

Parental Containing Function and Overprotection in Specific Learning Disorder

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Abstract

Objective: This study aimed to evaluate the relationship between maternal containment and overprotectiveness in children with specific learning disorder and also planned to evaluate the level of autonomy in self-care skills, which may be disrupted by overprotection.

Methods: In total, 56 children with specific learning disorder diagnosis were compared with 56 healthy controls. Schedule for Affective Disorders and Schizophrenia for School-Age Children Present and Lifetime Version-DSM-5, Wechsler Intelligence Scale for Children-Revised, Mathematics, Reading, Writing Assessment Scale, Parental Child Containing Function Scale, and overprotection subscale of Parent Attitude Scale were used as assessment tools.

Results: Parental Child Containing Function Scale and Parent Attitude Scale -overprotection scores were significantly higher in children with specific learning disorder ($P < .001$ for both). Furthermore, Parent Attitude Scale-overprotection have a predictive role in specific learning disorder diagnosis (odds ratio = -0.879 , 95% CI = -0.788 to -0.980 , $P = .020$). Also, some Parental Child Containing Function Scale (PCCFS) subscales were found as predictors of Mathematics, Reading, and Writing Assessment Scale scores. Lastly, children with specific learning disorder diagnoses were less autonomous in their self-care abilities.

Conclusion: In this study, parenting functions and attitudes were investigated in specific learning disorder for the first time. Lower containing function and overprotectiveness were found to be associated with specific learning disorder and also to have determinant roles for learning problems. In addition, it was thought that children with specific learning disorder might need supportive parental attitudes in order to develop their autonomy in their self-care.

Keywords: Containing function, parenting, protective attitudes, children, specific learning disorder

Introduction

Specific learning disorder (SLD) is defined as a neurodevelopmental disorder that is characterized by persistent difficulties in learning and using academic abilities. Specific learning disorder is a lifelong disorder that affects 5%-15% of children. Specific learning disorder is characterized by difficulties in reading, writing, spelling, arithmetic calculation, and mathematical reasoning.¹ According to the phonological model, impairment in phoneme decoding and processing is responsible for learning difficulties.^{2,3} Multiple factors and interactions between them are held responsible for the etiology of SLD. It is shown that the effects of genetic, epigenetic, and environmental factors may cause impairment in the perception and processing of sensory inputs. Therefore, these factors are among the underlying causes of SLD.¹ Twin studies reporting approximately 50%-70% heritability have shown that genetic effects play an important role in the etiology of SLD.^{4,5} Numerous candidate genes were identified as a risk for SLD, but these genes have not been confirmed by subsequent studies.⁶ Environmental factors also have a lesser contribution to the development of SLD. Of these factors, maternal smoking during pregnancy, child birth

weight, socioeconomic status, severe risk of miscarriage, father's and mother's age at childbirth, and father's and mother's educational level during the child's first 3 years are reported as related factors with SLD.^{7,8} Although parenting styles were examined in some neurodevelopmental disorders such as attention deficit and hyperactivity disorder (ADHD) and Autism spectrum disorders (ASD),^{9,10} to our knowledge, the factors related to parenting in SLD are an unexplored area.

At the beginning of life, almost everything is new and unusual for a newborn baby. The baby is exposed to many internal and external stimuli such as sensations caused by the lungs being filled with air, hunger, thirst, and intestinal tension. The infant's capacity to cope with and understand these stimuli is not yet sufficiently developed. It is possible for the baby to calm down with the help of a caregiver. The caregiver uses her own thinking ability to understand the baby's needs, help the baby to understand his/her need, and also fulfill these needs. Wilfred Bion,¹¹ who is a theorist and who worked on the development of thinking, conceptualized this function of the caregiver as the "containing function." Winnicott's concepts of "holding" and the "containing function" defined by Bion¹² are concepts used synonymously in the literature. The mother's psychic function of receiving, carrying, and transforming—making difficult emotional experiences (beta elements) tolerable for the child—has been called the mother's containing function.¹³ In other words, maternal containing function is defined as the mother's ability to transform raw emotions. The child's feelings of discomfort are detoxified and reflected back to the child as understandable and bearable experiences. Bion

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claimed that lower containing functions in the caregiver or excessive maternal presence/intrusion may disrupt the symbolization capacity of the infant. Symbolization can be identified as conversion of sensory data to a mental representation and an impairment in symbolization capacity which is perhaps related to learning difficulties.^{11,14} Parents' holding capacity of the child's mental and emotional states is also described as "reflective functioning" by another theorist.^{15,16} There are some qualitative studies that investigated this relationship is limited to small clinical samples.^{17,18} In a longitudinal study, parental reflective functioning and children's phonological awareness and reading-related neural development (measured via a phoneme-processing experiment using electroencephalogram (EEG)) were investigated. In this study, it was reported that parental reflective functioning is a strong predictor of children's later reading abilities.¹⁹ Also, parental reflective functioning was investigated in a study in which children with dyslexia were compared to children with dyscalculia. No significant differences were found in this study.²⁰ However, case-control studies that investigate emotional processes between parents and children with SLD are limited. In this study, the relationship between learning disorder and the containing function in a larger sample is evaluated with quantitative measurement instruments. Thus, this research aims to investigate children with SLD in terms of maternal containing function and overprotection.

Excessive maternal presence/intrusion has similarities with parental overprotective behaviors. Overprotective parenting is characterized by a high level of supervision and control, being overly vigilant, having difficulties separating from the child, and discouraging independent behavior. On the other hand, low protection corresponded to parental allowance of independence and autonomy.¹⁶ Therefore, this study planned to investigate the level of dependency on self-care skills as well as overprotection.

The hypotheses of our study can be listed as follows:

- SLD is associated with lower containing functions in the caregiver.
- Mothers who have children with SLD have more overprotective attitudes.
- Children with SLD are more dependent in terms of their self-care.

Methods

This is a cross-sectional, case-control study in which 56 children who were diagnosed with SLD are compared with 56 healthy controls. In both groups, the ages of the children are between 7 and 12.

The case group was recruited from a child and adolescent outpatient clinic in Istanbul University-Cerrahpasa, Cerrahpasa Medical School and Bakırköy Prof. Dr Mazhar Osman Mental and Neurological Diseases Training and Research Hospital between April and August 2021. Children diagnosed with SLD by a child psychiatrist and having an IQ within the normal range were included in the study. Intelligence quotient (IQ) is determined by

the Wechsler Intelligence Scale for Children-Revised (WISC-R). Specific learning disorder was diagnosed by Schedule for Affective Disorders and Schizophrenia for School-Age Children Present and Lifetime Version- DSM-5 (K-SADS-PL-DSM-5) at the first step. In the second step, the *t*-score of the Mathematics, Reading, and Writing Evaluation Scale (MOYA)/parent form of the cases was checked to see if they were above the clinical threshold. Children with SLD have been administered the WISC-R at the time of diagnostic examination, and only those who scored above 90 on one of the verbal or performance subtests were included in the study. Exclusion criteria were having any chronic physical illness or autism spectrum disorder and a history of parental loss or divorce. Diagnosis of autism spectrum disorder was evaluated by K-SADS-PL-DSM-5. Diagnosis of chronic physical illness and a history of parental loss or divorce were obtained by anamnesis. After applying inclusion criteria, all participants were accepted for the study, and once the target date was reached, the recruitment process was stopped.

The control group consisted of healthy volunteers from primary and secondary schools. Two primary schools and 2 secondary schools were chosen from 3 separate regions of Istanbul to obtain students from different socioeconomic statuses, representing low, medium, and high sociodemographic levels. The control group included those having the academic achievements expected of their age and not having SLD symptoms at the diagnostic level. The volunteers' academic achievement levels were first evaluated by their teachers in their school. The teachers informed their students, who showed the expected academic achievements of their age, about our study. Then, the students who volunteered to participate in the study were assessed by MOYA/parent form and clinical psychiatric examination. Only students whose MOYA scores were below the clinical threshold and who did not meet the diagnostic criteria for SLD by clinical examination were included in the control group. Those having any chronic physical illness, mental retardation, or autism spectrum disorder diagnosis were excluded. Because Parental Child Containing Function Scale (PCCFS) includes some items that enquire about the relationship with spouse; a history of parental loss or divorce was also excluded. Volunteers were evaluated by clinical psychiatric interviews in terms of the presence of mental retardation or any psychiatric disorders. In addition, a history of parental loss or divorce and diagnosis of chronic physical illness were obtained by anamnesis.

In both groups, learning problems were assessed by MOYA, the maternal containing function was investigated by PCCFS, and overprotection was evaluated by overprotective subdimension of Parent Attitude Scale (PAS).

The Declaration of Helsinki was used as the standard of medical ethics in the study design İstanbul University-Cerrahpasa the Ethics Committee reviewed and approved all study materials (April 14, 2021-74722). Moreover, institutional permission was obtained from—YYY. Informed consent was obtained from the parents who agreed to participate in the study.

Instruments

The Sociodemographic Data Form: It was designed specifically for this study and was filled out by the mothers. Questions included age, gender, number of siblings, number of children, family income, prenatal, perinatal, and postnatal history, parental age, educational level, and occupation. In addition, the mothers were asked whether they helped their children while sleeping, feeding, and going to the toilet or bathing.

Schedule for Affective Disorders and Schizophrenia for School-Age Children Present and Lifetime Version-DSM-5 (K-SADS-PL-DSM-5): Specific learning disorder and comorbid psychiatric

Main Points

- Lower containing functions in caregivers are associated with learning problems.
- Overprotective attitudes are associated with learning problems.
- Children with specific learning disabilities are less autonomous in their self-care.

disorders were diagnosed by K-SADS-PL-5. Schedule for Affective Disorders and Schizophrenia for School-Age Children Present and Lifetime Version-DSM-5 is a semi-structured diagnostic interview updated by Kaufman et al.²¹ to screen psychopathology in children aged between 6 and 18, based on DSM-5 diagnostic criteria. The interview was conducted by 2 certified child psychiatrists. Both parents'/caregivers' and children's responses were evaluated to investigate each symptom accurately, in various psychiatric disorders seen in children and adolescents. The validity and reliability study of the Turkish adaptation of K-SADS-PL-5-DSM-5 was performed by Unal et al.²² According to the study's results, K-SADS-PL-5-DSM-5 is an effective interview technique to diagnose major childhood psychiatric disorders.²²

Wechsler Intelligence Scale for Children-Revised (WISC-R): It is the revised form of WISC developed by Wechsler in 1949 and re-edited in 1974.²³ Turkish standardization and validity and reliability studies were performed.²⁴

Mathematics, Reading, and Writing Assessment Scale (MOYA)/Parent Form: It was used for determining SLD symptom level. The MOYA was developed by Erden and Uluç.²⁵ The objective of the scale is to investigate the symptoms of SLD and the strengths and weaknesses of the child. The MOYA consists of 47 questions. Mathematics, reading, and writing abilities are evaluated with this screening list. The symptoms are scored by assigning a severity estimate for each symptom on a Likert-type scale (always, often, sometimes, rarely, never). Items are scored between 1 and 5.²⁵

Parental Child Containing Function Scale (PCCFS): It was developed by Zapcı et al.²⁶ The scale consists of 36 items grouped into 5 sub-dimensions: precision of vulnerability to separation-anxiety (PCCFS VSA), satisfaction/pleasure-seeking (PCCFS SPS), uncontained relation (PCCFS UR), rigid/authoritarian relation (PCCFS RA), and relation with spouse (PCCFS RS). The scale was reported as highly reliable with a 0.81 Cronbach's alpha value.²⁶

Parent Attitude Scale (PAS): It was developed by Demir and Şendil.²⁷ The scale consists of 46 items and 4 sub-dimensions concerning the parents' attitude toward the child: democratic, authoritarian, overprotective, and permissive.²⁷ In this study, only the overprotection subdimension was used. Cronbach's alpha coefficient of the overprotective dimension is 0.75.²⁷

Statistical Analysis

Statistical analyses were conducted using Statistical Package for the Social Sciences 20.0 software (IBM Corp., Armonk, NY, USA). The sample size was retrospectively tested using Web-Based Sample Size and Power Analysis Software (WSSPAS) of Inonu University based on the statistical power 0.99 and it was found that the sample was above the minimum permitted level. The normal distribution of continuous variables was assessed using the skewness-kurtosis and the Shapiro-Wilks test. In normality analysis, *P* values were found as higher than .05. Pearson's chi-square test was used to compare categorical data. Student's *t*-test was performed on the continuous data. Finally, a linear regression analysis was performed. A *P*-value of less than .05 was considered significant.

Results

Comparison of Study Groups in Terms of Demographic Variables

Forty-four children with SLD (78.6%) and 35 healthy controls (62.5%) were male (*P* = .062). The mean age was 9.2 (±1.7) in children with SLD and 9.3 (±1.6) in healthy controls (*P* = 0.772). The mean grade and maternal and paternal ages did not differ

significantly between case group and control group (*P* = .870; *P* = .485; *P* = .729 respectively). In addition, birth-related characteristics such as time of birth, type of birth, weight at birth, and breastfeeding duration did not differ significantly (*P* = .135; *P* = .478; *P* = .893; *P* = .086, respectively). Sibling number and sibling rank were significantly higher in children with SLD (2.6 ± 1.0; 2.1 ± 1.1) than in healthy controls (2.6 ± 1.0; 2.1 ± 1.1; *P* < .001 and *P* = .002). The mean number of maternal education years was 8.6 (±4.2) in children with SLD and 15.1 (±3.8) in healthy controls. The mean number of paternal education years was 9.1 (±4.3) in children with SLD and 15.6 (±3.9) in healthy controls. The number of maternal and paternal education years was significantly lower in children with SLD than in healthy controls (*P* < .001 and *P* < .001). Additionally, the mothers in the case group reported that they help their children in feeding, going to the toilet, and sleeping more than the mothers in the control group (*P* = .047; *P* = .001; *P* = .001 respectively). (Table 1)

Wechsler Intelligence Scale for Children-Revised and Comorbid Diagnosis Profile of Patients with Specific Learning Disorder

Around 36 (64.3%) of children with SLD had a comorbid psychiatric disorder and 21 of these had 2 or more comorbid psychiatric diagnoses. The most common psychiatric comorbidity was ADHD (*n* = 32, 57.1%). The mean IQ scores were 84.4 (±13.9) and 103.8 (±12.3) for WISC-R verbal and WISC-R performance subscales, respectively. The mean WISC-R total score was 93.7 (±11.9) (Table 2).

Comparison of Study Groups in Terms of Mean Parental Child Containing Function Scale, Mathematics, Reading, and Writing Assessment Scale, and Parent Attitude Scale-Overprotection Scores

Mean PCCFS total (100.4 ± 17.0; 82.6 ± 18.5; *P* < .001), PCCFS VSA (37.5 ± 9.2; 28.6 ± 11.6; *P* = .009), PCCFS RS (17.4 ± 5.4; 16.2 ± 4.0; *P* = .023), and PCCFS RA (15.1 ± 5.6; 11.6 ± 2.9; *P* = .001) scores of children with SLD were significantly higher than those of healthy controls. The mean MOYA and PAS-overprotection scores were also significantly higher in children with SLD (135.4 ± 29.0; 33.7 ± 7.8) than in healthy controls (71.3 ± 16.9; 22.8 ± 8.8) (*P* < .001 for both) (Table 3).

Multiple Logistic Regression Analysis

Factors that were found to be associated with SLD including PCCFS scores, PAS-overprotection scores, number of parental education years, sibling number, and sibling rank were included in the statistics. Parental Child Containing Function Scale-Satisfaction/Pleasure Seeking scores were significantly associated with SLD diagnosis (odds ratio=1.385, 95% CI=1.071 to 1.791, *P* = .013). Additionally, the PAS-overprotection and sibling number were significantly and inversely associated with SLD diagnosis (odds ratio=-0.879, 95% CI=-0.788 to 0.980, *P* = .020, odds ratio=-0.283, 95% CI=-0.111 to 0.721, *P* = .008) (Table 4).

Multiple Linear Regression Analysis

Multiple linear regression analysis was performed in the case group and the factors found to be related to SLD were included in the analysis. Parental Child Containing Function Scale-Vulnerability to Separation-Anxiety and PCCFS UR scores were significantly associated with MOYA score (β = 1.290, 95%CI: 0.377-2.203, *P* = .007; β = 2.904, 95% CI: 0.681-5.128, *P* = 0.012). In addition, PCCFS RA was inversely associated with MOYA scores (β : -3.099, 95% CI: 4.619-1.579, *P* < .001) (Table 5).

Table 1. Comparison of Study Groups in Terms of Demographic Variables

		SLD (56)		HC (56)	P
		Mean ± SD or n (%)			
Gender	Boy	44 (78.6)	35 (62.5)		.062
	Girl	12 (21.4)	21 (37.5)		
Age		9.2 ± 1.7	9.3 ± 1.6		.772
Grade		3.3 ± 1.7	3.2 ± 1.6		.870
Sibling number		2.6 ± 1.0	1.6 ± 1.2		<.001
Sibling rank		2.1 ± 1.1	1.5 ± 0.8		.002
Time of birth	Preterm	8 (14.5)	2 (4.3)		.135
	Term	46 (83.6)	45 (95.7)		
	Postterm	1 (1.8)	0 (0)		
Type of birth	NSVD	19 (34.6)	23 (41.1)		.478
	C/S	36 (65.4)	33 (58.9)		
Weight at birth (g)		3423 ± 511.8	3408 ± 472.9		.893
Breastfeeding duration		16.5 ± 8.7	19.2 ± 7.3		.086
Mother's age		37.8 ± 5.4	38.5 ± 4.7		.485
Mother's education year		8.6 ± 4.2	15.1 ± 3.8		<.001
Father's age		41.2 ± 7.8	41.7 ± 6.1		.729
Father's education year		9.1 ± 4.3	15.6 ± 3.9		<.001
Help in feeding	No	48 (85.7)	54 (96.4)		.047
	Yes	8 (14.3)	2 (3.6)		
Help in toilet activities	No	38 (67.9)	52 (92.9)		.001
	Yes	18 (32.1)	4 (7.1)		
Help in bathing	No	33 (58.9)	21 (37.5)		.023
	Yes	23 (41.1)	35 (62.5)		
Help in sleep	No	30 (53.4)	46 (82.1)		.001
	Yes	26 (46.6)	10 (17.9)		

C/S, cesarean sections; HC, healthy controls; n, number; NSVD, normal spontaneous vaginal delivery; SD, standard deviation; SLD, specific learning disorder.
Those with $p < 0.05$ are indicated in bold.

Discussion

In this study, parental containing function and overprotective attitudes were investigated in children with SLD and healthy controls. On one hand, the caregiver's containing functions who have children with SLD diagnosis were weaker than the control group. On the other hand, maternal overprotective attitudes were higher in the case group compared to the controls. Additionally, healthy

Table 2. WISC-R and Comorbid Diagnosis Profile of Patients with SLD

	N (%)
Comorbid diagnosis	36 (64.3)
More than 1 comorbid diagnosis	21 (37.5)
Attention-deficit and hyperactivity disorder	32 (57.1)
Oppositional defiant disorder	6 (9.8)
Specific phobia	10 (17.9)
Social anxiety disorder	1 (1.8)
Generalized anxiety disorder	5 (8.9)
Separation anxiety disorder	5 (8.9)
Enuresis	1 (1.8)
Encopresis	1 (1.8)
Obsessive compulsive disorder	2 (3.6)
Mean ± SD (minimum-maximum)	
WISC-R verbal IQ	84.4 ± 13.9 (49-117)
WISC-R performance IQ	103.8 ± 12.3 (84-145)
WISC-R total IQ	93.7 ± 11.9 (70-133)

SD, standard deviation; WISC-R, Wechsler Intelligence Scale for Children-Revised.

controls were found to be more autonomous in self-care abilities such as feeding, going to the toilet, bathing, and sleeping.

Containing Functions in Specific Learning Disorder

Our results indicate that the lower containing functions in caregiver and the excessive maternal presence were consistent with the literature¹⁷⁻¹⁹ and our hypothesis. Although it was found that maternal containing functions were lower in the SLD group, most of the subdimensions of maternal containing functions were not found to be a significant determinant of SLD diagnosis. On one hand, satisfaction/pleasure-seeking characteristics were found as determinants of SLD. On the other hand, lower maternal containing functions were found as a predictor of higher SLD symptoms in children with SLD. These findings underline the importance of a parenting-related impact on SLD and other neurodevelopmental disorders like ADHD as many studies have pointed out.^{9,10}

One of the most important factors in learning is to provide sensory data that will create perception. Attention, interest, and maintaining those factors for a certain period are necessary for the formation of perception.²⁸ Excessive gratification/pleasure-seeking may interfere with maintaining interest and attention toward learning materials. Therefore, a disruption at the sensorial input level might occur.

Bion¹¹ mentioned that disruption in the conversion of beta elements to alpha elements (lower containing functions in the caregiver) may lead to impairment in the formation of thinking and transmission of thought to others. Disruption in the transmission of thoughts may be observed in verbal or written expressions. Similarly, Salomonsson²⁹ reported that self-regulation difficulties resulting from the deficiency of the maternal containing function may have an impact on learning abilities. It is known that genetic factors have a prominent role in the etiology of SLD^{4,5}:

Table 3. Comparison of Study Groups in Terms of Mean PCCFS, MOYA, and PAS-Overprotection Scores

	SLD (56)	HC (56)	<i>P</i>
	Mean ± SD		
PCCFS			
Vulnerability to separation-anxiety	37.5 ± 9.2	28.6 ± 11.6	.009
Relation with spousal	17.4 ± 5.4	16.2 ± 4.0	.023
Uncontained relation	16.8 ± 3.7	13.7 ± 4.4	.170
Satisfaction/pleasure seeking	13.5 ± 3.8	12.3 ± 3.3	.349
Rigid/authoritarian relation	15.1 ± 5.6	11.6 ± 2.9	.001
Total scale score	100.4 ± 17.0	82.6 ± 18.5	<.001
MOYA	135.4 ± 29.0	73.1 ± 16.9	<.001
PAS-overprotection	33.7 ± 7.8	22.8 ± 8.8	<.001

Comparisons between groups were made with Student's *t* test. HC, healthy controls; MOYA, Mathematics, Reading, Writing Assessment Scale; PAS, Parent Attitude Scale; PCCFS, Parental Child Containing Function Scale; SLD, specific learning disorder; SD, standard deviation. Those with $p < 0.05$ are indicated in bold.

containing functions might be a minor factor associated with SLD. Nevertheless, it might be an important factor in the management of SLD due to it being manageable through therapeutic interventions.

It was reported that study of pretend play has a role in the development of reflective functioning parallel with the theory of Fonagy.^{15,16} There are also case reports on the effectiveness of psychotherapy in patients with learning disabilities. Rather than educational interventions, these reports emphasize psychological treatments for both patients and their parents. However, most of these reports have some limitations, such as the lack of formal measurement instruments that focus on learning outcomes. In addition, therapeutic models are not identified clearly in these studies.³⁰ Therefore, there is a need for longitudinal case-control studies to investigate the effectiveness of psychotherapeutic approaches to containing function insufficiencies.

Attention deficit and hyperactivity disorder was the most common psychiatric disorder accompanied by SLD in our sample. This common coexistence may be explained by shared neuropsychological factors.³¹ In some research, ADHD was also associated with symbolization impairment and self-regulation problems.³² Therefore, it can be recommended to investigate maternal containing function characteristics in ADHD for future studies.

Overprotective Attitudes and Self-Care Abilities

In our sample, it was found that mothers who have children with SLD have more overprotective attitudes. Moreover, overprotection was found as a determinant of learning problems. Learning is an active process that requires the learner's participation through attention, interest, and perception.²⁸ It can be thought that overprotective attitudes are far from supporting the child's autonomy and may even disrupt the development of autonomy. Indeed, children with SLD were found to be less independent in most of their self-care activities such as sleeping, eating, and going to the toilet

Table 4. Predictor Properties of Associated Factors for SLD Diagnosis

Dependent Variable	Independent Variable	Odds Ratio	95% CI	<i>P</i>
SLD diagnosis	PAS-overprotection	-0.879	-0.788 to -0.980	.020
	PCCFS VSA	-0.949	-0.868 to -1.038	.251
	PCCFS RS	-0.951	-0.832 to -1.088	.469
	PCCFS UR	-0.934	-0.781 to -1.117	.455
	PCCFS SPS	1.385	1.071 to 1.791	.013
	PCCFS RA	-1.176	-0.988 to -1.400	.654
	Sibling number	-0.283	-0.111 to -0.721	.008
	Sibling rank	2.267	0.788 to 6.521	.129
	Mother's education year	1.176	0.988 to 1.400	.069
	Father's education year	1.191	1.000 to 1.420	0.050

Multiple logistic regression analysis was used for the analyzes in the table. PAS, Parent Attitude Scale; PCCFS RA, Parental Child Containing Function Scale Rigid/Authoritarian Relation subscale; PCCFS RS, Parental Child Containing Function Scale Relation with Spousal subscale; PCCFS SPS, Parental Child Containing Function Scale Satisfaction/Pleasure Seeking subscale; PCCFS UR, Parental Child Containing Function Scale Uncontained Relation subscale; PCCFS VSA, Parental Child Containing Function Scale Precision of Vulnerability to Separation-Anxiety subscale; SLD, specific learning disorder. Those with $p < 0.05$ are indicated in bold.

in our study. In other words, autonomy in self-care practices was more limited in children with SLD. In the literature, there is a study in line with our findings reporting the need to support the development of autonomy in people with learning disabilities.³³ It is known that children with SLD may have difficulties in motor coordination skills.^{34,35} The SLD child's need for help in feeding, toilet, and bathing may be related to her/his motor coordination difficulties, and also that the motor coordination skill may not be developed sufficiently due to maternal over-protection. In light of the literature and our results, it can be recommended to examine overprotective attitudes when evaluating children with SLD. In addition, attitudes that support the child's autonomy can be offered to parents who have children with SLD.

Consistent with the literature,⁸ parental education levels were found to be lower in children with SLD. Considering that SLD is a highly inherited disorder,^{4,5} parents in the case group can also be expected to have learning problems. Additionally, it can be thought that lower parental educational levels in children with learning problems may be related to difficulty in educational practice achievement. Another finding of our study is that children with SLD have higher sibling number and rank which may also be associated with less access to educational practices.

We would like to emphasize that our study does not explain the cause-effect relationship between SLD and lower containing function or overprotective attitudes. On the contrary, this study

Table 5. Predictor Properties of Associated Factors for MOYA Scores

Dependent Variable	Independent Variable	B	95% CI	P
MOYA	PAS-overprotection	-0.124	-1.185 to -0.937	.814
	PCCFS VSA	1.290	0.377 to 2.203	.007
	PCCFS RS	0.702	-0.658 to 2.062	.304
	PCCFS UR	2.904	0.681 to 5.128	.012
	PCCFS SPS	-0.105	-2.151 to 1.942	.918
	PCCFS RA	-3.099	-4.619 to -1.579	<.001
	Sibling number	-3.392	-14.772 to 7.989	.551
	Sibling rank	4.549	-5.863 to 14.962	.383
	Mother's education year	0.887	-1.211 to 2.984	.398
	Father's education year	-1.269	-3.199 to 0.660	.191

Multiple linear regression analysis was used for the analyzes in the table. PAS, Parent Attitude Scale; PCCFS RA, Parental Child Containing Function Scale Rigid/Authoritarian Relation subscale; PCCFS RS, Parental Child Containing Function Scale Relation with Spousal subscale; PCCFS SPS, Parental Child Containing Function Scale Satisfaction/Pleasure Seeking subscale; PCCFS UR, Parental Child Containing Function Scale Uncontained Relation subscale; PCCFS VSA, Parental Child Containing Function Scale Precision of Vulnerability to Separation-Anxiety subscale. Those with $p < 0.05$ are indicated in bold.

indicates that helping parents to work on their psychological processes and manage their parenting styles may enhance the children's learning effectiveness.

The strong aspect of our study is the sample size. The limitation of our study is that the control group was not evaluated with K-SADS-PL-DSM-5 and WISC-R but only with a clinical interview.

In this study, factors related to parenting in SLD were examined for the first time in a case-control study. It was shown that lower containing function and overprotective attitudes in caregivers are associated with SLD. In addition, children with SLD were found to be less autonomous in terms of self-care. Thus, our hypotheses were confirmed. It can be suggested that children with SLD may need support in the development of their self-capability and in the containment of their emotions. As a future research direction, it can be recommended to investigate the outcomes of interventions for parental containing function and overprotection in SLD.

Ethics Committee Approval: Ethical approval was granted by The Istanbul University-Cerrahpasa, Cerrahpasa Medical School Ethics Committee prior to commencing (April 14, 2021-74722). Also, institutional permission has been obtained from Bakırköy Prof. Dr Mazhar Osman Mental and Neurological Diseases Training and Research Hospital. The study was performed in accordance with the ethical standards of the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Informed Consent: Parents provided opt-in consent for their children to participate in the study. Children provided verbal consent.

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References

- American Psychological Association. *Diagnostic and Statistical Manual of Mental Disorders (DSM-5®)*. Washington: American Psychiatric Pub; 2013.
- Shaywitz SE, Shaywitz BA. Dyslexia (specific reading disability). *Biol Psychiatry*. 2005;57(11):1301-1309. [CrossRef]
- Sadock BJ, Sadock VA, Kaplan RP. In: Bozkurt A, ed. *Sadock Psikiyatri Davranış Bilimleri/Klinik Psikiyatri*. 11th ed. Güneş Tıp Kitabevleri; 2016.
- Hawke JL, Wadsworth SJ, DeFries JC. Genetic influences on reading difficulties in boys and girls: the Colorado twin study. *Dyslexia*. 2006;12(1):21-29. [CrossRef]
- Peterson RL, Pennington BF. Developmental dyslexia. *Annu Rev Clin Psychol*. 2015;11:283-307. [CrossRef]
- Becker N, Vasconcelos M, Oliveira V, et al. Genetic and environmental risk factors for developmental dyslexia in children: systematic review of the last decade. *Dev Neuropsychol*. 2017;42(7-8):423-445. [CrossRef]
- Mascheretti S, Bureau A, Battaglia M, et al. An assessment of gene-by-environment interactions in developmental dyslexia-related phenotypes. *Genes Brain Behav*. 2013;12(1):47-55. [CrossRef]
- Mascheretti S, Marino C, Simone D, et al. Putative risk factors in developmental dyslexia: A case-control study of Italian children. *J Learn Disabil*. 2015;48(2):120-129. [CrossRef]
- Rutgers AH, Van Ijzendoorn MH, Bakermans-Kranenburg MJ, et al. Autism, attachment and parenting: A comparison of children with autism spectrum disorder, mental retardation, language disorder, and non-clinical children. *J Abnorm Child Psychol*. 2007;35(5):859-870. [CrossRef]
- Modesto-Lowe V, Danforth JS, Brooks D. ADHD: does parenting style matter? *Clin Pediatr (Phila)*. 2008;47(9):865-872. [CrossRef]
- Bion WR. *Learning from Experience*. New York: Jason Aronson; 1962.
- Ogden TH. On holding and containing, being and dreaming. *Int J Psychoanal*. 2004;85(6):1349-1364. [CrossRef]
- Bion WR. A theory of thinking. *Second Thoughts*. 1962:110-119.
- Symington J, Symington N. *The Clinical Thinking of Wilfred Bion*. London: Routledge; 2002.
- Slade A. Parental reflective functioning: an introduction. *Attach Hum Dev*. 2005;7(3):269-281. [CrossRef]
- Thomasgard M, Metz WP. Parental overprotection revisited. *Child Psychiatry Hum Dev*. 1993;24(2):67-80. [CrossRef]
- Rothstein A-BE. *Reflective Functioning Capacity in Mothers of Boys with ADHD, Learning Disorders and Associated Behavior Problems*. New York: City University of New York; 2012.
- Kap S, Öğrenme Bozukluğu Olan Çocukların Ruhsal Ve Bilişsel Süreçlerinin Karşılaştırmalı Olarak İncelenmesi [published online]. 2014.
- Lau AN-L. *Parental Reflective Functioning and Children's Emergent Reading Skills: ERP and Longitudinal Behavioral Measures*. Ann Arbor: Columbia University; 2019.
- Shakouri M, Hashemi-Razini H. Is there any difference in executive function and social adequacy between the children with dyslexia or dyscalculia disorder? *Chronic Dis J*. 2019;7(3):214-218.

21. Kaufman J, Birmaher B, Axelson D, Perepletchikova F, Brent D, Ryan N. K-SADS-PL DSM-5. *Pittsburgh West Psychiatr Inst Clin* [published online]. 2016.
22. Ünal F, Öktem F, Çetin Çuhadaroğlu F, et al. Okul Çağı Çocukları için Duygulanım Bozuklukları ve Şizofreni Görüşme Çizelgesi-Şimdi ve Yaşam Boyu Şekli-DSM-5 Kasım 2016-Türkçe Uyarlamasının (ÇDŞG-ŞY-DSM-5-T) Geçerlik ve Güvenirliği. *Türk Psikiyatr Derg.* 2019;30(1).
23. Wechsler D. *Manual for the Wechsler Intelligence Scale for Children*. New York: Psychological Corporation; 1974.
24. Savaşır I, Şahin N. *Wechsler Çocuklar için Zeka Ölçeği (WISC-R) el Kitabı* (published online). Ankara: Türk Psikologlar Derneği Yayınları; 1995.
25. Erden GUS. Özgül Öğrenme Bozukluğunda Belirti Tarama ve Değerlendirme. *Türk Psikologlar Dern.* 2019.
26. Zapcı N, Erol E, Şimşek ÖF. Ebeveyn Çocuk Kapsayıcı İşlev Ölçeği Geliştirme. *Türk Psikolojik Danışma Rehb Derg.* 2018;8(51):190-212.
27. Demir EK, Şendil G. Ebeveyn Tutum Ölçeği (ETÖ). *Türk Psikol Yazıları.* 2008;11(21):15-25.
28. Moye JN. *Learning Experience*. Bingley: Emerald Publishing Limited; 2021.
29. Salomonsson B. Some psychoanalytic viewpoints on neuropsychiatric disorders in children. *Int J Psychoanal.* 2004;85(1):117-135. [\[CrossRef\]](#)
30. James CW, Stacey JM. The effectiveness of psychodynamic interventions for people with learning disabilities: a systematic review. *Tizard Learn Disabil Rev.* 2013;19(1):17-24. [\[CrossRef\]](#)
31. Pham AV, Riviere A. Specific learning disorders and ADHD: current issues in diagnosis across clinical and educational settings. *Curr Psychiatry Rep.* 2015;17(6):38. [\[CrossRef\]](#)
32. Günter M. Attention deficit hyperactivity disorder (ADHD): an affect-processing and thought disorder? *Int J Psychoanal.* 2014;95(1):43-66. [\[CrossRef\]](#)
33. Taylor H. Helping people with learning disabilities exercise their right to autonomy. *Learn Disabil Pract.* 2014;17(7):32-37. [\[CrossRef\]](#)
34. Baldi S, Caravale B, Presaghi F. Daily motor characteristics in children with developmental coordination disorder and in children with specific learning disorder. *Dyslexia.* 2018;24(4):380-390. [\[CrossRef\]](#)
35. Siminghalam M, Alibakhshi H, Ahmadi Zadeh Z. An investigation of bilateral Coordination of children with specific learning disorder. *J Paramed Sci Rehabil.* 2016;5(1):7-13.