# The Influence of Parental Attachment on Preschooler's Anxiety: The Mediating Effect of Parent-Child Relationship Based on SPSS Analysis

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- Keywords: SPSS, Children's Anxiety, Parent Attachment, Intergenerational Transmission Of Attachment, Parent-Child Relationship Quality, Mediating Effect.
- Abstract: Objective: This paper aims to examine the way which parents' own attachment style influences children's anxiety and whether this effect is mediated by parent-child relationship. Methods: In this study, the sample consists of 478 children aged 2-6 and their parents by Convenience Sampling. SPSS was used to sort out data and conduct analysis, Process was used to verify the mediating effect. Conclusion: Parents' early attachment experiences could significantly influence children's anxiety, and mother-child closeness and mother-child conflict mediate this effect. Father-child closeness plays a mediating role between father's attachment and children's anxiety, while father-child conflict fails to play a significant mediating role between father's attachment and children's anxiety.

# **1 INTRODUCTION**

Anxiety is one of the common emotional problems in children. When children encounter inner conflicts and unfamiliar environments, they may experience anxious symptoms. Children's emotional problems are associated with the quality of parent-child relationship (Ainsworth, 1989). The distress and tension that children encounter in parent-child relationships are often precursors to children's anxiety (Sroufe, 1996). Insecure parent-child relationship is the most important risk factor that causes child psychopathological problems, Parentchild conflict would increase children's anxiety, while parent-child closeness would reduce children's anxiety level (Masten & Garmezy, 1985); on the other hand, parent-child relationship is affected by parents' own attachment style. Attachment styles can be intergenerationally transmitted within the family (Verhage Marije et al., 2016). The intergenerational transmission of attachment shows that parents' early attachment experience will affect the attachment

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relationship with their children. Previous studies have paid more attention to the intergenerational transmission of mother-child attachment and the influence of mother-child relationship on children's anxiety, while few studies have examined the intergenerational transmission of father-child attachment and the influence of father-child relationship on children's anxiety.

### 1.1 Children's Anxiety

Children's anxiety refers to the negative emotional states of tension, worry, insecurity under the conditions of current or expected threats or pressures. The most common symptoms of anxiety of children include reluctance to go to school, fear of separation, nervousness, difficulty of concentrating, difficulty of falling asleep.

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# 1.2 The Negative Effects of Children's Anxiety

Higher level and generalized child's anxiety will not only hinder children's physical health, but also affect their intellectual, emotional and social development. Enduring higher anxiety in children can also lead to excessive anxious reactions and other emotional problems (Liu et al., 2009).

Anxiety has a significant negative impact on preschool children's participation in group activities and social interaction. In the kindergarten environment, anxious children tend to focus on their own shyness and fear, which makes it difficult to participate environmental exploration and learning activities. At the same time, anxiety also inhibits children's help-seeking behavior and participating social games, and affects children's development of social skills and friendship.

## **1.3 Factors Associated with Children's** Anxiety

Children's anxiety is associated with many factors, including heredity, children's temperament, the characteristics of nurturing caregiver (caregiver's personality, parenting style, attachment style), parentchild relationship and family environment, etc. Among these factors, parent-child attachment is the most important factor affecting children's anxiety.

## 1.4 The Influence of Parent-Child Relationship on Children's Anxiety

Attachment refers to the strong emotional bond that infants established with primary caregivers. (Lin, 1995). Studies have shown that parent-child relationship during early years, plays a vital role in the children emotional problems (Lafreniere., 1992). Children with secure mother-child attachment exhibit fewer psychopathological symptoms throughout childhood and adolescence (Schneider et al., 2001). The children's fear and sadness in parent-child relationship are precursors of anxiety in children (Bowlby., 1973; Kathryn, 2014).

Parent-child conflict would increase children's anxiety, while parent-child closeness would reduce children's anxiety level (Wang Xin et al., 2000). Studies of Chinese children also found that parentchild insecure attachment was associated with children's anxiety (Wang et al., 2010). Children with close parent-child relationship show higher social skills and fewer emotional problems, while children with conflicting parent-child relationship tend to show more emotional problems (Zhang & Zhu, 2011). Both mother-child attachment and father-child attachment significantly influence children's anxiety, and children with secure parent-child attachment have lower anxiety (Zhao & Zhu, 2011).

# 1.5 Intergenerational Transmission of Attachment

Adult attachment refers to a psychological state related to adults' childhood attachment experience. Adult attachment is not only based on the experience of parent-child interaction during childhood, but also on the adults' current evaluation of early attachment experience (Li et al., 2001). Intergenerational transmission of attachment refers to attachment styles can be transmitted from parents to child. Parental attachment styles can predict offspring attachment patterns (An 2001). In sum, attachment styles can be intergenerationally transmitted within the family. In other words, parents' early attachment relationship with them (Bernier & Dozier, 2003).

## 1.6 Research Hypothesis

This study proposed the following hypotheses: (1) parental attachment pattern is correlated with preschool children's anxiety; (2) Parental attachment pattern is significantly correlated with parent-child relationship; (3) Parent-child relationship plays a mediating role between parental attachment pattern and preschoolers' anxiety.

# 2 RESEARCH METHODS

## 2.1 Research Sample

The sample consists of 478 children aged 2-6 and their parents recruited from bilingual kindergartens in first and second-tier cities in China in October 2018 by convenience sampling. Mothers were asked to report their children's anxiety, the mother-child relationship, and her own attachment pattern; in the meantime, fathers were asked to report the fatherchild relationship and his own attachment pattern.

## 2.2 Measurement

## 2.2.1 Children's Anxiety

In this research, children's anxiety was measured by the anxiety dimension (11 items) of the Social Competence and Behavior Evaluation Scale-30 (SCBE-30) in preschoolers (LaFreniere& Dumas, 1996), which scored from 1 (never) to 6 (always) and the questionnaire was filled in by mothers according to their children's situation in the past two months. The internal consistency coefficient turned out to be 0.85.

#### 2.2.2 Parent-Child Relationship

The Parent-child Relationship Scale (CPRS, Pianta, 1998) was used to measure the quality of parent-child relationship. The internal consistency coefficient of the mother-child conflict turned out to be 0.81, and that of the mother-child closeness was 0.786, and that of the father-child conflict was 0.827, and that of the father-child closeness was 0.835.

#### 2.2.3 Parental Attachment Pattern

The Relationship Structures Questionnaire (Fraley et al., 2011) was utilized to assess the parental attachment style. It evaluates the attachment relationship between parents and grandparents. The internal consistency coefficient of the maternal attachment pattern scale was 0.719. while the paternal attachment pattern scale was 0.784.

#### **3 RESULTS**

## 3.1 Gender Difference of Children's Anxiety and Parent-Child Relationship Quality

T-experimental for independent groups was used to analyze the gender difference between children's anxiety and parent-child relationship quality, the results are presented in Table 1.

	boy	girl		
Variables	( <i>N</i> =258)	( <i>N</i> =220)	t	р
	$Mean \pm SD$	$Mean \pm SD$		
Children Anxiety	21.48±5.55	21.93±5.87	- 0.86	0. 39
Child- Mother Conflict	14.07±4.48	14.19±5.04	- 0.29	0. 77
Child- Mother Closeness	30.88±4.01	31.28±3.66	- 1.11	0. 27

Table 1 Gender difference	analysis
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Child- Father Conflict	16.92±5.77	16.70±5.34	0.45	0. 66
Child- Father Closeness	28.16±4.54	28.55±4.28	- 0.95	0. 34

The results show that there are no significant gender differences in children's anxiety, parent-child conflict and parent-child closeness.

#### **3.2** Correlation Analysis

#### 3.2.1 Correlation Analysis of Mother's Attachment, Child-Mother Relationship and Children's Anxiety

Table 2 shows the correlation coefficients of mother's attachment, child-mother relationship and children's anxiety.

Table 2 Correlation analysis of mother's attachment, child-
mother relationship and children's anxiety

	Variables	Mean ± SD	1	2	3	4
	1 Child- Mother Conflict	14.12 ±4.74	7			
	2 Child- Mother Closeness	31.09 ±3.86	0.45 **			
	3 Children Anxiety	21.68 ±5.70	0.34	- 0.26**	0	IJ
	4 Mother- Grandmot her Security	24.59 ±10.9 4	0.26 **	0.21**	0.13	-
	5 Mother- Grandfath er Security	$27.59 \pm 11.6 3$	- 0.26 **	0.20**	- 0.19 **	0. 56 **

The correlation analysis shows that the mothergrandparents' attachment security is significantly negatively correlated with parent-child conflict and children's anxiety, meanwhile positively correlated with parent-child closeness. Children's anxiety is positively correlated with parent-child conflict, but negatively correlated with parent-child closeness.

#### 3.2.2 Correlation Analysis of Father's Attachment, Child-Father Relationship and Children's Anxiety

Table 3 shows the correlation coefficients of father's attachment, child-father relationship and children's anxiety.

Variables	Mean ± SD	1	2	3	4
1 Child-Father Conflict	$\begin{array}{c} 16.86 \\ \pm 5.58 \end{array}$	-			
2 Child-Father Closeness	$\begin{array}{c} 28.35 \\ \pm 4.40 \end{array}$	0.51**	-		
3 Children Anxiety	21.68 ±5.70	0.10*	- 0.18 **	-	
4 Father- Grandmother Security	28.69 ±9.42	0.22**	0.28	- 0.0 6	-
5 Father- Grandfather Security	27.16 ±9.64	0.26**	0.35	- 0.1 0*	0.6 5**

Table 3 Correlation analysis of father's attachment, childfather relationship and children's anxiety

The correlation analysis shows that the fathergrandparent attachment security is significantly negatively correlated with child-parent conflict and positively correlated with child-parent closeness. Children's anxiety is positively correlated with childparent conflict, but negatively correlated with childparent closeness. Father-grandfather attachment security is negatively correlated with children's anxiety, while father-grandmother attachment security is not significantly correlated with children's anxiety.

### 3.2.3 The Influence of Parent Early Attachment on Children's Anxiety: The Mediating Role of Child-Parent Relationship

Taking the mother-grandmother secure attachment as the predictive variable and children's anxiety as the dependent variable, the mediating effect of motherchild relationship between them was tested, and the results are shown in Figure 1 and Figure 2.



Figure 1: Mother-grandmother security & Child-mother conflict



Figure 2: Mother-grandmother security & Child-mother closeness

The PROCESS V4.0 bootstrap test showed that child-mother conflict had a significant mediating effect between the mother-grandmother security and children's anxiety (95% confidence interval [-0.676, -0.025]). The mediating effect of child-mother closeness between mother-grandmother security and children's anxiety was also significant (95% confidence interval [-0.044, -0.012]).

Taking the mother-grandfather secure attachment as the predictive variable and children's anxiety as the dependent variable, the mediating effect of motherchild relationship between them was tested, and the results are shown in Figure 3 and Figure 4.



Figure 3: Mother-grandfather security & Child-mother conflict



Figure 4: Mother-grandmother security & Child-mother closeness

The PROCESS V4.0 bootstrap test showed that child-mother conflict had a significant mediating effect between the mother-grandfather security and children's anxiety (95% confidence interval [-0.058, -0.023]). The mediating effect of child-mother closeness between mother-grandfather security and children's anxiety was also significant (95% confidence interval [-0.037, -0.012]).

Taking the father-grandmother secure attachment as the predictive variable and children's anxiety as the dependent variable, the mediating effect of childfather relationship between them was tested, and the results are shown in Figure 5 and Figure 6.



Figure 5: Father-grandmother security & Child-father conflict



Figure 6: Father-grandmother security & Child-father closeness

The PROCESS V4.0 bootstrap test showed that child-father conflict had no significant mediating effect between father-grandmother secure attachment and children's anxiety (95% confidence interval [-0.026, 0.000]). However, child-father closeness had a significant mediating effect between fathergrandmother security and children's anxiety (95% confidence interval [-0.050, -0.014]).

Taking the father-grandfather secure attachment as the predictive variable and children's anxiety as the dependent variable, the mediating effect of childfather relationship between them was tested, and the results are shown in Figure 7 and Figure 8.



Figure 7: Father-grandfather security & Child-father conflict



Figure 8: Father-grandfather security & Child-father closeness

The PROCESS V4.0 bootstrap test showed that child-father conflict had no significant mediating effect between father-grandfather secure attachment and children's anxiety (95% confidence interval [-0.028, 0.002]). However, child-father closeness had a significant mediating effect between father-grandfather security and children's anxiety (95% confidence interval [-0.059, -0.015]).

## 4 **DISCUSSION**

We found that parents' attachment style can affect children's anxiety; on the other hand, we also found that children's anxiety is significantly positively correlated with parent-child conflict and negatively correlated with parent-child closeness. This result is consistent with previous studies. Parent-child closeness or secure attachment can reduce children's anxiety, while parent-child conflict or insecure attachment can increase children's anxiety symptoms (Wautier et al, 2004; Shamir et al, 2005).

Furthermore, this result is also consistent with the results of previous studies. Previous studies have concluded that the parents' attachment pattern is related to the children's attachment pattern, and the parents' attachment style may affect the quality of their attachment relationship between parents and children (Chen & Sang, 2005; Pan et al., 2021). Parents with secure attachment are more sensitive and responsive when interacting with their children, so they are more likely to establish close parent-child relationship and have less parent-child conflict.

In addition, this study revealed that mother-child relationship has a mediating effect on the mother's own attachment style and their children's anxiety. Mothers with secure attachment styles have higher levels of parent-child intimacy and lower levels of parent-child conflict, which in turn leads to lower levels of anxiety in their children.

Lastly, we are inclined to drew the conclusion that father-child closeness plays a mediating role between father's attachment and children's anxiety, while The Influence of Parental Attachment on PreschoolerâĂŹs Anxiety: The Mediating Effect of Parent-Child Relationship Based on SPSS Analysis

father-child conflict fails to play a significant mediating role. This suggests that fathers' own attachment style mainly affects the establishment of the intimate relationship between fathers and children, and then affects children's anxiety. The possible reasons could be that fathers are less involved in parenting than mothers in children's preschool period, and there is less chance to elicit father-child conflict. In addition, father-child conflict may be more associated with children's behavior problems.

## **5** CONCLUSIONS

The current study aims to examine whether parents' own attachment style influences children's anxiety and whether this effect is mediated by parent-child relationship. The results reveal the influence of parents' and grandparents' attachment style on preschool children's anxiety, and the mediating role of parent-child relationship (parent-child intimacy and parent-child conflict) in it, and partially verify the research hypothesis:

(1) There is a negative correlation between parents' early secure attachment and preschool children's anxiety, except for the father-grandmother attachment.

(2) Preschool children's anxiety is negatively correlated with parent-child conflict, and positively correlated with parent-child closeness.

(3) Parents' early secure attachment is positively correlated with parent-child closeness, and negatively correlated with parent-child conflict.

(4) Mother-child relationship (mother-child closeness and mother-child conflict) mediates the influence of mother's early secure attachment on preschool children's anxiety.

(5) Father-child closeness plays a mediating role in the influence of fathers' early secure attachment on preschool children's anxiety, while father-child conflict fails to do the same.

## REFERENCES

- Ainsworth MDS. (1989). Attachments beyond infancy. American Psychologist. 44.
- An Qin. (2001). Family factors influencing the formation of children's attachment style. Chinese journal of clinical psychology,9 (4).
- Bernier A, Dozier M. (2003). Bridging the attachment transmission gap: The role of maternal mindmindedness. Internal Journal of Behavioral

Development, 27(4).

- Bowlby, J. (1973). Attachment and loss: Vol. 2. Separation: Anxiety and anger. New York: Basic Books.
- Chen Lin, Sang Biao. (2005). Intergenerational transmission of attachment patterns. Advances in psychological science, 13 (3).
- Kathryn A. Kerns, Laura E. Brumariu. (2014). Is Insecure Parent-Child Attachment a Risk Factor for the Development of Anxiety in Childhood or Adolescence? Child Dev Perspect. (1).
- Lafreniere P J, Provost M A, Dubeau D. (1992). From an insecure base: Parent-child relations and internalizing behavior in the preschool. Early Development and Parenting, 137-148
- Li Feiming et al. (2001). Adult Attachment Questionnaire (AAQ3.1) preliminary trial. Chinese journal of clinical psychology,9(3).
- Lin Chongde, Editor-in-chief.(1995). Developmental Psychology. People's Education Press, 186.
- Liu Aifang, Wang Meifang, Zhang Jie, Xing Xiaopei. (2009). Relationship between family emotional disclosure and infant anxiety, Chinese journal of clinical psychology,17(04)
- Masten A S, Garmezy N. Risk. (1985). vulnerability and protective factors in developmental psychology. In: Lahey B B, Kazdin A E. Advances in Clinical Child Psychology (Vol 8), New York: Plenum.
- Pan Yangu, Zhang Dajun, He Longtao, et al. (2021). Parental attachment style and Psychological Quality of Junior Middle School students: The Mediating role of parent-child attachment. Chinese Journal of Clinical Psychology, 29 (2).
- Schneider B H, Atkinson L, Tardif C. (2001). Child-parent attachment and children's peer relations: A quantitative review. Developmental Psychology, 37.
- Shamir, E. G, Ungerer, J. A, & Rapee, R. M. (2005). Attachment, Behavioral Inhibition, and Anxiety in Preschool Children. Journal of Abnormal Child Psychology, 33(2).
- Sroufe, L. A. (1996). Emotional development: The organization of emotional life in the early years. New York: Cambridge University Press.
- Sroufe, L. A. (1996). Emotional development: The organization of emotional life in the early years. New York: Cambridge University Press.
- Verhage Marije L; Schuengel Carlo; Madigan Sheri; Fearon R M Pasco; Oosterman Mirjam; Cassibba Rosalinda; Bakermans-Kranenburg Marian J; van IJzendoorn Marinus H. (2016). Narrowing the Transmission Gap: A Synthesis of Three Decades of Research on Intergenerational Transmission of Attachment. Psychological Bulletin Volume 142 (4).
- Wang Meifang, Liu Li, Wang Yuting. (2010). The relationship between parental marital quality, parentchild attachment and infant anxiety. Chinese Journal of Clinical Psychology, 18 (6).
- Wang Xin, Su Xiaowei, Wang Yan, et al. (2000). A study on the correlation between parenting style and anxiety level of children. Chinese journal of mental health ,14 (5).

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- Wautier, G, Blume, L. B. (2004). The effects of ego identity, gender role, and attachment on depression and anxiety in young adults. Identity, 4(1).
- Zhang Xiao, Chen Huichang, Zhang Guifang, Zhou Bofang, Wu Wei. Dynamic interaction models of parent-child relationship and problem behavior: a follow-up study in early childhood. Acta Psychologica Sinica, (05).
- Zhao Jinxia, Zhu Caiqin. (2011). The relationship between parent-child attachment and child anxiety. Chinese Journal of Clinical Psychology, 19 (5).

