

Effects of Intergenerational Parenting on Children's Attachment Behaviors: The Mediating Role of Basic Psychological Needs

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Abstract: Intergenerational parenting which affects children's attachment behaviors has become one of the major forms of family education in China. The attachment behaviors that are typically observed in close relationships are associated with basic psychological needs. To explore these relationships, this study investigates how intergenerational parenting and basic psychological needs affect children's attachment behaviors. Structural equation modeling was used to analyze what is developed by the proposed hypotheses. There were 300 primary school students participating in this study. The Kins Security Scale, the Chinese version of the Basic Psychological Needs Scale, and the Grandparenting Styles Questionnaire were used. Trust-encourage style and affection-wormed style were positively associated with basic psychological needs and attachment behaviors, but indulgence style but authoritarian and neglecting styles were negatively correlated with basic psychological needs and attachment behaviors. Basic psychological needs were positively correlated with attachment behaviors and mediate the effects of different styles of intergenerational parenting on attachment behaviors. Five intergenerational parenting styles influenced children's attachment behaviors by mediating basic psychological needs differently. This study also demonstrated the direct influence of intergenerational parenting on attachment, in turn, gives reference to the advancement of children's attachment behavior.

Keywords: Intergenerational Parenting, Children's Attachment Behaviors, Basic Psychological Needs.

1. Introduction

Because of the urbanization, a large number of rural populations move to cities every year. When children study in primary school, 60.1% of grandparents partly or entirely bring up them in urban families in China [1]. The educational concepts and methods of grandparents as well as basic psychological needs make a difference on the formation of children's attachment behaviors. This research approached how attachment behaviors were related to intergenerational parenting with basic psychological needs.

1.1. Attachment Behaviors and Intergenerational Parenting

Early interpersonal experiences that favor emotional and social development might affect the growth of children. As an important formative experience in early childhood development, attachment can help children better adapt to life and survive. Attachment, being developed from attachment behavioral systems, is a process that binds the child and the principal caregivers together in space and that endures over time [2]. Children's attachment behaviors refer to children seeking security from specific individuals so that they could alleviate distress [3]. Individuals may have a sense of attachment security if individuals seek and maintain proximity to support others successfully. Children with secure attachment are willing to communicate with other people, whereas those with insecure attachment are prone to believe that the world is an unsafe place and develop negative behaviors [4].

Different types of attachment cause children to develop different attachment behaviors. Therefore, to better understand attachment behavior, attachment needs to be

understood. Firstly, Ainsworth (1978) categorized attachment into three patterns: secure, insecure-avoidant, and insecure-ambivalent. Children in secure relationships tend to seek support from their caregivers when they feel sad and anxious in unfamiliar situations [5]. However, it is difficult for children with the avoidant pattern to seek caregivers for help to adjust to negative feelings. Children in ambivalent relationships have contradictory attitudes toward caregivers. They need help from caregivers, but sometimes they reject support from others. Besides, attachment styles are conceptualized as security, anxiety, and avoidance [6]. Secure style is defined as attachment security which people have a sense of closeness and interdependence and have a willingness to seek support and other methods of dealing with stress. An anxious style is known as a lack of attachment security, and people who worry about relationships and rejection have a demand for closeness. Avoidant style is also known as a lack of attachment security people prefer to become independent and are more likely to solve problems by themselves. Both the anxious and avoidant styles are characterized by difficulties in managing distress through close relationships. When children engage in attachment behaviors with caregivers, they predict how caregivers respond as a basis on their prior experience. If children experience responsiveness, they will be likely to become securely attached. Children become avoidant due to rejection from caregivers when seeking help. Those children who experience an unpredictable combination of both responsiveness and rejection become anxious and ambivalent [7]. Children who can seek security successfully might develop secure attachment. In other words, individuals with secure attachment may perform secure attachment behavior. In this study, attachment is researched to explain attachment

behaviors.

Attachment behaviors are also influenced by environmental factors so the family environment is worth researching. Intergenerational parenting is an important factor in the family environment. In the United States, grandparents were addressed as support providers in the family, when their children were divorced, or unemployed [8]. However, intergenerational parenting was originally intended to reduce the burden on parents in China. With the advancement of the economy and society, intergenerational parenting has been a common educational mode because parents are occupied by their work. Intergenerational parenting, also known as intergenerational education, is a phenomenon that grandparents are responsible for supervising and educating children when parents go out to work.

There are different views on the division of the type of intergenerational parenting. There are five styles of intergenerational parenting. 'Formal': grandparents have a clear understanding of their responsibilities. 'Fun-seeker': grandchildren are seen as a source of self-indulgence or satisfaction. 'Surrogate parent': grandparents become caregivers. 'Reservoir of family wisdom': grandparents have the authority to allocate resources. 'Distant': grandparents have less chance to contact their grandchildren [9]. Baumrind (1971) suggested that parenting styles could be classified as authoritative, authoritarian, indulgent, and neglecting. Authoritative parenting is widely recognized as the most effective style to accommodate the development needs of children. In contrast, caregivers with the authoritarian style impose rules and restrict what children do. An indulgent parental style remains responsive to all needs of children and the last style suggests that caregivers minimize the maturity demands of children [10]. There are five models in this research: authoritarian, trust-encouragement, affection-warmed, indulgence, and neglecting.

Although some studies have investigated the relationship between attachment behaviors and intergenerational parenting, mainly evaluating the influence of parenting styles on attachment behaviors. However, there is less evidence about whether some factors mediate the relationship between intergenerational parenting and attachment behavior.

1.2. Mediating Roles of Basic Psychological Needs between Attachment Behaviors and Intergenerational Parenting

Basic psychological needs include autonomy, competence, and relatedness. Autonomy is defined that individuals will experience a sense of volition and willingness if they have the chance to make valuable decisions. People with a high level of satisfaction for autonomy might cohere with their behaviors and values. Competence is related to the feelings of curiosity and efficacy in actions [11]. Regarding the need for

competence, when satisfied, people who are motivated by curiosity might explore the environment effectively. When frustrated, people might have negative attitudes toward life. The need for relatedness concerns that individuals tend to be closed to others and have a feeling of warmth and bonding [11]. When the need is satisfied, people have experiences of connection with caregivers; when frustrated, instead, people feel alienated and lonely. Satisfying three needs might produce a positive influence on growth, integrity, and wellness.

Attachment is a prerequisite for basic psychological needs and the satisfaction of basic psychological needs is a prerequisite for the emergence of attachment. Secure attachment was positively related to their autonomy and relatedness needs among elementary-age children [12]. Furthermore, SDT has proposed that intrinsic motivation which promotes autonomous behaviors is directly influenced by basic psychological needs [11]. The satisfaction of basic psychological needs affects attachment behaviors which individuals seek security. Basic psychological needs satisfaction is positively associated with secure attachment relationships and secure attachment behavior.

The social context might support the basic psychological needs which is correlated with behavioral adjustment. Individuals who support autonomy, competence, and relatedness, might experience satisfaction of their needs [13]. Caregivers are interested in discovering and nurturing talents to help their children build a sense of competence. The experience of intimacy and genuineness which is connected with others satisfies relatedness needs. These needs are fulfilled or thwarted, strongly associated with caregivers, because they use psychological control to regulate the psychological experiences and behaviors of their children. For example, children will have the chance to choose their actions, if their caregivers encourage them to explore the environment independently. There are relationships between basic psychological needs and intergenerational parenting.

Fewer studies informed us how basic psychological needs affect attachment and intergenerational education. The present study assumes that basic psychological needs is a possible mediator between intergenerational parenting and attachment behavior.

1.3. The Present Research

As mentioned above, attachment, instead of attachment behaviors, is measured in this study. We seek to investigate the influence of intergenerational parenting and the basic psychological needs on attachment. More specifically, this study tests whether the basic psychological needs satisfaction mediates the relationship between intergenerational parenting and attachment using structural equation modeling (see Figure 1).

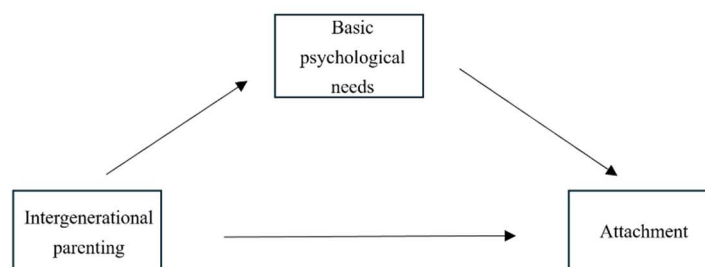


Figure 1. The conceptual mediation model.

2. Methods

2.1. Participants

This study used a convenience sampling method with participants from a primary school in Jiangsu Province. The electronic “Wenjuanxing” tool was used to send questionnaires and collect data. All participants were informed of the questionnaires’ consent because they were too young to understand some questions well. 300 students participated in this research. There were 15 invalid questionnaires mainly because of missing regularity or continuity in answering. Among 285 valid questionnaires, 82 subjects responded that their grandparents take care of them during the day and their parents take care of them on weekends. 82 subjects responded that their grandparents take care of them and their parents take care of them from time to time. 11 subjects responded that their grandparents take care of them during the day and night and their parents seldom come home. 5 subjects responded that their grandparents take care of them every day. Of the responses, 91 (50.6%) were boys and 89 (49.4%) were girls.

2.2. Methods

Attachment. This study used The Kins Security Scale, which consists of 15 questions (1, 6, 9, 14) with reverse scoring. The scale, consisting of 15 questions, includes two dimensions: closeness orientation and trustworthiness ($\alpha = .82$). Participants rate how well each statement describes their typical feelings in grandparent-child relationships on a 4-point scale ranging from 1 (not at all) to 4 (applies very well). Higher total scores reflect secure attachment behavior.

Basic Psychological Needs Satisfaction. Basic psychological needs satisfaction was measured using the Chinese version of the Basic Psychological Needs Scale (BPNS) [14]. This scale consists of 19 items: autonomy (6 items), competence (6 items), and relatedness (7 items). Nine of the items were reverse-scored. Participants respond on a 7-point Likert scale ranging from 1 (not true at all) to 7

(definitely true). Higher total scores reflect greater satisfaction. We calculated the α coefficients ($\alpha = .84$), autonomy ($\alpha = .75$), competence ($\alpha = .68$), and relatedness ($\alpha = .83$).

Styles of Intergenerational Parenting. In this study, we used The Grandparenting Styles Questionnaire developed by Fan Zhang in 2020 [15]. The questionnaire has 21 items, using a 5-point Likert scale ranging from 1 (not at all) to 5 (applies very well). The questionnaire was divided into five dimensions: affection-warmed style, trust-encourage style, authoritarian style, indulgence style, and neglecting style. The Cronbach’s alpha coefficient of this scale was 0.86. The average scores were analyzed in the present study.

2.3. Data Analyses

This study used SPSS 27.0, and PROCESS 4.1 to analyze data. Firstly, we performed descriptive statistics and correlational analyses to confirm the relationships among variables using SPSS 27.0. Next, we used PROCESS 4.1 to investigate a possible mediating effect of basic psychological needs on the relationship between intergenerational parenting and attachment.

3. Results

3.1. Descriptive Statistics and Correlational Analyses

The correlation analysis was conducted on the scores of attachment, basic psychological needs, and intergenerational parenting scales. The results illustrated that attachment was positively correlated with basic psychological needs, trust-encourage style, affection-warmed style, and indulgence style. However, attachment was negatively correlated with authoritarian style and neglecting style. Meanwhile, basic psychological needs were positively correlated with trust-encourage style, affection-warmed style, and indulgence style, but negatively correlated with authoritarian style and neglecting style (Table 1).

Table 1. Descriptive statistics and correlation among variables (n=180)

	1	2	3	4	5	6	7
1. Attachment	-						
2. Basic psychological needs	.887**	-					
3. Authoritarian style	-.573**	-.525**	-				
4. Trust-encourage style	.553**	.515**	-.342**	-			
5. Affection-warmed style	.332**	.328**	-.151*	.259**	-		
6. Indulgence style	.161*	.147*	.117	-.114	.058	-	
7. Neglecting style	-.379**	-.379**	.173*	-.133	-.386**	-.246**	-
Mean	44.45	87.01	2.42	3.25	3.26	2.23	2.53
SD	6.26	9.34	0.52	0.55	0.69	0.47	0.60

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

3.2. The Mediating Role of Need Satisfaction between Attachment Behaviors and Intergenerational Parenting

Authoritarian style significantly and negatively predicted attachment ($\beta = -7.07$, $t = -9.35$, $p < 0.001$). Authoritarian style still affected attachment significantly when basic

psychological needs were included ($\beta = -1.74$, $t = -3.58$, $p < 0.01$). This style significantly expected basic psychological needs ($\beta = -9.80$, $t = -8.38$, $p < 0.001$) and the predictive effect of basic psychological needs on attachment was also significant ($\beta = 0.54$, $t = 20.53$, $p < 0.001$). Bootstrap method test results yielded $\beta = -5.33$, BootSE = 0.66, 95% CI = [-6.65, -4.08], and the mediating effect represented 75.39% of the total effect.

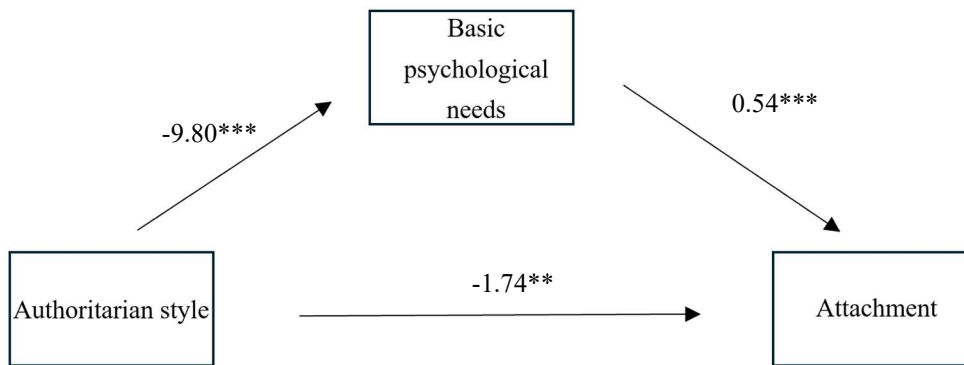


Figure 2. Standardized structural equation of Model 4. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Trust-encourage style significantly and positively predicted attachment, with a standardized beta coefficient (β) of 6.39. When the mediating variable was included, the direct effect was still significant ($\beta=1.57$, $t=3.51$, $p<0.001$). The style was a significant projection of basic psychological needs ($\beta=8.82$, $t=7.98$, $p<0.001$) and basic psychological needs also

affected attachment significantly ($\beta=0.55$, $t=20.91$, $p<0.001$). The results yielded a beta coefficient of 4.82, with a bootstrap standard error of 0.55. The 95% confidence interval (CI) for the mediating effect is [3.71, 5.90]. The mediating effect made up 75.43% of the total effect.

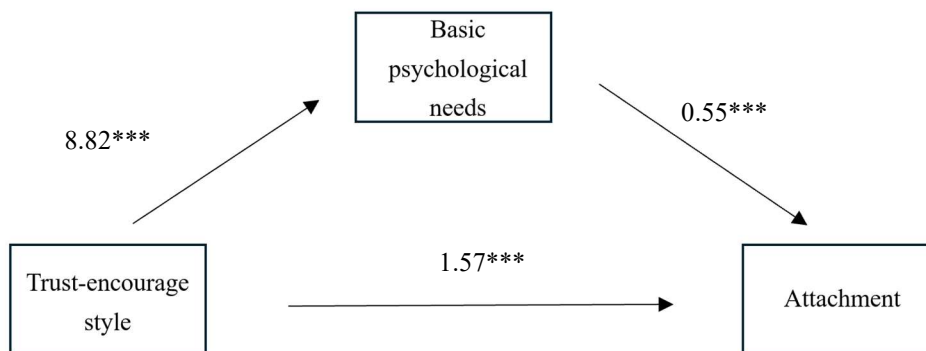


Figure 3. Standardized structural equation of Model 4. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The total effect was significant ($\beta=3.07$, $t=4.76$, $p<0.001$). The direct effect is significant even after controlling for the mediating variable ($\beta=0.47$, $t=1.41$, $p<0.001$). The affection-wormed style projected basic psychological needs significantly ($\beta=4.47$, $t=-8.38$, $p<0.001$) and the predictive influence of mediating variable on attachment was also

significant ($\beta=0.58$, $t=23.88$, $p<0.001$). The bootstrap method test results ($\beta=2.60$, $\text{BootSE}=0.55$, 95% CI= [1.52, 3.64]) indicate a strong and significant mediation effect, with the mediator explaining 84.72% of the total effect between affection-wormed style and attachment.

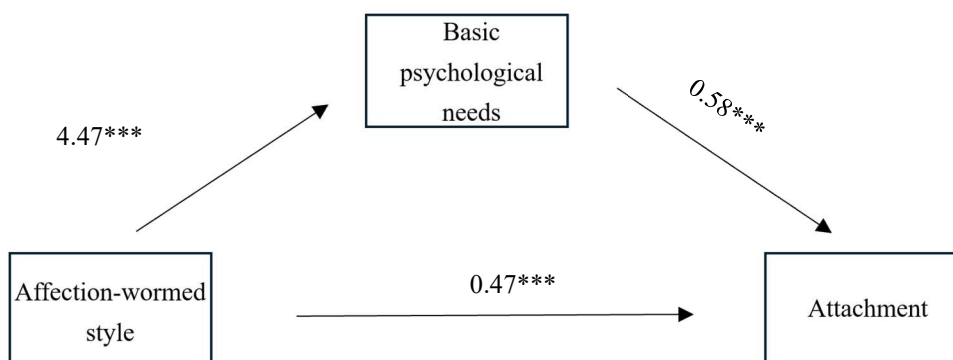


Figure 4. Standardized structural equation of Model 4. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Indulgence style tends to positively influence attachment ($\beta=2.08$, $t=2.07$, $p<0.05$). Upon including basic psychological needs as a mediator, the direct effect became non-significant ($\beta=0.28$, $t=0.60$, $p>0.05$). This intergenerational parenting style significantly predicted basic psychological needs

($\beta=3.04$, $t=2.02$, $p<0.05$) and the predictive effect of basic psychological needs on attachment was also significant ($\beta=0.59$, $t=25.27$, $p<0.001$). The bootstrapped β of 1.80, with a small standard error ($\text{BootSE}=0.06$), and a 95%

confidence interval, and the mediating effect accounted for 86.35% of the total effect.

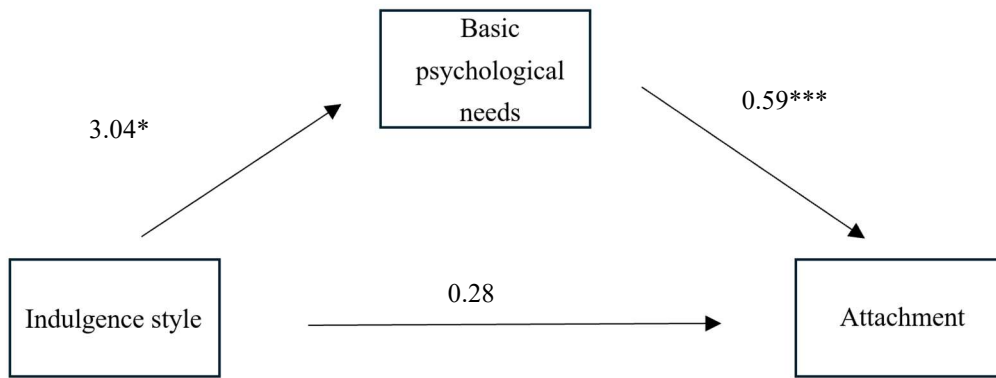


Figure 5. Standardized structural equation of Model 4. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Neglecting style significantly and negatively predicted attachment ($\beta = -3.99$, $t = -5.49$, $p < 0.001$). When the mediating variable was included, the direct effect became insignificant ($\beta = -0.49$, $t = -1.25$, $p > 0.05$). Neglecting style was a significant predictor of basic psychological needs ($\beta = -6.02$, $t = -5.55$, $p < 0.001$) and basic psychological needs significantly

predicted attachment ($\beta = 0.58$, $t = 23.27$, $p < 0.001$). Bootstrap method test results yielded β of -3.50, a standard error of 0.64, and a 95% confidence interval that excludes zero ($[-4.74, -2.22]$). The mediating effect that was significant accounted for 87.79% of the total effect.

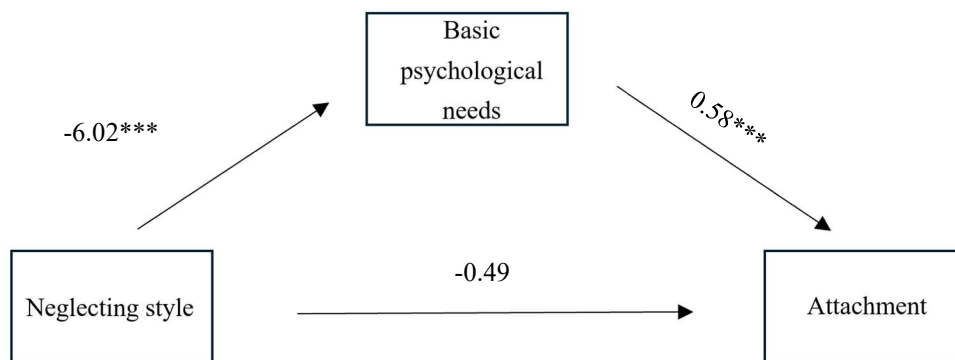


Figure 6. Standardized structural equation of Model 4. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

4. Discussion

This study explored the mediating roles of basic psychological needs in the relationships between intergenerational parenting styles and attachment. Individuals with supporting parenting styles tend to have secure attachment, while those thwarting parenting styles are likely to develop insecure attachment. Furthermore, basic psychological needs play a mediating role in the relationship between intergenerational parenting styles and attachment.

Intergenerational parenting styles are important factors influencing the fulfillment of basic needs. According to Kocayoruk (2012), supportive parenting styles are usually correlated with the fulfillment of basic psychological needs and positive outcomes, while thwarting parental practices predict the need for frustration and negative outcomes [16]. Ecological systems theory also suggests that good parent-child interactions make it possible for children to explore the world, fully satisfying the basic psychological needs of individuals [17]. Therefore, caregivers need to provide children with a warm and supporting family environment to satisfy their basic psychological needs. In addition, grandparents could learn how to develop effective strategies to interact with their grandchildren so that the basic psychological needs of their grandchildren are satisfied.

Previous studies have emphasized various advantages of satisfying basic psychological needs. Individuals who experience high levels of basic psychological needs satisfaction might have secure attachment, whereas those with dissatisfaction with basic psychological needs develop insecure attachment [18]. Individuals who are trusted or encouraged by grandparents have higher satisfaction with basic psychological needs and might show secure attachment behaviors, such as exploring the world confidently. However, thwarting parental behaviors might make individuals prone to have negative feelings, such as distress, because of the lack of need for competence. It is crucial for the process of forming secure attachment that students seek security which is related to the satisfaction of basic psychological needs. They might experience secure attachment and, in turn, perform secure attachment behavior. They believe that the world is a safe place and develop positive behaviors, such as confidently exploring the environment and engaging effectively with other people.

It is argued that some limitations of this study could not be ignored. Firstly, the development of attachment behaviors is a long-term process, so research could explore the influence of intergenerational education on attachment behaviors in a long time. Secondly, the convenience sampling method was used, only selecting samples in only one province, which

limits the external validity and reliability of the results. Samples in different areas and a random sampling method might be used in the research. Thirdly, this study examined intergenerational education as a whole, without distinguishing between grandmothers and grandfathers. Therefore, in future studies, the gender of grandparents could be examined separately to explore the effects of intergenerational education on children's attachment behaviors in greater depth.

5. Ethical Approval

In the questionnaire, participants clearly understood the purpose of this research and were assured of their confidentiality and anonymity. They had the right to answer the questions or not and even withdraw from the survey. Before taking part in this study, they had been informed of the consent.

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