

The Impact of Parent-Child Interaction Quality on Aggressive Behavior in Young Children

Yuxuan Geng¹ and

Xinyu Shi^{2,*}

¹School of Education, Fuyang Normal University, Fuyang, 236000, China

²School of Philosophy and Sociology, Lanzhou University, Lanzhou, 730000, China

*Corresponding author:
320220931430@lzu.edu.cn

Abstract:

Aggressive behavior in preschoolers has attracted widespread attention from both academia and society. However, scholarly research on its causes, particularly the impact of parent-child interaction quality within the family context, remains insufficient. This paper analyzes the core dimensions of parent-child interaction quality, including emotional connection, interaction responsiveness and alignment, motivational guidance, transmission of rules and values, and interaction intensity. Explores in depth the mechanisms linking these dimensions to preschoolers' aggressive behavior. The study results indicate that high-quality parent-child interactions characterized by affectionate emotional communication, timely feedback, appropriate guidance and encouragement, consistent educational support, and a moderate frequency of interaction can significantly curb children's aggressive tendencies by fostering their emotional regulation skills and prosocial behavior. Based on this, the paper proposes the following recommendations: adopt a democratic style of interaction, enhance positive emotional engagement, reduce conflictual interactions, clearly address the understanding of aggressive behavior in preschoolers, and ensure sufficient interaction time to optimize parent-child interaction patterns and promote the healthy social development of preschoolers.

Keywords: Parent-child interaction quality; preschoolers' aggressive behavior; correlation mechanisms; optimization strategies; social development

1. Introduction

During the preschool stage, aggressive behavior in young children (including physical aggression, ver-

bal aggression, relational aggression, etc.) is a widespread social issue [1]. This not only disrupts peer relationships and hinders social adaptation but may also have long-term negative effects on personality

development. Moreover, it even indicates a risk of antisocial behavior in adolescence. As the primary environment for a child's growth, the family plays a particularly crucial role. Parent-child interaction, as the core medium of family upbringing, directly shapes children's behavioral patterns and psychological development paths. Parent-child interaction quality, as a key indicator for evaluating the quality of family caregiving, is reflected in the overall level of behavioral exchanges, emotional connections, and interaction synchrony between parents and children. High-quality parent-child interaction can provide children with a secure emotional foundation and positive behavioral models.

Existing research has confirmed that elements in parent-child interaction, such as parental sensitivity and emotional support, are significantly negatively correlated with children's aggressive behavior. Longitudinal studies by Neppl and colleagues show that positive parenting (including emotional support, patient communication, and other interactive behaviors) can significantly reduce aggressive tendencies by fostering children's self-regulation skills. Similarly, research by Zhang and others based on Chinese samples found that adverse parent-child conditions, such as emotional neglect and lack of interaction, may indirectly trigger aggressive and other problematic behaviors by exacerbating psychological distress and harming peer relationships [2,3]. However, a systematic explanation of how the core dimensions of interaction quality specifically affect aggressive behavior has yet to be established. With the acceleration of social pace, issues in parent-child interaction, such as authoritarian interference, emotional neglect, and frequent conflicts, have become important triggers for children's aggressive behavior. Scientific research is urgently needed to clarify the mechanisms linking these factors to guide family upbringing practices.

Furthermore, previous studies have often focused on the macro-level effects of parenting styles, with insufficient attention given to specific behavioral features in the parent-child interaction process (such as the quality of responses and conflict resolution strategies) related to children's aggressive behavior. A meta-analysis by Madigan and colleagues indicated that parental sensitive responding (timely detecting children's signals and providing appropriate feedback) is positively correlated with children's social adaptation, while inadequate responses directly increase the risk of behavioral problems [4]. This study focuses on the impact of parent-child interaction quality on young children's aggressive behavior, emphasizing the mechanisms linking core dimensions of interaction quality with aggression, and identifying key influencing factors in parent-child interactions. It not only enriches the research system in the fields of family upbringing and children's

problematic behavior but also provides parents with practical strategies for optimizing interaction, promoting healthy social development in children.

2. Relational Argument

2.1 Core Dimensions of Parent-Child Interaction Quality

The quality of parent-child interaction is a key factor in early social interactions for young children, encompassing behavioral exchanges, emotional bonds, and synchrony between parents and children. It is a multidimensional and comprehensive concept. Its core dimensions include emotional bonding, interaction responsiveness and matching, motivational guidance, transmission of rules and values, and interaction intensity [5].

First, emotional bonding is the foundation of parent-child interaction, centered on parental care, acceptance, and emotional empathy toward the child. For example, comforting a child when they are upset and crying, encouraging them when they feel scared or timid, or providing warm language and physical contact such as hugs during daily interactions, all help the child feel valued and understood, thereby fostering a secure parent-child attachment [4].

Second, interaction responsiveness and matching reflect parents' sensitivity to their child's behavioral signals and needs, as well as timely feedback. For instance, whether a parent patiently answers a child's curious questions when they point at a toy, or whether they provide guidance when a child struggling to complete a task seeks help rather than ignoring or criticizing, timely and appropriate responses let the child feel consistently attended to [2].

Third, motivational guidance refers to parents reinforcing the child's prosocial behavior through praise and affirmation, encouraging independent exploration and cooperative problem-solving during interactions. For example, giving prompt recognition and praise when a child voluntarily shares toys or helps a peer, or encouraging the child to solve problems independently rather than taking over, uses positive feedback to guide the child toward developing positive behavioral cognition.

Next, the transmission of rules and values involves integrating rule education, behavioral guidance, and social skill development into interactions, helping children establish proper behavioral norms and a sense of right and wrong. For example, clearly stating the rule of 'taking turns' when playing games with a child, or demonstrating 'speaking nicely' during conflicts instead of simply prohibiting or enforcing obedience [6].

Finally, the frequency and focus of interactions together

constitute the core of interaction intensity, directly influencing the child's behavioral development trajectory [7]. For example, having a fixed bedtime story routine daily, accompanying outdoor activities on weekends, or putting down the phone to fully engage in conversation or play with the child during daily interactions. Continuous and attentive companionship provides ample behavioral examples and emotional nourishment, whereas overly intensive or perfunctory interactions may have negative effects [6].

2.2 The Core Dimensions of Parent-Child Interaction Quality and the Associations Linking to Preschoolers' Aggressive Behavior

2.2.1 Emotional support and preschoolers' aggressive behavior

Emotional support inhibits aggressive behavior in young children by building secure attachment and enhancing emotion regulation abilities, a mechanism validated by multiple empirical studies [4,8,9]. The study by Kaya-Bican and colleagues on Turkish children found that parents' warm acceptance creates a safe family environment, reduces children's emotional anxiety, and consequently lowers aggressive tendencies, with paternal support being able to compensate for a lack of maternal support [8]. Li and colleagues further confirmed that parental emotional warmth is significantly negatively correlated with children's aggressive behavior, while emotional neglect can trigger aggression by exacerbating psychological distress [9], which aligns with Zhang and others' findings on the correlation between emotional deprivation and behavioral problems [3]. Madigan and colleagues' meta-analysis clarified that parental warmth is a key foundation for secure attachment in young children and can significantly reduce the risk of emotional dysregulation, with this protective effect being more pronounced in families with low socioeconomic status [4].

2.2.2 Responsiveness quality and preschoolers' aggressive behavior

Parental sensitive responses reduce the risk of aggression by meeting toddlers' needs for attention and promoting the development of self-regulation, and this conclusion is supported by both longitudinal studies and cross-sectional surveys [2,4,10,11]. A meta-analysis by Madigan and others showed that the correlation coefficient between parental sensitive responsiveness and the development of toddlers' social skills reached 0.27; promptly detecting and responding to a child's signals allows the child to gain attention without resorting to aggression, whereas insufficient response directly increases the risk of behavioral problems [4]. Chinese empirical research by Zhu Ping

and Hu Chuanshuang indicated that a lack of sensitive response to toddlers' behavioral signals is a direct trigger of aggressive behavior [10], which aligns with Asadi and colleagues' finding that 'maternal neglect of toddlers' needs is positively correlated with aggressive behavior' [11]. Longitudinal tracking by Neppl and others further confirmed that timely responses can promote the development of toddlers' self-regulation abilities, forming an internal mechanism to inhibit aggression [2].

2.2.3 Encouragement strategies and aggressive behavior in preschoolers

Positive reinforcement strategies reduce aggressive tendencies by strengthening prosocial behavior and enhancing self-efficacy, with key conclusions drawn from three major studies [2,4,12]. A longitudinal study by Rademacher et al. found that timely praise and recognition from parents for behaviors like sharing and cooperation can reduce emotional dysregulation in young children, and this mechanism remains effective from preschool through elementary school [12]. Research by Neppl et al. indicates that positive feedback can enhance children's self-efficacy, making them more likely to resolve conflicts in prosocial ways [2]. This aligns closely with Madigan et al.'s theoretical framework that "positive interactions promote the development of social skills through secure attachment" [4], collectively confirming the central role of reinforcement strategies.

2.2.4 Educational support and aggressive behavior in preschoolers

Educational support influences young children's behavior by conveying understanding of rules and demonstrating conflict resolution strategies. Relevant empirical evidence comes from two Chinese studies and one English study [6,13]. Ren and colleagues' research indicated that incorporating rule education and social skill demonstrations into parent-child interactions can significantly enhance children's adaptability and reduce behavioral problems [6]. Bai Lingyu's Chinese empirical study further distinguished differences in parenting styles: in democratic interactions, rule transmission and moderate guidance can reduce aggressive behavior, whereas in authoritarian interactions, coercive intervention can increase aggression tendency [13], clarifying the boundaries of the effectiveness of educational support.

2.2.5 Interaction intensity and aggressive behavior in preschoolers

Moderate and high-quality levels of interaction inhibit aggression by providing emotional nourishment and behavioral modeling, a mechanism supported by three key studies [2,6,7]. Ren and colleagues found a threshold ef-

fect of interaction intensity: moderate weekly interactions can promote the development of social skills, whereas excessive interaction may lead to stress and behavioral problems [6]. A Chinese study by Cao Hui and others confirmed that too low a frequency of interaction can cause frustration in young children, which in turn may trigger aggression [7]. A longitudinal study by Neppi and colleagues further highlighted the importance of stability: stable, moderate interactions can foster self-regulation, while insufficient or excessive interactions can weaken this protective effect [2].

3. The Problem of Parent-Child Interaction Mode

3.1 Insufficient Emotional Support in Interaction

The upbringing style of some families is an autocratic upbringing. Authoritarian parenting style parents occupy an authoritative position in parent-child interaction, and tend to one-way communication rather than equal dialogue [14]. At the same time, they will also take a negative and ignore attitude towards the emotional expression naturally revealed by children. The lack of sufficient emotional warmth and acceptance in parent-child interaction is contrary to the emotional support above. In the process of daily interaction with children, parents do not fully use the diversified emotional support methods, such as soothing language and encouraging feedback, and children are prone to rebellion because they lack sufficient emotional nourishment in this oppressive life environment for a long time. In addition, Cano T et al. Found that the average daily parent-child time of mothers is about 150 minutes, which is three times that of fathers (50 minutes). [15]. When the emotional support provided by the mother fails to meet the needs of children, the father fails to intervene and compensate in time, and cannot provide comprehensive compensation for the children.

3.2 Poor Response Quality in Interaction

The pseudo companionship of “being present but not being present” is a common problem in many families, which is manifested by parents’ physical presence and emotional absence. Some parents are addicted to electronic devices or absent-minded, fail to accurately capture the interactive signals released by children in daily life, and even respond in the wrong way. For example, when facing the questions raised by children due to curiosity, they often rely on search engines, resulting in obscure answers. They often respond perfunctorily or even completely ig-

nore emotional demands, such as praise for children. This kind of demand is not effectively paid attention to and responded to, which will gradually make children feel a strong sense of frustration. After long-term accumulation of this negative emotion, it may be transformed into external aggressive behavior to vent the backlog of emotions inside. Aggressive behaviors, such as pushing and shoving companions and fighting for toys, are typical manifestations of such emotional catharsis.

3.3 Conflict Interaction

The frequent disputes and conflicts between parents and children provide a model sample for the acquisition and development of children’s aggressive behavior. Children learn mainly through observation and imitation in life [16]. In the scene of family interaction, when parents are used to resolving differences of opinion with quarrels and expressing their emotions with violence, children will internalize this aggressive communication in their own interpersonal communication through continuous observation and imitation. Specifically, when children and their peers have different opinions in game interaction or daily communication, they will unconsciously reproduce parents’ aggressive expressions such as yelling and blaming in the conflict; When they encounter emotional fluctuations, unsatisfied needs and other situations, they will also imitate the aggressive reactions such as falling objects learned in the family environment as the main way to vent their emotions and solve problems.

3.4 Misreading of „Children’s Aggressive Behavior“

Many parents’ cognition of children’s aggressive behavior has a significant deviation. This cognitive bias is mainly manifested in the one-sided interpretation of children’s harmful behaviors, such as pushing and shoving peers and biting others in social interaction, by parents, who believe that they are just “naughty and active” daily behaviors. Some parents respond negatively to such aggressive behaviors of their children, neither paying enough attention to them nor taking effective intervention measures. This misreading and inappropriate response to children’s aggressive behavior will send wrong behavior feedback signals to children. When parents simply classify aggressive behavior as “naughty” and let it go, children will mistakenly believe that such aggressive behavior is allowed. This kind of false cognition will be continuously strengthened in the growth, which will lead to the repeated and even intensified trend of children’s aggressive behavior. At the same time, parents’ laissez-faire attitude will also miss the critical period of behavior correction for 3-6-year-old

children, affecting personality shaping.

3.5 Insufficient Interaction Time

With the acceleration of the pace of modern life and the accumulation of life pressure, the time of parent-child coexistence in many families is compressed into scattered fragments, and it is difficult to form a stable and continuous interactive period. High-quality parent-child interaction not only needs sufficient time but also emphasizes that parents should devote themselves to it, so as to achieve in-depth emotional communication and truly meet the psychological needs of children. When the parent-child interaction only stays at the level of urging eating and sleep, parents are prone to lose patience due to time tension and impatience, perfunctorily respond to children's behavior and emotional needs, and even stop children's behavior deviation in a simple and crude way. Because children cannot get enough attention and positive guidance, their inner emotions that are not understood may be vented through aggressive behavior.

4. Optimize Parent-Child Interaction Mode

4.1 Strengthen Emotional Support in Interaction

Parents need to continue to convey warm care and acceptance to children. When children cry, parents should be patient to appease them. When children shrink back, parents should actively encourage them. When meeting differences in life, parents and children discuss and solve them and make rules together, rather than forcing or blindly compromising. When children continue to feel that their ideas are considered, their wishes are respected, and their emotions are accepted in the parent-child interaction, their inner sense of security will be significantly enhanced. From the perspective of the synergy of family education, parents should have a clear division of labor to ensure that children receive complete family emotional nourishment.

4.2 Improve the Sensitivity and Appropriateness of Response

In daily communication, parents should increase the capture of children's behavior signals and actively respond to children. Parents need to listen patiently to all kinds of questions raised by children in the process of exploring the world, and give answers that meet the children's cognitive level. When children show such intimate behaviors as flirtatious behavior and seeking comfort, parents can respond with physical interaction such as hugging. When

children learn to share or cooperate with other prosocial behaviors, they can respond with specific praise or occasional material rewards, so that children can obtain a sense of security and value in the interaction. In the face of children's negative emotions, parents should not directly and forcefully let children stop crying, but show understanding of children's emotions, and then further guide children to learn reasonable emotional relief methods, promote the establishment of safe attachment, and make children more willing to get along with others in a gentle way.

4.3 Reduce Conflict Interaction

Parents should consciously restrain conflict behaviors in front of children, and both parents' parenting views and methods should be consistent. Parents are the primary imitators of children's social behavior. When parents or parents have differences of opinion with others, they should actively abandon irrational conflict resolution methods, such as disputes, and adopt rational and peaceful communication methods to establish a correct rational communication model for children. If parents fail to control their behavior well due to inadvertent conflicts in front of children for special reasons, they should take remedial measures afterwards to explain to children that this behavior is incorrect.

4.4 Clarify the Cognition of Aggressive Behavior

Parents should correctly understand the meaning of aggressive behavior and clarify the boundary between mischief and aggression. When a child's behavior directly or indirectly causes physical or psychological harm to others, parents should intervene in time instead of letting it go. They need to take a gentle way to stop the child's behavior at first, then tell the child the reasons for not doing so and the possible consequences of aggressive behavior in a language that the child can understand, and finally teach the child the correct social strategies.

4.5 Duration of Support Interaction

Parents and children can work together to formulate a parent-child interaction schedule. Ensure that there is a stable time for emotional communication every day, which can be listening to stories, playing games, etc., and reasonably arrange some outdoor activities on weekends, which can cover multiple types such as visiting the Science and Technology Museum, walking in the park, etc. In outdoor activities, parents should constantly observe their children's social behavior. When children are found to have non-potential aggressive tendencies, parents need to intervene in time and guide them correctly.

5. Conclusion

This paper focuses on the impact of the quality of parent-child interaction on children's aggressive behavior, and sorted out five core dimensions of parent-child interaction quality, including emotional connection, response quality, motivation guidance, rules and values transmission, and duration of interaction. Each dimension affects the occurrence of children's aggressive behavior from different levels: high quality parent-child interaction can reduce the occurrence of aggressive behavior by giving children a sense of emotional security and strengthening their prosocial behavior; The lack of emotional support, poor response quality, frequent family conflicts, cognitive bias towards children's aggressive behavior, and insufficient time for parent-child interaction are often the key factors inducing children's aggressive behavior.

Based on the research and analysis, this study puts forward the optimization strategy of parent-child interaction mode from five aspects: strengthening emotional support, improving the sensitivity and appropriateness of response, reducing family conflict, clarifying the cognition of aggressive behavior, and ensuring the length of parent-child interaction, so as to provide specific guidance for family education practice. This study only discusses through theoretical analysis and literature review, and has not yet verified the research conclusion with empirical data, nor has it deeply explored the different characteristics of the relationship between parent-child interaction quality and aggressive behavior under different family types and children's age stages, which is the limitation of the study.

In the future, it can further explore this field through empirical investigation and long-term follow-up research, so that the optimization strategy of parent-child interaction can better fit the actual parenting scene, so as to better help children's social and healthy development.

Authors Contribution

All the authors contributed equally, and their names were listed in alphabetical order.

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