



ARAŞTIRMA / RESEARCH

Comparison of emotional-behavioral problems, parental attitude characteristics, parental stress level, and related factors between children diagnosed with a communication disorder and healthy controls

İletişim bozukluğu tanılı çocuklarda duygusal davranışsal sorunlar, ebeveyn tutum özellikleri, ebeveyn stres düzeyi ve ilişkili faktörlerin sağlıklı kontrollerle karşılaştırılması

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Abstract

Purpose: We aimed to compare emotional and behavioral problems, parental attitude characteristics, and the risk of parental anxiety and depression between children diagnosed with a communication disorder and healthy controls.

Materials and Methods: A total of 117 children diagnosed with a communication disorder in the psychiatric evaluation according to the DSM-5 diagnostic criteria and their parents were included in the communication disorder group, whereas 105 children who presented to the outpatient clinics other than child psychiatry and were not diagnosed with a communication disorder, and their parents formed the control group. Sociodemographic Data Form, Child Adjustment and Parent Efficacy Scale (CAPES-TR), The Parenting Styles and Dimensions Questionnaire-Short Form (PSDQSF), and Hospital Anxiety Depression Scale (HADS) were filled in by the parents.

Results: Psychiatric comorbidity was found in 27.3% of the children in the communication disorder group, with the most common diagnoses being Attention deficit and hyperactivity disorder (n=17, 15.5%) and Conduct disorder (n=4, 3.6%). CAPES-TR child adjustment total difficulty score and the mean scores of emotional problems and behavioral problems were higher in the communication disorder group. The mean CAPES-TR parental self-efficacy score was lower in the communication disorder group. In the communication disorder group, democratic parenting attitudes were lower, whereas authoritarian and permissive parenting attitudes were higher. HAD-D mean score was higher in the communication disorder group.

Öz

Amaç: Çalışmamızda iletişim bozukluğu tanılı çocuklarda duygusal, davranışsal sorunlar, ebeveyn tutum özellikleri ve ebeveynlerde kaygı, depresyon riskinin sağlıklı kontrollerle karşılaştırılması amaçlanmıştır.

Gereç ve Yöntem: Çalışmada, DSM 5 tanı kriterlerine göre yapılan psikiyatrik değerlendirmede iletişim bozukluğu tanısı konan 117 çocuk ve ebeveyni iletişim bozukluğu grubunu; çocuk psikiyatrisi dışındaki polikliniklere gelen ve iletişim bozukluğu tanısı almayan 105 çocuk ve ebeveyni ise kontrol grubunu oluşturdu. Ebeveynler tarafından Sosyodemografik Veri Formu, Çocuk Uyumu ve Anne Baba Yeterlik Ölçeği (CAPES-TR), Anne Babalık Stilleri ve Boyutları Ölçeği–Kısa Form (ASBÖ) ve Hastane Anksiyete Depresyon Ölçeği (HADÖ) dolduruldu.

Bulgular: İletişim bozukluğu grubunda çocukların %27.3'ünde psikiyatrik ek tanı saptandı; en sık tanılar Dikkat eksikliği ve hiperaktivite bozukluğu (n:17,%15.5) ve davranım bozukluğu (n:4,%3.6) idi. İletişim bozukluğu grubunda CAPES_TR çocuk uyumu toplam güçlük puanı, duygusal sorunlar ve davranışsal sorunlar puan ortalamaları daha yüksekti. İletişim bozukluğu grubunda CAPES_TR ebeveyn özyeterliliği puan ortalaması daha düşüktü. İletişim bozukluğu grubunda demokratik anne babalık tutumu daha düşük, otoriter ve izin verici anne babalık tutumları daha yüksekti. HAD-D puan ortalaması iletişim bozukluğunda daha yüksekti.

Sonuç: Çalışmamız iletişim bozukluğu varlığında duygusal ve davranışsal sorunlarda artış, daha otoriter ya da izin verici ebeveynlik tutumları, ebeveyn öz yeterliğinde azalma ve ebeveynlerde depresyon riskinde artış gibi önemli bilgiler sunmakla birlikte, literatürde bu alanları birlikte ele

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Conclusion: Our study provides essential information such as an increase in emotional and behavioral problems, more authoritarian or permissive parenting attitudes, a decrease in parental self-efficacy, an increased risk of depression in parents in the presence of communication disorder, and studies that deal with these areas together are limited in the literature. Our findings will contribute to the literature regarding the assessment and planning of appropriate intervention programs for factors that are not only child-focused but also related to parental mental health and parenting skills in the presence of communication disorders.

Keywords: Communication disorder, emotional and behavioral problems, parental self-efficacy, parental attitudes, parental mental health

alan çalışmalar kısıtlıdır. Bulgularımız iletişim bozukluğu varlığında sadece çocuk odaklı değil aynı zamanda ebeveyn ruh sağlığı ve ebeveynlik becerileri gibi faktörlere yönelik değerlendirme ve uygun müdahale programlarının planlanmasına yönelik literatüre katkı sağlayacaktır.

Anahtar kelimeler: İletişim bozukluğu, duygusal ve davranışsal sorunlar, ebeveyn öz yeterliği, ebeveyn tutumları, ebeveyn ruh sağlığı

INTRODUCTION

Speech sound disorders have been included under the heading of communication disorders among neurodevelopmental disorders in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Communication disorders comprise language disorder, speech sound disorder, childhood-onset fluency disorder (stuttering), social (pragmatic) communication disorder, and unspecified communication disorder¹. Language disorder is characterized by receptive and expressive language insufficiency in early childhood, whereas speech sound disorder includes changing the voices and adding new voices, and stuttering is characterized by involuntary interruption of speech that hinders the capacity to communicate effectively. Prevalence rates are estimated to be 3-8% for language disorder, 8.2% for speech sound disorder, and 4-5% for stuttering. Communication disorders are more common in males²⁻⁴.

Problems in communication can lead to difficulties in interpersonal relationships and emotional and behavioral problems. In a 2014 study, it was found both in parent and teacher reports that children with a language disorder diagnosis at the age of six had more behavioral problems at the age of 10 compared to healthy controls⁵. Moreover, motor behaviors such as nervousness and throwing the head back and forth while uttering words can be seen in children diagnosed with stuttering. This can cause anxiety and social inadequacy in children. While stuttering is usually seen together with anxiety disorders, in a study evaluating school-aged stuttering cases, attention deficit and impulsivity scores were higher than healthy controls⁶. In addition, poor self-

perception, social withdrawal, and emotional dysregulation can be observed in the presence of communication disorders. Difficulty in maintaining a relationship and being exposed to peer bullying are among the other difficulties reported in these children⁷. Also, children with language disorders can be diagnosed with comorbid psychiatric disorders at rates varying between 30-50%. The most common additional diagnoses are attention deficit and hyperactivity disorder (ADHD), anxiety disorders (AD), and conduct disorder (CD)³.

Parents' stimulus quality, parental education level, parental health problems, and socioeconomic status may affect language development in children. In their study, Pan et al. reported that children aged 1-3 years have knowledge of less vocabulary in the presence of maternal depression compared to the children of healthy mothers⁸. This may be related to the inability of depressed mothers to have enough variety in their communication with their children⁹. In addition, the presence of stress in parents may lead to decreased positive perceptions of parenting roles and inappropriate parenting attitudes^{10,11}.

Positive response to speech therapy, which is among the interventions for children with a communication disorder, has been reported. The efficacy of interventions that take eight weeks or longer has been supported in meta-analysis studies⁷. It was observed that psychiatric comorbidities increased over time in communication disorders that persisted from childhood to adulthood but decreased in the group receiving special education¹².

Considering the multifaceted negative effects of the presence of communication disorder on the child's life, it is important to recognize children who have

difficulties in communication and who are at risk for communication disorders, provide early intervention, detect psychiatric comorbidities, and evaluate parental mental health and parental attitudes. This study aims to compare emotional and behavioral problems, parental attitude characteristics, and the risk of anxiety and depression in parents between children diagnosed with a communication disorder in the child and adolescent psychiatry outpatient clinic and healthy controls.

MATERIALS AND METHODS

Patients with a diagnosis of communication disorder consist of 110 children and their parents who were brought to the child and adolescent psychiatry outpatient clinic for communication problems and diagnosed with communication disorder after a psychiatric evaluation according to the DSM-5 diagnostic criteria, as well as the opinion of a speech and language therapist. The control group consists of 105 children who applied to outpatient clinics other than child psychiatry in our hospital and were not diagnosed with communication disorders in the evaluation made in the child and adolescent psychiatry outpatient clinic and their parents. Sociodemographic Data Form, Child Adjustment and Parent Efficacy Scale (CAPES-TR), The Parenting Styles and Dimensions Questionnaire-Short Form (PSDQSF), and Hospital Anxiety Depression Scale (HADS) were filled in by the parents. Ethical approval dated 26.05.2021 and numbered 2021-6/24 was obtained from the Uludag University Non-Interventional Research Ethics Committee.

Assessment tools

Sociodemographic data form

There are questions in the form that investigate the age, gender, educational status of the child and parents, income level of the family, whether there is another person with a diagnosis of communication disorder in the family, the child's screen exposure, and whether the parents have a habit of reading to their child or not.

Child Adjustment and Parent Efficacy Scale (CAPES-TR)

It is a 27-item scale that measures children's emotional and behavioral problems and parental self-efficacy. The Child Adjustment subscale consists of

'behavioral problems' and 'emotional problems' factors. High scores indicate an increase in problems. The Parent Efficacy subscale measures the parents' self-efficacy in managing the child's adjustment, behavioral, and emotional problems. High scores indicate that they are parents with high self-efficacy¹³.

The Parenting Styles and Dimensions Questionnaire-Short Form (PSDQSF)

The scale, which was developed to evaluate parenting attitudes, consists of three subscales that measure the democratic, authoritarian, and permissive parenting attitudes of the parents of children aged 3-13. Whichever of the subscales has a higher mean score; it means that the mother or father has that parenting attitude¹⁴.

Hospital Anxiety Depression Scale (HADS)

It was developed to monitor the risk of anxiety and depression in adults, symptom severity, and change over time. It consists of two subscales: anxiety (HAD-A) and depression (HAD-D)¹⁵. The cut-off point has been identified as 10 for anxiety and 7 for depression. Scores above these values indicate the presence of risk for anxiety and depression¹⁶.

Statistical analysis

SPSS statistical package program (SPSS for Windows, 25.0) was used for data entry and analysis. Data obtained by measurement are shown as arithmetic mean \pm standard deviation, and data obtained by counting as percentage (%). Kolmogorov Smirnov test was used to evaluate the fit of numerical variables to normal distribution. Categorical variables were compared with chi-square analysis, and continuous variables were compared with the Mann-Whitney U test. The relationship between the variables was analyzed by Spearman correlation analysis. Statistical significance was accepted as $p < 0.05$ at the 95% confidence interval.

RESULTS

There were 110 children in the communication disorder group and 105 children in the control group. The mean age of the children in the communication disorder group was 5.64 ± 2.46 years, and it was 5.77 ± 2.35 years in the control group. There was no significant difference in mean age between the two groups ($p: 0.608$). Males constituted 76.4% of the children in the communication disorder group and

57.1% in the control group. The rate of males was significantly higher in the communication disorder group (p:0.003). While there was no significant difference in maternal education levels between the two groups (p:0.071), the rate of fathers with high school or higher education was significantly higher in the control group (p:<0.001). Moreover, the rate of parents reporting income below the minimum wage was significantly higher in the communication disorder group (p:<0.001) (Table 1). In the communication disorder group, 35.5% (n=39) of the

parents reported that they did not read any books to their children during the pre-school period, and 41.8% (n=46) reported that they read less than 30 minutes a day. The reading rate to children during the pre-school period was significantly higher in the control group (p:0.007). While 58.2% (n=64) of the children in the communication disorder group spent at least 3 hours a day in front of the screen, this rate was 34.3% (n=6) in the control group. Screen time was significantly lower in the control group (p:<0.001) (Table 1).

Table 1. Sociodemographic characteristics

		Communication Disorder n (%)	Control n (%)	P
Child age		5.64 (±2.46)	5.77 (±2.35)	0.608*
Child Gender	Female	26 (23.6)	45(42.9)	0.003**
	Male	84 (76.4)	60 (57.1)	
Mother Education Status	Middle school and lower	51 (46.4)	36 (34.3)	0.071**
	High school and higher	59 (53.6)	69 (65.7)	
Father Education Status	Middle school and lower	53 (48.2)	25 (23.8)	0.000**
	High school and higher	57 (51.8)	80 (76.2)	
Mother Working Status	Working	30 (27.3)	59 (56.2)	0.000**
	Not working	80 (72.7)	46 (43.8)	
Father Working Status	Working	105(95.5)	102 (97.1)	0.513**
	Not working	5 (4.5)	3 (2.9)	
Montly income level	Below the minimum wage	37 (33.6)	13 (12.4)	0.000**
	Above the minimum wage	73 (66.4)	92 (87.6)	
Siblings	Yes	91 (82.7)	83 (79.0)	0.492**
	No	19 (12.3)	22 (21.0)	
Daily screen time duration	Less tan two hours	46 (41.8)	69 (65.7)	0.000**
	More than two hours	64 (58.2)	36 (34.3)	
Reading a book to the child during th preschool period	Yes	71 (64.5)	85 (81.0)	0.007**
	No	39 (35.5)	20 (19.0)	

* Mann Whitney U Test; ** Chi-Square Tests

In the communication disorder group, 42.7% (n=47) of the children were diagnosed with speech sound disorder, 30.9% (n=34) with language disorder, and 26.4% (n=29) with childhood fluency disorder. A

psychiatric comorbidity was found in 27.3% of the children with communication disorders. The most common diagnoses were ADHD (n=17, 15.5%) and conduct disorder (n=4, 3.6%) respectively (Table 2).

Table 2. Comorbid psychiatric diagnoses in children with communication disorder

	N (%)
No psychiatric comorbidities	80 (72.7)
Attention deficit and hyperactivity disorder	17 (15.5)
Conduct disorder	4 (3.6)
Specific learning disability	4 (3.6)
Anxiety disorder	3 (2.7)
Depressive disorder	2 (1.8)
All children with communication disorders	110 (100)

Table 3. Comparison of CAPES-TR, PSDQSF, and HADS scores in communication disorder and control groups

Mean ± SD	Communication Disorder	Control	p
CAPES-TR Child Adjustment Subscale Emotional Problems	2.85(±2.08)	1.80(±1.22)	0.000
CAPES-TR Child Adjustment Subscale Behavioral Problems	28.47(±12.28)	18.90(±7.58)	0.000
CAPES-TR Child Adjustment Total Difficulty Score	31.27(±13.52)	20.69(7.85)	0.000
CAPES-TR Parental Self-Efficacy Subscale	143.92(±31.59)	167.44(±19.27)	0.000
PSDQSF Democratic parenting attitude	61.53(±7.44)	65.64(±6.96)	0.000
PSDQSF Authoritarian parenting attitude	18.46(±4.50)	17.08(±4.03)	0.022
PSDQSF Permissive parenting attitude	12.07(±3.37)	10.54(±2.78)	0.000
HAD-Anxiety Subscale	6.83(±3.91)	6.52(±3.07)	0.945
HAD-Depression Subscale	6.20(±3.88)	5.16(±3.59)	0.035

* Mann Whitney U Test

Table 4. Correlations between CAPES-TR, HADS, and PSDQSF subscales and monthly family income, maternal education level, daily screen time, and reading books during the preschool period

	1	2	3	4	5	6	7	8	9	10	11	12	13
1.CAPES Emotional problems													
2.CAPES Behavioral problems	0.421**												
3.CAPES Child Adjustment	0.537**	0.985**											
4.CAPES Parental Self-Efficacy	-0.297**	-0.617**	-0.619**										
5.HAD-A	0.172*	0.145*	0.166*	-0.108 (p:0.115)									
6.HAD-D	0.197**	0.210**	0.226**	-0.224**	0.509**								
7.PSDQSF Democratic parenting	-0.111 (p:0.105)	-0.302**	-0.294**	0.316**	-0.148*	-0.377**							
8.PSDQSF Authoritarian parenting	0.109 (p:0.112)	0.324**	0.323**	-0.255**	0.165*	0.217**	-0.256**						
9. PSDQSF Permissive parenting	0.313**	0.426**	0.458**	-0.249**	0.335**	0.200**	-0.242**	0.485**					
10.Mother Education Level	-0.163*	-0.261**	-0.265**	0.246**	-0.009 (p:0.890)	-0.229**	0.195**	-0.184**	-0.126 (p:0.066)				
11.Monthly income	-0.096 (p:0.162)	-0.187**	-0.186**	0.208**	-0.022 (p:0.747)	-0.131 (p:0.054)	0.043 (p:0.528)	-0.086 (p:0.207)	-0.040 (p:0.558)	0.404**			
12.Reading to the child during the preschool period	-0.091 (p:0.257)	-0.174*	-0.183*	0.136 (p:0.188)	0.133 (p:0.097)	0.054 (p:0.505)	0.148 (p:0.065)	-0.082 (p:0.308)	-0.137 (p:0.086)	0.142 (p:0.075)	0.160*		
13.Daily screen time	0.165*	0.268**	0.270**	-0.333**	-0.010 (p:0.880)	0.147*	-0.120 (p:0.079)	0.108 (p:0.114)	0.112 (p:0.101)	-0.109 (p:0.110)	-0.105 (p:0.126)	0.488 (p:0.157)	

Spearman's correlation analysis, *p<0.05 statistically significant **p<0.01 statistically significant

In our study, the relationships between variables such as family income, mother's education level, daily screen time, reading to children during the preschool period, and the CAPES-TR, HADS, and PSDQSF subscales were examined. There was a significant negative correlation between the level of children's total difficulty score ($r=-0.619$, $p<0.01$) and parental self-efficacy, democratic parenting attitude ($r=-0.294$, $p<0.01$), maternal education level ($r=-0.265$, $p<0.01$), monthly income ($r=-0.186$, $p<0.01$), and the habit of reading to children during the preschool period ($r=-0.183$, $p<0.01$). There was a significant positive correlation between the total difficulty score of children and HAD-A ($r=0.166$, $p<0.05$), HAD-D ($r=0.226$, $p<0.01$), authoritarian parenting ($r=0.323$, $p<0.01$), permissive parenting ($r=0.458$, $p<0.01$) and daily screen time ($r=0.270$, $p<0.01$) (Table 4).

There was a negative correlation between parental self-efficacy and HAD-D ($r=-0.224$, $p<0.01$), authoritarian parenting ($r=-0.255$, $p<0.01$), permissive parenting ($r=-0.249$, $p<0.01$) and daily screen time ($r=-0.333$, $p<0.01$). On the other hand, there was a significant positive correlation between parental self-efficacy and maternal education level ($r=0.246$, $p<0.01$), monthly income level ($r=0.208$, $p<0.01$), and democratic parenting ($r=0.316$, $p<0.01$). (Table 4)

DISCUSSION

We compared emotional and behavioral problems, parental attitude characteristics, anxiety, and depression risks in parents between children followed up with a diagnosis of communication disorder and healthy controls in our study. We observed some important findings such as an increase in emotional and behavioral problems in children, more authoritarian or permissive parenting attitudes, a decrease in parental self-efficacy, and an increased risk of depression in parents in the presence of a communication disorder.

In our study, children with speech sound disorders (42.7%) constituted the highest rate in the communication disorder group. In addition, the rate of boys in the communication disorder group was significantly higher. In the literature, prevalence rates are reported as 8.2% for speech sound disorder, 3-8% for language disorder, and 2-3% for stuttering. It has also been reported that the rate of admission to the clinic in children with speech sound disorders is higher than in those with language disorders^{2,17}. In addition, studies have found a higher rate of male

gender in communication disorders²⁴. Our findings regarding gender and diagnosis rates in communication disorders align with the literature data.

Studies have reported that factors such as the family's socioeconomic status and the parents' education level are associated with language development problems and the presence of phonological disorders. It has also been shown that parents with higher socioeconomic status offer more language input to their children¹⁸. Moreover, it has been reported that more than half of the children studying in socioeconomically disadvantaged regions have speech and/or language difficulties¹⁹. Although there was no significant difference between the two groups regarding maternal education level in our study, the rate of fathers with high school or higher education level and the rate of families reporting monthly income above the minimum wage were higher in the control group. Additionally, the rate of reading to the child was less, and the time spent in front of the screen was more in the communication disorder group. Our findings related to screen time and reading to children suggest that parents spend less time with their children in the communication disorder group, leave them alone for more extended periods of time, and the children receive fewer stimuli. Factors such as the increase in the education level and the increase in the family's income level may enable parents to contribute more to their children's communication skills, have higher awareness levels, and seek earlier and appropriate help when they observe problems in the field of communication.

Studies have reported a relationship between childhood communication problems and cognitive difficulties, low academic achievement, and problems in social-emotional relationships^{20,21}. In a follow-up study in which the behavioral, emotional, and social difficulties of children with communication disorders were compared with the control group, it was found that the communication disorder group had more behavioral disorders, and behavioral problems and limitations in social competence continued in the 7-year follow-up²². Another study reported higher rates of emotional, behavioral problems, and ADHD symptoms in children with communication disorders compared to the control group²³. In our study, the high level of emotional and behavioral problems in the communication disorder group compared to the control group is consistent with the literature findings. In a 5-year follow-up study of 300 children

who applied to a speech and language clinic, it was reported that 60% of the children were diagnosed with psychiatric disease. While ADHD was the most common diagnosis, anxiety disorder was the second most common diagnosis²⁴. In our study, the most common diagnosis was ADHD (15.5%) in the communication disorder group. The increase in emotional-behavioral problems and the high rate of psychiatric comorbidity in children with communication disorders are considerable. Psychiatric symptoms should also be evaluated in detail while planning education for communication problems. Appropriate intervention for psychiatric symptoms will also contribute to children benefiting more from special education, increased school adjustment skills, and improved functionality areas such as relationships with peers.

It has been reported that maternal characteristics are important predictors of both cognitive and language development. Children of parents with low socioeconomic status and poor mental health are at risk for disruption in language development⁸. It has been reported that after a child is diagnosed with a communication disorder, there is a phase of surprise and shock in the family, and they are unprepared for the long-term effects of the diagnosis. In this process, difficulties related to the diagnosis can trigger depression in the family and the child²⁵. It has been reported that infrequent interactions between depressed mothers and their children are often characterized as irritable and abrupt, with no prompt, consistent and sensitive input²⁶. The mean HAD-D score was significantly higher in the communication disorder group in our study. Evaluating the mental health of the parents of children diagnosed with a communication disorder can increase their contribution to their children's special education processes and help them provide better quality and an appropriate amount of stimuli at home.

In our study, democratic parenting attitudes were lower, and authoritarian and permissive parenting attitudes were higher in the communication disorder group. Parents who are strictly disciplined or negligent, are overly fond of their children, do not support their age-appropriate responsibilities, and tend to blame their behavior often, can also hinder the child's healthy development²⁷. Besides, inappropriate parental attitudes can cause behavioral problems in children. In a study conducted with 200 children aged 24 months-72 years and their mothers, a relationship was reported between strict discipline

and externalizing scores on the child behavior assessment scale and internalizing and overprotective scores. In the same study, a relationship was found between mental health deterioration in children and inappropriate parenting skills in the mother²⁸. Furthermore, in a study conducted with 102 children aged 4 and 5 years and their parents, it was found that the democratic parenting style had a positive effect on children's emotion regulation skills, while the authoritarian attitude had a negative effect²⁹. The fact that the parents in the communication disorder group exhibited less democratic, more permissive, and authoritarian parenting attitudes in our study suggests that there are no appropriate boundaries at home and that they display more compelling parenting attitudes in communication with the child. Considering that speech delay is associated with low social interaction, the presence of a more authoritarian, permissive parent that allows children to spend longer screen time may cause communication problems to continue.

The mean CAPES-TR parental self-efficacy score was lower in the communication disorder group. An increase in parental self-efficacy was found to be associated with appropriate attitudes towards the child, being more sensitive, and responding adequately to the child's needs³⁰. Likewise, while high parental self-efficacy predicts an increase in language development and adaptation skills in children, an increase in behavioral problems has been reported with low self-efficacy³¹⁻³³. In addition, a decrease in parental self-efficacy can bring strict disciplinary practices with it³⁴. Rigid, inconsistent parental attitudes are also associated with the persistence of emotional and behavioral problems in the child³⁵. Besides, low parental self-efficacy and anxiety symptoms are reported to increase in parents whose children are followed up for emotional and behavioral problems³⁶. Planning educational programs to increase parents' appropriate child-rearing skills and teach children coping strategies for emotional and behavioral problems may contribute to increasing parental self-efficacy. Considering the effects on both the child and the parent, an increase in parental self-efficacy can provide positive developments in many areas in children with a communication disorder.

Limitations

The study has several limitations. First, parent reports were considered the only source of information about the child's emotional and behavioral problems

and related factors. We should not ignore the possibility that parents may underestimate or exaggerate their children's problems. Also, the parent's recall bias may affect the relationship between factors such as emotional-behavioral problems, screen time, and reading to the child. In addition, our study is a cross-sectional study and does not provide information about emotional-behavioral problems in children with a communication disorder, and the change in parental characteristics over time after children start special education.

In conclusion, the mental health of family members, coping strategies, the severity of the communication disorder, access to information about the communication disorder, and access to the intervention team are effective factors in coping with communication disorders. Although our study provides important information on the relationships between parental mental health, parental attitudes, and emotional-behavioral problems in children in the presence of a communication disorder, studies that deal with these areas together are limited in the literature. Our study will contribute to the literature on the evaluation of factors such as parental mental health and parenting skills, which are not only child-focused in the presence of communication disorder but also in the planning of appropriate intervention programs.

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