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Links Among Italian Preschoolers' Socio-Emotional Competence, Teacher-Child Relationship Quality and Peer Acceptance

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Abstract

The purpose of the present study was to examine the relations of teacher-child relationship quality (close, conflictive, and dependent), children's social behavior, and peer likability in a sample of Italian preschool-aged children (46 boys; 42 girls). Preschool teachers evaluated the quality of the teacher-child relationship and children's social behaviors (i.e., social competence, anger-aggression, and anxiety-withdrawal). Peer-rated likability was measured using a sociometric procedure. Results indicated that conflictual teacher-child relationships were related to high aggressive behavior, and dependent teacher-child relationships were positively associated with children's anxiety-withdrawal. Moreover, we found an indirect association between close teacher-child relationship quality and peer likability through children's social competence. The findings provide evidence that the teacher-child relationship is critical for children's social behaviors, and that social competence was uniquely related to peer likability.

Keywords

Italian Preschool; Teacher-child relationship; Children's social behavior; Peer likability

In recent years, a good deal of research has been conducted in the domain of early school adjustment, given that problems with school tend to persist throughout elementary school (Hausar-Cram, Durand, & Warfield, 2007; Hammes, Crepaldi, & Bigras, 2012; Ladd & Dinella, 2009). Ladd and colleagues have focused much of their work on the role of peer relationships in children's academic functioning (Buhs, Ladd, & Herald, 2006; Ladd, 1999, 2006; Ladd & Burgess, 1999; Ladd, Herald-Brown, & Reiser, 2008). Indeed, these researchers (and others) suggest that peer likability and rejection, defined as sentiments of liking or disliking toward individuals in the group, are related to children's academic adjustment, school liking, and school engagement (Buhs & Ladd, 2001; Buhs et al., 2006; Ladd, 2003; Ladd et al., 2008). In addition to children's academic performance, the quality of peer relationships has been related to children's problem behaviors and social adjustment (DeRosier, Kupersmidt, & Patterson, 1994; Ladd & Troop-Gordon, 2003). For example, DeRosier et al. (1994) found that peer group rejection was a strong predictor of higher externalizing and internalizing behaviors during the grade school years and later. In fact, a number of researchers have shown that noncompliant and aggressive behaviors and peer

rejection in grade school predict externalizing problems in preadolescence and adolescence (Bornstein, Hahn, & Haynes, 2010; Cowan & Cowan, 2004). In terms of internalizing disorders, Gazelle and Ladd (2003) found that anxious and withdrawn behaviors and peer rejection were linked to a trajectory of elevated depression from kindergarten through fourth grade. On the other hand, peer likability has been associated with relatively high levels of children's social competence and prosocial behaviors (Merritt, Wanless, Rimm-Kaufman, Cameron, & Peugh, 2012; Spivack & Howes, 2011). In this direction, Denham, McKinley, Couchoud, & Holt (1990) reported that preschoolers who showed prosocial behaviors and high levels of emotion understanding were relatively liked by peers. Moreover, cooperative play with peers (an index of social competence) has been related to high levels of peer likability (Blandon, Calkins, Grimm, Keane, & O'Brien, 2010; Spinrad et al., 2004).

However it is important to note that peers are not the only individuals that may influence children's social and school adjustment (Birch & Ladd, 1997, 1998; O'Connor, 2010; Palermo, Hanish, Martin, Fabes, & Reiser, 2007). Indeed, Chang et al., (2007), suggested classroom life involves three important actors: the child, the child's peers, and the classroom teachers. In this regard, it has been demonstrated that classroom teachers play an important role in children's social, emotional, and academic development (Howes, Phillipsen, & Peisner-Feinberg, 2000; Murray, Murray, & Waas, 2008). Whereas peer relationships have received considerable attention in research, the associations among teacher-child interactions, social development, academic achievement, and peer likability have received less attention.

High quality teacher-child relationships have been associated with higher peer social status in both preschool and kindergarten-aged samples (Ladd & Burgess, 2001). Based on attachment theory, it has been suggested that children who have warm and secure relationships with their teachers may use teachers as resources for other social experiences, especially peer relationships (Mitchell-Copeland, Denham, & DeMulder, 1997). Indeed, children who are rated as having closer teacher-child relationships tend to be rated more positively by peers than do children who experience more conflicted or dependent teacher-child relationships (Arbeau, Coplan, & Weeks, 2010; Ladd et al., 2001; Rentzou & Sakellariou, 2011). Similarly, Palermo et al. (2007) found that peer group exclusion was negatively related to teacher-child closeness and positively related to dependent and conflictual teacher-child relationships.

The quality of teacher-child relationships can be characterized by closeness (e.g., reciprocal support and warmth), conflict (e.g., teacher-child relationship characterized by tension, anger, or aggressiveness), or dependence (e.g., children's over-dependence on their teachers; Pianta, 2001; Silva et al., 2011). Although teacher-child conflict and closeness have been inversely related to each other (Griggs, Gagnon, Huelsman, Kidder-Ashley, & Ballard, 2009; Henricsson & Rydell, 2004), there are mixed findings on the relations of teacher-child dependence and closeness (Birch et al, 1998; Cornellissen & Verschueren, 2002; Gregoriadis & Tsigilis, 2008; Griggs et al., 2009; Pianta, 2001). Thus, dependence may or may not be viewed as a negative aspect of the teacher-child relationship, and the meaning of such relationships may differ by culture (Gregoriadis et al., 2008; Solheim, Berg-Nielsen, & Wichstrom, 2011).

The quality of teacher-child relationships has been related to children's social behavior. Several studies indicate that conflictual relationships with a teacher may be a powerful predictor of children's social maladjustment (O'Connor, Dearing, & Collins, 2011; Xiao & Jin, 2011). In particular, conflictual or dependent teacher-child relationships in kindergarten have been related to behavioral difficulties and to lower social competence two years later (Pianta & Stuhlman, 2004; Silver, Measelle, Armstrong, & Essex, 2005). Birch et al. (1998)

found that negative teacher-child relationships were related to children's lower prosocial behavior and higher aggressive behavior with classmates across kindergarten through first grade. Given such findings, Hamre and Pianta (2001) suggested that conflictual or dependent teacher-child relationships may lay the foundation for academic and behavioral problems through elementary and middle school.

Although researchers have focused their work on the role of the teacher-child relationship to children's social and academic outcomes, few investigators have considered whether the qualities of teacher-child relationships (close, dependent, and conflictive) uniquely predict children's social behaviors and, in turn, relate to peer likability. As a recent exception, using a cross-sectional design, Palermo and colleagues (2007) tested the mediational role of social behaviors on the link between teacher-child relationship qualities to peer likability. They found that teacher-child closeness was directly linked to prosocial behavior and indirectly associated to peer likability through prosocial behavior. Moreover, conflictual teacher-child relationship quality was indirectly linked to peer rejection through children's aggressive behavior (Palermo et al., 2007). Finally, teacher-child dependence has been directly linked to relatively high anxiety behavior with peers (Arbeau et al., 2010; Henricsson et al., 2004) and peer rejection (Hamre et al., 2001).

Given the relations among teacher-child relationship quality, social behavior, and peer status within the United States, it is important to examine whether these relations can be found in other countries and cultures. Specifically, the Italian educational context may represent an interesting case in the landscape of young children's care. Children between the ages of 3 to 6 years are educated in one unique rubric called kindergarten (similar to the preschool system in the U.S.) where children spend three years before starting the primary educational program. The majority of Italian kindergarten settings are segregated by age, so classmates are a homogenous group of either three- and four- year olds, or five- to six- year-olds. In the Italian kindergarten, the dominant model is one or two teachers per class, in which both the teachers and the peer group are mostly unchanged during the three years of kindergarten. This system follows a "continuity of care" program so that children interact with the same teachers and peers for up to three years, such that the teachers represent crucial actors during this period. Thus, the quality of teacher-child and peer relationships may have great importance for children's well-being in the Italian kindergarten setting.

The purpose of the present study was to examine the role of teacher-child relationship quality (close, conflict, or dependent teacher child relationships) on children's social behavior and peer likability in a sample of Italian preschool-aged children. Our first research aim was to examine the relations among teacher-child relationship quality to children's social behaviors and peer likability. Next, in keeping with Palermo and colleagues' (2007) model, we examined how teacher-child relationship may be related to children's social emotional competence. We expected that close teacher-child relationships would be associated with socially competent behaviors and that conflictive or dependent teacher-child relationships would be related either to anger-aggression problems or to anxiety-withdrawal problems. In addition, we tested the indirect relations between teacher-child relationship quality and peer likability, through children's social behaviors (Ladd, Birch et al, 1999; Ladd et al., 2001).

Methods

Participants

Data were collected as a part of a longitudinal intervention study (from 2009 to 2011) designed to promote children's social adjustment during the transition between kindergarten and primary school. The findings presented in this study refer to the initial assessment of the

project (2009), prior to implementation of the intervention (in 2010). Data from later assessments are not presented due to large attrition rates in the sample ($n = 48$ in 2010 and $n = 34$ in 2011). Participants in the present study were 88 children (46 boys; 42 girls) in the age range of 41 to 77 months ($M = 58.65$ months, $SD = 11.09$) enrolled in one of four classrooms in one public preschool/kindergarten of Rome (Italy), and their lead teacher (one per classroom). Two of the classrooms served younger children (3- to 4-year-olds) and two served older children (5- to 6-year-olds). There were 16 3-year-olds (8 boys), 29 4-year-olds (16 boys), 25 5-year-olds (12 boys) and 18 6-year-olds (10 boys). Each class included an average of 22 children (ranging from 20 to 24), and 100% of children in each classroom participated in the current study. The center was full-day program, and all the children were Italian. The children were evaluated by the lead classroom teacher, and the classrooms were balanced by gender. Teachers who participated were all female and were very experienced teachers (ranging from 21–25 years of experience). Children came from middle or middle-high socioeconomic status (SES) families, and written parental consent was obtained for all participants. The study was reviewed and approved by the Ethics Commission of the Department of Developmental and Social Psychology of Sapienza, University of Rome.

Procedures

Four lead teachers (one for each classroom) completed questionnaires during spring, 2009. We collected data in the Spring (rather than the Fall) because it gave younger children enough time to develop relationships with their teachers and peers. Teachers completed a packet of questionnaires to assess the teacher-child relationship quality and children's social behaviors. The teachers were not paid for their participation.

During the spring semester, children participated in a sociometric procedure. The assessments were conducted individually for each child by a team of experimenters consisting of university personnel.

Measures

Teacher-child relationship—Teachers' perceptions of their relationship with each child were assessed using the Student-Teacher Relationship Scale (STRS; Pianta, 2001). The STRS is a self-report instrument that has been used for this age group. The scale included 28 items measured on a 5-point Likert-type scale (1 = definitely does not apply, 5 = definitely applies), and the items yield measures of Closeness, Dependence, and Conflict by averaging scores across the subscales. Specifically, the conflict subscale consist of 12 items that measured a teacher-child relationship characterized by tension and anger (e.g., "This child and I always seem to be struggling with each other"), the closeness subscale included 11 items that evaluated a teacher-child relationship characterized by support and cohesion (e.g., "This child spontaneously shares information about himself/herself"), and the dependence subscale was assessed with 5 items that measured if the relationship was characterized by over-dependence on the teacher (e.g., "This child reacts strongly to separation from me"). Alpha values for teachers' reports were .81, .71, and .86 for closeness, dependence, and conflict, respectively. This scale was previously translated and validated to Italian context (Fraire, Longobardi, & Sclavo, 2008).

Social competence and maladjustment—Teachers reported on children's social competence and maladjustment by completing the Social Competence and Behavior Evaluation (SCBE-30; LaFreniere & Dumas, 1996) for children in 30–78 months age range, and was adapted from the original 80-item Likert rating scale (LaFreniere, Dumas, Capuano, & Dubeau, 1992). The SCBE-30 is composed of 30 items, on a 6-point Likert-type scale, that assesses children's social competence, anger-aggression, and anxiety-withdrawal. The social competence subscale was composed of 10 items. The subscale is based on a relatively

global construct of socio-emotional competence (Denham 2006), and includes items to assess peer competence and positive social interactions (e.g., can negotiate solutions, works easily in groups) as well as prosocial behavior/empathy (e.g., cooperates, comforts others). The anger-aggression subscale consists of 10 items and described aggression and impulsivity behaviors (e.g., “Irritable, gets mad easily”), and the anxiety-withdrawal subscale is formed by 10 items and is characterized by sadness, anxiety, and inhibition behaviors (e.g., “Doesn’t talk during group activities”). The scores from each subscale were averaged to create social competence, anger-aggression, and anxiety-withdrawal rates for each child. Alpha values for teachers’ reports were .84, .81, and .88 for social competence, anger-aggression, and anxiety-withdrawal, respectively. This scale (and the 80-item version) has been previously translated and validated in Italian context (Blinded for review; Ongari, Tomasi, & Zoccolli, 2007).

Peer-rated likability—Peer-rated likability was assessed using the sociometric procedure (Asher, Singleton, Tinsley, & Hymel, 1979) that provides an indication of each child’s degree of likability. In an area outside the classroom, each child was shown individual photos of his/her classmates and he/she was first asked to name about ten of his/her peers, to confirm recognition of the peers. Then, children were asked to sort pictures of their classmates into one of three boxes identified by a happy face (“children you like to play with a lot”), a neutral face (“children you “kind of” like to play with”), and a sad face (“children you don’t like to play with”). Rating values of 3, 2, and 1 were assigned to the happy, neutral, and sad face, respectively. A likability score was computed summing the number of positive (happy face), neutral (neutral face), and negative (sad face) ratings and dividing by the total number of ratings (average ratings) for each class. The obtained average ratings were transformed in *z* scores within each class for the analyses.

Analytic Strategy

The purpose of the present study was to examine the role of teacher-child relationship quality (close, conflict, or dependent teacher child relationships) on children’s social behavior and peer likability. We begin by presenting descriptive and correlational analyses, followed by path analysis to test the relations between teacher-child relationship and peer likability. For path analysis, Maximum likelihood estimation was used to calculate all paths. In addition, we computed indirect effects with the Confidence Intervals (CIs) method as indicated by Mackinnon, Lockwood, Hoffman, West, and Sheets (2002). This method was used to estimate 95% and 99% CI for the parameter estimate; a CI that did not include zero indicated a significant indirect effect. For the evaluation of the model, we used model fit indices (as they are less sensitive to sample size than the chi-square statistic; Kline, 1998). Comparative fit index (CFI), root-mean-square error of approximation (RMSEA) with the interval and *p* value, and standardized root-mean-square residual (SRMR) were considered. CFI values above .90 were considered as evidence of good fit (Bollen, 1989), as well as RMSEA values lower than .07 (Browne & Cudeck, 1993) and SRMR values lower than .08 (Kelloway, 1998).

Results

Descriptive Analyses

Preliminary analyses revealed no univariate outliers. The skewness and kurtosis indices were judged sufficient to meet the assumptions for the analysis (Curran, West, & Finch, 1996). Descriptive statistics are presented in Table 1.

Analyses of Variance (ANOVAs) were conducted to assess sex differences in the study variables. As shown in Table 1, a sex difference in teacher-child closeness was found,

indicating that girls received higher ratings than did boys. There were no sex differences in any of the other study variables.

Relations Among the Study Variables

Correlations among the study variables are presented in Table 2. Because the length of the teacher-child relationship was dependent on children's age (i.e., children who were older had longer relationships with their teachers), we expected children's age to be correlated with the study variables. Indeed, children's age was positively related to close teacher-child relationship quality but was unrelated to all other study variables.

As seen in Table 2, teacher-child conflict was negatively related to closeness and positively associated with dependence, although teacher-child closeness was unrelated to dependence. In addition, social competence was positively correlated with closeness and peer likability. On the other hand, social competence was significantly negatively related to dependent and conflictual teacher-child relationships and to anger-aggression and to anxiety-withdrawal behaviors. Moreover, anger-aggression was positively associated with conflict and negatively correlated with closeness. Anxiety-withdrawal behavior was associated positively to dependence and was negatively related to closeness and peer likability. Peer likability was positively related to closeness and negatively correlated with conflict.

Path Analysis

Path analysis using Mplus 5.2 (Muthén & Muthén, 2007) was conducted in order to test the hypothesis that the qualities of teacher-child relationships were related to each aspect of social competence/incompetence. Specifically, we tested the direct paths from teacher-child relationship variables (closeness, dependence, and conflictual) to children's social behaviors variables (social competence, anger-aggression, and anxiety-withdrawal behaviors). In addition, we tested direct paths from teacher-child relationships variables and children's social behaviors to peer likability. Finally, to account for age and children's sex in the models, we added direct path from children's age and children's sex to all variables.

Given the complexity of the model and our small sample size, we trimmed the model by deleting the paths from the control variables (i.e., age, gender) that were nonsignificant at $p > .10$ (marginal paths were retained in the models). This method resulted in considering only the paths from children's sex to teacher-child closeness (all other paths were nonsignificant at $p > .10$). Moreover, children's age was not significantly related to any of the study variables and was removed from the model. The fit of the model was good, $\chi^2(6, N=88) = 9.025, p > .05, CFI = .98, RMSEA = .08$ (90% CI = .001–.17, $p > .05$), SRMR = .06. We further trimmed the model by removing any of the non-significant direct paths from the teacher-child relationship to peer likability, resulting in removing the paths from teacher-child dependence and teacher-child conflict to peer likability. Again, the fit of the model was good, $\chi^2(8, N=88) = 10.523, p > .05, CFI = .98, RMSEA = .06$ (90% CI = .00–.15, $p > .05$), SRMR = .06. Figure 1 depicts the standardized and unstandardized path coefficients of the final model. Specifically, we found positive paths from child sex to teacher-child closeness (favoring girls), teacher-child conflict to anger-aggressive behavior, teacher-child closeness to children's social competence behavior, and from teacher-child dependence to anxiety-withdrawal behavior. In addition, we found negative paths from teacher-child closeness to anxiety-withdrawal behavior, teacher-child dependence to anger-aggression, and teacher-child conflict to social competence. The results showed that social competence, but not anxiety or aggression, was related to peer likability. Finally, the indirect path was tested from teacher-child closeness to peer likability through children's social competence and was significant, 95% CI [.001, .189].

Discussion

Researchers have argued that teacher-child relationship quality is an important antecedent of social and academic adjustment during preschool age and over time (Griggs et al., 2009; Ladd et al., 2001; Palermo et al., 2007; Silva et al., 2011). However, few studies have examined the relations between teacher-child relationship quality and the development of children's social functioning.

The main goal of this study was to investigate the relations by which the qualities of teacher-child relationships (positive versus negative) was associated to children's social behavior and peer likability in an Italian sample of preschool-aged children. Because the Italian educational setting involves a consistent teacher from ages 3 to 6 years, we expected that the teacher-child relationship quality would be of critical importance to children's developmental outcomes. In fact, in Italy for the majority of preschool/kindergarten children, this experience represents the first social opportunity outside the family context: a warm relationship with the teacher, who remains the same for three years, may harmoniously bridge the child towards the social world, whereas conflictive or dependent relationships may be an obstacle, instead of a resource, in the process of social and academic adjustment. Given the continuity and the exclusivity of the teacher-child relationship, the quality of such relationships might play a key role particularly in the Italian context. Indeed, our findings revealed that teacher-child closeness, conflict, and dependence were related to children's social behaviors and peer likability.

Consistent with our prediction that teacher-child relationship quality would be associated with children's behavior and that children's behaviors would, in turn, be related to peer ratings, the results of the current study showed an indirect relation between teacher-child closeness to their peer likability through children's social competence. In other words, the emotional connection between teachers and children was related to children's competent social behavior, and in turn, this behavior served as important information for peers. These findings must be interpreted with caution, however, given the cross-sectional nature of the work. In order to determine whether children's social behavior mediates the relations between teacher-child relationship quality and children's social status, longitudinal work needs to be conducted. Despite this important limitation, our findings are consistent with the work of Palermo et al. (2007) who found that, in a U.S. sample, teacher-child closeness was associated with children's higher prosocial behaviors, which in turn, was related to their peer likability. Furthermore, children who had conflictive or dependent relationships with their teachers seemed to lack social competence (i.e., low prosocial behavior/high aggressive behavior), which in turn, predicted lower peer ratings of likability.

We also found that teacher-child conflict was linked to higher aggression in the classroom. Specifically, conflictual teacher-child relationships were positively related children's anger-aggressive behaviors. This finding is consistent with Palermo and colleagues' (2007) findings that showed that when the affective quality of teacher-child relationship is hostile and conflictive, children were perceived as aggressive and disruptive by teachers.

Similar to other studies (Arbeau et al., 2010; Henricsson et al., 2004), we analyzed the relation of teacher-child relationship quality to children's anxiety-withdrawal behavior. Our findings demonstrated that children's anxiety-withdrawal was positively associated with dependent teacher-child relationship. These results suggested that children with difficulties separating from their teacher are at risk for developing internalizing behaviors. Thus, it appears that even though children in Italy have lengthy relationships with their teachers, a dependence on teachers may reflect an unhealthy, clinging quality that may prevent children from adapting well to the peer environment.

In addition, the correlational analysis indicated that children with anxiety-withdrawal behavior showed lower social competence and were less liked by peers. Fearful and anxious children may be less likely to engage in cooperative play, which may lead to peer rejection. Indeed, Spinrad et al. (2004) found that children rated as anxious and fearful engaged in more solitary play, which in turn, was associated with peer exclusion and rejection. Thus, our findings, using an Italian sample, are consistent with other work conducted in the U.S.

Nevertheless, other factors not considered in the present study may explain the above results. For example there is literature to suggest that child temperament may predict teacher-child relationships and children's social behavior (Myer & Pianta, 2008; Rudasill & Rimm-Kaufman, 2009; Silva et al., 2011). More specifically, inhibited children may develop dependent teacher-child relationship and withdrawal behaviors with peers (Griggs et al., 2009; Silva et al., 2011). In addition, behaviorally inhibited or shy children are likely to be low in conflict with teacher and show difficulties participating in classroom activities involving peers (Myer et al., 2008).

It was surprising that we did not find significant unique relations between teacher-child dependence and children's social competence in the path analyses. However, our correlational analyses confirmed that children who demonstrate dependence in relationships with teachers are perceived by teachers to have lower social competence in the classroom. It is possible that the shared variance among teacher-child relationship variables (conflict, dependence, and closeness) accounted for lack of significance of this variable in the path analysis, in which unique variance is considered. These findings indicate that it is important to consider all dimensions of the teacher-child relationship in relation to children's social behaviors.

The present study has several strengths. First, the relations were examined in a culture other than the United States. In fact, it is important analyze the relations among teacher-child relationships, children's social behaviors, and peer likability in different contexts to understand whether the processes of relations are similar across cultures (even if there are mean-level differences in children's behaviors). This study highlighted the fact that the relations among the constructs were similar between the Italian context and the United States. Next, we considered all three aspects of the teacher-child relationship (conflict, dependence, and closeness), whereas a number of studies have not considered teacher-child dependence (Cornellissen et al., 2002; Pianta et al., 2004). Given the nature of the Italian preschool (continuity of care), it was critical to understand whether teacher-child dependence related to children's positive or negative behaviors and social status. Finally, the current study contributes to our understanding of the relations that link teacher-child relationship to peer likability and supports an attachment framework, such that a warm and close teacher-child relationship plays an important role in children's social behaviors.

Despite these strengths, this study has a number of limitations. First, in the current study, the sample size ($n = 88$) was small to allow the use of more complex analyses and to increase the statistical power (Mackinnon, 2008). Future research should consider larger samples to utilize complex analysis and understand better the phenomena considered. Secondly, as noted above, we used cross-sectional data, and thus we were unable to test more causal processes and links among the variables over time. In fact, the most appropriate test of mediation should consider three waves of data, controlling for stability of the constructs, as well as transactional paths that could inform the direction of the relations between teacher-child relationship, child's social behavior and peer likability. Although such robust models have not been tested, using longitudinal data, researchers have shown that early negative teacher-child relationship quality may be a predictor of behavioral problems through elementary school (Hamre et al., 2001) and that positive teacher-child relationship quality is

related to fewer problems and socially competent behaviors at the end of first grade (Pianta, Steinberg & Rollins, 1995). Subsequent research, in Italian educational context, should examine the long-term relations between teacher-child relationship quality, children's social behavior, and peer likability from ages 3 to 6 to the school years. In addition, we did not consider the role of the teacher-child relationship on young children's school readiness. Researchers should investigate the complex relation between factors within the social-relational context and academic and social children's adjustment. Indeed, Silva et al. (2011) supported the association between teacher-child relationship quality and school attitudes in preschool. Specifically, children with a positive relationship with teacher developed higher levels of school liking and motivation toward school, which is likely related to better school adaptation and success. A final limitation of the current work was that teacher-child relationship quality and children's social emotional competence were assessed by the same teacher, and we relied heavily on teachers' reports in the current study (peer-likability was the only peer-rated measure). In future studies, it would be helpful to include multiple measures of children's social emotional competence, such as having an objective observer or parent-rated measures.

This work provided a model of the associations by which the qualities of teacher-child relationships is associated to children's social behaviors and peer likability. In fact, during preschool, teachers represented a secure base for children to explore their social environment at school (Bergin & Bergin, 2009). This implicates that teachers should be aware the importance of their relationships with children, and that positive relationships with children are related to socially competent behavior and social adjustment in classroom (Palermo et al., 2007; Pianta, 2001).

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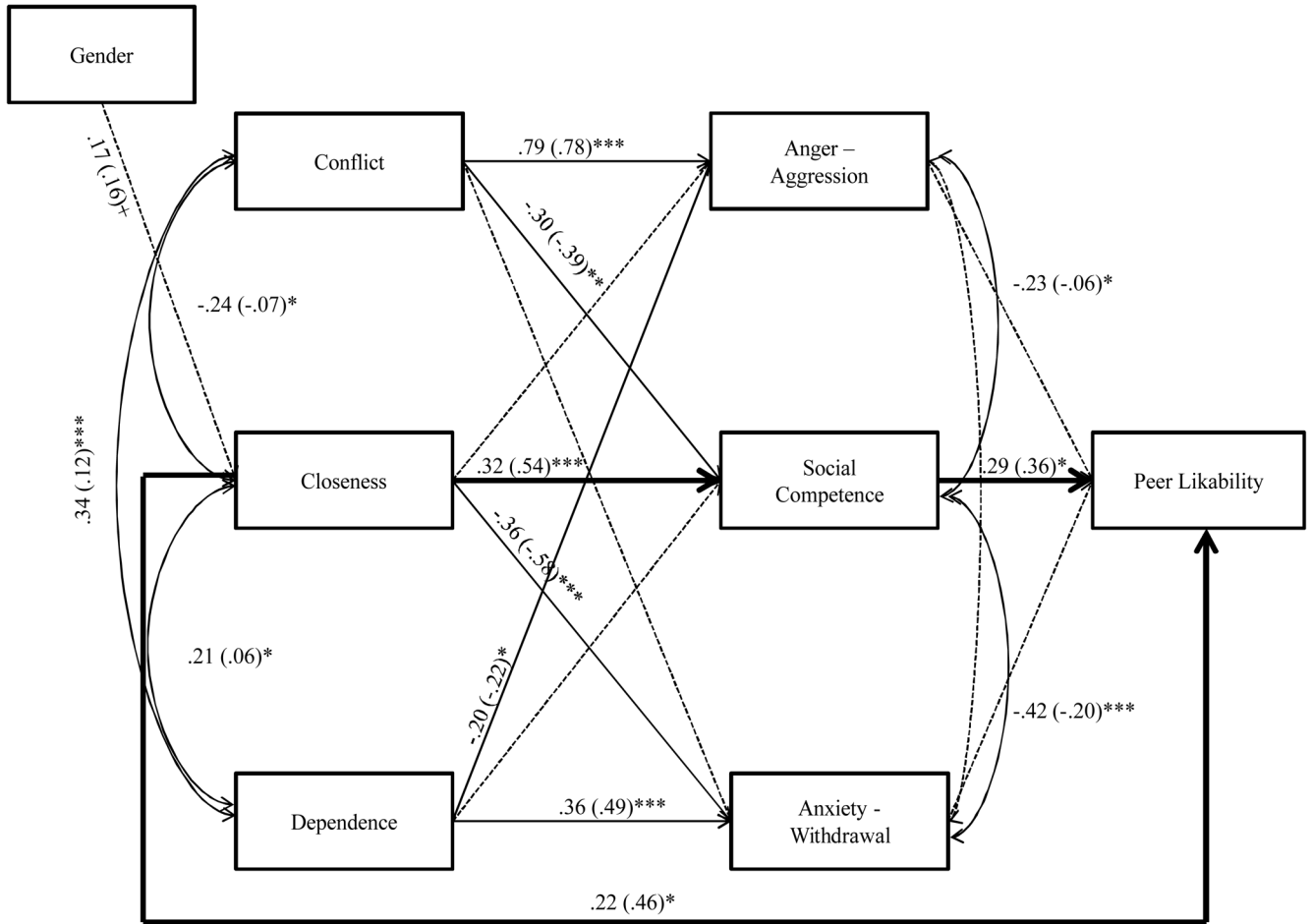


Figure 1. Standardized and unstandardized path coefficients for the path analysis model
Note. + $p > .10$. * $p < .05$. ** $p < .01$. *** $p < .001$. Gender was coded as 0 (boys) and 1 (girls). Standardized and unstandardized (in parenthesis) estimates are reported on straight and curved arrows. Not significant and marginal paths were represented with dashed lines and the indirect path was shown in bold. .

Table 1

Means, Standard Deviations, and Sex Differences for Study Variables

Variable	Total sample (n = 88)		Boys (n = 46)		Girls (n = 42)		F	Partial η^2
	M	SD	M	SD	M	SD		
Closeness	3.50	0.48	3.37	0.43	3.64	0.49	6.95***	.08
Conflict	1.76	0.64	1.86	0.67	1.65	0.58	2.43	.03
Dependence	1.98	0.57	1.93	0.60	2.03	0.53	0.58	.01
Anger-Aggression	2.04	0.61	2.15	0.62	1.91	0.58	3.41 [†]	.04
Anxiety-Withdrawal	2.05	0.77	2.04	0.76	2.05	0.80	0.01	.00
Social Competence	4.02	0.80	3.92	0.82	4.13	0.78	1.56	.02
Peer Likability	2.11	0.25	2.13	0.24	2.09	0.25	0.35	.00
Age	58.65	11.09	58.52	11.10	58.80	11.23	0.01	.00

Note. All variables are unstandardized for ease of interpretation.

[†] p < .10.

*** p < .01.

Table 2

Bivariate Correlations Among the Study Variables

Variable	1	2	3	4	5	6	7	8	9
1. Closeness	–								
2. Conflict	-.32**	–							
3. Dependence	.20	.48**	–						
4. Anger-Aggression	-.28**	.71**	.18	–					
5. Anxiety-Withdrawal	-.22*	.06	.26*	.04	–				
6. Social Competence	.40**	-.40**	-.29**	-.43**	-.46**	–			
7. Peer Likability	.36**	-.23*	-.09	-.13	-.28*	.40*	–		
8. Gender	.28**	-.17	.08	-.20	.01	.13	-.05	–	
9. Age	.22*	-.04	-.08	.09	.07	.19	.20	.01	–

Note. Gender was encoded with 0 (boys) and 1 (girls).

* $p < .05$.

** $p < .01$.