil uygulamaları gibi dijital çözümlerle özel eğitim öğrencilerine destek sunmaya çalışsa da, bu önlemler çoğu durumda yetersiz kalmıştır. Pandemi sürecinde rehabilitasyon ve okul hizmetlerinin durması, ailelerin çocuklarına gerekli eğitsel ve psikolojik desteği sağlamasını zorlaştırmıştır. Özellikle erken çocukluk dönemindeki özel gereksinimli bireyler, bu dönemde kritik eğitim ve gelişim fırsatlarını kaçırmış; aileler ise artan sorumluluklarla başa çıkabilmek için ek desteklere ihtiyaç duymaktadır.

Bu çalışmada, pandeminin özel gereksinimli çocukların ebeveynleri üzerindeki etkisine ilişkin anlayışımızı derinleştirmeye katkıda bulunarak, özel gereksinimli çocukların ebeveynlere yönelik ile stratejilerin yapılandırılmasına ve özel eğitim merkezlerine ve uzmanlara rehber olabileceği düşünülmektedir. Ayrıca bulguların, aileler için destek programları ve hizmetler geliştirmeye yardımcı olması beklenmektedir. Bu gereksinimden yola çıkarak planlanan araştırmanın amacı, Covid-19 pandemisi sürecinde 0-6 yaş aralığında özel gereksinimli çocuğa sahip ailelerin kaygı düzeylerinin incelenmesidir. Çalışmada aşağıdaki sorulara cevap aranmıştır:

1. Ebeveynlerin durumluk ve sürekli kaygı puanları arasında bir ilişki var mıdır?

2. Ebeveynlerin durumluk ve sürekli kaygı puanları arasında anlamlı bir fark var mıdır?

3. Ebeveynlerin durumluk, sürekli ve toplam kaygı puanları arasında cinsiyete göre anlamlı bir fark var mıdır?

4. Çocuğun yaşı, ebeveynin yaşı ve gelir düzeyi ile durumluk, sürekli ve toplam kaygı puanları arasında bir ilişki var mıdır?

5. Pandemi döneminde çalışma özelliklerine göre durumluk ve sürekli kaygı puanları arasında anlamlı bir fark var mıdır?

6. Covid-19 ve/veya türevleri ile enfekte olma durumuna göre durumluk, sürekli ve toplam kaygı puanları arasında anlamlı bir fark var mıdır?

7. Pandemi sırasında çocuğu dışarı çıkarma açısından durumluk, sürekli ve toplam kaygı puanları arasında anlamlı bir fark var mıdır?

8. Ebeveynlerin mesleklerine göre durumluk, sürekli ve toplam kaygı puanları arasında anlamlı bir fark var mıdır?

9. Çocukların tanı gruplarına göre durumluk, sürekli ve toplam kaygı puanları arasında anlamlı bir fark var mıdır?

2. Yöntem

Bu araştırma, ilişkisel tarama modeli kullanılarak yapılmıştır. İlişkisel tarama modeli, iki veya daha fazla değişken arasındaki ilişkiyi analiz etmeyi amaçlayan bir yaklaşımdır (Karasar, 2005). Araştırmada, 0-6 yaş arası özel gereksinimli çocuklara sahip ebeveynlerin kaygı düzeyleri incelenmiş; cinsiyet, yaş, eğitim durumu ve gelir düzeyi gibi demografik değişkenlerle olan ilişkisi değerlendirilmiştir. Çalışma grubunu, Ankara ilinde yaşayan ve özel gereksinimli çocuklara sahip olan 101 ebeveyn oluşturmaktadır. Katılımcılar, Millî Eğitim Bakanlığı Özel Eğitim Yönetmeliği'nde tanımlanan özel eğitime ihtiyacı olan bireylerin ailelerinden seçilmiştir. Veri toplama araçları olarak, ebeveynlerin sosyo-demografik özelliklerini belirlemek için Demografik Bilgi Formu ve kaygı düzeylerini

ölçmek için Spielberger Durumluk Sürekli Kaygı Envanteri (STAI) kullanılmıştır. STAI, katılımcıların durumluk ve sürekli kaygı düzeylerini değerlendiren güvenilir bir ölçektir. Veri toplama süreci, çevrim içi formlar aracılığıyla gerçekleştirilmiş ve katılımcılardan onam formu alınmıştır. Verilerin analizinde çarpıklık ve basıklık değerleri kontrol edilmiş, değişkenler arası ilişkiler Pearson ve Spearman korelasyon katsayıları ile incelenmiştir. t-testi, ANOVA ve Kruskal-Wallis analizleri ile gruplar arası karşılaştırmalar yapılmış, Bonferroni düzeltmesi ile hatalar minimize edilmiştir.

3. Bulgular

Bu araştırmanın bulgularına göre, sürekli kaygı, durumluk kaygı ve toplam kaygı puanları arasında pozitif, güçlü ve anlamlı ilişkiler tespit edilmiştir. Ancak, sürekli ve durumluk kaygı düzeyleri arasında anlamlı bir fark bulunmamıştır. Cinsiyete göre sürekli kaygı düzeylerinde fark gözlenmiştir; erkeklerin kaygı düzeyi, kadınlara göre daha düşük bulunmuştur. Ayrıca, çocukların yaşları arttıkça durumluk ve toplam kaygı puanlarının azaldığı; fakat sürekli kaygı ile anlamlı bir ilişki olmadığı sonucuna ulaşılmıştır.

Pandemi dönemindeki ebeveynlerin çalışma durumu, Covid-19 geçirme durumu ve çocuğu dışarı çıkarma durumu gibi faktörlere göre kaygı düzeyleri analiz edilmiştir. Pandemi sırasında kısa süreli evden çalışanların sürekli ve toplam kaygı puanlarının, hiç çalışmayanlara göre anlamlı düzeyde düşük olduğu belirlenmiştir. Bununla birlikte, Covid-19 geçirme durumunun kaygı düzeylerine etkisi olmadığı, meslek ve eğitim durumuna göre kaygı düzeylerinde anlamlı bir fark bulunmadığı görülmüştür.

Sonuç olarak, çalışma pandeminin ebeveynlerdeki kaygı düzeyleri üzerindeki etkilerini çeşitli değişkenler açısından değerlendirmiş ve bazı demografik faktörlerin kaygı düzeylerinde farklılık yarattığını ortaya koymuştur.

4. Tartışma, Sonuç ve Öneriler

Covid-19 pandemisi ile birlikte dünya genelinde kaygı seviyeleri artış göstermiştir. Bu araştırma, pandemi sürecinde 0-6 yaş arası özel gereksinimli çocuklara sahip ebeveynlerin kaygı düzeylerini incelemektedir. Araştırmada, ebeveynlerin kaygı düzeylerinin demografik özellikler, çocuklarının yetersizlik türleri ve pandemideki deneyimleri ile ilişkisi analiz edilmiştir. Bulgular, sürekli kaygının durumluk kaygıyı etkilediğini ve kadınların erkeklere kıyasla daha yüksek kaygı düzeyine sahip olduğunu göstermiştir. Ayrıca, çocuk yaşı arttıkça ebeveynlerin kaygı seviyelerinin azaldığı gözlemlenmiştir. Pandemi sırasında evden çalışan ebeveynlerin kaygı seviyeleri daha düşük bulunmuş; gelir düzeyi ve meslek gibi faktörlerin kaygıya etkisi saptanmamıştır. Özel gereksinimli çocukların yetersizlik türleri ile ebeveyn kaygısı arasında anlamlı bir ilişki bulunamamıştır. Araştırma, pandeminin ebeveynlerin psikolojik durumlarını nasıl etkilediğini anlamaya yönelik önemli bulgular sunmaktadır.

Yayın Etiği Beyanı

Bu araştırmanın, Anadolu Üniversitesi Sosyal ve Beşeri Bilimler Araştırma ve Yayın Etiği Kurulu tarafından 08.10.2021 tarihinde 147350 sayılı kararıyla verilen etik kurul izni bulunmaktadır. Bu araştırmanın planlanmasından, uygulanmasına, verilerin toplanmasından verilerin analizine kadar olan tüm süreçte "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında uyulması belirtilen tüm kurallara uyulmuştur. Yönergenin ikinci bölümü olan "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerden hiçbiri gerçekleştirilmemiştir. Bu araştırmanın yazım sürecinde bilimsel, etik ve alıntı kurallarına uyulmuş; toplanan veriler üzerinde herhangi bir tahrifat yapılmamıştır. Bu çalışma herhangi başka bir akademik yayın ortamına değerlendirme için gönderilmemiştir.

Araştırmacıların Katkı Oranı Beyanı

Araştırmada üç yazar yer almaktadır. Araştırmaya 1. Yazar %60, 2. yazar %30 ve 3. yazar %10 katkı sağlamıştır. Araştırmacıların katkıda bulundukları başlıklar şöyledir:

Yazar 1: Araştırmanın tasarlanması, verilerin toplanması, verilerin analizi, raporlaştırma.

Yazar 2: Yöntemin belirlenmesi, danışmanlık.

Yazar 3: Veri analizi, raporlaştırma, araştırmanın yayına hazırlanması.

Destek ve Teşekkür

Bu araştırmaya katılan ebeveynlerimize katkılarından dolayı teşekkür ederiz.

Çatışma Beyanı

Araştırmanın yazarları olarak herhangi bir çıkar/çatışma beyanımız olmadığını ifade ederiz.