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Boundary Setting Scale for Children Aged 7–10 – Parent Observation Form: Scale Development and Examination of Psychometric Properties

Osman SÖNER[1], Betül TUNCER[2]

[1]*Istanbul Sabahattin Zaim University, İstanbul, Türkiye,* *0000-0001-9741-5357*

[2]*Istanbul Sabahattin Zaim University, İstanbul, Türkiye,* *0009-0008-6470-3465*

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ABSTRACT

The primary aim of this study was to develop a valid and reliable measurement tool to evaluate boundary-setting behaviors in children aged 7–10, based on parent observations. The study was designed as a two-stage scale development study conducted on two independent samples within a quantitative research framework. The study group consisted of parents of children aged 7–10 who attended primary schools in Istanbul, Türkiye. Data were collected from a total of 655 parents, including 262 participants for the Exploratory Factor Analysis (EFA) and 393 participants for the Confirmatory Factor Analysis (CFA). The data were obtained using the "Boundary Setting Scale for Children Aged 7–10 – Parent Observation Form," developed by the researchers. Statistical analyses were conducted using SPSS, AMOS, and JASP, including Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), Item Response Theory (IRT) analyses, and correlation analyses. The findings demonstrated that the scale had a strong three-factor structure consisting of 26 items: "Boundary Setting and Compliance," "Boundary Internalization," and "Boundary Flexibility." The scale explained 57.34% of the total variance. In addition, high Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) values indicated strong validity and reliability properties. CFA results confirmed that the proposed measurement model exhibited acceptable fit indices, while correlation analyses indicated that all subdimensions were strongly associated with the overall scale structure. Overall, the findings suggest that the developed scale is a psychometrically sound instrument for assessing boundary-setting behaviors in children aged 7–10.

Keywords: Boundary setting, child development, scale development, psychometric properties, parent observation.

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1. Introduction

Childhood is a critical developmental stage during which the foundations of an individual's social, emotional, cognitive, and behavioral development are laid. During this period, children's ability to learn rules, control their impulses, adopt socially acceptable behavior, and develop self-regulation skills is largely influenced by parental attitudes. Parents hold explicit or implicit expectations about the kind of person their child will become and employ various child-rearing strategies to achieve this goal. Practices such as reinforcing positive behaviors, setting boundaries when necessary, modeling appropriate behavior, transmitting values, and creating suitable social environments are among the fundamental components of the parenting process (Kuppens & Ceulemans, 2019). In this context, parenting approaches encompass not only disciplinary practices but also the quality of the parent-child relationship, communication styles, emotional closeness, and the parent's expectations regarding the child's behavior (Trawick-Smith, 2013). Effective boundary-setting, particularly during childhood, is a fundamental parenting skill that helps children learn which behaviors are acceptable. Johnston et al. (1987) define effective boundary-setting as parental practices that determine which

[1]Corresponding author's address: Faculty of Education, Istanbul Sabahattin Zaim University, İstanbul, Türkiye
e-mail: osman.soner@izu.edu.tr

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behaviors are acceptable and which are not. This process supports not only children's learning of rules but also the development of self-control, the demonstration of appropriate behavior in social interactions, and the ability to manage impulses (Mackenzie, 2000; Yılmazer, 2020). Conversely, inadequate, inconsistent, or overly strict boundary-setting practices can lead to various undesirable behaviors in children, such as aggression, defiance, property damage, sibling conflicts, impulsivity, and social adjustment problems (Chang et al., 2003). In this context, boundary-setting is not merely a parental practice aimed at maintaining discipline; it is also regarded as a crucial developmental regulatory mechanism that directly influences a child's psychosocial development.

Effective boundary-setting behavior is influenced by multidimensional variables such as parenting styles, family structure, parents' educational level, socioeconomic status, intrafamilial relationships, cultural characteristics, and parents' psychological well-being (Alisinanoğlu & Kesicioğlu, 2010; Görücü & Karakuş, 2017; Gürsoy & Coşkun, 2006; Ogelman et al., 2013; Özbey, 2009; Söner & Tuncer, 2026; Yılmazer, 2020; Yurteri & Aral, 2012). When viewed through Bronfenbrenner's ecological systems approach, a child's development is influenced not only by individual characteristics but also by multi-layered systems such as the family, school, social environment, and historical context. In particular, the parent-child relationship within the microsystem plays a decisive role in shaping children's behavioral patterns. While healthy family relationships and love-based parenting attitudes help reduce problem behaviors in children, marital conflicts, hostile communication, and punitive parenting practices can increase behavioral problems in children (as cited in Berk, 2013). It is noted that children raised with a democratic parenting approach exhibit higher self-regulation skills, demonstrate more harmonious behavior in social relationships, and develop their boundaries in a healthier way (Bee and Boyd, 2009; Santrock, 2018; Trawick-Smith, 2013). In contrast, authoritarian, overly permissive, or neglectful parenting styles are associated with low self-esteem, anxiety, aggression, social maladjustment, impulse control issues, and risky behaviors (Bee and Boyd, 2009; Santrock, 2018; Trawick-Smith, 2013). Furthermore, in a collaborative parenting approach, cooperation, consistency, and mutual support between parents contribute to children internalizing rules in a healthier way (Santrock, 2018). Therefore, effective boundary-setting is not limited to the parent's individual disciplinary skills but is closely related to the family system's holistic functioning.

Children's process of learning boundaries is related not only to parental attitudes but also to their cognitive and social developmental characteristics. According to social learning theory, children learn by observing and modeling the behaviors in their environment. Therefore, how parents set boundaries, the discipline methods they use, and their conflict resolution styles are directly observed and internalized by children (Bolat, 2022; Kandır & Alpan, 2008; Senemoğlu, 1997). It is noted that discipline methods involving violence, in particular, can be learned by children and transmitted across generations. As children shape their responses to their parents' behaviors, parents also adjust their disciplinary strategies in response to the children's behaviors, leading to a reciprocal interaction cycle over time (Serbin et al., 2015). In addition, according to Piaget's theory of cognitive development, during the Concrete Operational Stage—which spans the ages of 7 to 11—children's abilities in logical thinking, establishing cause-and-effect relationships, approaching events from others' perspectives, and understanding rules develop significantly (Deniz, 2018; Gander & Gardiner, 2015; Santrock, 2014). Children in this age group can now better understand the reasons behind boundaries, evaluate the consequences of their behavior, and grasp the importance of rules for social order. The "Sense of Inferiority vs. Achievement" stage in Erikson's psychosocial development theory also emphasizes that children's perceptions of competence, responsibility, and success develop during the elementary school years (Santrock, 2014). As children's ability to take on responsibilities develops during this period, it becomes increasingly important to structure the process of setting boundaries more democratically, grounded in mutual communication (Cloud & Townsend, 2022). It is also noted that children require structured rules across various domains, including physical boundaries, emotional boundaries, social boundaries, time limits, technology and digital boundaries, and privacy boundaries (Ergün, 2025). Through effective boundary-setting, children learn not only to follow rules but also to delay impulses, develop self-regulation, respect others' rights, and build safe social relationships (Brazelton & Greenspan, 2006; Ekşi, 2011; Yılmazer, 2020). In this context, effective boundary-setting processes during childhood are considered one of the fundamental building blocks of development, helping control behavior and supporting the child's psychological resilience, social adaptation, self-regulation skills, and healthy personality development.

A review of the literature reveals that, although there is a wealth of research on parenting styles, disciplinary practices, and children's behavioral problems, no measurement tool has been identified to comprehensively assess parents' effective boundary-setting behaviors, particularly among children aged 7–10. A significant portion of existing studies focuses on preschool-aged children or measures general parenting attitudes. The 7–10 age range was deliberately selected because it corresponds to middle childhood, a developmental period characterized by substantial advances in cognitive, social, and emotional functioning. During this stage, children become increasingly capable of understanding and internalizing rules, regulating their emotions and behaviors, assuming greater personal responsibility, and navigating more complex peer and school relationships. These developmental gains are closely associated with the acquisition of self-regulation and social-emotional competencies that are essential for adapting to family and school expectations (OECD, 2024; Russell & Russell, 2025). Furthermore, in Türkiye, children aged 7–10 attend the early years of elementary school, where they are expected to comply with classroom rules, develop a sense of responsibility, strengthen peer relationships, and demonstrate increasing behavioral self-regulation. Consequently, this developmental and educational period provides an appropriate context for evaluating parental boundary-setting behaviors through parent observations. Additionally, contemporary issues such as technology use, digital boundaries, privacy, screen time management, and social media have made parents' boundary-setting processes more complex (Ergün, 2025). In this context, there is a need for measurement tools that can assess parents' boundary-setting behaviors toward their children in a multidimensional manner, take developmental characteristics into account, are culturally appropriate, and are psychometrically robust. The absence of a standardized observation form in Türkiye specifically designed to measure parental boundary-setting skills in elementary school-aged children underscores the need for this research. Accordingly, the current study aims to develop the Boundary-Setting Scale for 7–10-Year-Old Children – Parent Observation Form and to examine the scale's psychometric properties. As the scale develops, the goal is to provide researchers, mental health professionals, psychological counselors, teachers, and parents with a scientific tool for assessing children's boundary-setting processes. Based on this objective, the research questions were formulated as follows:

- What is the factor structure of the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form?
- Are the scale's item discrimination levels and construct validity adequate?
- Are the scale's internal consistency, reliability, and other reliability coefficients adequate?

2. Methodology

2.1.Research Model

This study was designed as a quantitative scale development study to develop a valid and reliable measurement tool to assess boundary-setting in children aged 7–10. The scale development process was conducted on two independent samples in accordance with the psychometric stages recommended in the literature (Boateng et al., 2018; DeVellis & Thorpe, 2021). In the first phase, item analyses and exploratory factor analysis were conducted to examine the factor structure and psychometric properties of the item pool. In this phase, the discriminant validity of the items, factor loadings, and the scale's internal consistency were evaluated. In the second phase, confirmatory factor analysis was applied on an independent sample to validate the factor structure obtained from the AFA. Within the scope of the DFA, model fit indices were examined to assess the proposed measurement model's fit to the data. Additionally, Cronbach's alpha, composite reliability, and the percentage of variance explained were evaluated to assess the scale's reliability. This two-phase research design enabled testing the factor structure of the developed measurement instrument across independent samples and the establishment of a psychometrically sound measurement model. This approach is consistent with the methodological standards recommended in current scale development studies (Boateng et al., 2018; DeVellis & Thorpe, 2021).

2.2. Research Sample

For this study, data were collected from the parents of children aged 7–10 attending 10 elementary schools in four districts of Istanbul. The study employed criterion sampling, a purposive sampling method. Criteria sampling is a sampling approach that focuses on including individuals with specific characteristics in the study (Patton, 2015). The primary criterion identified in this study was that parents had a child aged 7–10

attending elementary school. Accordingly, only parents with children in the specified age range were included in the study. As recommended in scale development studies, the data collection process was conducted on two independent samples and in two separate phases (DeVellis & Thorpe, 2021). A total of 262 parents participated in the first data collection round, comprising 170 women (65.0%) and 92 men (35.0%). The average monthly household income of the participants was 65,349 TL. This dataset was used in an Exploratory Factor Analysis (EFA) to determine the scale's factor structure. In the second data collection phase, 393 parents were surveyed, comprising 236 women (60.1%) and 157 men (39.9%). The average monthly household income of the participants was 58,659 TL. Confirmatory Factor Analysis (CFA) was conducted on the second dataset to validate the factor structure of the developed measurement tool on an independent sample. As part of the two-stage data collection process, data were collected from 655 parents to test the factor structure of the developed "Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form" across different samples and to evaluate the measurement model from a psychometric perspective.

2.3. Data Collection Tools and Procedure

*Boundary-setting scale for children aged 7–10 – parent observation form***.** During the scale's development, the literature on boundary-setting in children aged 7–10 was examined in detail, and the theoretical dimensions and behavioral indicators of the concept were identified. Accordingly, a comprehensive item pool was created in the initial phase, and a draft form was prepared to assess children's boundary-setting based on parental observation. The prepared items were submitted to experts for the evaluation of content validity. According to DeVellis and Thorpe (2021), expert review is one of the crucial stages that strengthen the conceptual appropriateness of the measurement tool. In this context, opinions were sought from expert academics in the fields of Psychological Counseling and Guidance, Child Development, and Measurement and Evaluation. Additionally, a Turkish language expert reviewed the items to assess their linguistic appropriateness. Based on expert feedback, grammatically problematic phrases were corrected, items deemed to have similar content or to represent the target behavior insufficiently were removed, and the scale's preliminary form was revised. Items that were found to overlap conceptually or were deemed insufficiently representative of children's boundary-setting were removed from the scale at this stage. A pilot study was then conducted with 30 parents to evaluate the clarity, comprehensibility, and applicability of the preliminary scale. Based on their feedback regarding the items' clarity, wording, and administration time, necessary revisions were made. The literature emphasizes the importance of pilot studies, particularly in scale development, for evaluating how items are cognitively perceived (Boateng et al., 2018). Following the pilot study, the scale was administered to two independent study groups. As a result of the exploratory factor analysis (EFA) conducted on the first sample, the scale's factor structure was examined, and items with low factor loadings or deemed conceptually insufficient were removed from the scale. Subsequently, confirmatory factor analysis was conducted on a second independent sample to validate the resulting structure. During the CFA process, model fit indices were examined, and the proposed measurement model was found to be consistent with the data. In addition, item-total correlations, Cronbach's alpha, composite reliability (CR), and average variance explained (AVE) were examined to assess the scale's reliability and convergent validity. The findings indicate that the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form is a psychometrically valid and reliable measurement tool grounded in theoretical principles.

2.4. Data Collection

As part of this scale development study, the researchers obtained ethical approval from the Research and Publication Ethics Committee for Social and Human Sciences at their affiliated university before data collection. Following ethical approval, data were collected voluntarily from parents who wished to participate in the study. Participants were provided with detailed information about the study's purpose, and the principles of confidentiality and anonymity were explained; participation was voluntary. Data were collected by the researchers using both face-to-face and online methods. The data collection process was conducted in two separate phases, in line with the multi-phase approach recommended in scale development studies (Boateng et al., 2018; DeVellis & Thorpe, 2021). The data collected in the first phase were used for exploratory factor analysis (EFA) to determine the factor structure of the developed "Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form." In this phase, the factor loadings of the items, item-total correlations, and the scale's internal consistency properties were examined; items with low factor loadings or those deemed conceptually insufficient were removed from the scale. In the second stage, data were collected again from an

independent sample to validate the factor structure obtained from the AFA, and confirmatory factor analysis was applied to the resulting dataset. During this process, the fit of the proposed measurement model to the data was evaluated using various model fit indices. Additionally, to examine the scale's reliability and convergent validity, Cronbach's alpha, composite reliability, and the proportion of variance explained were calculated. On average, participants completed the scale in approximately 25 minutes during the first data collection round and 22 minutes during the second. This two-stage data collection approach allowed testing the factor structure of the developed measurement instrument across independent samples and enabled a more robust evaluation of the scale's psychometric properties.

2.5. Data Analysis

The statistical software packages SPSS, AMOS, and JASP were used to analyze the data obtained in this study. Before beginning the analysis, the dataset was examined for missing values, outliers, and violations of normality assumptions. To assess the scale's suitability for factor analysis, the Kaiser–Meyer–Olkin (KMO) sample adequacy test and Bartlett's Sphericity Test were conducted, and the results indicated that the scale was suitable for factor analysis. Subsequently, an Exploratory Factor Analysis was conducted to reveal the scale's factor structure, and the item factor loadings and eigenvalues were examined. During the factor structure determination, items with low factor loadings or high loadings across multiple factors were evaluated, and those deemed unnecessary were removed from the scale. Additionally, item-total correlations were examined to assess the items' measurement power. Cronbach's Alpha was calculated to assess the scale's reliability. In addition, composite reliability and average explained variance were examined to assess construct reliability and convergent validity. To validate the factor structure obtained from exploratory factor analysis, confirmatory factor analysis was conducted on a second dataset, and the model's fit indices were evaluated. In examining model fit, the χ^2/df, Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR) values were considered. The DFA results, with acceptable fit values, demonstrated that the factor structure of the developed measurement instrument had been validated. This multi-stage analysis process enabled validation of the factor structure of the developed "Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form" and a comprehensive evaluation of its psychometric properties.

2.5. Ethical

This study was conducted in accordance with ethical principles and was approved by the Ethics Committee of Istanbul Sabahattin Zaim University on October 30, 2025, under decision number 2025/10.

3. Findings

3.1. Study 1

3.1.2. Findings regarding exploratory factor analysis

Following expert reviews, the 47-item draft assessment form, which was deemed to have satisfactory content validity, was pilot-tested with 15 parents to evaluate item clarity, comprehensibility, and applicability during administration. Based on the feedback obtained from both experts and parents, revisions were made to improve the wording and clarity of several items. Subsequently, Exploratory Factor Analysis was conducted. During the item refinement process, decisions regarding item retention and deletion were based on multiple criteria, including theoretical relevance, expert evaluations, item clarity, factor loadings, and cross-loading patterns. Items with factor loadings below .40, substantial cross-loadings, or limited conceptual contribution to the underlying construct were considered for removal. Consequently, items that did not adequately represent the intended construct or were conceptually redundant were removed, resulting in a final 26-item scale for the main study. The findings from Bartlett's Sphericity Test, which was conducted to assess the scale's suitability for factor analysis, as well as the item-factor loadings and eigenvalue analyses, are presented in Table 1.

Table 1. *Factor Loading*

Sub-dimensions	Previous Article Number	New Article No.	Factor Load Values			Eigenvalue	Bartlett's Sphericity Test	
			Factor 1	Factor 2	Factor 3		x^-	p
Setting Boundaries and Adaptation	I47	1	0.903			14.908	697.723	<.001
	I44	2	0.933					
	I43	3	0.851					
	I48	4	0.829					
	I45	5	0.802					
	I39	6	0.794					
	I30	7	0.795					
	I37	8	0.699					
	I35	9	0.737					
The Internalization of Borders	I12	10		0.840				
	I13	11		0.861				
	I15	12		0.742				
	I17	13		0.782				
	I11	14		0.815				
	I25	15		0.551				
	I6	16		0.653				
	I5	17		0.637				
	I20	18		0.611				
	I26	19		0.541				
Boundary Flexibility	I29	20			0.957			
	I21	21			0.868			
	I31	22			0.855			
	I24	23			0.708			
	I23	24			0.696			
	I27	25			0.654			
	I16	26			0.531			

As noted by Hair et al. (2016), various statistical methods, such as Bartlett's Sphericity Test, are used to assess the suitability of a dataset for factor analysis. Bartlett's Sphericity Test determines whether the correlations among variables are sufficiently strong for factor analysis. The results of the Bartlett Sphericity Test were found to be significant ($\chi^2 = 697.723$, $p < .001$). These findings indicate that the dataset is well-suited for Exploratory Factor Analysis (Hair et al., 2016; Tabachnick & Fidell, 2015). In factor analysis, a minimum factor loading of .40 is recommended for items to be considered under a relevant factor (DeVellis & Thorpe, 2021). In the analyses conducted, the factor loadings of the scale items ranged from .531 to .957. The high factor loadings indicate that the scale strongly represents the construct it aims to measure. The exploratory factor analysis revealed that the scale exhibits a three-dimensional structure. It was determined that these three factors together account for approximately 57.34% of the variance.

3.1.2. Findings regarding substance distinctiveness

At this stage, Item Response Theory (IRT) analysis was conducted to determine the extent to which the scale items could distinguish among individuals in their boundary-setting. The analyses indicated that the items' discrimination parameters were acceptable and high. The findings suggest that the scale items successfully distinguish characteristics related to children's boundary-setting. Additionally, it was observed that the items could distinguish between different response categories across the theta level and adequately represented the

construct of interest. The discrimination parameters for the items and the IRT analysis results are presented in Table 2.

Table 2. *IRT Results for the Boundary Setting Scale for Children Aged 7–10 – Parent Observation Form*

Item	*a* coefficient	SE	Confidence interval	*z*	$p > \|z\|$
I47	2.37	.28	1.80-2.94	8.21	.000
I44	2.83	.27	1.75-2.82	8.36	.000
I43	3.42	.39	2.65-4.20	8.67	.000
I48	2.52	.33	1.87-3.17	7.60	.000
I45	1.91	.23	1.45-2.37	8.13	.000
I39	2.93	.35	2.25-3.61	8.44	.000
I30	3.29	.38	2.54-4.05	8.54	.000
I37	3.26	.45	2.38-4.15	7.25	.000
I35	3.60	.42	2.77-4.43	8.50	.000
I12	2.09	.22	1.65-2.52	9.44	.000
I13	2.32	.25	1.83-2.82	9.27	.000
I15	2.53	.27	2.01-3.05	9.47	.000
I17	2.39	.26	1.88-2.90	9.13	.000
I11	2.38	.26	1.87-2.89	9.15	.000
I25	2.23	.25	1.75-2.72	8.89	.000
I6	1.97	.22	1.54-2.41	8.91	.000
I5	2.02	.23	1.57-2.48	8.74	.000
I20	2.44	.25	1.95-2.94	9.71	.000
I26	2.53	.26	2.01-3.05	9.58	.000
I29	3.19	.33	2.53-3.84	9.60	.000
I21	2.88	.31	2.27-.48	9.37	.000
I31	3.27	.32	2.62-3.91	9.94	.000
I24	2.56	.26	2.03-3.07	9.68	.000
I23	2.40	.26	1.88-2.92	9.09	.000
I27	3.48	.35	2.78-4.18	9.77	.000
I16	2.46	.25	1.96-2.95	9.74	.000

As shown in Table 2, the Item Response Theory results for the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form indicate that the scale has a robust psychometric structure. The discriminant validity (α) coefficients presented in Table 2 reveal that the items have a high ability to distinguish children's boundary-setting. The discriminant validity coefficients of the items range from 1.91 to 3.60. In particular, the high discrimination levels of items I35 (α = 3.60), I27 (α = 3.48), I43 (α = 3.42), I30 (α = 3.29), and I31 (α = 3.27) indicate that these items strongly represent the construct being measured. In addition, the low standard errors (SEs) and the relatively narrow confidence interval distributions support the reliability of the parameter estimates. The high z-scores for the items and the $p < .001$ significance level for all items indicate statistically significant findings. Overall, the items' high discriminant validity indicates that the scale can effectively distinguish children with varying levels of boundary-setting. These findings support the conclusion that the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form is a psychometrically robust and reliable measurement tool.

3.1.3. Reliability analyses

To assess the internal consistency reliability of the measurement instrument, Cronbach's Alpha coefficients were calculated for the total score. In addition, Composite Reliability and Mean Variance Explained values were evaluated to examine the scale's construct validity and convergent validity. Based on the findings, the scale's subscales demonstrate high internal consistency, and the items adequately represent their respective constructs. The results of the analyses regarding reliability and convergent validity are presented in Table 3.

Table 3. *Reliability Information of the Boundary Setting Scale for Children Aged 7–10 – Parent Observation Form for Study 1 and Study 2*

	Study 1 (n=262)	Study 2 (n=393)
Cronbach's Alpha	.969	.977
CR	.973	.983
AVE	.585	.689

As presented in Table 3, the Boundary Setting Scale demonstrated excellent internal consistency across both independent samples. Cronbach's alpha coefficients were .969 for Study 1 and .977 for Study 2, indicating excellent reliability. Similarly, Composite Reliability values of .973 and .983 exceeded the recommended threshold of .70, confirming strong construct reliability (Hair et al., 2016). Furthermore, the Average Variance Extracted values of .585 and .689 were above the recommended cutoff of .50 (Fornell & Larcker, 1981), providing evidence of satisfactory convergent validity. These findings indicate that the scale demonstrates high reliability and adequate convergent validity across both study samples.

3.2. Study 2

3.2.1. Findings regarding confirmatory factor analysis

Confirmatory Factor Analysis was conducted to validate the factor structure obtained from exploratory factor analysis and to determine the extent to which the items represented the relevant factors. As part of the CFA, the factors with stronger loadings were examined, as well as the fit between the identified factor structure and the data. The analyses revealed that the items adequately represent the relevant sub-dimensions and that the proposed measurement model possesses acceptable fit indices. The path diagram obtained for the scale is presented below.

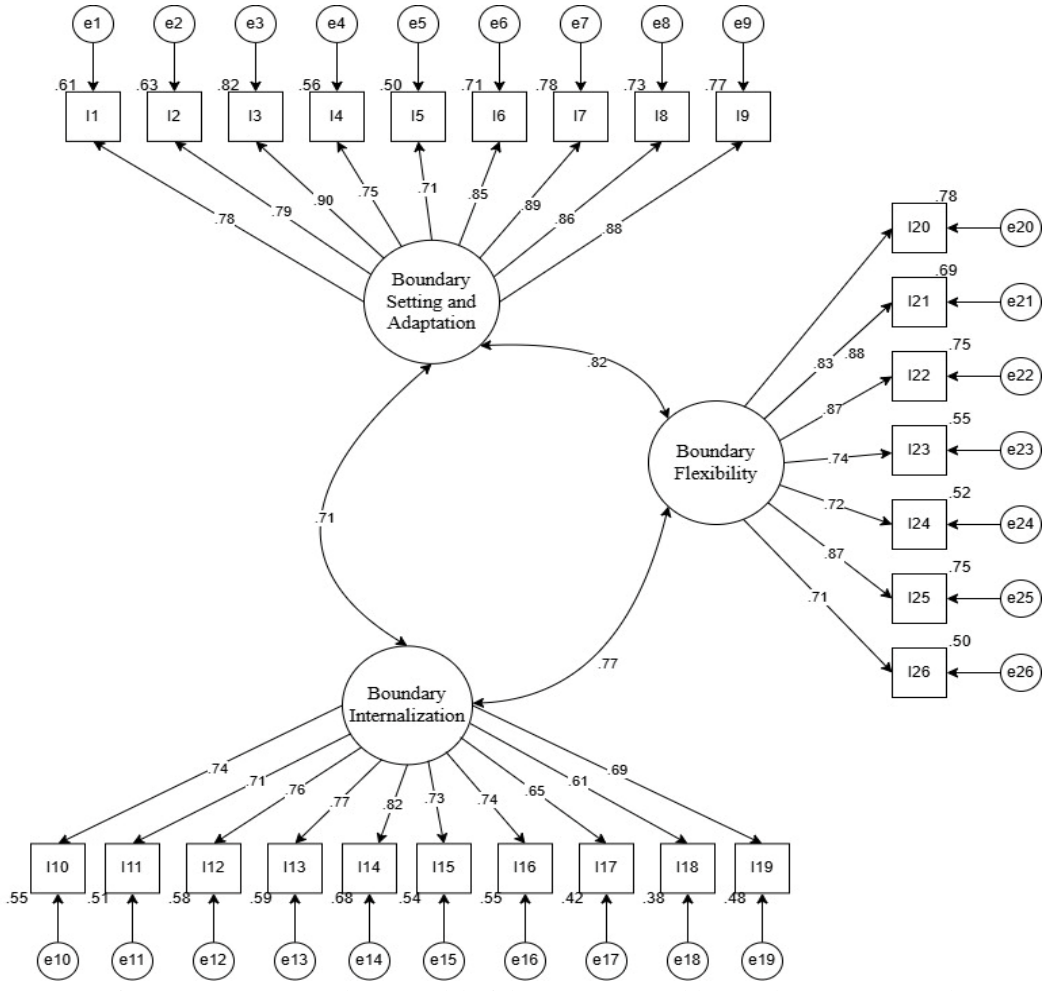

Figure 1. *Confirmatory Factor Analysis Model of the 7–10-Year-Old Boundary-Setting Scale—Parent Observation Form*

According to the confirmatory factor analysis results, the three-factor structure of the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form was consistent with the data. According to Kline (2011), a χ^2/df value below 3 indicates good model fit, whereas values below 5 indicate acceptable fit. In the present study, the χ^2/df value was 2.866, indicating a good model fit based on these recommended criteria. Furthermore, Hu and Bentler (1999) suggested that CFI and TLI values greater than .90 indicate acceptable model fit. The CFI (.914) and TLI (.922) values obtained in the present study exceeded this threshold, providing evidence of an acceptable model fit. The SRMR value was .0549, which is below the recommended cutoff of .08 and therefore indicates a good fit between the proposed model and the observed data (Hu & Bentler, 1999). According to Kline (2011), RMSEA values of .08 or lower indicate good model fit, whereas values below .10 indicate acceptable fit. The RMSEA value obtained in the present study was .083, suggesting an acceptable level of model fit. Examination of the standardized factor loadings showed that the items in the "Boundary Setting and Rule Compliance" subscale ranged from .71 to .90, those in the "Boundary Internalization" subscale ranged from .61 to .82, and those in the "Boundary Flexibility" subscale ranged from .71 to .88. According to Hair et al. (2016), standardized factor loadings above .50 indicate that items adequately represent their underlying latent constructs. The factor loadings obtained in the present study exceeded this criterion, indicating that the items strongly represented their respective subscales. Additionally, the correlation coefficients among the subscales ranged from .71 to .82, indicating that the subscales were moderately to strongly associated yet conceptually distinct. Taken together, these findings demonstrate that the three-factor measurement model exhibited an acceptable level of fit and provides strong evidence supporting the construct validity of the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form.

3.2.2. Relationship analyses

The relationships between the subdimensions and the total score of the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form were analyzed using the JASP program; findings regarding correlation coefficients and confidence intervals are presented in Table 4.

Table 4. *Relationships Between the Subdimensions and Total Scores of the Boundary Setting Scale for Children Aged 7–10 – Parent Observation Form*

	Range	M	Sd	Skew.	Curt.	Correlations with 7–10 Years Age-Appropriate Boundary-Setting Scale Total		Confidence Intervals	
						r	p	95% CI Upper	95% CI Lower
7–10 Years Age-Appropriate Boundary-Setting Scale Total	94	206.65	22.77	-.99	.372				
Setting Boundaries and Adaptation	24	76.49	5.17	-1.13	.560	.746	<.001	.678	.802
The Internalization of Borders	58	76.14	12.28	-1.23	1.235	.835	<.001	.815	.820
Boundary Flexibility	40	54.03	8.47	-1.00	.622	.868	<.001	.829	.899

An examination of the findings in Table 4 revealed a strong, positive, and statistically significant correlation with the total scale score of the Boundary-Setting and Adaptation subscale ($r = .746$, $p < .001$, 95% CI [.678, .802]). Similarly, the "Internalization of Boundaries" subscale was strongly and significantly correlated with the total scale score ($r = .835$, $p < .001$, 95% CI [.815, .820]). Furthermore, the "Boundary Flexibility" subscale also showed a high, positive, and significant correlation with the total scale score ($r = .868$, $p < .001$, 95% CI [.829, .899]). An examination of the magnitude of the correlation coefficients suggests that all subscales strongly reflect the scale's overall structure (Cohen, 1988). The fact that the confidence intervals do not include zero further supports the statistical significance of the observed relationships. Furthermore, the skewness and kurtosis values fall within acceptable limits, indicating that the data distribution is close to normal. When these findings are evaluated together, it can be concluded that the subscales of the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form are consistent with the scale's overall structure and that the

measurement instrument possesses strong internal structural validity.

4. Discussion

The findings from exploratory and confirmatory factor analyses indicate that the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form possesses a theoretically meaningful and psychometrically robust structure. The three-factor structure identified in the study comprises the dimensions "Boundary Setting and Compliance," "Internalization of Boundaries," and "Boundary Flexibility," and it aligns closely with theoretical frameworks in the literature on child development and parenting. Studies emphasizing that the democratic parenting approach supports children's self-regulation, social adaptation, and ability to internalize rules are consistent with the factor structure obtained (Bee & Boyd, 2009; Santrock, 2018; Trawick-Swith, 2013). Similarly, Johnston et al. (1987) framing of effective boundary-setting as a fundamental parenting process that enables children to learn acceptable behaviors aligns with the scale's "Boundary-Setting and Compliance" dimension. The "Internalization of Boundaries" dimension of the scale is considered important because it assesses not only children's compliance with external rules but also their internalization of these rules through control mechanisms. This finding is consistent with studies highlighting the impact of effective boundary-setting on children's development of self-regulation, impulse control, and social responsibility (Brezaltan & Grenspan, 2006; Ekşi, 2011; Mackenzie, 2000; Yılmazer, 2020). Furthermore, the emergence of the "Boundary Flexibility" dimension supports understanding boundary setting as democratic and reciprocal communication, as emphasized in current approaches to child development. In particular, Cloud and Townsend's (2022) approach, which emphasizes the importance of establishing shared principles with children, strengthens the theoretical foundation of this sub-dimension. Furthermore, Piaget's explanations of the Concrete Operational Stage indicate that children aged 7–10 develop the ability to understand the reasons behind rules and to evaluate the consequences of their behavior (Deniz, 2018; Gander & Gardiner, 2015; Santrock, 2014). In this context, the resulting three-dimensional structure appears consistent with children's cognitive, social, and behavioral development processes and demonstrates that the scale is grounded in a strong theoretical foundation.

The findings on item discrimination and reliability from the study indicate that the developed measurement tool possesses a robust psychometric structure. The high item discrimination coefficients indicate that the items on the scale effectively distinguish between children with different characteristics in boundary-setting behavior. In particular, the high discrimination coefficients for certain items suggest that specific behavioral patterns are more decisive in assessing children's boundary-setting. This finding is consistent with the social learning theory's approach, which holds that children learn behaviors through environmental models (Bolat, 2022; Kandır & Alpan, 2008; Senemoğlu, 1997). Given that children are thought to internalize their parents' disciplinary practices by observing them, it is expected that the scale items will strongly distinguish between behavioral patterns. Furthermore, the Cronbach's alpha CR and AVE values indicate strong internal consistency and satisfactory convergent validity. Although the internal consistency coefficients were high, the retained items represent conceptually distinct aspects of parental boundary-setting, and both statistical criteria and theoretical considerations guided the item selection process to minimize conceptual redundancy. The fact that the scale yields similar reliability results across two independent samples is important as it demonstrates that the developed construct functions consistently across different groups. This indicates that the multi-stage psychometric approach proposed by Boateng et al. (2018) and DeVellis and Thorpe (2021) in their scale development studies was effectively implemented. The fact that the fit indices obtained in the DFA results are at an acceptable level also supports the scale's construct validity (Hair et al., 2016; Hu & Bentler, 1999; Kline, 2011; Tabachnick & Fidell, 2015). In particular, the strong yet distinguishable relationships among the subscales provide evidence for the internal structural consistency of the multidimensional construct, rather than indicating external criterion-related validity. These findings indicate that effective boundary-setting is not solely composed of disciplinary measures; rather, it encompasses complementary developmental processes such as adaptation, internalization, and flexibility. Therefore, the developed measurement tool demonstrates a robust theoretical and statistical structure.

When the study's findings are evaluated as a whole, it can be concluded that the Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form is a valid and reliable measurement tool for assessing children's boundary-setting behaviors. Particularly considering that the elementary school period is a critical phase in child development, the development of a measurement tool specific to this age group represents a

significant contribution to the literature. In line with Piaget's explanations of the Concrete Operational Stage, children at this age begin to evaluate rules more logically (cited in Santrock, 2014). In the "Sense of Inferiority vs. Achievement" stage of Erikson's psychosocial development theory, the emphasis is on children's need to take on responsibility, develop competence, and gain social acceptance (Santrock, 2014). For this reason, the healthy structuring of boundary-setting processes is critical to children's academic and social development. The "Boundary Flexibility" dimension identified in the study is also noteworthy. Today, children's exposure to new developmental areas, such as technology, screen time, digital environments, and privacy, at earlier ages has made the concept of boundaries more complex than in previous eras (Ergün, 2025). Therefore, parents must develop boundary-setting strategies that are not only authoritative but also explanatory, consistent, and flexible. Studies in the literature showing that the democratic parenting approach supports children's social adjustment and self-regulation also support this finding (Bee & Boyd, 2009; Santrock, 2018; Trawick-Smith, 2013). Furthermore, effective boundary-setting plays a significant role in children's development of empathy, the establishment of social relationships, the achievement of impulse control, and the cultivation of a sense of psychological safety (Brazeltan & Grenspan, 2006; Ekşi, 2011; Yılmazer, 2020). In this context, the developed scale is considered an important assessment tool for psychological counselors, child development specialists, teachers, and researchers to evaluate children's boundary-setting skills. Furthermore, retesting the scale on different socioeconomic and cultural samples in future studies could further support its psychometric validity.

5. Conclusion

In this study, the psychometric properties of the "Boundary-Setting Scale for Children Aged 7–10 – Parent Observation Form," developed to assess boundary-setting behaviors in children aged 7–10, were comprehensively examined. The findings revealed that the scale exhibits a three-dimensional structure consisting of the dimensions "Boundary-Setting and Compliance," "Internalization of Boundaries," and "Boundary Flexibility." The exploratory and confirmatory factor analyses conducted demonstrated that the developed structure is theoretically meaningful and possesses statistically acceptable fit indices. Additionally, high Cronbach's alpha, composite reliability, and average variance explained values support the scale's strong internal consistency and convergent validity. The findings of the study indicate that effective boundary-setting during childhood is not merely a process aimed at maintaining discipline; it is also closely linked to children's abilities in self-regulation, social adaptation, taking responsibility, impulse control, and internalizing rules. In this context, the scale developed is considered an important assessment tool for psychological counselors, child development specialists, teachers, and researchers to evaluate children's boundary-setting behaviors. Furthermore, future studies with different age groups and cultural samples will further support the scale's psychometric validity.

6. Limitations and Recommendations

One of the main limitations of this study is that the data were collected solely from parental reports. Since the scale was developed as a "Parent Observation Form," the findings reflect parents' subjective assessments of their children's boundary-setting. This may increase the likelihood of social desirability bias and respondent bias. Another limitation of the study is that the sample consists solely of parents of children aged 7–10 attending elementary schools in Istanbul. Therefore, the generalizability of the findings to different cultural, geographic, and socioeconomic groups may be limited. Furthermore, the study's cross-sectional design limits the ability to assess changes in children's boundary-setting over the course of development. Although the psychometric findings of the scale indicate strong validity and reliability, criterion-related validity and test-retest reliability were not examined in this study. Furthermore, the study focused solely on parental observations; multiple sources of information, such as teacher perspectives or children's self-reports, were not included.

Given these limitations, several recommendations can be made for future research. First, re-administering the scale in different cities, cultural contexts, and socioeconomic levels could strengthen the generalizability of the measurement tool. In addition, future studies should examine the psychometric properties of the scale in younger and older primary-school children to determine whether the factor structure and reliability remain stable across different developmental stages. Such studies would provide further evidence regarding the scale's generalizability and developmental applicability. Additionally, longitudinal studies could examine changes in children's boundary-setting over the course of development. In future studies, more

comprehensive results could be obtained by using multi-rater approaches that include data from teachers, school counselors, and children's self-reports. Furthermore, conducting analyses of test-retest reliability, criterion validity, and measurement invariance across genders could strengthen the scale's psychometric properties. Finally, it is recommended that the developed scale be used as an assessment tool in parent education programs, psychoeducational interventions, and intervention studies aimed at developing children's self-regulation skills.

Declarations

Declaration of Generative AI and AI Assisted Technologies.

During the preparation of this manuscript, the authors used Grammarly and DeepL solely for grammar checking, language editing, and translation. These tools were not used to generate scientific content, conduct data analysis, interpret the findings, or formulate conclusions. The authors reviewed and edited all outputs generated with the assistance of these tools and take full responsibility for the content of the manuscript.

Ethical Approval

Ethical approval for this study was obtained from the Ethics Committee of Istanbul Sabahattin Zaim University. The study entitled "Development of the Boundary Setting Scale for Children Aged 7–10 – Parent Observation Form" was reviewed and unanimously approved at the Ethics Committee meeting dated October 30, 2025 (Meeting No. 2025/10).

Conflict of Interest

The authors declare that they have no conflicts of interest.

Consent for Publication

Not applicable.

Availability of Data and Materials

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request.

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Authors' Contributions

O.S. contributed to the conceptualization, methodology, data analysis, investigation, and writing of the original draft. B.T. contributed to data collection, investigation, and review of the manuscript. Both authors reviewed and approved the final version of the manuscript.

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