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Direct and indirect pathways to kindergartners' school adjustment: roles of children's parent and friendship representations

İmray Nur^a and Yaşare Aktaş Arnas^b

^aDepartment of Child Development, Osmaniye Korkut Ata University, Osmaniye, Türkiye; ^bDepartment of Preschool Education, Hasan Kalyoncu University, Gaziantep, Türkiye

ABSTRACT

In this study, we investigated the direct and indirect associations between children's attachment representations of parents and their representations of friendships with their reported feelings about school (school liking and avoidance). A story completion task was administered to 91 preschool children to assess attachment security with their parents. Approximately three months later, the children completed a story completion task about friendships and provided information about their feelings toward school. Children's attachment representations with their parents were positively associated with school liking and negatively associated with school avoidance. Similarly, attachment security with parents was associated with children's positive friendship representations. The indirect effects of children's positive friendship representations on the associations between attachment security with parents and school liking and avoidance were significant. These results revealed the potential importance of children's representations of close relationships for the development and maintenance of their adjustment to school.

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Attachment-related representation; friendship; school adjustment; early childhood

Introduction

Contemporary attachment researchers emphasize that attachment to primary caregivers is one of the key developmental contexts that shape the adjustment of children (Garner et al., 2020; Page & Bretherton, 2001; Zhang et al., 2022). The mental representations that children form through attachment experiences with their parents lay the foundations for children's later social-emotional adjustment by giving meaning and guiding expectations in social interactions. Thus, the secure attachment formed by the warm, sensitive, and supportive care behaviors of the parents acts as a protective factor for the later relationships and adjustment of the children (Shields et al., 2001; Zhang et al., 2022). Besides, when children start school, their social sphere expands significantly, and the importance of their relationships with friends increases (Proulx & Poulin, 2013). The attachment perspective proposes that children transfer the mental representations they form in their relationships with their parents to their interactions with peers. Children who experience secure relationships with their parents appear to be more likely to recognize and respond to the feelings and needs of others. Therefore, it may be reasonable to assume that children's mental representations of their relationships with friends may be a pathway in the relationship between representations of attachment to their parents and school adjustment. However, despite the theoretical

importance of these relationships, direct and indirect associations between children's representations of their relationships with parents and friends, and school adjustment remain understudied.

Considering this gap, the present study was designed to examine whether or how mental representations in close relationships of Turkish kindergarten children are correlated with their feelings about school which is conceptualized school liking and avoidance. Two central questions were addressed: (a) Is there a direct association between children's representations of attachment to their parents and their feelings about school? (b) What is the role of children's representations of friendship in the association between parental attachment representations and their feelings about school? Our focus was on children's mental representations. Children's perceptions of close relationships have the potential to influence the quality and functioning of relationships, and identifying these perceptions may contribute to a deeper understanding of the factors that influence their adjustment to school. This study aims to fill this gap and provide answers for research questions.

Review of literature

Since academic learning is less emphasized in early childhood, school adjustment has been associated with children's feelings about school, interactions with peers and teachers, positive behaviors, cooperative participation, attention skills, capacity to follow instructions, and the absence of disruptive behaviors (Campbell & Stauffenberg, 2008; Garner et al., 2020). Current knowledge about children's feelings regarding school is limited because researchers have generally relied on adult reports of children's school adjustment. The focus of this study, emotional adjustment (school liking or avoidance), is related to attitudes and values (Fredricks et al., 2004). Whether children like or avoid school can be conceptualized as an emotional or psychological form of school engagement (Ladd & Dinella, 2009). Research has shown that positive school attitudes, characterized by behaviors reflecting an openness to school and a preference for approaching rather than rejecting or avoiding school, are associated with other components of school adjustment, such as classroom participation and academic success (Ladd et al., 2000; Ladd & Dinella, 2009). Additionally, there is strong evidence indicating that ideas, beliefs, and attitudes developed by children about school during early childhood persist throughout their academic lives (Ladd & Dinella, 2009; Pears et al., 2013; Smith, 2011). Children are more likely to benefit from these experiences when they enjoy school and willingly participate in activities. Conversely, negative attitudes toward school can hinder children's success and progress, potentially becoming increasingly difficult to reverse as they advance in their academic journey (Stipek, 2001). Despite this significance, existing studies have rarely captured children's own perspectives on their school experiences. Most research relies on adult proxies, overlooking children's subjective emotional engagement. By focusing directly on children's self-reported feelings of school liking and avoidance, our study offers a more developmentally grounded and child-centered understanding of school adjustment.

The attachment perspective has often been used as a basis to examine the links between the parent-child relationship and children's social and emotional adjustment (Page & Bretherton, 2001; Sturge-Apple et al., 2008). After children develop the capacity to regulate, interpret, and predict attachment-related behavior in the self and attachment figure, they integrate it into an internal working model that prepares it to manage new types of social interaction (Bretherton & Munholland, 1999). Bowlby (1969/2012) defined the internal working model as the mental representations that individuals develop about the world, including themselves and people who are important to them. Mental representations serve as filters through which incoming information (e.g. the behavior of others) is processed and support children's adjustment to the new environment by giving meaning and guiding expectations in social interactions. Therefore, in secure parent-child attachment relationships associated with warm and sensitive care, the mental representations that children have are a strong determinant of how they learn the skills that are important for their adjustment to a new environment (Groh et al., 2014; Zhang et al., 2022).

In the light of this information, it is important to examine the association between children's attachment representations with their parents and their feelings about school. This is the main research question of this study. To date, several studies have examined the links between children's attachment-related representations and different dimensions of school adjustment. For example, Sturge-Apple et al. (2008) found that children's representations of insecure attachment to their parents were related to active participation in the classroom based on teacher reports and to difficulties in emotional adjustment based on child reports. Children's lower secure attachment representations with their parents at 48–96 months of age were associated with social withdrawal and aggression, independent of age, verbal skills, and parents' education (Torres et al., 2012). Additionally, there are negative relationships between preschool children's disorganized attachment-related representations and their school readiness (Stacks & Oshio, 2009). However, there are studies in the literature showing that the positive social and antisocial themes in children's mental representations of attachment are not related to children's adjustment to school, according to adult observations (Garner et al., 2020). Current findings shows that attachment with parents can support many skills that may facilitate school adjustment but do not allow a clear inference about the association between attachment-related representations and children's emotions towards school. Based on the findings summarized above, we proposed our first hypothesis.

Hypothesis 1 (H1): Attachment-related representations with parents are positively associated with school liking and negatively associated with school avoidance.

Peers with whom children interact in preschool education institutions support the development of emotional regulation, behavioral control, academic success, and social competence (Gagnon & Nagle, 2004; Wang et al., 2016; Wentzel et al., 2021). However, it is important to note that participation in a peer group does not necessarily imply the presence of close friendships, and conversely, children may form close, emotionally significant friendships even in the absence of broader peer group involvement (Chen & French, 2008). While a substantial body of research has focused on group-level peer dynamics – such as peer acceptance, rejection, or popularity – these constructs do not fully capture the depth and unique relational qualities of friendship. Importantly, the present study focuses specifically on children's mental representations of close, dyadic friendships, which are conceptually and developmentally distinct from general peer affiliations. Friendships are characterized by mutual affection, voluntary engagement, emotional closeness, and reciprocity. They often provide the first context in which children experience intimacy, trust, and collaborative problem-solving within a relationship between equals (Bukowski et al., 1996; Gest et al., 2001; Ladd et al., 1996). These unique characteristics make friendships a particularly rich context for the development of social-emotional understanding and internal working models of relationships. By investigating children's internal representations of such friendships, this study offers a more refined and individualized view of the social world of young children. Moreover, exploring how these representations relate to school adjustment provides valuable insight into the mechanisms through which emotional closeness and perceived relational security with peers can influence children's broader academic and emotional development. In this context, the present study aims to contribute to the understanding of relational processes that influence school adjustment by examining children's representations of friendships within the framework of attachment theory.

Research in the early stages of development generally shows that having and maintaining a friend is critical to children's development and learning (Kamper & Ostrov, 2013; Proulx & Poulin, 2013). In addition, the quality of friendship, which is defined by positive (companionship, helping behavior, and sincerity) and negative (conflict and dominance in the relationship) features (Berndt, 1996), has also been associated with the adjustment of children. High-quality friendships are associated with more social skills, while low-quality friendships are associated with more externalized behaviors (Engle et al., 2011). Previous studies have also shown that children who perceive more positive

qualities in their classmates think more supportive of their classmates and have a positive attitude towards school (Ladd et al., 1996).

Based on this assumption, early studies on the direct association between early attachment and friendships suggest that parent–child attachment quality is a predictor of friendship quality (e.g. Freitag et al., 1996; Park & Waters, 1989; Youngblade & Belsky, 1992). In subsequent studies of parent–child attachment and children’s friendships, researchers reached different conclusions. For instance, McElwain et al. (2008) determined that there was no association between child–mother attachment security at 36 months and mother- and teacher-reported friendship quality at third grade. In another study, although both mother–infant and father–infant attachment security were not associated with friendship quality observed in a laboratory environment at the age of 4, it was determined that mother–infant attachment security was associated with friendship quality only when father–infant attachment security was high (McElwain & Volling, 2004). Furthermore, attachment security with parents does not correlate with boys’ friendships, but it does correlate with girls’ friendships (Agnor, 2009). Vu (2015), who examined the relationship between child–mother attachment dimensions – namely, security, deactivation (a pattern in which the child appears anxious, withdrawn, and passive, with narratives lacking emotional content and relational themes), hyperactivation (a pattern characterized by interest in the task but limited engagement due to anxiety, with narratives emphasizing negative aspects), and disorganization (a pattern marked by loss of control, helplessness, violence, and incoherent or chaotic storylines) – and children’s representations of friendship, reported that depictions of coordinated play in children’s friendship narratives were negatively associated with child–mother security and hyperactivation, and positively associated with child–mother deactivation. Additionally, child–mother disorganization was negatively related to control in children’s representations of friendship, but positively related to representations of sensitivity in friendship.

Research in the literature is significant as it sheds light on the similarities and differences between children’s attachment experiences with parents and their friendships. Attachment theory suggests that children develop internal working models based on their early experiences with caregivers, which in turn shape their expectations and behaviors in future relationships (Bowlby, 1969/2012; Bretherton & Munholland, 1999; Meece & Mize, 2009). Children with positive attachment experiences with their parents are more likely to develop positive friendship representations – that is, mental models characterized by trust, emotional closeness, and reciprocity. These positive representations can support emotional regulation, a sense of security, and social competence, which are key components of school adjustment. Conversely, negative attachment experiences may result in negative friendship representations, such as expectations of rejection, conflict, or emotional distance, which can hinder the development of supportive peer relationships and reduce school engagement. Thus, children’s friendship representations may serve as a developmental bridge, reflecting how early attachment experiences are extended and reinterpreted in peer contexts. This mediating process is particularly important during early childhood, when friendships become a central part of children’s social environment. We proposed Hypothesis 2 based on the findings of previous studies.

Hypothesis 2 (H2): Children’s attachment-related representations with parents are indirectly associated school liking and avoidance via their friendship representations (positive and negative friendship).

Taken together, the literature review showed that there may be a complex association between children’s close relationships and school adjustment. However, it is a critical issue how children make sense of the close social relationships mentioned above, which have the potential to affect their feelings about school. The aim of this study was to investigate whether the attachment-related representations with parents are associated with the mental representations they have in their relationships with friends, and, in turn, their adjustment to school, in order to confirm the two tentative hypotheses described above.

Method

Participants

Participants included 91 kindergarten children (46 boys; $M_{\text{months}} = 66.68$, $SD = 3.15$). Children were attending two public schools located in low and middle-income neighborhoods, in a southern city of Türkiye. Kindergartens were randomly selected and school administrators and teachers determined whether they could participate in the research. Parents of children from five classes in two schools were sent a consent form containing information about the study through teachers. Parents provided information about their ages, employment status, education, monthly income, and children's developmental and medical status. 36.3% of mothers and 45.1% of fathers had undergraduate or graduate education. Mothers were housewives (74.7%), government employees (16.5%), and workers (6.6%). The majority of the fathers were government employees (36.3%), workers (36.3%), or business owners (24.2%). Only a few were retired (2.2%).

The availability of classes in which the children participated in the study ranged from 22 to 34 ($M = 30$). Children attend school only half a day, either in the morning or in the afternoon. The gender and ethnic composition of the classes were similar and reflected the ethnic diversity of the region.

Procedures

The data were collected by the first researcher through individual interviews with each child. The interviews were conducted in a suitable room within the children's schools, designed to be quiet, free from disturbances, and devoid of materials that could distract the children. Before starting the interviews, the researcher spent at least 3 h in the children's classrooms to become familiar with them and build relationships. During this time, the researcher introduced herself, participated in the children's activities, and played games with them. Later, the children were invited to the interviews individually and informed about the research. They were also assured that their answers would remain confidential and that they could stop participating at any time. All the children agreed to participate and were informed that the interviews would be recorded, with the camera being introduced to them. Throughout the process, none of the children showed interest in the camera or objected to its presence.

Data were collected in three sessions, taking into account the children's age, attention span, and relationship development processes with friends. In the first sessions (beginning of the fall semester), all children were given the Test of Early Language Development (Hresko et al., 1999; adapted in Turkish by Güven & Topbaş, 2015) to ensure that children did not have expressive language problems that may have influenced their narrative performance (Oppenheim et al., 1997). About a week later, in the second session, a story completion test was presented to the children to assess the children's representations of their attachments to their parents. The third session (end of the fall semester) started with the determination of children's best friends by using the two-stage sociometric nomination procedure (cf., Coie et al., 1982; Schwartz et al., 2000). Initially, they were shown photos of their classmates and asked to choose the three friends with whom they played the most. Then, they were encouraged to reconsider these three choices and choose their best friend. Afterwards, the story completion test was presented to the children to assess their friendship representations. In the third session, the School Liking and Avoidance Questionnaire was also applied to assess children's feelings about school. Each session lasted 25–45 min.

Measures

We used two sets of story completion tasks to assess children's representations in their relationships with their parents and friends. Children's narratives video-recorded and coded by four Ph.D level coders. The coders were trained using eight videos from each story set that were not included in the

analyses. Twenty-five randomly selected videos from each story set were coded by two independent coders. Inter-coder reliability was assessed using Intraclass Correlation Coefficients (ICC).

Attachment-related representations

The Attachment Story Completion Task (ASCT) consists of a set of story roots whose themes are designed to activate the attachment representations and emotions of a child (Bretherton, 1990; Bretherton et al., 1990; adapted in Turkish by Uluç, 2005). There are six stories in the test, one of which is a warming-up story. The first three stories (spilled juice, hurt knee, and a monster in the bedroom) contain conflict and tension, while the fourth story comprises separation and the fifth story is reunion (parents' departure and reunion). The stories are presented with family figure dolls that are initially introduced as members of a family (mother, father, two children, and a grandmother) and a simple scene appropriate to the story roots. Children's narratives were audio recorded for later coding.

Children's narratives were coded using a translated version of the ASCT Q-Sort for Turkish children (Miljkovitch et al., 2004). The ASCT Q-Sort comprises 65 items, each of which is related to the responses of the children to story roots. Some of the items focus on the content of the story (e.g. 'The child portrays the parents as available'), and others focus on the formal features of the story (e.g. 'The child enacts emotions through the protagonists within the story rather than by throwing away or hitting figures'). Most of the items relate to the ASCT as a whole, but some items have been specifically identified for specific story roots. In the first step, the coders divided the cards into three piles: characteristic, neither characteristic nor uncharacteristic and uncharacteristic. In the second step, Q-sort items were divided into seven groups (from most characteristic to least characteristic). Thus, the cards were ranked from 1 to 7. In the subsequent step, the coders attempted to achieve a forced distribution (i.e. 5, 8, 12, 15, 12, 8, and 5 cards) by changing the positions of the cards (see Miljkovitch et al., 2004, for a detailed description of the rating system). Attachment security scores of children were calculated from forced distribution scores by comparing them with criteria scores provided by experts. The scores are continuous ratings ranging from +1.00 to -1.00. High attachment security scores represent children's narratives that are cooperative and open. In these narratives, children easily display their feelings and create stories with parental guidance and support. The ICC was determined as .82 for attachment security.

Friendship representations

The Preschool Friendship Story Completion Task (PFSCT) consists of stories designed to determine mental representations and perceptions about friendship in the preschool period (San Juan, 2006; adapted in Turkish by Nur & Aktaş-Arnas, 2022). During the application of the test, two friends and a peer figure, a wagon, two bicycles, small blocks, small toy zoo animals, and different colored fabrics (mats) were used to represent divergent environments. PFSCT consists of six stories, one of which is a warming-up story (birthday party); three stories involve examples of conflict between friends (gets to ride, animals or blocks, sandbox); one story about friend helping behavior (tower); and one story about separation from a friend (friend moving away).

PFSCT is coded into eight themes: positive (companionship, resolution of stem conflict, resolution of created conflict, helping behavior, and intimacy/affection) and negative (sustained conflict, created conflict, and relationship asymmetry) representations of friendship. Each story root is encoded by a system that contains four ratings. For instance, in the conflict dimension, '0 = not sustained conflict,' '1 = low degree of sustained conflict,' '2 = medium degree of sustained conflict,' and '3 = high degree of sustained conflict' (for a detailed rating guide, see San Juan, 2006; Authors, 2022). In this study, the mean scores of positive and negative friendship representations were used. The ICC ranged from .77 to .91 for eight themes.

School adjustment

The School Liking and Avoidance Questionnaire (SLAQ) was adapted from studies by Ladd and Price (1987) to determine the attitudes of children toward school (adapted in Turkish by Nur & Aktaş-Arnas, 2019). The SLAQ consists of 14 items and two sub-dimensions. Nine items regarding school liking subscales showed the positive perceptions and feelings of the children about school (Is school fun? Do you like being in school?), and the school avoidance subscales evaluated the desire of the children to avoid school (Do you wish you could stay home from school?). During individual interviews with the children, they were asked to rate items with a three-point scoring (yes, no, or sometimes). The total score was calculated by taking the average of the scores for each subscale. The Cronbach's α coefficients were .90 and .89 for the school liking and avoidance subscales, respectively.

Control variables

We also examined whether or not socio-demographic variables (i.e. child age, children's gender, mothers' and fathers' educational status, and family income) were associated with study variables. However, only the children's gender was associated with the study variables. The findings showed that girls reported more positive friendship narratives. Girls also reported more positive feelings towards school (Table 1). Given these results, gender was taken as a control variable in the analyses. To account for the potential confounding influence of gender and to ensure that the estimated paths reflected the unique contributions of the focal variables, child gender was statistically controlled in the structural models. This approach improves the accuracy of the estimated associations and enhances the internal validity of the findings by reducing the risk of biased parameter estimates (Cohen et al., 2003).

Data analyses

First, descriptive statistics and correlations among the variables were determined using SPSS software version 27.0. In order to test research hypotheses, a series of path analyses were conducted. Proposed models are tested with Mplus 8.7 (Muthén & Muthén, 2022). We first tested the direct effects of attachment-related representations on school liking and school avoidance. The last model involved the mediating role of children's friendship representations in the associations between attachment-related representations and school liking as well as school avoidance. All two models involved children's gender as a controlling variable. Due to the fact that not all endogenous variables follow a normal distribution, a maximum likelihood robust (MLR) estimator was employed. The MLR estimator is a robust estimator to non-normality in path analysis (Curran et al., 1996; Finney & DiStefano, 2013). In addition to estimates of direct and indirect associations, 95% confidence intervals for those estimates are also reported.

Table 1. Means, standard deviations, and correlation matrices for study variables.

	1	2	3	4	5	6
1. Gender	–					
2. Attachment security Friendship representations	.19	–				
3. Positive friendship	.27**	.49**	–			
4. Negative friendship	.14	.18	.02	–		
School adjustment						
5. School liking	.22*	.58**	.51**	.07	–	
6. School avoidance	–.12	–.62**	–.58**	–.01	.80**	
7. Verbal language	.03	.03	.01	.03	.05	–.03
<i>M</i>		.48	3.93	.95	23.74	6.15
<i>SD</i>		.54	1.19	1.05	4.31	2.21

Note: Gender was dummy variable (0 = boy; 1 = girl).

* $p < .05$; ** $p < .01$.

Results

Descriptive statistics and correlation analysis

The results of the mean and standard deviation descriptive statistics for each study variable are shown in Table 1. As expected, attachment security with parents, and positive representations of friendship were correlated with school liking and avoidance. Finally, there was no significant association between children's verbal language scores and the other variables used in the study ($r = -.14$ to 0.05 , $p > .05$). Therefore, in the subsequent analyses, verbal language scores were not included.

Effects of attachment security on school liking and avoidance

We tested the association attachment security with parents on school liking and avoidance. All coefficients and confidence intervals are reported in Table 2. The results for the model supported the first hypothesis after controlling for child gender. Attachment security had a statistically significant positive association with school liking and a negative association with school avoidance. One standard deviation (*SD*) increase in attachment security corresponded to a $.564$ *SD* increase in school liking ($p < .001$; 95% CI [0.382, 0.746]) and a $.618$ *SD* decrease in school avoidance ($p < .001$; 95% CI [-0.778, -0.457]).

Effects of attachment security on school liking and avoidance through friendship representations

We created a second indirect model including attachment security with parents, school liking and avoidance, and friendship representations of children to test this indirect association with child gender as control variables (see Figure 1). All coefficients and confidence intervals are reported in Table 3. After controlling for children's gender, attachment security with parents was positively related to positive friendship presentations ($p < .001$; 95% CI [0.300, 0.615]) and negative friendship presentations of children ($p = .032$; 95% CI [0.014, 0.308]). The model also demonstrated a statistically significant direct pathway between positive friendship presentations of children and school adjustment, such that each 1 *SD* increase positive friendship presentations of children was associated with higher school liking ($p < .001$; 95% CI [0.131, 0.423]) and lower school avoidance ($p < .001$; 95% CI [-0.533, -0.214]). However, negative friendship presentations of children were not directly related to school liking and avoidance.

Addressing the second hypothesis about mediating paths, the hypothesized total indirect effects between attachment security with parents and school liking ($p = .006$; 95% CI [0.036, 0.209]) and avoidance ($p < .001$; 95% CI [-0.249, -0.071]) through positive and negative friendship representations were significant. In addition, specific indirect effects between attachment security and school liking and avoidance through positive friendship presentations of children were significant. However, specific indirect effects between attachment security and school liking ($p = .722$; 95% CI

Table 2. Effect of attachment security on school liking and avoidance.

Pathways	Estimate	SE	<i>p</i>	95% CI	
				Lower	Upper
Gender→ Attachment security	.381	.202	.059	-0.015	0.778
Gender→School liking	.225	.173	.195	-0.115	0.564
Gender→School avoidance	-.023	.167	.891	-0.351	0.305
Attachment security→School liking	.564	.093	<.001	0.382	0.746
Attachment security→School avoidance	-.618	.082	<.001	-0.778	-0.457
School liking↔School avoidance	-.700	.051	<.001	-0.800	-0.599

Note: SE: Bootstrap standard errors; CI: confidence interval.

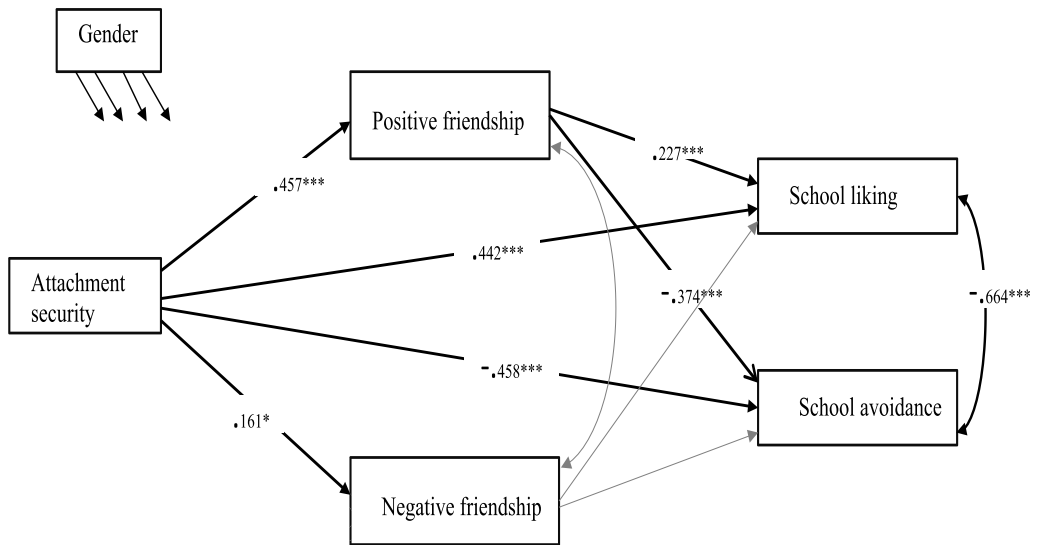


Figure 1. Full model of associations among attachment-related representations, friendship representations, school liking and avoidance with standardized parameter estimates.

Note: * $p < .05$, *** $p < .001$. Only significant parameter estimates are reported with bolded paths.

[−0.157, 0.109]) and avoidance ($p = .409$; 95% CI [−0.093, 0.229]) through negative friendship presentations of children were each not significant. The second hypothesis, therefore, was only supported for indirect effects between attachment security and school liking and avoidance through positive friendship presentations.

Table 3. Effect of attachment security on school liking and avoidance through friendship representations of children.

Pathways	Estimate	SE	p	95% CI	
				Lower	Upper
Gender→ Attachment security	.381	.202	.059	−0.015	0.778
Attachment security→School liking	.442	.105	<.001	0.237	0.647
Positive friendship→School liking	.277	.074	<.001	0.131	0.423
Negative friendship→School liking	−.024	.068	.722	−0.157	0.109
Gender→School liking	.129	.168	.443	−0.200	0.458
Attachment security→School avoidance	−.458	.092	<.001	−0.638	−0.277
Positive friendship→School avoidance	−.374	.081	<.001	−0.533	−0.214
Negative friendship→School avoidance	.068	.082	.409	−0.093	0.229
Gender→School avoidance	.098	.146	.500	−0.187	0.384
Attachment security→Positive friendship	.457	.080	<.001	0.300	0.615
Gender→ Positive friendship	.365	.190	.055	−0.008	0.738
Attachment security→ Negative friendship	.161	.075	.032	0.014	0.308
Gender→ Negative friendship	.222	.210	.292	−0.191	0.634
Positive friendship ↔Negative friendship	−.102	.109	.349	−0.317	0.112
School liking ↔School avoidance	−.664	.056	<.001	−0.773	−0.555
Total indirect effects for school liking	.123	.044	.006	0.036	0.209
Specific indirect effects for school liking					
Attachment sec.→ Positive friendship→School liking	.127	.042	.003	0.044	0.209
Attachment sec.→ Negative friendship→School liking	−.004	.011	.716	−0.025	0.017
Total indirect effects for school avoidance	−.160	.045	<.001	−0.249	−0.071
Specific indirect effects for school avoidance					
Attachment sec.→ Positive friendship→School avoidance	−.171	.043	<.001	−0.255	−0.086
Attachment sec.→ Negative friendship→School avoidance	.011	.013	.413	−0.015	0.037

Note: SE: Bootstrap Standard errors; CI: confidence interval.

Discussion

This study was based on the assumption that there is an association between children's representations of close relationships and their feelings about school. Consistent with our hypothesis after controlling for gender, attachment security with parents was a positive predictor of school liking and a negative predictor of school avoidance. This finding parallel with previous studies reporting that positive social-emotional skills and positive expectations regarding social relationships developed through secure parent-child relationships will protect children from negative outcomes (Garner et al., 2020; Sturge-Apple et al., 2008; Zhang et al., 2022). Within the proximal processes of the ecological system, various factors related to parent-child attachment and children's adjustment function together. For example, research shows that children who receive sensitive care have improved self-regulation skills (Birmingham et al., 2017). It has been determined that children with insensitive parents display problematic behaviors in environments where appropriate behavior is expected, especially when they are in a setting different from their home (Volling et al., 2006). Mental representations of children's relationships with their parents are also associated with social skills, which are critical for school adjustment, as well as behavioral problems. Studies have shown that children with positive parent-child relationship representations are described by their parents and teachers as having higher levels of social competence (Oppenheim et al., 1997; Turner, 1991). In another study by Laible et al. (2004), negative representations in children's relationships with their parents were found to be associated with externalizing behaviors according to teacher reports. Parents' warm and sensitive behaviors provide children with secure care while also serving as a model that guides their interactions with peers and other adults. From this perspective, secure parent-child relationships can encourage positive behaviors that help children overcome many challenges they encounter at school and cope with stress. When children can easily handle difficulties at school, they enjoy being at school and participating in activities more. Therefore, the current study supports the assumption that attachment security with parents is associated with children's feelings about school, similar to previous studies based on adult perceptions.

Consistent with our predictions, the indirect pathway linking attachment security with parents to school liking and avoidance through children's friendship representations was partially supported. Our measure of children's friendship representations includes both positive and negative aspects. Our model shows that attachment security is related to children's feelings about school through positive friendship representations, but this association is not supported for negative friendship representations of children in the current sample. Children with relatively higher attachment security scores expressed more helping behavior, sincerity and love amongst friends in their stories, and created scenarios that offered more constructive solutions to conflicts. Secure attachments with parents develop more positive social expectations and a sense of self-worth and self-efficacy for social competence, which is important in peer relationships (Elicker et al., 1992). Children who perceive closer, supportive relationships with their friends may feel more positive about school because they spend time with children whose friendships they enjoy (Ladd, 2005).

Additionally, we did not observe the correlation between children's negative friendship representations and their feelings about school in the sample. This finding contradicts previous studies that emphasize that fewer positive qualities and increased conflicts in friendships based on adult reports are associated with more loneliness, school avoidance (Ladd et al., 1996), aggression, and peer rejection (Engle et al., 2011). Conflicts often occur within close relationship between individuals who are socially connected and interact over long periods of time. Newcomb and Bagwell (1995) highlights that children's interactions with friends are different from interactions with peers who are not friends. Although children express that they are disturbed by conflicts with their friends, conflicts are more likely to be resolved through negotiation. In a study involving 26 Turkish preschool children, the majority of children stated they had problems with their best friends (Atış-Akyol & Güney-Karaman, 2020). These problems between friends can be effective in strengthening the relationship by improving children's ability to see from others' perspectives. Additionally, unlike

adults' perceptions, conflicts between friends may represent an active effort to maintain friendship. Future research examining conflicts in children's friendships in depth may provide a better understanding the role of friendship in early school adjustment.

Limitations and future directions

The current study makes an important contribution to children's mental representations of parents and friends and school adjustment literature yet some of its limitations should be noted. First, this study is a cross-sectional study, and while interpreting the results of any cross-sectional data, it is important to note that a causal association has not been confirmed. In previous longitudinal studies, it has been observed that as children grow older, the quality of friendships changes (Dunn, 2004). Classes are highly complex contexts with certain institutionalized norms of interaction. Sometimes, children can form their norms independently of adults in peer relationships. To be accepted and approved in the group, children can adjust their behavior according to social standards and expectations in the group. When their behavior does not align with group expectations, children are very likely to receive negative feedback from their peers, which puts pressure on them to change their behavior (Chen & Liu, 2016). In this case, the positive and negative effects of the friends may be stronger. Bowlby (1969/2012) emphasized that the internal working models of children are dynamic and can change later when a change in relationships with teachers or friends is necessary. In future studies, a more causal and stable relationship between children's attachment-related representations and friendship representations, and school adjustment should be investigated through longitudinal and experimental studies. Additionally, path analysis, utilized to assess both direct and indirect relationships, is a significant statistical technique enabling the modeling of multivariate dependencies among variables based on a priori causal hypotheses (Grace, 2006). However, in this study, the complexity of the models created was limited by the sample size. In future studies, divergent models can be created among the variables that affect the school adjustment of children with a larger sample.

The story completion method is a very powerful tool to evaluate the mental representations of children. However, other clues in the stories of children that represent these relationships might be available. Therefore, future studies may consider evaluating different clues. Our study also expanded the findings in the literature in terms of evaluating the mental representations of children; however, considering the perceptions of stakeholders due to the mutual nature of close relationships and evaluating these perceptions together can help us have a deeper and wider understanding. Finally, children's representations of close relationships are greatly influenced by culture. Therefore, researchers should continue to expand their efforts to identify close relationships across cultures, their relationships with each other, and their connection to school adjustment.

Conclusion

This study is the first to examine direct and indirect connections between children's mental representations of parents and friends and their feelings about school. It has been determined that children's attachment experiences with their parents, then their relationships with their friends, play an important role in their adjustment to school. However, the lack of research on children's perceptions of their close relationships in the early stages and the impact of these perceptions on children's school-related emotions reveals a gap of this phenomenon. The findings of this study not only highlight the critical role that children's attachment-related representations play in supporting school adjustment but should also stimulate research that considers how relationships with friends may support at-risk children in adjusting to school. This study identifies children's representations of friends as a potential mechanism that supports positive emotions about school and contributes to the literature based on children's mental representations.

Disclosure statement

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