

Classroom management and preschool children's social behaviors

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ABSTRACT

Classroom management is widely recognized as a core component of early childhood education. While previous studies have largely focused on its relationship with academic outcomes, its role in explaining children's social behaviors in early childhood classrooms has received comparatively less attention. This study examines how preschool teachers' classroom management skills are associated with children's positive and negative social behaviors. The study was designed within a correlational framework and included 25 preschool teachers and 339 children enrolled in their classes. Data were collected using the preschool teachers' classroom management skills scale and the social behavior scale for preschool children and analyzed using Pearson correlations and multiple regression analyses. The results revealed a moderate and statistically significant positive relationship between teachers' overall classroom management skills and children's overall social behavior levels. Among the dimensions of classroom management, planning-program implementation and physical arrangement emerged as significant predictors of children's emotional competence. These findings indicate that classroom management functions not only as an organizational practice but also as a contextual factor supporting children's social and emotional development. Strengthening preschool teachers' classroom management skills through practice-oriented professional development initiatives may contribute to the promotion of positive social behaviors in early childhood settings.

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1. INTRODUCTION

Early childhood represents a formative stage of development during which children begin to acquire fundamental patterns of behavior, social interaction, and emotional regulation that shape later life experiences. During this period, children's daily environments play a critical role in influencing how they understand relationships, manage emotions, and respond to social expectations. Preschool education institutions, as the first structured educational settings encountered beyond the family, provide children with opportunities to engage in sustained social interactions, develop peer relationships, and gradually adapt to shared social norms [1], [2].

Unlike later educational stages, preschool education places a stronger emphasis on the organization of learning environments and the quality of daily interactions between teachers and children. At this level, teachers are not only responsible for instructional planning but also for shaping the social and emotional climate of the classroom. Because young children spend a considerable amount of time in close contact with

their teachers, classroom management practices have become a central factor influencing children's socio-emotional experiences [3], [4]. The present study examines the relationship between classroom management and children's social behaviors within the conceptual frameworks of Bronfenbrenner's ecological systems theory and Bandura's social learning theory. These theoretical perspectives offer complementary explanations for understanding how classroom environments and teacher behaviors influence children's social development.

From an ecological perspective, Bronfenbrenner [5] conceptualizes development as the outcome of continuous interactions between individuals and their immediate environments. Within this framework, the preschool classroom functions as a primary microsystem in which children directly experience social norms, emotional responses, and behavioral expectations [6]. The organizational structure of this microsystem, along with the emotional tone established by the teacher, can either support or hinder children's adjustment and sense of belonging. Classrooms characterized by inconsistency, limited emotional support, or poor organization may restrict opportunities for positive social development [7].

Bandura's social learning theory further emphasizes the role of observation and modeling in the acquisition of social behaviors. According to this perspective, children learn not only through direct reinforcement but also by observing how significant adults respond to social situations. In preschool classrooms, teachers serve as highly visible and influential social models. Their communication styles, approaches to conflict resolution, and responses to challenging behaviors implicitly convey social norms to children [8]. Research suggests that classroom environments dominated by reactive or punitive management strategies may increase the likelihood of children displaying antisocial behaviors, whereas supportive and proactive approaches promote cooperation, empathy, and positive peer interactions [9].

Classroom management in early childhood education can be understood as a multidimensional process that extends beyond maintaining order. It involves the intentional organization of physical space, the structuring of daily routines, effective communication, and the consistent guidance of children's behaviors. Through these practices, teachers establish predictable and emotionally secure environments that encourage children to participate actively in classroom life and interact positively with peers [10], [11]. One of the central aims of preschool education is to reduce the emergence of negative behaviors while supporting children's ability to follow shared rules and engage in harmonious social interactions [12].

Social and emotional competencies acquired during early childhood have lasting implications for later peer relationships, emotional regulation, and social adjustment. Children who develop positive social behaviors during this period are more likely to establish healthy relationships and adapt successfully to new social contexts, whereas early patterns of aggression or withdrawal may increase the risk of later adjustment difficulties [13]. Within preschool settings, teachers represent one of the most influential figures shaping these early social experiences [14]. Recent educational frameworks emphasize the importance of structuring learning environments that are responsive to children's individual needs and supportive of social-emotional learning [15]. From this perspective, classroom management skills including physical organization, activity planning, time management, and communication practices can be viewed as key indicators of classroom quality. Well-managed classrooms enhance predictability and emotional safety, which in turn facilitate children's engagement in positive social interactions [16].

Although classroom management has been examined in relation to academic outcomes such as engagement and achievement, its role in shaping children's social and emotional development has received comparatively less attention. Existing studies largely focus on instructional effectiveness or task-oriented behaviors, often conceptualizing classroom management as an administrative or disciplinary competence [17], [18]. However, there remains a need for research that examines how different classroom management approaches influence both positive and antisocial social behaviors in early childhood settings [19], [20].

Despite the growing body of research on classroom management, much of the existing literature has primarily focused on its relationship with academic outcomes such as student engagement and learning performance. Comparatively fewer studies examined how different dimensions of classroom management influence children's social behaviors in early childhood settings. Limited research has analyzed classroom management as a multidimensional construct including physical arrangement, planning program implementation, communication, and time management and investigated how these dimensions differentially contribute to both positive and negative social behaviors. This gap is especially evident in the context of early childhood education in Türkiye, where classroom structures and teacher practices may differ from those in other educational systems. Recognizing teachers as key socialization agents, the present study seeks to address this gap by examining the extent to which preschool teachers' classroom management skills predict children's positive and negative social behaviors. By approaching classroom management as a pedagogical process that shapes children's social experiences rather than merely a tool for maintaining order, this study aims to contribute to a more comprehensive understanding of classroom management in early childhood education.

2. METHOD

2.1. Explaining research design

This research was designed to examine the relationship between preschool teachers' classroom management skills and children's social behaviors using a correlational framework. The study focused on identifying whether classroom management skills were associated with variations in children's social behavior outcomes.

2.2. Sample

The population of the study consisted of preschool teachers working in public preschools affiliated with the Turkish Ministry of National Education in Malatya province during the 2024–2025 academic year, along with children aged 48–72 months enrolled in their classrooms. To determine the required sample size, a priori power analysis was conducted using G*Power 3.1 software [21]. For multiple linear regression analysis, assuming a medium effect size ($f^2=0.15$), 80% statistical power ($1-\beta=0.80$), and a 5% significance level ($\alpha=0.05$), the minimum required sample size was calculated as 85 participants. Considering potential data loss and outliers, the study was carried out with 339 children and 25 teachers, selected using stratified random sampling. This sample size exceeds the minimum requirement suggested by the power analysis, indicating that the statistical power of the study is sufficient.

2.3. Distribution of children by age and gender

A total of 339 children participated in the study, including 159 girls (46.9%) and 180 boys (53.1%). Of these children, 15 (4.4%) were 4 years old, 23 (6.8%) were 5 years old, and 301 (88.8%) were 6 years old. Cross-tabulation analysis of age and gender revealed that girls were more numerous only in the 5-year-old group, whereas boys were more prevalent in both the 4- and 6-year-old groups. The distribution of children by age and gender is presented in Figure 1.

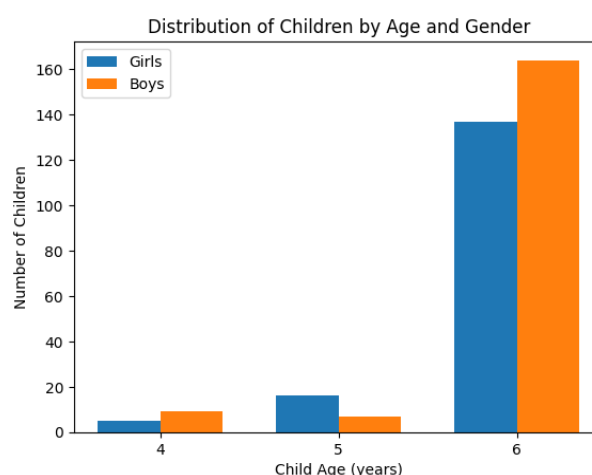


Figure 1. Distribution of participating children by age and gender

2.4. Teachers' demographic and professional characteristics

The study included 25 female preschool teachers. Of these teachers, 13 (52%) were aged 26–30 years, 7 (28%) were aged 31–35 years, 2 (8%) were aged 36–40 years, and 3 (12%) were aged 41 years and older. Regarding educational background, 16 teachers (64%) held a bachelor's degree, 4 (20%) held a graduate degree, and 5 (16%) held an associate degree. In terms of professional experience, 9 teachers (36%) had 1–5 years, 6 (24%) had 6–10 years, 7 (28%) had 11–15 years, and 3 (12%) had 16 years or more of teaching experience. Additionally, 11 teachers (44%) worked in public preschools, 4 (16%) in preschool classrooms within public primary schools, 6 (24%) in private preschools, and 4 (16%) in preschool classrooms within private schools. Teachers' demographic and professional characteristics are presented in Figure 2.

2.5. Data collection instruments

The study utilized three different data collection tools: a personal information form, the preschool teachers' classroom management skills scale, and the social behavior scale for preschool children. These instruments were selected to obtain comprehensive information regarding both teachers' classroom management practices and children's social behavior characteristics.

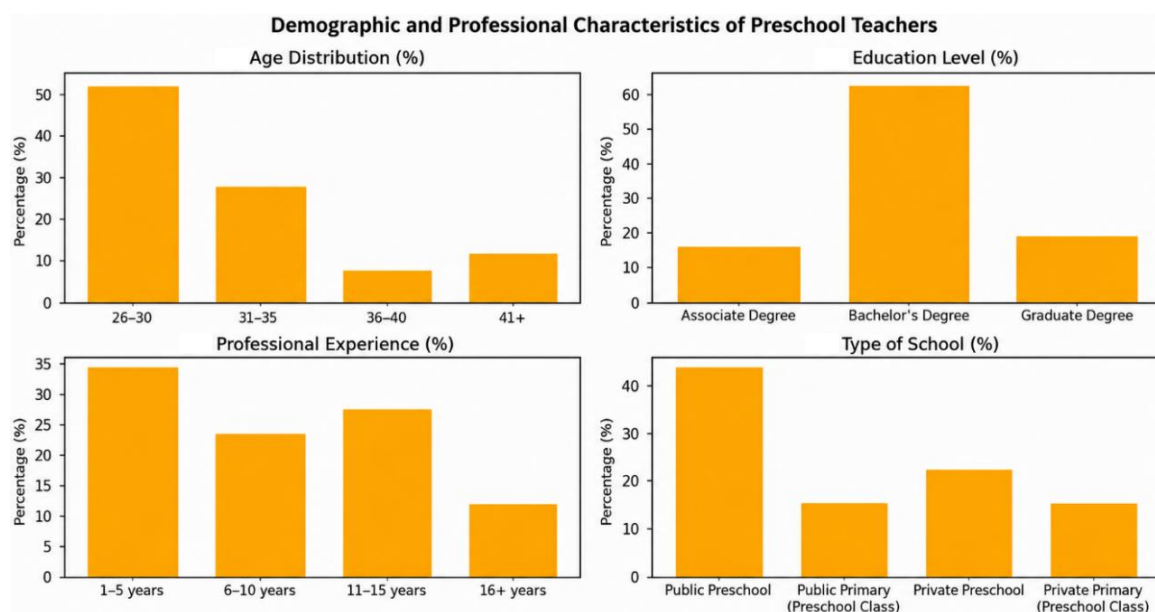


Figure 2. Teachers' demographic and professional characteristics

2.6. Preschool teachers' classroom management skills scale

Teachers' classroom management skills were evaluated using the scale developed by Kaplan [22]. The instrument assesses classroom management competencies across several dimensions, including planning and organization, communication practices, and effective use of time. Findings from the original scale development study indicated that the scale demonstrated acceptable construct validity. In the present research, reliability analysis yielded an internal consistency coefficient of 0.89, suggesting that the scale produced consistent and dependable measurements.

2.7. Social behavior scale for preschool children

Children's social behaviors were assessed using the social behavior scale for preschool children developed by Sakarya *et al.* [23]. The scale examines social behaviors through two primary dimensions: positive social behaviors and negative social behaviors. Previous studies reported satisfactory validity indicators for the scale. In the current sample, the overall reliability coefficient was calculated as 0.92, while the reliability values for the positive and negative behavior subdimensions were 0.90 and 0.85, respectively, indicating strong internal consistency.

2.8. Data collection procedure and ethical considerations

Before the data collection process commenced, ethical approval was granted by the Ethics Committee of Fatih Sultan Mehmet Vakıf University (Approval Date: 21 April 2025; Approval No: 710). Participation in the study was voluntary, and informed consent was obtained from both teachers and parents prior to inclusion in the research. Teachers completed the assessment instruments after observing children's classroom behaviors for a period of at least three months. This observation period was intended to support more accurate and informed evaluations. All collected data were anonymized and managed in accordance with ethical research standards.

2.9. Data analysis

Data analysis was conducted using SPSS version 26.0. Prior to the main analysis, the dataset was reviewed to identify missing values, potential outliers, and adherence to normality assumptions. Outliers were examined using Mahalanobis distance values, and skewness and kurtosis statistics were found to fall within acceptable ranges. To explore relationships between teachers' classroom management skills and children's social behavior scores, Pearson correlation analysis was applied. Subsequently, multiple linear regression analysis was performed to examine the predictive role of classroom management skill dimensions on children's social behaviors. Statistical significance was evaluated at the 0.05 and 0.01 levels.

3. RESULTS AND DISCUSSION

3.1. Social skills and classroom management scores

3.1.1. Social skill by children's gender

By demographic variables social skill subdimensions by children's gender an independent samples *t*-test revealed that boys scored significantly higher than girls on overall social skills and aggression ($p < 0.05$). However, no statistically significant gender differences were found in the subdimensions of emotional competence and social participation. A comparison of children's social skill scores by gender is presented in Table 1.

Table 1. Statistical comparison of children's social skill scores by gender

Variable	Girls (n=159)		Boys (n=180)		95% CI (lower/upper)	P*
	Mean	SD	Mean	SD		
Social skills (total)	1.36	0.42	1.5	0.43	-0.22/-0.039	0.005
Emotional competence	1.46	0.75	1.55	0.82	-0.25/0.08	0.3
Social participation	2.08	0.34	2.1	0.37	-0.09/0.06	0.7
Aggression	0.16	0.39	0.56	0.62	-0.51/-0.29	0.001

* $P < 0.05$; *t*-test.

3.1.2. Social skill by children's age

Children in the 4-year-old group obtained higher mean scores on overall social skills and emotional competence, whereas social participation scores were highest among 6-year-old children. Aggression scores were significantly higher in the 4-year-old group compared to the 6-year-old group (1.48 vs. 0.34, $p = 0.014$). No statistically significant differences were observed across age groups for social participation and emotional competence ($p > 0.05$). Mean scores of social skill subdimensions by age are presented in Table 2. Aggression scores for the 5-year-old group showed no variance because the number of participants in this subgroup was relatively small and no aggressive behaviors were reported in teacher evaluations. Therefore, the standard deviation could not be calculated, indicating a possible floor effect for this subgroup.

Table 2. Comparison of mean social skill subdimension scores by age

Variable	Score (mean; SD; 95% CI)			P*
	4 years	5 years	6 years	
Social skills	1.90 ^a ; 0.39; 1.68-2.11	1.46 ^b ; 0.35; 1.31-1.62	1.41 ^c ; 0.42; 1.36-1.46	0.06 ^{ab} 0.00 ^{ac}
Emotional competence	2.11 ^a ; 0.52; 1.82-2.4	1.71 ^b ; 0.69; 1.41-2.01	1.46 ^c ; 0.8; 1.37-1.55	0.005 ^{ac}
Social participation	1.78 ^a ; 0.61; 1.44-2.12	2.07 ^b ; 0.17; 2.0-2.15	2.11 ^c ; 0.35; 2.07-2.15	0.037 ^{ab} 0.002 ^{ac}
Aggression	1.48 ^a ; 0.56; 1.17-1.79	0	0.34 ^b ; 0.51; 0.28-0.40	0.00 ^{ab}

* $p < 0.05$, one-way ANOVA post-hoc: Tukey, Dunnett T3, Games-Howell. Different superscript letters (a, b, c) indicate statistically significant differences between age groups based on post-hoc multiple comparisons ($p < 0.05$).

3.1.3. Social skills by number of siblings

One-way ANOVA indicated significant differences in overall social skills, emotional competence, and aggression scores based on the number of siblings ($p < 0.05$). No significant difference was found for social participation ($p > 0.05$). Post-hoc analyses showed that children with three or more siblings had significantly lower social skills and emotional competence scores and higher aggression scores compared to other groups. Mean scores by number of siblings are presented in Table 3.

Table 3. Comparison of mean social skill subdimension scores by number of siblings

Variable	Only child	One sibling	Two siblings	≥3 siblings	P*
Social skills	1.52±0.41 ^a	1.52±0.38 ^a	1.48±0.45 ^a	1.18±0.42 ^b	<0.001
Emotional competence	1.67±0.79 ^a	1.67±0.67 ^a	1.49±0.86 ^a	1.11±0.78 ^b	<0.001
Social participation	2.16±0.29	2.08±0.36	2.12±0.42	2.04±0.35	>0.05
Aggression	0.28±0.38 ^a	0.36±0.55 ^a	0.57±0.71 ^b	0.25±0.46 ^a	<0.01

*Data are presented as mean ± standard deviation. Group comparisons were performed using one-way analysis of variance (One-way ANOVA), and Tukey, Games-Howell, and Dunnett T3 tests were applied for post-hoc analyses. Groups sharing the same superscript letter do not differ significantly from each other ($p < 0.05$). Different superscript letters (a, b, c) indicate statistically significant differences between age groups based on post-hoc multiple comparisons ($p < 0.05$).

3.2. Teachers' classroom management scores

3.2.1. Classroom management scores according to teachers' educational level

When teachers' classroom management scores were examined according to their educational level, the scores ranged between 4.38 and 4.81. The analysis revealed that teachers' mean classroom management scores differed significantly by educational level. It was found that preschool teachers holding an associate degree scored significantly higher than those with a bachelor's degree in both total classroom management scores and several subscale scores. A comparative analysis of teachers' classroom management scores according to educational level is presented in Table 4.

Table 4. Comparison of teachers' classroom management scores according to educational level

Variable	Associate degree	Bachelor's degree	Master's degree	P*
Physical arrangement	4.77±0.29 ^a	4.36±0.44 ^b	4.60±0.00 ^{ab}	<0.001
Planning-programming	4.83±0.22 ^a	4.31±0.28 ^b	4.44±0.00 ^b	<0.001
Communication	4.38±0.22 ^a	4.46±0.32 ^a	4.45±0.00 ^a	<0.001
Time management	4.81±0.24 ^a	4.39±0.47 ^b	5.00±0.00 ^a	<0.001
Classroom management (total)	4.81±0.24 ^a	4.38±0.37 ^b	4.62±0.00 ^{ab}	<0.001

*Data are presented as mean ± standard deviation. Group comparisons were conducted using one-way analysis of variance (One-way ANOVA), and Tukey, Games-Howell, and Dunnett T3 tests were applied for post-hoc analyses. Groups sharing the same superscript letter do not differ significantly from each other; additionally, groups marked with two superscript letters do not differ significantly from groups sharing either of those letters ($p < 0.05$). Different superscript letters (a, b, c) indicate statistically significant differences between age groups based on post-hoc multiple comparisons ($p < 0.05$).

3.2.2. Classroom management scores according to school type

When teachers' classroom management scores were examined according to the type of school in which they were employed, the scores ranged between 4.32 and 4.98. The results of the one-way ANOVA and post-hoc analyses indicated that teachers' classroom management scores differed significantly according to school type. The findings are presented in Table 5.

Table 5. Comparative analysis of teachers' classroom management scores according to the type of school in which they are employed

Variable	Public preschool	Public primary school kindergarten	Private preschool	Private primary school kindergarten	P*
Physical arrangement	4.26±0.30 ^a	4.80±0.00 ^b	4.23±0.37 ^a	5.00±0.00 ^c	<0.001
Planning-programming	4.29±0.15 ^a	4.22±0.00 ^a	4.32±0.27 ^a	4.94±0.05 ^b	<0.001
Communication	4.31±0.15 ^a	4.66±0.00 ^b	4.42±0.29 ^a	5.00±0.00 ^c	<0.001
Time management	4.51±0.40 ^a	4.66±0.00 ^{ab}	4.29±0.50 ^a	5.00±0.00 ^b	<0.001
Classroom management (total)	4.34±0.25 ^a	4.58±0.00 ^b	4.32±0.37 ^a	4.98±0.01 ^c	<0.001

*Data are presented as mean ± standard deviation. Group comparisons were conducted using one-way analysis of variance (One-way ANOVA), and Tukey, Games-Howell, and Dunnett T3 tests were applied for post-hoc analyses. Groups sharing the same superscript letter do not differ significantly from each other ($p < 0.05$). Different superscript letters (a, b, c) indicate statistically significant differences between age groups based on post-hoc multiple comparisons ($p < 0.05$).

3.2.3. Classroom management scores according to teachers' professional experience

When teachers' classroom management scores were examined according to their years of professional experience, the mean scores ranged from 4.16 to 4.80. Significant differences were observed among the four experience groups in teachers' scores on physical arrangement, planning-programming, communication, time management, and overall classroom management. Teachers' classroom management scores according to years of professional experience are presented in Table 6.

Table 6. Comparison of classroom management subscale scores according to teachers' years of professional experience

Variable	1–5 years	6–10 years	11–15 years	≥16 years	P*
Physical arrangement	4.64±0.15 ^a	4.81±0.40 ^a	4.20±0.41 ^b	4.00±0.00 ^b	<0.001
Planning-programming	4.38±0.13 ^a	4.77±0.38 ^b	4.28±0.28 ^a	4.22±0.00 ^a	<0.001
Communication	4.55±0.10 ^a	4.81±0.40 ^a	4.40±0.32 ^b	4.25±0.00 ^b	<0.001
Time management	4.78±0.20 ^a	4.81±0.40 ^a	4.25±0.59 ^b	4.17±0.00 ^b	<0.001
Classroom management (total)	4.59±0.04 ^a	4.80±0.39 ^a	4.28±0.40 ^b	4.16±0.00 ^b	<0.001

*Data are presented as mean ± standard deviation. Group comparisons were conducted using one-way analysis of variance (One-way ANOVA), and Tukey, Games-Howell, and Dunnett T3 tests were applied for post-hoc analyses. Groups sharing the same superscript letter do not differ significantly from each other ($p < 0.05$). Different superscript letters (a, b, c) indicate statistically significant differences between age groups based on post-hoc multiple comparisons ($p < 0.05$).

3.2.4. Classroom management skill scores according to class size

When teachers' classroom management mean scores were examined according to the number of students in their classrooms, the scores ranged between 4.28 and 4.66. The results of the one-way ANOVA and post-hoc analyses indicated that teachers working in classrooms with 10–15 students had significantly higher physical arrangement scores than those teaching in classrooms with 5–9 students and 16 or more students. In addition, teachers of classrooms with 10–15 students obtained significantly higher planning–programming scores than teachers of classrooms with 16 or more students. The mean classroom management subscale scores according to class size are presented in Table 7.

Table 7. Comparison of classroom management subscale scores according to class size

Variable	5–9 students	10–15 students	≥16 students	P*
Physical arrangement	4.20±0.31 ^a	4.80±0.31 ^b	4.34±0.32 ^a	0.007
Planning–programming	4.28±0.30 ^a	4.63±0.49 ^b	4.16±0.20 ^a	0.021
Communication	4.31±0.32	4.68±0.49	4.45±0.22	>0.05
Time management	4.25±0.43	4.39±0.95	4.20±0.49	>0.05
Classroom management (total)	4.28±0.32	4.66±0.51	4.35±0.23	>0.05

*Data are presented as mean ± standard deviation. Group comparisons were conducted using one-way analysis of variance (One-way ANOVA), and Tukey, Games–Howell, and Dunnett T3 tests were applied for post-hoc analyses. Groups sharing the same superscript letter do not differ significantly from each other ($p < 0.05$). Different superscript letters (a, b, c) indicate statistically significant differences between age groups based on post-hoc multiple comparisons ($p < 0.05$).

3.3. Relationships between variables

3.3.1. Correlations between classroom management and social skill dimensions

A significant, positive, and moderate relationship was found between teachers' classroom management scores and children's total social skills scores ($r = 0.584$, $p < 0.001$), as well as their emotional competence subscale scores ($r = 0.595$, $p < 0.001$). However, no significant relationships were identified between teachers' classroom management scores and children's social participation or aggression subscale scores. The results of the Pearson correlation analysis examining the associations between teachers' classroom management scores and children's social skills are presented in Figure 3.

When the subdimensions of classroom management were examined, significant positive correlations were found between physical arrangement skills and total social skills score ($r = 0.564$, $p < 0.01$) as well as emotional competence ($r = 0.562$, $p < 0.01$); between planning and program implementation skills and total social skills score ($r = 0.565$, $p < 0.01$) and emotional competence ($r = 0.592$, $p < 0.01$); between communication and behavior regulation skills and total social skills score ($r = 0.552$, $p < 0.01$) and emotional competence ($r = 0.556$, $p < 0.01$); and between time management skills and total social skills score ($r = 0.545$, $p < 0.01$) and emotional competence ($r = 0.559$, $p < 0.01$). The results obtained are presented in Figure 4.

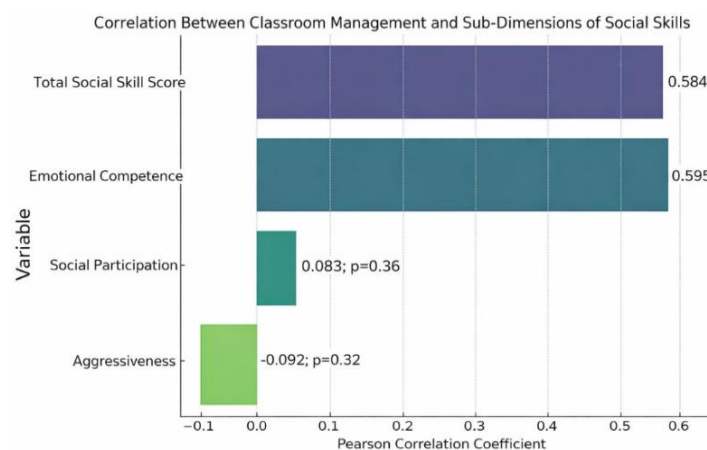


Figure 3. Correlation analysis between teachers' classroom management scores and children's social skill

3.3.2. Predictive power of classroom management skills on children's social behaviors

In this study, a multiple linear regression analysis was conducted to determine the extent to which teachers' classroom management skills predict children's social skill levels. The four subdimensions of classroom management—physical arrangement, planning–program implementation, communication–

behavior regulation, and time management—were included as independent variables, while children’s total social skills score was used as the dependent variable. The overall fit indices of the regression model indicated a moderate-to-high positive relationship between the independent variables and children’s social skills scores ($R=0.606$). The model explained 36.7% of the variance in children’s social skills ($R^2=0.367$), and the adjusted R^2 value of 0.345 suggested that the model remained stable despite the inclusion of multiple predictors. Given the multidimensional nature of social behavior, this level of explained variance represents a noteworthy finding and indicates that classroom management skills constitute a significant determinant of children’s social behavior development. Multicollinearity diagnostics further supported the robustness of the model, as all variance inflation factor (VIF) values were below the commonly accepted threshold of 5, indicating that each classroom management dimension contributed independently to explaining variations in children’s social skills.

Examination of the regression coefficients showed that only two subdimensions made a statistically significant contribution to the model. The first was physical arrangement skills ($p=0.045$), with an unstandardized coefficient of $B=0.884$ and a standardized coefficient of $\beta=0.863$, indicating that improved organization of the physical classroom environment was associated with higher levels of children’s social skills. The second significant predictor was planning–program implementation skills ($p=0.009$), with $B=0.810$ and $\beta=0.593$, suggesting that teachers’ planning and instructional structuring skills significantly enhanced children’s social skills.

Effect size was calculated using the formula $f^2=R^2/(1-R^2)$. Based on the obtained R^2 value (0.367), the effect size was computed as $f^2=0.367/(1-0.367)=0.367/0.633\approx0.58$. Based on Cohen’s criteria [24] classification, an f^2 value greater than 0.35 indicates a large effect size. Accordingly, the obtained value of $f^2\approx0.58$ demonstrates that classroom management skills have a large effect on children’s social skill levels. These findings highlight classroom management as a powerful explanatory variable in understanding social skill development during early childhood. The results are presented in Figure 5.

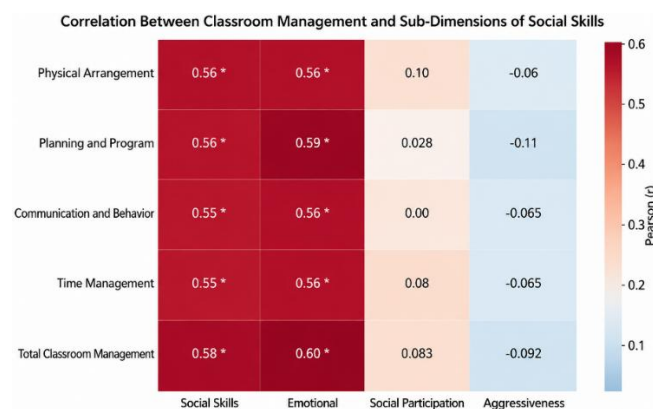


Figure 4. Heatmap showing correlations between classroom management subdimensions and children’s social skills subdimensions

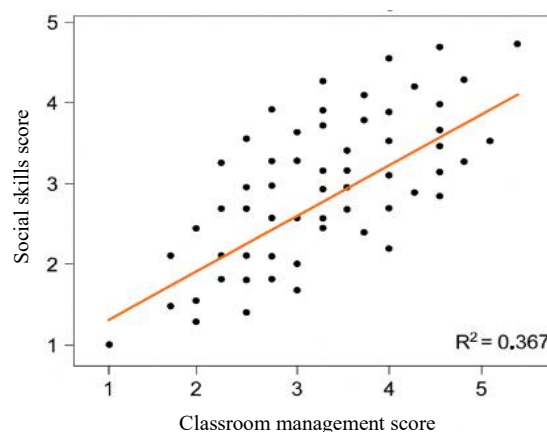


Figure 5. Scatterplot showing the relationship between classroom management and social skills scores

3.4. Discussion

This study aimed to examine the predictive role of preschool teachers' classroom management skills on children's prosocial and antisocial behaviors. The findings are discussed within the framework of Bronfenbrenner's ecological systems theory and Bandura's social learning theory, in light of current international literature. The first significant finding of the research is that teachers' classroom management skills—particularly the dimensions of communication and planning—positively and significantly predict children's prosocial behaviors, such as cooperation and sharing. This finding supports the theoretical infrastructure suggesting that a teacher's position as a democratic, supportive, and consistent “social model” enables children to internalize prosocial behaviors [25]. This result aligns with contemporary international studies. In a study conducted in Spain, Gaspar *et al.* [26] found that proactive classroom management strategies increased children's peer cooperation skills by approximately 30%. Similarly, a longitudinal study in the United States by Ansari and Pianta [4] reported that classroom management focused on emotional support was the strongest predictor of empathy development. The high predictive power of communication skills in the current study points toward cross-cultural consistency; in diverse educational contexts, social harmony strengthens in environments where children feel “heard and understood” [27].

A core finding of this research is the significant relationship between classroom management skills and children's social skill levels. Higher scores in planning, physical arrangement, communication/behavioral regulation, and time management were found to positively influence children's total social skill scores and emotional competence. This overlaps with the role of effective classroom management in regulating student behavior emphasized by Evertson and Weinstein [17]. Similarly, Ersan and Ogelman [28] stated that effective management strategies increase helping behaviors while reducing fear, anxiety, and exposure to peer violence. Furthermore, Smidt and Embacher [29] demonstrated that the activity environment and instructional practices significantly affect interaction quality. While Ekici *et al.* [30] showed that well-planned programs reduce aggressive behavior, the current study found no significant relationship in the aggression sub-dimension. This suggests that aggression may be more closely linked to family environment, individual temperament, and external factors rather than classroom variables alone. Regression analysis revealed that physical arrangement and planning significantly explain social skills, whereas communication-behavior regulation and time management did not provide a significant contribution to the model. In Portugal, Gaspar *et al.* [26] reported that teachers implementing the incredible years teacher classroom management (IY-TCM) program used positive support strategies more frequently, effectively reducing behavior problems in children experiencing poverty. This suggests that social development is driven more by concrete management practices than by teachers' subjective self-perceptions.

In contrast, Liu and Chen [31] found in China that authoritarian and punitive approaches increase externalizing problems. However, Tveit *et al.* [32] argued in Norway that the quality of the teacher-child relationship is a more decisive factor than specific management strategies. In the Turkish context, where class sizes often exceed the OECD average [30] teachers may lean toward group-based strategies rather than individual relationship building. While the collectivist structure in Turkey may position the teacher as an authority figure, the nature of this authority—whether punitive or constructive—determines social responses [33]. The impact of planning skills observed here suggests that structured routines help children feel safe in crowded environments, diverting them from antisocial behaviors. Thus, this study contributes to the literature by highlighting the need for structure-oriented management in developing countries alongside the relationship-oriented approaches favored in Western literature.

Demographic characteristics such as age and number of siblings created varying effects. Four-year-olds showed higher emotional competence and aggression scores, suggesting limited self-regulation at younger ages, while six-year-olds demonstrated higher levels of social participation. However, it should also be noted that the sample was largely composed of six-year-old children. This predominance of six-year-olds may partly be explained by national preschool enrollment patterns in Türkiye. According to the National Formal Education Statistics published by the Ministry of National Education, enrollment in early childhood education has expanded particularly among five- and six-year-old children, whereas participation rates remain comparatively lower for younger age groups [34]. Regarding teachers, those with 6–10 years of experience reached the highest averages in management scores. However, a decline in some scores as seniority increased might reflect changes in motivation or a more critical self-evaluation by veteran teachers. Furthermore, Yang and Gong [35] emphasized in a study of Japan and South Korea that the relationship between teacher efficacy and experience is non-linear; efficacy often plateaus after a certain period and becomes more dependent on professional support and institutional structure. This aligns with our findings that planning and physical arrangement predict social skills independently of seniority. Ultimately, a teacher's classroom practices serve a socializing function that is determined more by the quality of pedagogical implementation than by years of experience alone.

Classroom management can broadly be conceptualized in two complementary dimensions: structural and relational. Structural components include the organization of the physical environment,

planning of learning activities, and management of time and routines. Relational components, on the other hand, involve communication practices, teacher responsiveness, and behavior guidance strategies. Understanding how these dimensions function together is essential for explaining how classroom environments influence children's social development.

4. CONCLUSION

This study examined the extent to which preschool teachers' classroom management skills predict children's social behaviors. The findings revealed a moderate and meaningful relationship between teachers' classroom management competencies and children's social skill levels. In particular, planning-program implementation and physical arrangement emerged as significant predictors of children's social skills and emotional competence. These results indicate that classroom management in early childhood education functions not only as an organizational practice but also as a contextual factor supporting children's socio-emotional development.

Several limitations should be considered when interpreting the findings of this study. First, the age distribution of the participating children was not evenly balanced, with the majority being six years old, which limits generalizability across the full preschool age range. However, this distribution reflects national enrollment patterns in Türkiye, where participation is higher among 5- and 6-year-old children and comparatively lower among younger age groups (MEB, 2025). Second, all participating teachers were female and recruited from a single province (Malatya, Türkiye), which limits regional diversity and external validity. Although this reflects the demographic structure of early childhood education in Türkiye, future research should include more diverse samples. Third, children's social behaviors were assessed solely through teacher reports, which may introduce common method bias, as both classroom management and social behaviors were evaluated by the same informant. In addition, due to the cross-sectional design, changes in children's social behaviors over time could not be examined. Finally, potential confounding variables such as socioeconomic status (SES), home environment, and teacher-child ratio beyond classroom size were not controlled in the analyses. These factors may influence children's social development and should be considered in future research. Despite these limitations, the study provides meaningful empirical evidence regarding the role of classroom management in supporting preschool children's social competence. Based on the findings of this study, future research should employ longitudinal, multi-informant, and context-sensitive designs to better understand the relationship between classroom management and children's social development across different educational settings. In addition, professional development programs for preschool teachers should place greater emphasis on planning, classroom organization, and structured routines to support children's socio-emotional skills.

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AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

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Ayşe Yakupoğulları	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
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C : Conceptualization

M : Methodology

So : Software

Va : Validation

Fo : Formal analysis

I : Investigation

R : Resources

D : Data Curation

O : Writing - Original Draft

E : Writing - Review & Editing

Vi : Visualization

Su : Supervision

P : Project administration

Fu : Funding acquisition

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. The authors state no conflict of interest.

INFORMED CONSENT

Informed consent was obtained from all participating teachers and parents prior to data collection. Participants were informed about the purpose of the study, the voluntary nature of participation, confidentiality of the data, and their right to withdraw at any time. No personally identifiable information was collected.

ETHICAL APPROVAL

The research involving human participants complied with all relevant national regulations and institutional policies and was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the Research Ethics Committee of Fatih Sultan Mehmet Vakıf University (Approval No: 710; Date: 21 April 2025).

DATA AVAILABILITY

The data that support the findings of this study are available from the corresponding author upon reasonable request. The shared dataset does not contain personally identifiable information and has been anonymized in accordance with ethical research standards.

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