

Original article

Teachers' Social-Emotional Competence and Preschool Children's Peer Social Competence: The Indirect Role of Parental Involvement

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Received: August 2, 2026

Revised: September 5, 2026

Accepted: September 9, 2026

Published: September 15, 2026

Cited as:

Liao, Z., Li, X., Liu, R., & Luo, N. (2026). Teachers' social-emotional competence and preschool children's peer social competence: The indirect role of parental involvement. *Educational Research Advances*, 1(3), 197-206. <https://doi.org/10.46690/era.2026.03.06>

Abstract: Peer social competence is an important aspect of preschool children's social development, and is associated with multiple social contexts across home and kindergarten. Grounded in ecological systems theory and social learning theory, this study examined the relationships among teachers' social-emotional competence, parental involvement, and peer social competence in preschool children, with a focus on the statistical indirect effect through parental involvement. Data were collected from 30 teachers, 277 preschool children, and their parents across two kindergartens in Ningbo, China, supplemented by semi-structured interviews with 12 teachers and 17 parents. Results revealed significant positive correlations among teachers' social-emotional competence, parental involvement, and children's peer social competence. Path analysis demonstrated a statistically significant indirect effect of parental involvement in the association between teachers' social-emotional competence and children's peer social competence. Exploratory analyses further indicated that this indirect effect was significant for three dimensions of teachers' social-emotional competence: self-management, awareness of others, and collective awareness. Qualitative findings provided contextual explanations in the relationships among teachers' social-emotional competence, home-kindergarten interactions, and children's peer social interactions. Overall, the findings suggest that the association between teachers' social-emotional competence and children's peer social competence may involve cross-contextual linkages between kindergarten and home through parental involvement.

Keywords: Teachers' social-emotional competence; preschool children's peer social competence; parental involvement; home-kindergarten interactions; indirect effects

1. Introduction

Establishing and maintaining positive peer relationships is an important aspect of young children's social development. Preschool children with stronger peer social competence are generally better able to navigate peer relationships and are less likely to experience difficulties in social adjustment (Jin et al., 2012). Importantly, children's peer social competence develops within interconnected social contexts rather than in isolation. The family and kindergarten represent two closely connected contexts in young children's everyday lives, and interactions between these contexts may be relevant to children's social development. Within the kindergarten context, teachers are important socialization agents whose emotional and interpersonal characteristics may be associated with children's social experiences and peer interactions.

Teachers' social and emotional competence (SEC) generally refers to teachers' ability to understand and manage their own emotions, recognize and understand the emotions of others, and effectively navigate interpersonal relationships (Du & Mao, 2018). The Prosocial Classroom Model proposes that teachers' social and emotional competence is associated with the quality of teacher-child relationships, classroom management, and the social-emotional climate of the classroom, which in turn are related to children's developmental outcomes (Jennings & Greenberg, 2009). From a social learning perspective, teachers also provide children with salient models of emotional expression, interpersonal responding, and

conflict management. Thus, teachers' SEC may be relevant to children's peer social competence through everyday interactions and behavioral modeling.

However, the association between teachers' social-emotional competence and children's social development may extend beyond classroom interactions. Preschool children simultaneously participate in home and the kindergarten contexts, and the relationship between these contexts may be particularly relevant to their development. Teacher-parent communication and collaboration represent an important pathway through which kindergarten and family contexts are connected. Parents' engagement in children's education may therefore represent one potential link between teachers' characteristics and children's social experiences. Examining parental involvement in this context may provide a broader understanding of how teacher characteristics and children's peer social competence are associated across home and kindergarten settings.

1.1 The Relationship between Teachers' Social-Emotional Competence and Preschool Children's Peer Social Competence

Existing empirical studies generally suggest a positive association between teachers' social-emotional characteristics and children's social competence. Teachers' emotional states and support are associated with children's social functioning and peer interactions (Pang et al., 2001; Pakarinen et al., 2020). Similarly, teachers who are responsive to and supportive of children's emotions tend to have children with stronger peer social skills (Arace et al., 2021).

Teacher practices and interactions may represent another pathway through which teachers' social-emotional characteristics are related to children's peer competence. Research has linked teachers' social-emotional teaching practices to children's positive social-emotional behaviors (Chen et al., 2025), while teachers' social-emotional learning practices have been associated with children's positive peer relationships (Wong, 2016). In early childhood settings, teachers' self-efficacy has also been linked to children's peer social competence through positive teacher-child interactions (Lim, 2023).

Despite these findings, several gaps remain. First, existing literature often focused on specific teacher characteristics or practices, such as emotional support, social-emotional teaching, or self-efficacy, rather than examining teachers' SEC as a multidimensional construct. Second, much of the available evidence has focused on within-classroom processes, with less attention to how teacher characteristics may be connected to children's peer social competence across the home and kindergarten contexts. These gaps highlight the need to examine teachers' SEC as a broader construct while considering the potential role of family involvement.

1.2 Parental Involvement as a Potential Indirect Link

Parental involvement refers to parents' engagement in their children's educational activities, participation in kindergarten activities, and communication and cooperation with teachers (Fantuzzo et al., 2000). Because parental involvement connects children's home and kindergarten experiences, it may represent a potential link between teachers' characteristics and children's social competence.

Although direct evidence linking teachers' overall SEC to parental involvement remains limited, existing research suggests that teacher characteristics relevant to social-emotional competence may be associated with parents' engagement. Effective teacher-parent communication and collaboration are important components of early childhood education, and greater parental involvement has been associated with more frequent communication with teachers and greater satisfaction with such communication (Murray et al., 2015). Teachers' empathy, active listening, and the capacity to establish trust may also be relevant to effective parent communication and involvement (Premo et al., 2023). In addition, teachers with higher self-efficacy have been found to be more likely to encourage parental involvement in children's education (Hoover-Dempsey et al., 1987; Maldia, 2024). Taken together, these findings provide a basis for examining whether teachers' SEC is associated with parental involvement.

Parental involvement has also been associated with children's social development. Parents' emotional responsiveness and behavioral guidance are associated with children's positive social behaviors (Katz & Windecker, 2004), while Parental support for children's social activities may provide additional opportunities for peer interaction and social skill practice (Iruka et al., 2018). In early childhood settings, parent-child play centered on peer interaction has also been linked to children's peer social competence (Ling et al., 2023). Positive parental treatment, emotional modeling and behavioral guidance may further be associated with children's positive orientations toward themselves and others during peer interactions (Li et al., 2024).

Therefore, these findings suggest that parental involvement may be relevant to children's peer social competence and may represent a potential indirect link between teachers' SEC and children's peer social competence.

1.3 The Present Study

In summary, previous research has provided evidence that teachers' social-emotional characteristics and parental involvement are each associated with children's social and peer-related development. However, relatively little research has examined teachers' SEC as a multidimensional construct in relation to preschool children's peer social competence while simultaneously considering parental involvement as a potential link between kindergarten and home contexts. The present study therefore examined the relationships among teachers' SEC, parental involvement, and preschool children's peer social competence and tested whether parental involvement was associated with a statistically significant indirect pathway between teachers' SEC and children's peer social competence. Drawing on ecological systems theory and social learning theory, the study combined questionnaire data with semi-structured interviews to provide both quantitative

evidence and contextual insights into these relationships.

2. Method

2.1 Participants and Procedures

Participants were recruited through convenience sampling from two urban kindergartens in Ningbo, China, including one public kindergarten and one inclusive private kindergarten. The final sample comprised 30 teachers, 277 preschool children aged 3–6 years, and their parents.

Data collection was conducted after obtaining permission from the participating kindergartens and informed consent from the participants. The 30 teachers completed the Teachers' Social-Emotional Competence Self-Report Scale and rated preschool children's peer social competence in their respective classes based on daily behavior in kindergarten. Mothers and fathers independently completed questionnaires assessing parental involvement and their children's peer social competence. Unique identification codes were used to match data across teachers, children, and parents, such that each child's data were linked to the social-emotional competence score of the child's teacher.

After data collection, questionnaires were matched and screened for data quality. Responses were excluded if they were incomplete, showed obvious patterned responding, could not be matched across teachers, children, and parents, or lacked data from a required respondent. The final matched sample consisted of 30 teachers and 277 children and their families. Among the teachers, 28 (93.3%) were women and 2 (6.7%) were men, and 27 (90.0%) held a bachelor's degree. Among the children, 138 (49.8%) were boys and 139 (50.2%) were girls. Children ranged in age from 3 to 6 years.. Additional demographic characteristics are presented in Tables 1.

Table 1. Demographic Characteristics of the Study Participants

Participants	Characteristic	Category	n	%
Teachers	Gender	Male	2	6.7
		Female	28	93.3
	Age	20-25 years old	8	26.7
		26-30 years old	10	33.3
		31-35 years old	8	26.7
		Over 40 years old	4	13.3
	Educational Attainment	Associate degree or below	3	10.0
		Bachelor's degree	27	90.0
	Teaching Experience	≤3 years	8	26.7
		4-6 years	7	23.3
		7-10 years	8	26.7
		11-20 years	7	23.3
Father	Kindergarten Type	Public	18	60.0
		Private	12	40.0
	Age	Under 30 years old	14	5.1
		31-40 years old	214	77.3
		41-50 years old	41	14.8
		51-60 years old	8	2.8
	Educational Attainment	Junior high school or below	12	4.3
		High school	34	12.3
		Associate degree	43	15.5
		Bachelor's degree	90	32.5
		Graduate degree or above	98	35.4
Mother	Age	Under 30 years old	27	9.7
		31-40 years old	222	80.1
		41-50 years old	28	10.2
		51-60 years old	0	0
	Educational Attainment	Junior high school or below	11	4.0
		High school	32	11.6
		Associate degree	50	18.1
		Bachelor's degree	100	36.1
		Graduate degree or above	84	30.3

2.2 Measures

2.2.1 Teachers' Social-Emotional Competence

Teachers' social-emotional competence (SEC) was assessed using the Teachers' Social-Emotional Competence Self-Report Scale developed by the Ministry of Education-UNICEF Social-Emotional Learning and School Management Improvement Project. The scale comprises 22 items across six dimensions: self-awareness (4 items), self-management (4 items), awareness of others (4 items), management of others (3 items), collective awareness (3 items), and collective

management (4 items). Items are rated on a 5-point Likert-type scale, with higher scores indicating higher levels of teachers' SEC. The scale has been used in previous studies of social-emotional competence in China (Li et al., 2021; Zhang et al., 2022). In the present study, Cronbach's α was 0.923 for the total scale, with subscale α coefficients ranging from 0.730 to 0.872.

2.2.2 Preschool Children's Peer Social Competence

Preschool children's peer social competence was assessed using the Peer Social Competence Scale for Children Aged 4-6 Years developed by Zhang (2002). The 24-item scale comprises four dimensions: social initiative (6 items), verbal and nonverbal communication (6 items), social difficulties (6 items), and prosocial behavior (6 items). Items are rated on a 4-point Likert-type scale. Each child was rated independently by the lead teacher, father, and mother..

In the present study, Cronbach's α was 0.926 for the teacher-report version, 0.878 for the father-report version, and 0.876 for the mother-report version. Subscale α coefficients ranged from 0.754 to .861 for teacher reports, from 0.678 to 0.799 for father reports, and from 0.659 to 0.786 for mother reports.

2.2.3 Parental Involvement

Parental involvement was assessed using the Chinese version of the Parental Involvement Scale adapted by Liu and Li (2019) from Fantuzzo's Family Involvement Questionnaire (Short Form). The scale comprises 20 items across three dimensions: home-kindergarten communication (7 items), kindergarten-based involvement (6 items), and home-based involvement (7 items). Items are rated on a 4-point Likert-type scale, with higher scores indicating greater parental involvement.

In the present study, Cronbach's α was 0.957 for the father-report version and 0.945 for the mother-report version. Subscale α coefficients ranged from 0.871 to 0.939 for fathers and from 0.750 to 0.886 for mothers. The mean of the father- and mother-reported scores was used as the composite indicator of parental involvement.

2.3 Semi-structured Interviews

Stratified purposive sampling was used to select interview participants in order to obtain more in-depth and contextualized accounts of the relationships among teachers' social-emotional competence, parental involvement, and preschool children's peer social competence.

A total of 29 participants took part in the formal interviews, including 12 preschool teachers and 17 parents. Participant selection considered variation in kindergarten type, age, educational background, and family income. Survey results and participants' willingness to be interviewed were also taken into account. Based on teachers' overall social-emotional competence scores, seven teachers with relatively high scores and five with relatively low scores were selected. For the parent interviews, the mean peer social competence ratings provided by teachers, fathers, and mothers were used to identify children with relatively high or low scores; 10 parents of children with relatively high peer social competence scores and seven parents of children with relatively low scores were subsequently selected.

Semi-structured interviews were conducted using an interview guide developed for the study. Before each interview, participants were informed of the purpose of the study, the confidentiality of the interview data, and the anonymization of personal information. With participants' explicit consent, interviews were audio-recorded and subsequently transcribed using Feishu (Lark) transcription software.

2.4 Data Analysis

Quantitative data were analyzed using SPSS 26.0 and AMOS 24.0. First, data screening, internal consistency analyses, descriptive statistics, and Pearson correlation analyses were conducted to examine the preliminary associations among teachers' social-emotional competence, parental involvement, and preschool children's peer social competence.

Path analysis was then conducted using AMOS 24.0 to examine the indirect effect of parental involvement in the association between teachers' social-emotional competence and preschool children's peer social competence. Each child's data was matched to their teacher's social-emotional competence score. The indirect effects were estimated using 5,000 bootstrap resamples and evaluated using 95% confidence intervals. An indirect effect was considered statistically significant when the corresponding 95% bootstrap CI did not include zero.

The primary analysis examined the indirect effect using the total score of teachers' social-emotional competence. Supplementary analyses separately replaced the total SEC score with each of its six dimensions, i.e., self-awareness, self-management, awareness of others, management of others, collective awareness, and collective management, to explore dimension-specific patterns of association. Because no explicit a priori hypotheses were specified for these dimension-level analyses, the findings were treated as exploratory.

Qualitative data were organized and coded using NVivo 11. Interview transcripts were analyzed around themes related to teachers' emotion management and home-kindergarten communication, teachers' support for children's peer interactions, and parental involvement in children's peer relationships. The qualitative findings were used to contextualize and complement the quantitative results.

3. Results

3.1 Associations among Teachers' Social-Emotional Competence, Parental Involvement and Children's Peer Social Competence

Pearson correlation analyses revealed significant positive correlations among teachers' social-emotional competence,

parental involvement, and preschool children's peer social competence. Specifically, teachers' SEC was positively correlated with preschool children's peer social competence ($r = 0.203, p < 0.01$) and parental involvement ($r = 0.163, p < .01$). Parental involvement was also positively correlated with children's peer social competence ($r = 0.343, p < .001$). Correlations among the study variables and their dimensions are presented in Table 2.

Table 2. Descriptive Statistics and Correlations Among Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	0.54	1														
5	***															
3	0.74	0.55	1													
8	***	***														
4	0.47	0.46	0.63	1												
7	***	***	***													
5	0.52	0.70	0.65	0.50	1											
7	***	***	***	***												
6	0.52	0.68	0.69	0.72	0.78	1										
3	***	***	***	***	***											
7	0.75	0.79	0.86	0.77	0.85	0.89	1									
6	***	***	***	***	***	***										
8	0.19	0.22	0.25	0.09	0.38	0.39	0.30	1								
9	**	***	***		***	***	***									
9	0.15	0.15	0.21	0.01	0.28	0.27	0.21	0.86	1							
5	*	**	***		***	***	***	***								
10	0.19	0.15	0.23	0.13	0.33	0.38	0.28	0.87	0.63	1						
2	**	*	***	*	**	***	***	***	***	***						
11	0.09	0.19	0.13	0.07	0.23	0.27	0.19	0.81	0.59	0.63	1					
8	*	**	*		***	***	**	***	***	***	***					
12	0.17	0.16	0.17	0.05	0.21	0.23	0.20	0.59	0.47	0.46	0.38	1				
3	**	**	**		***	**	**	***	***	***	***	***				
13	0.02	0.14	0.09	0.06	0.10	0.13	0.11	0.32	0.33	0.30	0.20	0.25	1			
4	*	*			+	*	+	***	***	***	***	***	***			
14	0.09	0.14	0.17	0.15	0.12	0.19	0.18	0.26	0.25	0.23	0.15	0.26	0.66	1		
3	*	*	*	*	*	**	**	***	***	***	**	***	***	***		
15	0.05	0.13	0.11	0.08	0.10	0.15	0.13	0.38	0.34	0.33	0.24	0.35	0.68	0.63	1	
6	*	+	+	+	*	*	*	***	***	***	***	***	***	***	***	
16	0.07	0.16	0.13	0.11	0.12	0.18	0.16	0.39	0.37	0.34	0.24	0.34	0.90	0.80	0.89	1
4	*	*	*	*	*	**	**	***	***	***	***	***	***	***	***	***

Note. 1 = self-awareness; 2 = self-management; 3 = awareness of others; 4 = management of others; 5 = collective awareness; 6 = collective management; 7 = overall teachers' social-emotional competence; 8 = social initiative; 9 = verbal and nonverbal communication; 10 = social difficulties; 11 = prosocial behavior; 12 = overall peer social competence; 13 = home-kindergarten communication; 14 = kindergarten-based involvement; 15 = home-based involvement; 16 = overall parental involvement. $N = 277$ matched child-family records. $p < 0.05$. $p < 0.01$. $p < 0.001$.

3.2 Indirect Effect of Parental Involvement

Path analysis was conducted to examine the statistical indirect effect of parental involvement in the association

between teachers' SEC and preschool children's peer social competence. The results indicated that teachers' SEC was positively associated with parental involvement, which was in turn positively associated with preschool children's peer social competence. The direct association between teachers' SEC and children's peer social competence remained statistically significant.

Furthermore, the overall indirect effect through parental involvement was statistically significant (standardized indirect effect = 0.041, SE = 0.018, 95% bias-corrected bootstrap CI [0.014, 0.084], $p = 0.002$). The direct effect also remained significant (standardized direct effect = 0.335, SE = 0.051, 95% bias-corrected bootstrap CI [0.232, 0.429], $p < 0.001$). Thus, a significant indirect effect through parental involvement was observed alongside the direct association between teachers' SEC and children's peer social competence (Table 3).

Table 3. Standardized Bootstrap Estimates of Direct, Indirect and Total Effects

Predictor	Effect	Estimate	SE	95% BC Bootstrap CI	<i>p</i>
Primary analysis					
Overall SEC	Indirect	0.041	0.018	[0.014, 0.084]	0.002
	Direct	0.335	0.051	[0.232, 0.429]	<0.001
	Total	0.376	0.055	[0.262, 0.475]	<0.001
Exploratory analyses					
Self-awareness	Indirect	0.000	0.017	[-0.035, 0.034]	0.980
	Direct	0.001	0.064	[-0.126, 0.123]	0.980
	Total	0.001	0.082	[-0.161, 0.155]	0.982
Self-management	Indirect	0.034	0.019	[0.005, 0.081]	0.017
	Direct	0.193	0.044	[0.106, 0.280]	<0.001
	Total	0.227	0.051	[0.129, 0.328]	<0.001
Awareness of others	Indirect	0.037	0.019	[0.006, 0.082]	0.020
	Direct	0.199	0.055	[0.091, 0.303]	<0.001
	Total	0.236	0.061	[0.114, 0.352]	<0.001
Management of others	Indirect	0.017	0.018	[0.014, 0.056]	0.271
	Direct	0.061	0.046	[-0.031, 0.151]	0.201
	Total	0.078	0.047	[-0.017, 0.168]	0.106
Collective awareness	Indirect	0.034	0.017	[0.007, 0.075]	0.013
	Direct	0.357	0.045	[0.266, 0.441]	<0.001
	Total	0.390	0.048	[0.292, 0.480]	<0.001
Collective management	Indirect	0.006	0.012	[-0.011, 0.037]	0.535
	Direct	0.149	0.053	[0.052, 0.252]	<0.001
	Total	0.155	0.059	[0.048, 0.272]	0.001

Note. SEC = social-emotional competence; BC = bias-corrected; CI = confidence interval.

Indirect effects were estimated using 5,000 bootstrap resamples. The overall SEC model constituted the primary analysis; dimension-specific analyses were exploratory. Exploratory analyses were subsequently conducted for the six dimensions of teachers' SEC. Significant indirect effects through parental involvement were observed for self-management (indirect effect = 0.034, 95% bias-corrected bootstrap CI [0.005, 0.081], $p = 0.017$), awareness of others (indirect effect = 0.037, 95% bias-corrected bootstrap CI [0.006, 0.082], $p = 0.020$), and collective awareness (indirect effect = 0.034, 95% bias-corrected bootstrap CI [0.007, 0.075], $p = 0.013$). The indirect effects for self-awareness, management of others, and collective management were not statistically significant.

3.3 Qualitative Interview Findings

The interview findings provided contextual insights into the quantitative associations among teachers' SEC, parental involvement, and preschool children's peer social competence.

Teachers selected from the relatively higher- and lower-SEC score groups described somewhat different approaches to emotion regulation, home-kindergarten communication, and support for children's peer interactions. Teachers in the relatively higher-scoring group more often described regulating their own emotions, viewing parents as partners, and attending to the timing, manner, and negotiation involved in communication. When discussing peer conflicts, they also tended to emphasize children's emotional experiences and opportunities for social learning. As one teacher explained, "Conflicts can help children grow. I try to guide them based on their individual characteristics, and I also communicate with their parents to support more positive communication". In comparison, teachers in the relatively lower-scoring group more often described communication centered on information provision or conflict avoidance and were more likely to report directly providing solutions to children's peer problems.

Parent interviews showed a similar pattern of variation. Parents of children with relatively higher peer social competence scores described a broader range of support strategies, including emotional support, behavioral modeling, guidance in understanding and resolving peer conflicts, and proactive communication with teachers. One parent noted, "We often take him out and encourage him to interact with others. In our family, we believe actions speak louder than words." In contrast, parents of children with relatively lower scores more often described verbal reminders, reasoning, or

rewards and greater reliance on teachers for support. Some parents also described teachers' listening, understanding, and communication practices as relevant to their willingness to participate in their children's education and engage in home-kindergarten collaboration. Overall, the interviews provided contextual support for understanding how teacher-parent interactions and parental involvement may be related to children's peer social competence.

4. Discussion

This study examined the relationships among teachers' social-emotional competence (SEC), parental involvement, and peer social competence in preschool children aged 3-6 years, with particular attention to the statistical indirect effect through parental involvement. Teachers' SEC was positively associated with children's peer social competence, a finding broadly consistent with social learning theory and prior findings linking teachers' social-emotional characteristics with children's social development (Lee & Kim, 2021; Moon & Kim, 2024). Teachers with higher SEC may be better able to regulate their own emotions, recognize children's social-emotional needs, and provide supportive interactional contexts in which children can observe and practice emotional expression, communication, and conflict resolution. The Interview findings were consistent with this interpretation. Teachers with relatively higher SEC scores more often described peer conflicts as opportunities for social learning and emphasized guiding children rather than immediately solving problems for them. Notably, however, the association between "management of others" and children's peer social competence was not statistically significant. One possible explanation is that the relevance of teachers' behavioral management may depend on how and when teachers intervene in children's peer conflicts, as excessive or premature intervention may limit opportunities for children to negotiate and solve problems independently (Yan, 2017). Because the present study did not directly assess teachers' conflict-intervention practices, this interpretation remains tentative.

Teachers' SEC was also positively associated with parental involvement. This finding is broadly consistent with previous research suggesting that supportive teacher-parent interactions and teachers' relational characteristics are associated with parental trust and engagement in children's education (Poulou et al., 2021). The interview findings teachers with relatively higher SEC scores more often described parents as collaborative partners and emphasized two-way communication and negotiation, whereas teachers with relatively lower scores more often described one-way information provision or avoidance of conflict. Exploratory analyses further showed that self-management, awareness of others, and collective awareness were more consistently associated with parental involvement than the other SEC dimensions. These dimensions may be particularly salient in home-kindergarten interactions because they can be expressed through observable behaviors such as maintaining emotional stability, recognizing parents' needs, and valuing collaborative relationships. Nevertheless, because the dimension-level analyses were exploratory, the absence of statistically significant associations for other SEC dimensions should not be interpreted as evidence that those dimensions are unimportant for parental involvement.

Parental involvement was positively correlated with preschool children's peer social competence. Among the dimensions of parental involvement, home-based involvement showed the largest bivariate association with children's overall peer social competence. This pattern is generally consistent with previous research linking parental involvement with children's social competence, cooperative behavior, and school adjustment (McWayne et al., 2004), as well as research associating kindergarten-based involvement and positive home-kindergarten relationships with children's social and behavioral adjustment (El Nokali et al., 2010; Powell et al., 2010). The interview findings provided further context for these associations. Parents of children with relatively higher peer social competence scores described a broader range of strategies, including emotional support, behavioral modeling, discussion of peer conflicts, and proactive communication with teachers. In contrast, parents of children with relatively lower scores more often described verbal reminders or greater reliance on teacher support. Therefore, these findings suggest that parental involvement may be relevant not only in terms of participation in kindergarten activities, but also through the ways in which parents support children's social experiences in everyday family contexts.

Path analysis further indicated a statistically significant indirect effect of parental involvement in the association between teachers' SEC and preschool children's peer social competence. Exploratory dimension-level analyses showed that this indirect effect was significant for self-management, awareness of others, and collective awareness. Considered alongside the interview findings, these three dimensions may share a potentially important feature: they are relatively likely to be expressed through teachers' observable emotional responses, communication practices, and interpersonal behaviors and, consequently, may be more readily perceived by parents. For instance, teachers' self-management may be reflected in teachers' emotional stability and behavioral regulation during teacher-parent communication; awareness of others may be expressed through sensitivity to the needs of both children and parents; and collective awareness may be reflected in teachers' attention to parental cooperation and the broader classroom community. More internally oriented competencies, such as self-awareness, may be less directly visible to parents during routine home-kindergarten interactions. We tentatively describe this potential characteristic as the "transmissibility" of teachers' SEC— that is, the extent to which aspects of teachers' SEC become perceptible through observable interactions and are subsequently associated with parental engagement. Importantly, transmissibility is proposed here as an exploratory interpretation derived from the dimension-level and qualitative findings rather than as an independently validated theoretical construct. Its conceptual boundaries, measurement, and potential role in home-kindergarten processes require further empirical examination.

4.1 Practical Implications

The findings have several implications for preschool teacher development and family education practices. First, efforts to support teachers' social-emotional competence may benefit from extending beyond individual emotion regulation to include its application in interpersonal understanding, home-kindergarten communication, and collaborative relationship building. Prior evidence indicates that professional development focused on teachers' emotional and social-emotional skills can support teachers' emotional awareness and related competencies (Frenzel et al., 2021). In practice, kindergartens may consider incorporating case discussions, simulated parent-teacher communication, and reflective activities into professional development to help teachers apply social-emotional skills in everyday interactions with families. Second, the findings highlight the relevance of parental involvement beyond participation in kindergarten-based activities. Parents may support children's peer-related experiences at home through emotional responsiveness, behavioral modeling, discussion of peer conflicts, and opportunities for peer interaction. Kindergartens may also facilitate two-way communication with families by sharing information about children's peer interactions and providing practical guidance that parents can adapt to everyday family contexts. Such practices may help create greater continuity between children's experiences at home and in kindergarten.

4.2 Limitations and Future Directions

Several limitations of this study should be noted. First, the cross-sectional design does not allow temporal ordering or causal relationships among teachers' social-emotional competence, parental involvement, and preschool children's peer social competence to be established. Future studies using longitudinal, cross-lagged, or experimental designs could provide stronger evidence regarding the temporal and developmental relationships among these variables. Second, multiple children were matched to and evaluated by the same teacher, resulting in some degree of clustering at the teacher or classroom level. The present analyses were conducted primarily at the individual child level and did not separate teacher-level from child-level variation. Future research with larger numbers of teachers and classrooms could use multilevel models to examine associations across teacher, family, and child levels more explicitly. Third, participants were recruited through convenience sampling from only two urban kindergartens in Ningbo, China. The relatively small number of kindergartens and teachers and the restricted geographic coverage limit the generalizability of the findings. Future studies should include a broader range of regions, kindergarten types, and socioeconomic contexts and, where feasible, employ more representative sampling strategies to examine the robustness of these associations across different educational settings.

5. Conclusion

This study examined the relationships among teachers' social-emotional competence, parental involvement, and peer social competence in preschool children aged 3-6 years. Teachers' social-emotional competence and parental involvement were both positively correlated with children's peer social competence. Parental involvement showed a statistically significant indirect effect in the association between teachers' social-emotional competence and children's peer social competence. Exploratory analyses further revealed that this indirect effect was significant for three dimensions of teachers' social-emotional competence: self-management, awareness of others, and collective awareness.

Considered alongside the interview findings, these dimensions may be more readily perceived by parents through teachers' emotional expressions, communication practices, and interpersonal behaviors and may therefore be more closely associated with parental involvement. This study conceptualizes this potential characteristic as the "transmissibility" of teachers' social-emotional competence. Importantly, transmissibility is proposed as an exploratory interpretation that requires further conceptual and empirical examination rather than as an established theoretical construct.

Overall, this study suggests that the relationship between teachers' social-emotional characteristics and preschool children's peer social competence may be understood not only within the kindergarten context but also in relation to the cross-contextual connections between kindergarten and home represented by parental involvement.

Funding

This study was supported by the General Project of the Zhejiang Provincial Philosophy and Social Sciences Planning Program "Research on an Intergenerational Learning Model for Enhancing Children's Socio-emotional Competence" (Grant No. 25NDJC046YBMS).

Data Availability Statement

The dataset generated and analyzed during the current study is available from the corresponding author upon request.

Conflicts of Interest

The authors declare no conflict of interest.

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