




# Social Skills as a Mediator Between Secure Attachment and Peer Relationships

Yinghao. Pan<sup>1</sup>, Wei. Zhang<sup>2\*</sup>, Amirul Iskandar<sup>3</sup>

<sup>1</sup> VNU University of Education, 144 Xuan Thuy, Cau Giay, Hanoi, Vietnam

<sup>2</sup> Department of Psychology, Peking University, Beijing, China

<sup>3</sup> Department of Educational and Counselling Psychology, University of Dhaka, Dhaka-1000, Bangladesh

\* Corresponding author email address: weizhang99@pku.edu.cn

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## ABSTRACT

**Objective:** This study aimed to examine the mediating role of social skills in the relationship between secure attachment and peer relationships among Chinese adolescents.

**Methods and Materials:** A descriptive correlational design was used with a sample of 419 high school students aged 14 to 18 from urban regions in China, selected based on Morgan and Krejcie's sampling table. Participants completed three standardized instruments: the Inventory of Parent and Peer Attachment (IPPA), the Social Skills Rating System (SSRS), and the Peer Relations Questionnaire (PRQ). Data were analyzed using Pearson correlation in SPSS-27 to explore bivariate relationships among the variables, and Structural Equation Modeling (SEM) in AMOS-21 to assess the mediating role of social skills. Model fit was evaluated using multiple indices including  $\chi^2/df$ , CFI, GFI, AGFI, RMSEA, and TLI.

**Findings:** The results indicated significant positive correlations between secure attachment and social skills ( $r = .61, p < .001$ ), secure attachment and peer relationships ( $r = .54, p < .001$ ), and social skills and peer relationships ( $r = .66, p < .001$ ). SEM results showed a good model fit ( $\chi^2 = 112.78, df = 48, \chi^2/df = 2.35, CFI = 0.97, RMSEA = 0.057$ ). Social skills significantly mediated the relationship between secure attachment and peer relationships, with a direct effect ( $\beta = 0.31, p < .001$ ), an indirect effect through social skills ( $\beta = 0.40, p < .001$ ), and a total effect ( $\beta = 0.71, p < .001$ ).

**Conclusion:** Secure attachment plays a critical role in shaping peer relationships during adolescence, and this relationship is partially mediated by social skills. Enhancing social competencies in adolescents may help translate early emotional security into stronger and more positive peer connections.

**Keywords:** Secure Attachment, Social Skills, Peer Relationships, Adolescents.

## 1. Introduction

Adolescence marks a pivotal stage in human development, during which social relationships play a fundamental role in emotional well-being and identity formation. Among the most significant developmental tasks during this period is establishing meaningful peer connections, which serve as a cornerstone for psychosocial adjustment and long-term mental health outcomes. Peer relationships in adolescence not only contribute to a sense of belonging but also influence emotional regulation, academic achievement, and behavioral adjustment (Egan et al., 2021). However, the formation and maintenance of positive peer relationships depend on several intrapersonal and interpersonal factors, including attachment security and social skills. A growing body of research suggests that secure attachment to caregivers fosters prosocial behavior and emotional competence, thereby promoting the development of stable and reciprocal peer relationships (Varley et al., 2024a).

Attachment theory, initially conceptualized by Bowlby, has provided a robust framework for understanding the ways in which early interactions with caregivers influence relational patterns across the lifespan. Secure attachment is characterized by a consistent, responsive, and emotionally available caregiving environment, which cultivates a positive internal working model of the self and others. Adolescents with secure attachments tend to perceive themselves as worthy of love and support and are more likely to engage in emotionally intelligent and trusting interactions with peers (Varley et al., 2024b). On the other hand, insecure attachment, marked by fear of abandonment or discomfort with intimacy, has been linked to peer rejection, relational aggression, and social withdrawal. Importantly, the quality of attachment does not merely affect dyadic parent-child relations but extends to the broader social domain, particularly during adolescence when peer interactions become increasingly central (Lou et al., 2024).

In this context, social skills have emerged as a critical mediating mechanism that bridges the association between early attachment experiences and peer outcomes. Social skills refer to a set of learned behaviors that enable individuals to interact effectively and harmoniously with others, including the ability to initiate conversations, interpret social cues, express empathy, and resolve conflicts. The development of these competencies is largely shaped by the emotional and cognitive templates established through early attachment relationships (Liu et al., 2024). Adolescents

with secure attachments are more likely to exhibit higher levels of emotional awareness, perspective-taking, and behavioral regulation, all of which facilitate effective social functioning (Grégoire et al., 2024). This suggests that social skills may serve as a pathway through which attachment security translates into the ability to form and sustain healthy peer relationships.

Empirical studies across various populations support this mediating role. For example, recent findings indicate that adolescents who receive training in emotional and relational competencies report improvements in peer connectedness and reductions in interpersonal conflict (Gracias & Stutts, 2024). Moreover, interventions designed to enhance self-regulatory capacities and compassionate communication have shown promising results in strengthening interpersonal bonds, particularly among youth from diverse sociocultural backgrounds (Burnette & Davis, 2024). These findings underscore the modifiability of social skills and their potential to counteract the negative effects of insecure attachment histories.

While the direct effects of secure attachment and social skills on peer relationships are well-documented, less is known about the interactive and mediational processes underlying these associations. The concept of mediation offers a nuanced understanding of how early experiences shape later outcomes, emphasizing the role of intervening psychological constructs. In the current study, we posit that social skills mediate the relationship between secure attachment and peer relationships among adolescents. This model aligns with contemporary frameworks that conceptualize adolescent development as a dynamic interplay between internal capacities and external relational demands (Alcaraz-Córdoba et al., 2024).

Moreover, the potential benefits of fostering secure attachment and enhancing social skills are not confined to the social realm. They also extend to psychological well-being and resilience. For instance, adolescents who exhibit high levels of self-compassion and interpersonal competence tend to show lower rates of depression and anxiety, along with higher levels of life satisfaction and emotional stability (Sheng et al., 2023). Given the rising concerns about adolescent mental health globally, understanding and supporting these relational processes is of paramount importance (Sandham & Deacon, 2023). Notably, a focus on social-emotional learning in educational contexts has been linked to improvements not only in peer relations but also in academic performance and classroom climate (Póka et al., 2023).

In recent years, there has been increased attention to the interplay between affective neuroscience and attachment processes. Studies have revealed that secure attachment is associated with greater activation of brain regions involved in empathy, reward processing, and social cognition, providing a neurobiological basis for the observed behavioral outcomes (Solms et al., 2024). These neurodevelopmental insights reinforce the significance of early relational environments and support interventions that target both emotional and social competencies in adolescence.

Despite these advances, much of the research to date has focused on Western populations, with limited generalizability to non-Western contexts. This is particularly important given the cultural variations in attachment patterns, parenting practices, and peer interaction styles. In collectivist cultures such as China, where interpersonal harmony and group belonging are emphasized, the mechanisms linking attachment, social skills, and peer relationships may manifest differently compared to individualistic societies (Liu et al., 2023). For instance, modesty and indirect communication—values deeply ingrained in Chinese cultural norms—may shape the expression and interpretation of social behaviors among adolescents (Kashmari et al., 2023).

To address these cultural considerations, the current study focuses on a large sample of Chinese adolescents, examining the mediating role of social skills in the relationship between secure attachment and peer relationships. This culturally grounded approach acknowledges the contextual factors that influence relational development and aims to contribute to a more inclusive understanding of adolescent psychosocial functioning (Kaelberer & Tanenbaum, 2023).

Additionally, the conceptual model underlying this study is informed by recent findings on the protective role of compassion and self-compassion in adolescent adjustment. Adolescents who demonstrate high levels of self-compassion—a construct closely related to emotional regulation and interpersonal sensitivity—are more likely to experience positive peer interactions and lower levels of social anxiety (Huang et al., 2023). This body of work suggests that fostering compassionate relational styles may serve as an adjunct strategy to enhance social skills and peer rapport, especially among adolescents with less secure attachment profiles (Han & Kim, 2023). Interventions that promote self-compassion have been found to improve emotion regulation and reduce interpersonal sensitivity,

thereby strengthening both intra- and inter-personal well-being (Mahmoud et al., 2022).

Moreover, self-compassion interventions have shown efficacy in reducing maladaptive behaviors and enhancing relational empathy, which are central to successful peer engagement (Fan et al., 2022). Adolescents with higher self-compassion report more secure peer bonds, greater assertiveness, and reduced fear of rejection, highlighting the reciprocal relationship between intrapersonal security and interpersonal outcomes (Andersson et al., 2022). In line with these findings, recent work has emphasized the importance of integrating emotional literacy and self-reflective practices into adolescent education to promote both self-awareness and social harmony (Wakelin et al., 2021).

Taken together, these theoretical and empirical insights highlight a need for comprehensive research models that account for the complexity of adolescent peer relationships. Rather than treating attachment and social skills as isolated predictors, it is critical to examine how these variables interact dynamically to shape the adolescent social experience. Accordingly, the present study investigates whether social skills mediate the relationship between secure attachment and peer relationships among Chinese adolescents.

## 2. Methods and Materials

### 2.1. Study Design and Participants

This study employed a descriptive correlational design to investigate the mediating role of social skills in the relationship between secure attachment and peer relationships among adolescents. The sample consisted of 419 participants, selected based on the sample size guidelines provided by Morgan and Krejcie's (1970) table for a target population exceeding 10,000. Participants were high school students aged between 14 and 18 years from various urban regions in China. A multistage cluster sampling method was used to ensure diversity across demographic variables such as gender, age, and school type. All participants completed standardized questionnaires assessing secure attachment, social skills, and peer relationships, and their responses were collected anonymously to ensure confidentiality and ethical compliance.

## 2.2. Measures

### 2.2.1. Peer Relationships

To assess the dependent variable of peer relationships, the Peer Relations Questionnaire (PRQ) developed by Rigby and Slee (1993) was employed. This instrument is widely used in research on social interactions among adolescents and evaluates the quality and nature of peer relations through 20 items rated on a 4-point Likert scale ranging from 1 (never) to 4 (very often). The PRQ includes subscales for prosocial behavior, peer acceptance, peer conflict, and relational aggression. Higher scores on the prosocial and acceptance subscales indicate more positive peer relationships, while higher scores on conflict and aggression reflect challenges in peer dynamics. Numerous studies have confirmed the questionnaire's strong internal consistency, test-retest reliability, and construct validity, establishing its appropriateness for research involving adolescent social functioning (Karna & Stefaniuk, 2024; Magis-Weinberg et al., 2025; Öztop et al., 2024).

### 2.2.2. Secure Attachment

The independent variable of secure attachment was measured using the Inventory of Parent and Peer Attachment (IPPA) developed by Armsden and Greenberg (1987). This self-report tool assesses adolescents' perceived attachment security to parents and peers across 25 items for each attachment figure. It is structured into three subscales: trust (e.g., mutual understanding and respect), communication (e.g., quality and frequency of open dialogue), and alienation (e.g., emotional distance or anger). Each item is rated on a 5-point Likert scale from 1 (almost never or never true) to 5 (almost always or always true). Higher total scores reflect more secure attachment. The IPPA has demonstrated high reliability coefficients ( $\alpha > .80$ ) and strong convergent validity in various adolescent samples, confirming its utility for examining attachment dynamics in developmental studies (Mittal & Rani, 2022; Wijaya & Widyaningsih, 2021).

### 2.2.3. Social Skills

To evaluate the mediating variable of social skills, the Social Skills Rating System (SSRS) developed by Gresham and Elliott (1990) was utilized. The SSRS includes separate forms for teachers, parents, and students, with the student

version used in this study. This version comprises 39 items grouped into three primary subscales: cooperation (e.g., helping others, sharing), assertion (e.g., initiating behaviors, expressing feelings), and self-control (e.g., responding appropriately to conflict). Respondents rate how often each behavior occurs using a 3-point Likert scale (0 = never, 1 = sometimes, 2 = very often). Higher scores indicate stronger social competencies. The SSRS has been validated extensively in school-age populations and has demonstrated robust psychometric properties, including high internal consistency, inter-rater reliability, and predictive validity across cultural contexts (Jaume-Guazzini et al., 2025; Muñoz-Pradas et al., 2025).

## 2.3. Data Analysis

Data analysis was conducted in two stages. First, Pearson correlation coefficients were calculated using SPSS-27 to examine the bivariate relationships between the dependent variable (peer relationships) and each independent variable (secure attachment and social skills). This preliminary analysis was essential to assess the strength and direction of associations among the study variables. In the second stage, Structural Equation Modeling (SEM) was performed using AMOS-21 to test the hypothesized mediating model. The SEM analysis allowed for simultaneous examination of direct and indirect effects, providing a comprehensive understanding of the mediating role of social skills in the link between secure attachment and peer relationships. Model fit was evaluated using standard indices such as the Chi-square statistic, RMSEA, CFI, and TLI.

## 3. Findings and Results

The final sample consisted of 419 adolescents from China, including 217 females (51.8%) and 202 males (48.2%), with ages ranging from 14 to 18 years ( $M = 16.22$ ,  $SD = 1.11$ ). Regarding grade level, 96 participants (22.9%) were in Grade 9, 103 participants (24.6%) in Grade 10, 112 participants (26.7%) in Grade 11, and 108 participants (25.8%) in Grade 12. In terms of socioeconomic background, 178 students (42.5%) reported low-income family status, 169 students (40.3%) were from middle-income households, and 72 students (17.2%) identified with high-income families. The sample was drawn from both public and private schools, with 286 students (68.3%) enrolled in public schools and 133 students (31.7%) attending private institutions.

**Table 1**

*Descriptive Statistics for Research Variables (N = 419)*

Variable	Mean (M)	Standard Deviation (SD)
Secure Attachment	89.67	10.43
Social Skills	72.85	8.92
Peer Relationships	75.13	9.16

The descriptive results in Table 1 indicate that participants reported relatively high levels of secure attachment ( $M = 89.67$ ,  $SD = 10.43$ ), social skills ( $M = 72.85$ ,  $SD = 8.92$ ), and peer relationships ( $M = 75.13$ ,  $SD = 9.16$ ). These means suggest generally positive emotional and social development among the adolescent sample.

Prior to conducting Pearson correlation and Structural Equation Modeling, the assumptions of normality, linearity, multicollinearity, and homoscedasticity were examined and confirmed. Skewness values ranged from -0.61 to 0.34 and kurtosis values ranged from -0.73 to 0.52, indicating

acceptable levels of normality. Scatterplots and residual plots supported the assumption of linearity and homoscedasticity. The Variance Inflation Factor (VIF) values for all predictors were below 1.87, and Tolerance values exceeded 0.53, indicating no issues with multicollinearity. Additionally, Mahalanobis distance values were within acceptable range (maximum value = 12.13, below the critical value for  $p < .001$  with 3 degrees of freedom = 16.27), confirming the absence of multivariate outliers.

**Table 2**

*Pearson Correlations Between Variables*

Variables	1.	2.	3.
1. Secure Attachment	—		
2. Social Skills	.61** ( $p < .001$ )	—	
3. Peer Relationships	.54** ( $p < .001$ )	.66** ( $p < .001$ )	—

As shown in Table 2, secure attachment was significantly and positively correlated with social skills ( $r = .61$ ,  $p < .001$ ) and peer relationships ( $r = .54$ ,  $p < .001$ ). Moreover, social skills were strongly correlated with peer relationships ( $r =$

.66,  $p < .001$ ). These significant correlations support the proposed mediation model and justified the use of SEM for further analysis.

**Table 3**

*Fit Indices for the Structural Equation Model*

Fit Index	Value
$\chi^2$ (Chi-Square)	112.78
df (Degrees of Freedom)	48
$\chi^2/df$	2.35
GFI	0.96
AGFI	0.93
CFI	0.97
RMSEA	0.057
TLI	0.95

The model fit indices presented in Table 3 indicate a good fit between the hypothesized model and the observed data. The Chi-square value was 112.78 with 48 degrees of freedom, resulting in a  $\chi^2/df$  ratio of 2.35, which is within the acceptable threshold. The Goodness of Fit Index (GFI =

0.96), Adjusted GFI (AGFI = 0.93), Comparative Fit Index (CFI = 0.97), and Tucker-Lewis Index (TLI = 0.95) all exceeded the commonly accepted cut-off value of 0.90. Additionally, the Root Mean Square Error of Approximation



(RMSEA = 0.057) was below the recommended maximum of 0.08, confirming the adequacy of the model.

**Table 4**

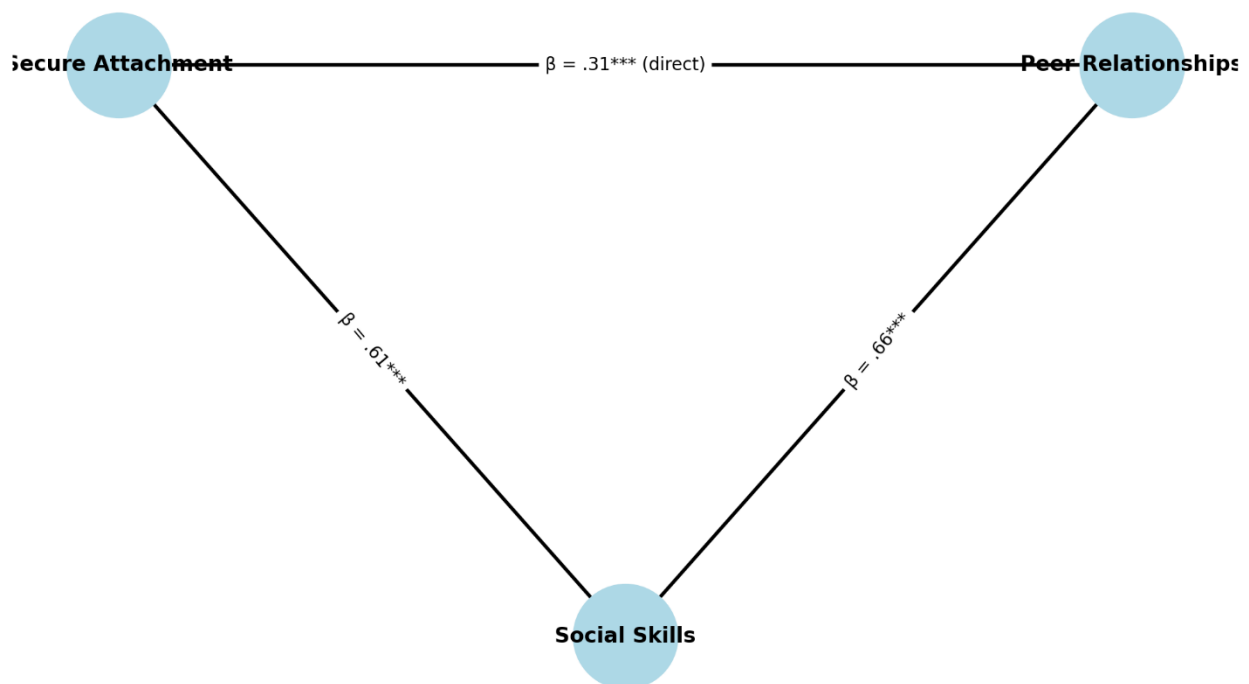
*Total, Direct, and Indirect Path Coefficients in the Structural Model*

Path	B	S.E	Beta	p
Secure Attachment → Social Skills	0.47	0.06	0.61	< .001
Social Skills → Peer Relationships	0.52	0.05	0.66	< .001
Secure Attachment → Peer Relationships (Direct)	0.29	0.07	0.31	< .001
Secure Attachment → Peer Relationships (Indirect via Social Skills)	0.24	0.04	0.40	< .001
Secure Attachment → Peer Relationships (Total Effect)	0.53	—	0.71	< .001

The structural model results in Table 4 indicate that secure attachment significantly predicted social skills ( $B = 0.47$ ,  $\beta = 0.61$ ,  $p < .001$ ), and social skills, in turn, significantly predicted peer relationships ( $B = 0.52$ ,  $\beta = 0.66$ ,  $p < .001$ ). The direct path from secure attachment to peer relationships remained significant ( $B = 0.29$ ,  $\beta = 0.31$ ,  $p < .001$ ), while the indirect effect through social skills was also significant ( $B = 0.24$ ,  $\beta = 0.40$ ,  $p < .001$ ). The total effect of secure attachment on peer relationships was substantial ( $B = 0.53$ ,  $\beta = 0.71$ ,  $p < .001$ ), confirming the mediating role of social skills in the proposed model.

**Figure 1**

*Final Model with Path Coefficients*



#### 4. Discussion and Conclusion

The present study aimed to explore the mediating role of social skills in the relationship between secure attachment and peer relationships among Chinese adolescents. The findings revealed a significant positive correlation between secure attachment and peer relationships, as well as between

secure attachment and social skills, and between social skills and peer relationships. Structural Equation Modeling (SEM) further demonstrated that social skills partially mediated the association between secure attachment and peer relationships, suggesting that adolescents with stronger attachment bonds are more likely to develop effective social competencies, which in turn enhance their peer interactions.

These findings underscore the importance of viewing adolescent social development as a dynamic interplay between internal emotional frameworks and externally observable social behaviors.

The significant positive relationship between secure attachment and peer relationships aligns with a substantial body of developmental literature indicating that adolescents who perceive their primary caregivers as reliable and emotionally available tend to form stronger and more fulfilling peer bonds (Varley et al., 2024b). Secure attachment promotes emotional regulation, trust, and open communication—all of which are critical to navigating the complexities of adolescent friendships (Lou et al., 2024). Moreover, secure attachment provides a foundational sense of self-worth and safety that encourages individuals to engage in reciprocal and empathetic relationships. The findings of the present study confirm this pattern within a Chinese context, supporting cross-cultural generalizability of attachment theory's core propositions (Liu et al., 2023).

In addition to this direct association, the mediating role of social skills offers further insight into how secure attachment exerts its influence on peer functioning. Adolescents who are securely attached are more likely to acquire key interpersonal competencies such as assertiveness, cooperation, and conflict resolution (Liu et al., 2024). These social behaviors not only facilitate smoother peer interactions but also serve as protective factors against social rejection and isolation. The present findings align with previous work demonstrating that social skills training interventions lead to marked improvements in adolescent peer relationships and reductions in conflictual behavior (Gracias & Stutts, 2024). This suggests that social skills are not merely outcomes of secure attachment but also instrumental tools that translate internal emotional security into successful social engagement.

Furthermore, the results of this study echo existing evidence showing that adolescents with higher emotional and relational competencies tend to experience more satisfying peer interactions. Research indicates that social skills serve as bridges between self-perception and relational outcomes, thereby playing a crucial role in shaping how individuals are perceived and treated by others (Grégoire et al., 2024). For example, adolescents with strong communication and emotional regulation abilities are better equipped to establish mutual understanding and resolve conflicts constructively, enhancing their chances of being accepted and valued by peers (Han & Kim, 2023). These findings are consistent with the present study's observation

that social skills are significantly associated with peer relationship quality.

The mediating role of social skills also finds support in compassion-based intervention literature. Programs that foster emotional awareness, empathy, and self-compassion have been shown to indirectly enhance peer relationships through improvements in social behavior (Burnette & Davis, 2024). For instance, adolescents who develop self-compassion through structured training report increased relational sensitivity and reduced interpersonal anxiety—both of which are conducive to building stronger peer bonds (Fan et al., 2022). The present findings, therefore, not only validate the importance of attachment and social skills but also highlight potential mechanisms through which emotional development may enhance interpersonal outcomes during adolescence.

Another important implication of the current study is its confirmation of previous research suggesting that secure attachment contributes to the development of prosocial and affiliative behaviors (Kaelberer & Tanenbaum, 2023). When adolescents feel emotionally safe and valued in their early relationships, they are more likely to adopt relational scripts characterized by empathy, cooperation, and mutual respect. This pattern of behavior is not only valued in most peer groups but also contributes to a more inclusive and supportive social environment. Indeed, secure attachment has been linked to a wide range of positive developmental outcomes, including lower levels of internalizing and externalizing symptoms, better academic adjustment, and greater emotional resilience (Egan et al., 2021).

Interestingly, the study's findings also resonate with neuroscientific evidence showing that secure attachment correlates with enhanced functioning in brain regions associated with social cognition and affective processing (Solms et al., 2024). This suggests a biological foundation for the observed associations between attachment, social skills, and peer relationships. Such evidence strengthens the argument that early relational experiences do not just shape behavioral tendencies but also influence underlying neural circuitry that governs emotional and social processing.

Although the majority of previous studies have been conducted in Western contexts, the present research contributes to the relatively sparse literature on adolescent attachment and peer functioning in East Asian societies. Cultural norms emphasizing social harmony, collective responsibility, and indirect communication may uniquely shape the expression of both social skills and peer relationships in Chinese adolescents (Kashmari et al., 2023).

For example, assertiveness may be expressed more subtly, and emotional disclosure may be less overt compared to Western counterparts. Nevertheless, the core principles of secure attachment—such as emotional availability and trust—appear to maintain their relevance across cultures (Mahmoud et al., 2022).

Additionally, self-compassion and emotional literacy, which have been highlighted in recent studies as critical factors in adolescent adjustment, may play a supportive role in enhancing both social skills and attachment security. Adolescents with higher levels of self-compassion have been shown to exhibit more adaptive emotional responses, greater tolerance for imperfection, and stronger interpersonal boundaries (Sandham & Deacon, 2023). These characteristics, in turn, facilitate the development of meaningful and balanced peer relationships. Studies have found that interventions aimed at boosting self-compassion contribute to more effective peer functioning, particularly among adolescents experiencing high levels of social stress or interpersonal sensitivity (Wakelin et al., 2021).

Moreover, the benefits of fostering social skills and secure attachment extend beyond peer relationships. They are also associated with improved academic performance, reduced behavioral issues, and better overall psychological functioning (Sheng et al., 2023). Adolescents who feel securely attached and socially competent are more likely to engage positively in classroom environments, contribute constructively to group activities, and seek help when needed. This reinforces the idea that emotional and social development should be viewed as integral components of educational success (Li et al., 2021).

The study's use of Structural Equation Modeling allowed for a robust and comprehensive examination of the interrelations among secure attachment, social skills, and peer relationships. The significant mediating effect of social skills suggests that interventions aiming to improve adolescent peer functioning may benefit from focusing not only on emotional attachment patterns but also on the specific interpersonal competencies that facilitate positive social engagement (Liu et al., 2024). This insight can inform the design of more holistic adolescent development programs that address both emotional and behavioral dimensions.

## 5. Limitations & Suggestions

Despite the study's strengths, several limitations should be acknowledged. First, the cross-sectional nature of the

design precludes any definitive conclusions about causal relationships among the variables. Longitudinal studies would be necessary to determine the directionality of the observed associations. Second, the reliance on self-report measures may have introduced social desirability bias or inaccuracies in self-perception, especially concerning sensitive topics such as attachment and social functioning. Third, while the study included a relatively large and diverse sample from urban areas in China, the findings may not be generalizable to adolescents in rural settings or other cultural contexts. Furthermore, the mediating role of social skills was examined in isolation; future research might explore additional mediators such as emotional intelligence, self-compassion, or academic engagement to provide a more nuanced understanding of these developmental processes.

Future research should employ longitudinal designs to track the evolution of attachment security, social skills, and peer relationships over time. This would help clarify the developmental pathways and potential bidirectional influences among these constructs. Researchers should also consider integrating multi-informant data by incorporating teacher or parent ratings of adolescent social behavior to triangulate findings and reduce the limitations of self-report. Additionally, it would be valuable to replicate the study in other cultural contexts or compare samples across individualistic and collectivist societies to explore how cultural norms shape these developmental dynamics. Finally, future studies could examine the role of digital communication and online peer interactions, which are increasingly central to adolescent social life, and assess how these virtual contexts intersect with attachment and social competencies.

Educators and school counselors should prioritize the development of both emotional security and interpersonal competencies in their student support programs. Initiatives such as social-emotional learning curricula, peer mentoring programs, and school-based group interventions can be effective tools for fostering secure attachment patterns and enhancing social skills. Parental engagement efforts should also emphasize the importance of emotionally responsive caregiving in shaping long-term peer success. Moreover, programs that cultivate empathy, emotional regulation, and cooperative problem-solving should be incorporated into classroom settings to help adolescents navigate complex peer dynamics with greater confidence and compassion.

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### Declaration of Interest

The authors of this article declared no conflict of interest.

### Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

### Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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### Authors' Contributions

All authors equally contributed in this article.

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