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RESEARCH ARTICLE

Predictors of parental stress in families of children with neurodevelopmental disabilities

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ABSTRACT

Objective: This cross-sectional study aimed to identify significant child-related, parent-related, and social predictors of parental stress among parents of children diagnosed with autism spectrum disorder (ASD) or intellectual disability (ID).

Method: A total of 100 parents were recruited from a child and adolescent psychiatry outpatient clinic (56 parents of children diagnosed with ASD and 44 parents of children with ID). Participants completed the Strengths and Difficulties Questionnaire (SDQ), the Multidimensional Scale of Perceived Social Support (MSPSS), the Parental Attitude Scale (PAS), the Impact on Family Scale (IFS), and the Parental Stress Scale (PSS). Descriptive statistics and multivariate regression analyses were conducted to determine which variables best predicted parental stress.

Results: Multivariate linear regression analysis indicated that the overall model significantly predicted parental stress, $F(9, 90)=6.877$, $p<0.001$, explaining 34.8% of the variance. Parental self-efficacy ($\beta=-0.285$, $p=0.003$) and perceived family support ($\beta=-0.213$, $p=0.024$) emerged as significant independent predictors of stress. In contrast, children's emotional and behavioral difficulties (SDQ scores) and family impact (IFS scores) were not significantly associated with parental stress in the final model.

Conclusion: The findings highlight parental self-efficacy and family support as key predictors of parental stress in families of children with neurodevelopmental disabilities (NDD). These results underscore the importance of strengthening parental competence and enhancing family-based support resources to alleviate parental stress.

Keywords: Family support, neurodevelopmental disabilities, parental stress, self-efficacy

INTRODUCTION

Children diagnosed with neurodevelopmental disabilities (NDD), such as autism spectrum disorder (ASD) and intellectual disability (ID), experience persistent challenges in communication, behavior, and adaptive functioning that begin in early childhood (1). Numerous studies have shown that parents of children with NDD report significantly higher levels of stress compared to parents of children without NDD (2). This parenting stress can permeate daily life, affecting overall family dynamics as well as parents' emotional well-being. It may also influence the quality of parent–child interactions and reduce the effectiveness of interventions that require active parental involvement (3).

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Parental stress in the context of NDD has been conceptualized as a multidimensional construct encompassing child-related, parent-related, and social domains. Recent theoretical models and reviews have expanded this perspective by emphasizing the transactional nature of stress processes. Specifically, Ilias et al. (2018) (4) and Enea and Rusu (2020) (5) synthesized evidence indicating that child characteristics (e.g., behavioral and sensory difficulties), parental factors (e.g., self-efficacy, coping strategies), and social influences (e.g., social support) jointly predict parental stress among parents of children with NDD. These frameworks, grounded in ecological and family adaptation theories such as the Double ABCX model (6), underscore that parental stress and resilience depend on both internal resources and external support.

Although research on parental stress in NDD has expanded substantially in recent years, the evidence base remains predominantly Western-centric. Systematic reviews have highlighted that most studies examining child-related, parent-related, and social predictors of stress have been conducted in North American and European samples, with limited representation from non-Western or culturally diverse populations (5) Moreover, recent comparative studies suggest that sociocultural norms influence how parental self-efficacy and caregiving burden are expressed (7, 8), underscoring the need for research conducted in diverse cultural contexts. The present study builds upon previous research by examining how child-related, parent-related, and social predictors—specifically emotional and behavioral difficulties, perceived social support, parental self-efficacy, and family impact—jointly contribute to parental stress among Turkish parents raising children with NDD (ASD or ID). Accordingly, we hypothesized that higher levels of parental stress would be associated with child-related difficulties (such as children's emotional and behavioral problems); parent-related characteristics, including greater personal strain related to the child and poorer coping abilities, and lower parental self-efficacy; and social-level factors, such as reduced social support and greater familial or social impact of the child's condition. By integrating these variables within a unified analytical framework, the study aims to identify predictors of parental stress in families of children with NDD. In doing so, it provides culturally grounded evidence that extends current understanding of parental stress mechanisms beyond Western context and highlights the importance of child- and family-level determinants, as well as sociocultural factors, in shaping caregiving experiences.

METHODS

Research Design

This cross-sectional study, conducted without a control group, took place between October 2024 and October 2025 at a child and adolescent psychiatry outpatient clinic. The absence of a control group was consistent with the study's objective of examining relationships within a clinical population. The study adhered to the STROBE guidelines (Strengthening the Reporting of Observational Studies in Epidemiology) for observational research, and ethical approval was obtained from the institutional ethics committee prior to data collection. All participants provided written informed consent. All study procedures adhered to the Declaration of Helsinki.

Participants and Data Collection

An a priori power analysis conducted using G*Power 3.1 indicated that a minimum of 93 participants was required to detect a medium effect size (Cohen's f^2=0.15) with 80% power at a 0.05 significance level, based on nine predictor variables and consistent with the multivariate regression model described by Strauss et al. (2024) (9). To account for potential data loss and to enhance the robustness of the analysis, the target sample size was set at 100 participants.

A total of 100 volunteer participants were recruited using purposive sampling from parents of children aged 6–12 years who had been diagnosed with ASD or ID. Participants were approached during routine visits to the child and adolescent psychiatry clinic and invited to participate in the study. Of the 105 parents who initially consented, five were excluded due to incomplete data, resulting in a final analytic sample of 100 participants. Table 1 summarizes the characteristics of the children.

Inclusion Criteria

The following inclusion criteria were applied:

- Children: Boys and girls aged 6–12 years diagnosed with ASD or ID.
- Parents: Literate parents without linguistic barriers that could interfere with comprehension of the questionnaires and without significant mental or physical disabilities that would impair participation (e.g., developmental delays).

Table 1: Clinical and demographic characteristics of the children (n=100)

	%	Mean±SD
Age		8.37±2.14
Sex		
Male	74	
Female	26	
Number of siblings		1.06±0.89
Diagnosis		
ASD	56	
ID	44	
Any comorbidity	35	
ADHD	27	
CD	4	
ODD	1	
Other	7	
Psychotropic medication use	57	
Duration of special education (months)		44.53±35.02
SDQ scores		
Total difficulties		19.91±4.90
Internalizing		9.77±3.27
Externalizing		10.14±2.73
Hyperactivity		6.09±1.97
Emotional difficulties		4.51±2.13
Conduct difficulties		4.05±2.40
Peer difficulties		5.26±2.13
Prosocial behavior		5.45±2.13
PSS		37.50±8.66
MDPSS		
Family		16.53±5.92
Friends		17.57±5.74
Significant other		16.51±6.12
PAS		
Self-efficacy		23.18±5.05
Parental involvement		6.32±2.09
Parental satisfaction		22.37±3.85
IFS		
Total		80.18±9.87
Financial burden		8.01±1.94
Familial/social impact		22.46±4.21
Personal strain		19.56±4.03
Coping		10.59±2.57

M: Mean; SD: Standard deviation; ADHD: Attention-deficit/hyperactivity disorder; CD: Conduct disorder; ODD: Oppositional defiant disorder; ASD: Autism spectrum disorder; ID: Intellectual disability; SDQ: Strengths and Difficulties Questionnaire; PSS: Parental Stress Scale; MDPSS: Multidimensional Scale of Perceived Social Support; PAS: Parental Attitude Scale; IFS: Impact on Family Scale.

Exclusion Criteria

Participants were excluded based on the following criteria:

- Incomplete or insufficient data for analysis
- Children requiring inpatient treatment, as determined by the treating healthcare provider.

Procedure

Children were diagnosed with ASD or ID according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria by a certified child and adolescent psychiatrist. The diagnostic process involved a comprehensive developmental and psychiatric evaluation, including an unstructured clinical interview with both the child and the parents. Standardized cognitive assessments were not systematically administered as part of the study protocol. The study was designed to reflect a naturalistic clinical sample of children with NDD (ASD and ID), and restricting participation to children capable of completing formal psychometric testing could have altered the representativeness of the cohort. Accordingly, cognitive level was not operationalized using standardized intelligence quotient (IQ) measures. Following confirmation of the ASD or ID diagnosis, appropriate treatment plans were either initiated or continued, as clinically indicated. As part of the clinical evaluation, the psychiatrist completed a Personal Information Form using data provided by the parents. After receiving a detailed explanation of the study's aims and procedures, all participating parents provided written informed consent. Only families whose children met all inclusion criteria and none of the exclusion criteria were enrolled in the study.

During the evaluation process, parents completed five standardized instruments: the Strengths and Difficulties Questionnaire (SDQ), the Multidimensional Scale of Perceived Social Support (MSPSS), the Parental Attitude Scale (PAS), the Impact on Family Scale (IFS), and the Parental Stress Scale (PSS).

Measurement

Personal Information Form

The Personal Information Form was developed by the researchers to collect comprehensive sociodemographic and clinical data from participants. Administered during parent interviews, the form gathered information on the child's gender, age, number of siblings, diagnosis, duration of special education (in months), psychiatric comorbidities, and current psychiatric treatments.

Parental Stress Scale (PSS)

The Parental Stress Scale is a 16-item, single-factor instrument developed to assess the level of stress parents experience in relation to childrearing within the Turkish context (10). Items are rated on a 4-point Likert scale ranging from 1 to 4, yielding total scores between 16 and 64. Higher scores indicate greater parental stress. In reliability analyses conducted with parents of children aged 5 to 12 years, the scale yielded a Cronbach's alpha coefficient of 0.85 and a Spearman-Brown split-half coefficient of 0.82 (10).

Strengths and Difficulties Questionnaire (SDQ)

The Strengths and Difficulties Questionnaire–Parent Form (SDQ-P), developed by Goodman, is a widely used 25-item behavioral screening tool designed to assess children's emotional and behavioral difficulties (11). The scale comprises five subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer problems, and prosocial behavior. Items are rated on a 3-point scale (0 to 2). The Total Difficulties Score is calculated by summing the first four subscales, with higher scores indicating greater levels of difficulty. The Turkish adaptation, validated by Guvenir et al. (2008) (12), demonstrated acceptable reliability, with Cronbach's alpha coefficients ranging from 0.37 (peer problems) to 0.84 (total difficulties).

Multidimensional Scale of Perceived Social Support (MSPSS)

Originally developed by Zimet et al. (1988), the Multidimensional Scale of Perceived Social Support assesses perceived social support from three primary sources: family, friends, and a significant other (13). The instrument consists of 12 items rated on a 7-point Likert scale, with higher scores indicating greater perceived support. The Turkish adaptation by Eker and Arkar (14) (2001) reported high internal consistency, with Cronbach's alpha coefficients ranging from 0.85 to 0.92 across subscales and 0.89 for the total score.

Impact on Family Scale (IFS)

The Impact on Family Scale (IFS), developed by Stein and Riessman (1980), is designed to assess the overall impact of raising a child with a chronic disability on the family unit (15). The Turkish version, adapted by Beydemir (2008) (16), consists of 27 items, 24 of which are included in the total score calculation. The score evaluates four domains: financial burden, social/familial impact, personal strain, and coping. Higher total scores indicate a greater perceived impact on the family. The Turkish version has demonstrated good reliability, with a Cronbach's alpha coefficient of 0.81.

Parental Attitude Scale (PAS)

The Parental Attitude Scale, originally developed by Gibaud-Wallston and Wandersman (1978) (17), was adapted into Turkish by Secer et al. (2008) (18). The instrument comprises 16 items distributed across three subscales: perceived parenting self-efficacy (7 items), involvement in the parenting role (2 items), and satisfaction with parenting (7 items). Items are rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with higher scores reflecting more positive parental attitudes. In the present study, only the perceived parenting self-efficacy subscale was included in the multivariate regression analysis. This decision was based on prior research emphasizing the central role of parental self-efficacy in relation to stress, whereas empirical evidence linking the other dimensions to parental stress is scarce.

Statistical Analysis

All statistical analyses were conducted using SPSS version 25.0 (Statistical Package for the Social Sciences; IBM Corp., 2019, New York, USA). Descriptive statistics were used to summarize the study variables. Internal consistency of the scales was assessed using Cronbach's alpha coefficients. Pearson correlation analyses were conducted to examine bivariate associations between the dependent variable (parental stress) and candidate predictors, as well as to assess intercorrelations among independent variables. Following the correlation analyses, multicollinearity was further evaluated prior to the regression analysis using variance inflation factor (VIF) values. Variables with VIF values greater than 3 were excluded from the regression model (19). To identify predictors of parental stress among parents of children with NDD, multiple linear regression analysis was performed using the enter method, with nine independent variables entered simultaneously into the final model. Statistical significance was set at $p<0.05$.

RESULTS

As presented in Table 1, the mean age of the children was 8.37 years (standard deviation [SD]=2.14), and 74% were male. Clinical diagnoses were distributed as follows: 56% ASD and 44% ID. Descriptive statistics for all study variables, including SDQ subscales, PSS, PAS, MSPSS, and IFS scores, are also provided in Table 1.

Prior to conducting the multivariate linear regression analyses, the suitability of candidate predictors was evaluated using a structured preliminary screening procedure. In the first step, the internal consistency of all scales and subscales was assessed. Measures with Cronbach's alpha coefficients below 0.60 were excluded from further analyses, consistent with commonly accepted guidelines for minimum internal consistency (Supplementary Digital Appendix 1) (20). In the second step, bivariate associations between the dependent variable (parental stress, measured by the PSS) and the remaining candidate predictors were examined to inform variable selection. Only variables demonstrating at least a small-to-moderate correlation with parental stress ($r \geq 0.20$) were retained as independent variables (Supplementary Digital Appendix 2) (21). Subsequently, intercorrelations among the retained predictors were examined to minimize redundancy. Variables with intercorrelation coefficients exceeding 0.70 were considered to reflect substantial overlap and were excluded accordingly (Table 2) (22). Finally, multicollinearity among the remaining predictors was formally assessed using variance inflation factor values. Predictors exceeding the conservative cut-off value of 3 were excluded from the final regression model (Supplementary Digital Appendix 3) (19). Child age and sex were included as covariates in the final multivariate regression model, which comprised a total of nine independent variables. Detailed information regarding these preliminary analyses is provided in the Appendices File.

Bivariate Pearson correlations among the study variables are presented in Table 2. Parental stress (PSS) showed significant positive correlations with SDQ total difficulties ($r=0.458$, $p<0.001$), internalizing symptoms ($r=0.395$, $p<0.001$), externalizing symptoms ($r=0.349$, $p<0.001$), hyperactivity ($r=0.336$, $p<0.001$), emotional difficulties ($r=0.456$, $p<0.001$), conduct difficulties ($r=0.268$, $p<0.05$), and peer difficulties ($r=0.263$, $p<0.05$). In contrast, parental stress was negatively correlated with perceived family support ($r=-0.437$, $p<0.001$) and parental self-efficacy ($r=-0.460$, $p<0.001$). The association with coping ($r=0.206$, $p<0.05$) was weaker but statistically significant, whereas correlations with prosocial behavior and several family impact subscales were not statistically significant. These findings informed the subsequent multivariate modeling.

Results of the multivariate linear regression analysis (Table 3) indicated that the overall model significantly predicted parental stress, $F(9, 90)=6.877$,

Table 2: Bivariate correlations among variables demonstrating acceptable internal consistency (Cronbach's α≥0.60)

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. PSS	0.458**	0.395**	0.349**	-0.71	0.336**	0.456**	0.268*	-0.137	-0.437**	-0.460**	0.117	0.263*	-0.094	0.021	0.206*
2. SDQ Total Difficulties	1	0.850**	0.776**	0.247*	0.668**	0.680**	0.633**	-0.150	-0.340**	-0.397**	0.041	0.273**	-0.096	0.040	0.019
3. SDQ Internalizing		1	0.327**	-0.064	0.766**	0.425**	0.765**	-0.174	-0.258**	-0.326**	-0.020	0.224	-0.111	-0.004	-0.053
4. SDQ Externalizing			1	0.520**	0.281**	0.711**	0.219*	-0.061	-0.301**	-0.303**	0.097	0.222*	-0.039	0.076	0.030
5. SDQ Hyperactivity				1	-0.064	-0.231*	-0.034	0.079	0.021	0.289**	0.072	0.129	0.046	0.042	-0.028
6. SDQ Emotional Difficulties					1	0.373**	0.172	-0.093	-0.159	-0.244*	0.021	0.280**	-0.045	-0.008	-0.031
7. SDQ Conduct Difficulties						1	0.277**	-0.134	-0.360**	-0.583**	0.052	0.147	-0.082	0.052	0.057
8. SDQ Peer Difficulties							1	-0.174	-0.236*	-0.255*	-0.053	0.063	-0.125	0.002	-0.050
9. SDQ Prosocial Behavior								1	0.207*	0.120	-0.034	0.047	0.027	-0.086	0.058
10. MDPSS Family									1	0.410**	0.041	-0.172	0.239*	-0.005	-0.091
11. PAS Self-efficacy										1	-0.012	-0.005	-0.204*	-0.083	-0.115
12. IFS Total											1	0.033	0.535**	0.865**	0.226*
13. IFS Financial Burden												1	-0.210*	-0.073	-0.058
14. IFS Familial/Social Impact													1	0.174	0.030
15. IFS Personal Strain														1	-0.044
16. IFS Coping															1

SDQ: Strengths and Difficulties Questionnaire; MDPSS: Multidimensional Scale of Perceived Social Support; PAS: Parental Attitude Scale; IFS: Impact on Family Scale. * p<0.05; ** p<0.001.

Table 3: Final multivariate linear regression model predicting parental stress (n=100)

	Standardized β	Unstandardized coefficients (B)	95% CI for B	t	p
Constant		35.735	21.174, 50.275	4.878	**<0.001**
Age (covariate)	-0.002	-0.007	-0.708, 0.694	-0.020	0.984
Sex (covariate)	0.013	-0.261	-3.656, 3.134	0.153	0.879
Diagnosis (ASD vs. ID) (covariate)	0.110	0.671	-0.415, 1.757	1.227	0.223
SDQ					
Emotional difficulties	0.172	0.696	-0.038, 1.430	1.883	0.063
Peer difficulties	0.126	0.509	-0.190, 1.209	1.446	0.152
MDPSS					
Family support	-0.213	-0.312	-0.582, -0.042	-2.296	**0.024**
PAS					
Self-efficacy	-0.285	-0.489	-0.808, -0.169	-3.036	**0.003**
IFS					
Financial burden	0.164	0.731	-0.048, 1.511	1.865	0.065
Coping	0.160	0.541	-0.021, 1.102	1.912	0.059

ASD: Autism spectrum disorder; ID: Intellectual disability; SDQ: Strengths and Difficulties Questionnaire; MDPSS: Multidimensional Scale of Perceived Social Support; PAS: Parental Attitude Scale; IFS: Impact on Family Scale. Bolded predictors indicate statistically significant results ($p<0.05$). Model statistics: $F(9, 90)=6.877$, $p<0.001$, Adjusted $R^2=0.348$.

$p<0.001$, explaining approximately 34.8% of the variance (Adjusted $R^2=0.348$). Significant predictors included lower family support ($\beta=-0.213$, $p=0.024$) and lower parental self-efficacy ($\beta=-0.285$, $p=0.003$). Other variables, including children's emotional and behavioral problems (SDQ scores) and family impact (IFS scores), were not significantly associated with parental stress in the final model.

DISCUSSION

The present study examined the relative contribution of contextual factors to parental stress among parents of children with NDD. The findings indicate that parental self-efficacy emerged as the strongest predictor of stress, with perceived family support representing the second most influential factor in the model. Consistent with social cognitive perspectives that conceptualize parental self-efficacy as a central regulator of stress appraisal (23), as well as prior empirical research linking parental self-efficacy to stress processes (9), these results underscore the pivotal role of perceived competence in shaping parental stress responses. Family support also accounted for a meaningful proportion of variance, aligning with stress-buffering theories embedded within broader family stress frameworks (6, 24). These models suggest that support from close family members functions as a protective factor, mitigating parental stress. Collectively, the findings situate parental stress within a relational–cognitive framework in which parental self-efficacy and proximal family support serve as central organizing influences.

Parental self-efficacy emerged as the most powerful predictor of parental stress in the multivariate model, retaining its explanatory relevance even after accounting for child-related difficulties and other contextual variables. Within the Double ABCX framework (6), self-efficacy can be conceptualized as a key internal resource shaping cognitive appraisal processes, consistent with Bandura's formulation of mastery beliefs as regulators of stress responses (23). This positioning is empirically supported by findings from Almendingen and Pilkington (25), who demonstrated that mastery beliefs predicted parental stress through parental self-efficacy among parents of children with ASD. Empirical evidence similarly identifies parental self-efficacy as a mediating mechanism linking child impairment and stress (9), caregiving demands and stress (26), and family functioning and stress (27) in parents of children with ASD or other NDD. Extending this body of literature, the present findings suggest an important conceptual refinement in understanding the role of parental self-efficacy within the stress process. In contrast to mediation-focused frameworks, our findings support a more proximal positioning of parental self-efficacy within the Double ABCX structure (6), where it operates

not only as a resource but also as a central organizing mechanism of stress appraisal. In this sense, parental stress in the context of NDD appears to be anchored less in the mere presence of child-related difficulties and more in parents' perceived capacity to respond effectively to those demands.

Family support emerged as the second strongest predictor of parental stress in the model, underscoring the regulatory role of close familial resources in the stress process. Consistent with the stress-buffering model, social support is theorized to mitigate the psychological impact of caregiving demands (24). Empirical findings support this theoretical proposition, demonstrating a significant negative association between social support and parental stress in families of children with NDD (28). Moving beyond correlational findings, regression-based studies have shown that social support independently predicts parental stress among parents of children with ASD (29). In the present study, however, this effect was observed specifically for perceived family support, as other support subdimensions were excluded from the regression model due to insufficient internal consistency. This distinction is theoretically meaningful, given evidence that emotionally proximal and practically engaged forms of support—particularly from spouses and relatives—may exert stronger stress-buffering effects than more generalized sources of support (30). Taken together, these findings suggest that parental stress in families of children with NDD is shaped not only by parent-level characteristics, such as self-efficacy, but also by the availability of functionally relevant, family-based support. In line with recommendations to strengthen family-centered support services (29), interventions that simultaneously enhance parental self-efficacy and promote sustained couple- and family-level collaboration may represent a coherent direction for practice.

Contrary to expectations, SDQ subscale scores did not emerge as significant predictors of parental stress, suggesting that the association between child behavioral difficulties and parental stress may vary across developmental stages (31). The present sample was restricted to children aged 6–12 years, thereby excluding earlier developmental periods and later transitional phases. Studies including broader developmental ranges have reported stronger associations between behavioral difficulties and parental stress (32). Within a developmentally circumscribed age range, these associations may be less clearly differentiated from other clinical characteristics, particularly when parental stress reflects broader interactions between child-related demands and parental coping resources rather than discrete behavioral dimensions. Greater cognitive impairment (32) and higher levels of autistic symptom severity (27) have been associated with increased parental stress, indicating that stress in the context of NDD often reflects overall clinical complexity rather than isolated behavioral domains. In the present NDD sample (ASD+ID), cognitive functioning was not operationalized through formal IQ testing to avoid excluding children with more severe impairments. Consequently, variability in cognitive and adaptive functioning may have influenced the extent to which behavioral symptoms were associated with parental stress outcomes. Attention-deficit/hyperactivity disorder (ADHD) was present in 27% of children, and conduct disorder (CD) in 4%, underscoring the presence of clinically meaningful comorbidity with disruptive behavior disorders. At the same time, the reliance on parent-report measures for both child behavioral difficulties and parental stress may have introduced shared method variance, as elevated parental stress has been shown to influence perceptions of child behavior severity. In heterogeneous populations of children with developmental disabilities, parental stress is more consistently associated with the cumulative burden of cognitive, functional, and behavioral demands than with isolated symptom subdomains (27, 32). Within this context, the non-significant SDQ findings are best interpreted as reflecting the multidimensional and developmentally embedded nature of stress in NDD, rather than as evidence for the absence of behavioral contributions.

Several limitations should be considered when interpreting these findings. First, the cross-sectional design precludes conclusions regarding directionality or causality of the observed associations. Second, reliance on parent-report measures may have influenced the reporting of child-related difficulties, potentially introducing shared method variance. Third, cognitive functioning was not systematically assessed using standardized IQ measures. Although this approach reflected the naturalistic design of the study and enabled the inclusion of children with varying levels of impairment, the absence of formal cognitive stratification limited the ability to examine whether differences in cognitive functioning influenced the observed associations. Fourth, psychiatric comorbidities were described

categorically rather than assessed in terms of severity or dimensional variation, which may have affected the strength of the associations between SDQ subscales and parental stress. Finally, the restricted age range (6–12 years) and the recruitment of families already engaged in clinical services limit the generalizability of the findings to broader community populations.

CONCLUSION

By examining child-related, parent-related, and social predictors within a single model, this study clarifies which domains carry the greatest weight in explaining parental stress among parents of children with NDD. Parental self-efficacy and perceived family support emerged as the most robust predictors, distinguishing them from the child-related and other parent-related characteristics assessed. This pattern underscores the relative prominence of parental self-efficacy and proximal familial support in shaping parental stress experiences. Longitudinal and multi-method research is warranted to further elucidate how these factors evolve over time and influence trajectories of parental stress.

Online Supplementary Digital Appendix File:

https://dusunenadamdergisi.org/storage/upload/thumbnails/1774334687.jpeg

Ethical Approval: The Izmir City Hospital Non-Interventional Clinical Research Ethics Committee granted approval for this study (Date: 25.09.2024, number: 2024/133).

Informed Consent: Written informed consent was obtained from all participants.

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Contribution Categories		Author Initials
Category 1	Concept/Design	A.A., A.E.A.
	Data acquisition	A.A., H.I.C., E.A.
	Data analysis/Interpretation	A.A., G.G.
Category 2	Drafting manuscript	A.A., A.E.A., H.I.C.
	Critical revision of manuscript	A.A., G.G., A.E.A., E.A.
Category 3	Final approval and accountability	A.A., G.G., A.E.A., H.I.C., E.A.
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