

# *The discussion on the mediating and moderating effects of parenting style and academic achievement in China*

Yunen Lin

*Shen Wai International School, Shenzhen, Guangdong, China*

**Keywords:** Parenting styles; intrinsic motivation; motivation

**Abstract:** Research has demonstrated that parents can greatly influence students' drive to learn and confidence in their abilities to achieve academic goals, both of which have significant impact on their academic achievement. Thus, this paper will also examine how different parenting styles may affect students' academic motivation and goal orientations, students' dispositions towards developing their ability in school, which can then influence their academic achievements. This topic is worthy of investigation as research has shown that certain parenting styles can be employed to improve academic achievement. For instance, literature has demonstrated that the guidance and granting of freedom from authoritative parenting promotes intrinsic motivation, which positively correlations with higher academic achievement. Meanwhile, parents' demandingness and responsiveness to their children can also impact their academic goals, which can greatly influence their performances at school. With increased focus and attention on education and parenting, this essay aims to explore the question, "How is the relationship between parenting styles and academic achievement mediated by students' motivation and goal orientations in China?". Through the examination of various studies, this paper concludes that the authoritarian parenting styles, mediated by factors like motivation and goal orientations, is most beneficial to the academic achievement of Chinese students.

## 1. Introduction

Parents, as children's first teachers, can significantly impact how they learn and perform academically. But even more, parenting can influence students' motivation and goal orientations, which are intricately linked to their academic achievement (Rivers 2008).

According to Baumrind's theory, there are three main types of universal parenting styles: authoritative, authoritarian, and permissive, based on parental responsiveness, how much parents attend to their children's needs and opinions, and demandingness, how much parents expect and demand of their children's behavior (Baumrind 1971). Correspondingly, authoritative parenting is characterized by high demandingness and responsiveness (Merlin et al. 2016)<sup>[1]</sup>. These parents tend to maintain a good balance between expectations, control, warmth, and appropriate granting of autonomy to have positive influence on their children and adolescents. Moreover, their attention to children's emotions and thoughts has shown to be advantageous for academic achievement (Kang and Moore 2011). Next, authoritarian parenting measures high on demandingness and low on responsiveness. These parents often emphasize self-control and high achievement in their children.

They tend to value discipline over attachment and often set rules and use punishments to ensure obedience from the child. Consequently, children of these parents are usually more extrinsically motivated in learning, which could negatively impact their academic achievement. Lastly, permissive parenting is low on both demandingness and responsiveness. These parents are generally accepting of their children and give them plenty of freedom, thus lacking control over them. As children receive limited support or expectations from their permissive parents, they are less likely to be intrinsically motivated in learning, which often leads to lower academic performances. The authoritarian parenting style is most popular among Chinese parents (Kang and Moore 2011).

Academic achievement is often measured by student's subject grades or grade point averages (GPA), and performances at school.

## **2. Correlations between each parenting style and academic achievement**

To begin with, the paper will examine research that supports positive and negative correlations between parenting styles and academic achievement.

Kang and Moore (2011) conducted a correlational study to investigate the relationship between Chinese parents' parenting styles and adolescents' academic performances. Researchers obtained information on 122 eighth graders' academic achievements from school reports including Chinese, English and mathematics; their parents filled out the Parenting Authority Questionnaire (PAQ). The three-type parenting styles model worked very well in the study, with 84% of the parents classified as permissive, authoritarian or authoritative, the remainder (16%) classified as "undifferentiated" (none of the three).

While the students' reports revealed no significant effect of fathers' parenting on academic achievement, mothers' and students' reports showed that students with authoritarian mothers scored significantly higher than those with authoritative and permissive mothers on the total of core subjects (Chinese, English and math,  $p < 0.05$ ). According to students' reports, those with permissive mothers scored significantly lower than those with authoritarian and authoritative mothers on the total of core courses.

As this is simply a correlational study, there is no causal relationship, and thus, it is impossible for the researchers to explain exactly why parenting styles can influence adolescents' academic achievement. Still, there are several explanations for why Chinese students may perform better under the guidance and expectations of an authoritarian parent, including cultural values and norms regarding desires of life quality improvements and children's future success<sup>[2]</sup>.

In sum, authoritarian parenting style, the most popular parenting styles among Chinese parents, is closely associated with high academic achievement of adolescents. While it is hard to deny the apparent correlations between parenting styles and academic achievement of students, to fully investigate how this relationship works, one has to examine the influence parenting styles can have on students' motivation and goal orientations, both of which could potentially impact a student's academic performance and achievement. Thus, the following section will discuss research supporting these two factors as mediators between the parenting-academic achievement relationship (Kang and Moore 2011).

## **3. The influence of motivation on parenting styles and its effect on academic achievement**

Research on motivation psychology and parenting styles has indicated that parents significantly influence children's motivation to learn autonomously. Self-determination theory asserts that all humans possess innate tendencies for growth and integrity, and that motivation can either be intrinsic or extrinsic. Intrinsic motivation drives engagement for the sheer joy and interest in a task, while extrinsic motivation entails performing an activity for specific outcomes. Moreover, the theory posits

that the level of autonomy in extrinsic motivation depends on the extent to which externally regulated reasons are internalized by the individual. For those externally regulated, the aim is to obtain external rewards or to avoid punishments; for those with introjected regulation, the goal is to obtain self-esteem or to avoid guilt; for those with identified regulation, the objective is to understand and support the personal value and significance of a given behavior; and finally, amotivation indicates the absence of motivation. Thus, from external rewards to internalized values, motivation spans a spectrum from amotivation to intrinsic and extrinsic motivations (Tang et al. 2018).

Connecting this to parenting styles, parents high in demandingness and responsiveness (authoritative) are more likely to encourage autonomous motivation in their children, while parents high in demandingness but low in responsiveness (authoritarian) are more likely to frustrate their children's basic psychological needs and promote extrinsic motivation (Turner et al., 2009)<sup>[3]</sup>. Permissive parents, who are low on both in demandingness and responsiveness, may be more likely to develop amotivation in their children, as a result of limited guidance and expectations.

Tang et al. (2018) studied how parenting styles influence students' academic motivation using self-determination theory. They surveyed 226 public high school students (64.2% female) and their parents in Jiangsu, China. Students completed a motivation survey in 10th grade and 12th grade respectively. Meanwhile, their parents filled out a Likert-scale questionnaire measuring parenting styles. The study used path models to correlate parenting styles in 10th grade with academic motivation in 12th grade, controlling for 10th-grade motivation.

Results of the path analysis indicated that mothers' authoritative parenting style positively influences students' intrinsic motivation ( $p = 0.01$ ) and identified regulation ( $p = 0.02$ ), ultimately enhancing academic performance. This is because authoritative parents' supportive practices, such as warmth and clear expectations, nurture children's motivation and autonomy. By demonstrating the importance of self-driven learning, these parents cultivate intrinsic motivation in their children, leading to better academic outcomes (Tang et al. 2018).

Conversely, mothers' authoritarian parenting negatively correlates with students' introjected motivation and external regulation, which means that their children most likely studied to gain rewards and an improved sense of self-esteem, or alternatively, to avoid punishment and guilt. This finding was striking for it suggests that even under the influence of globalization and Western culture, the inherent meaning of control and strictness hasn't changed to Chinese parents and students. The traditional kind of authoritarian parenting still prevailed and was deemed effective in China (Tang et al. 2018).

Similarly, permissive parenting, associated with warmth but lack of structure, from both parents correlated with external motivation; their children likely found motivation to learn from receiving rewards for good performance and punishment for poor performance. The lack of demands from permissive parents may hinder their kids from internalizing motivation, leading to lower academic achievements. Overall, authoritative parenting is deemed the most beneficial for nurturing children's academic motivation and improving performance. Moreover, in general, mothers' parenting styles tend to have a greater affect on students' academic motivation than the fathers' (Tang et al. 2018).

A limitation of the study is that it only measured academic motivation twice, in grades 10 and 12. This limits the researchers' ability to observe changes or shifts in students' motivation or achievement between the two points in time. Future research could gather data over multiple time points to explore how parenting styles impact the developmental trajectories of Chinese students' academic motivation. Still, the study supports the idea that parenting styles has an impact on students' academic motivation, which can affect their academic achievement, through influencing their levels of perceived self-competence and autonomy.

In conclusion, parenting styles significantly impact Chinese students' academic motivation and their achievements, accordingly. Mothers' authoritative and authoritarian styles can either promote

autonomous motivation or discourage controlled motivation. To enhance academic drive, Chinese mothers should create a supportive, structured environment where children feel autonomous and competent in their learning. This can involve granting appropriate decision-making freedom, considering children's perspectives, and setting attainable goals<sup>[4]</sup>. Meanwhile, although mothers often have a more substantial impact on academic motivation, involving fathers is crucial for promoting children's well-rounded development, ensuring their health and adaptability (Tang et al. 2018).

In another study by Cheung and McBride-Chang (2008), researchers studied the relations of perceived maternal parenting style and learning motivation to academic competence in Chinese children. 91 Hong Kong Chinese primary school students (aged 11~12) completed a series of scales. The Maternal Treatment Scale of the Parental Image Differential measured children's perception of maternal parenting style regarding responsiveness and demandingness through rating pairs of adjectives, like "consistent-conflicting" and "close-isolated", describing the perceived styles of treatment. Learning motivation was measured through self-rated academic motivation measures using Likert scales (from strongly disagree to strongly agree). Example statements are: "I feel most successful in school when I am the best" (for ego orientation) and "I feel most successful in school when I work to the best of my ability" (for mastery orientation). Mastery-orientated individuals tend to persist through failures, seek new challenges and embrace learning opportunities (intrinsically motivated), while ego-orientation individuals often exhibit a fixed mindset, perceiving their abilities as unchangeable (extrinsically motivated). Lastly, the children self-reported perceived academic competence in four subjects: Chinese, English, mathematics, and a general science subject using a 5-point scale.

Then, official examination records were obtained to inform the children's actual academic achievement. Moreover, parents provided information on children's physical size of home, which served as an indicator of socioeconomic status (SES). The mode of physical household size suggested that most participating families were from the middle economic stratum (Cheung and McBride-Chang 2008).

Analyses of the data indicated that mothers were perceived as being both responsive and demanding. Surprisingly, though, perceived maternal demands for achievements were positively linked with responsiveness but not with demandingness, suggesting that Chinese parents show love and guidance for their children through requests or demands.

Regarding motivational orientations, the findings showed that learning motivation could be affected by maternal behaviors relating to academics. Specifically, maternal practice of support and encouragement, or greater responsiveness, can lead to increased mastery and ego motivation (meaning both intrinsic and extrinsic motivation). Still, school achievement was only explained by maternal restrictiveness and demands on achievement, and not by increase in motivation.

Connecting to real life, inside the Chinese educational system, examination results largely determine the overall success or failure of Chinese children. Therefore, parents may be demanding on their children's academic competence. The results have shown that this kind of demandingness appears to be affective in promoting academic success in Chinese students, especially for those who tend to avoid negative consequences and use externally regulated extrinsic motivation.

As this study is purely correlational, the researchers cannot demonstrate explicit directionalities among the variables studied. Still, with maternal supportiveness predicting children's learning motivation, it is reasonable to suggest that children who have higher learning motivation also perceived their mothers as being more supportive<sup>[5]</sup>. Nonetheless, it is also possible that children who did better academically also perceived their mothers to be more demanding. Thus, more research is needed to explore the directionality of these variables.

Despite the limitations, this study presented valuable findings on the relationships between

achievement, learning motivation and maternal parenting, showing that achievement support and demand linked with academic outcome while learning motivation did not. Thus, it may be concluded that, although the direct link between motivation and school achievements is unclear, authoritative parenting, with high levels of responsiveness and demandingness, is best for increasing students' academic motivation and achievements (Cheung McBride-Chang).

#### 4. The influence of goal orientations on parenting styles and its effect on academic achievement

There has been a growing focus on how psychological concepts like achievement goal orientations impact students' academic success. However, there is a paucity of literature on how these goals are shaped by parents and how they affect academic achievements. This paper seeks to address this gap by exploring these relationships (Chen 2015).

Achievement goal orientations refer to the purposes for students' learning behaviors, and the assessment criteria students use to evaluate their performance in achievement contexts. Initially, two orientations were identified: mastery goals, focused on learning and skill acquisition, and performance goals, centered on demonstrating ability relative to others (Dweck & Leggett, 1988). Later researchers (Elliot, 1999; Elliot & Covington, 2001; Elliot & Harackiewicz, 1996) introduced an approach-avoidance distinction to include a 2×2 framework with mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance goals (Elliot, 1999; Elliot & McGregor, 2001; Pintrich, 2000). Performance-approach goals aim to surpass others, while performance-avoidance goals strive to prevent failure or appearing inferior. Mastery-approach goals develop competence to learn and understand, while mastery-avoidance goals aim to avoid misunderstanding (Elliot & Harackiewicz, 1996; Elliot & McGregor, 2001)<sup>[6]</sup>. This study adopts the three-component framework (excluding mastery-avoidance goals) as it is most commonly used (Chen 2015).

Chen (2015) aimed to examine the relations between perceived parenting styles, goal orientations, and academic achievement among Chinese students. A 30-minute self-report questionnaire was administered to 339 university students (215 females, 124 males) in Hong Kong to assess their perceptions of parenting styles, goal orientations, and grade point averages. The questionnaire included the Parental Authority Questionnaire (Buri, 1991) to measure perceived parenting styles (Authoritative and Authoritarian) and Elliot and Church's (1997) Achievement Goals Scale for assessing goal orientations. Students' academic achievement was indicated by their self-reported cumulative grade point average (GPA, ranging from 0 to 4) (Chen 2015).

The results showed that individuals' perceptions of parenting styles shape their goal orientations, which in turn contribute to their academic performance. Using structural equation modeling, perceived authoritative parenting was related to Chinese students' mastery goals and performance-approach goals, positively affecting their academic achievement. Perceived authoritarian parenting was positively associated with academic achievement by shaping Chinese students' performance-approach goals and negatively with academic achievement by shaping Chinese students' performance-avoidance goals (Chen 2015).

In line with Western literature, parents seen as democratic and supportive of independence tend to raise children focused on competence and self-reliance. The autonomy given by authoritative parents may help children fulfill their internal needs for learning, leading to improved academic performance. Conversely, under authoritarian parenting, which emphasizes obedience and strictness, children may prioritize proving their abilities and avoiding failure. Stronger performance-approach goals correlate with higher academic achievement, while stronger performance-avoidance goals correlated with lower academic performance. Therefore, parenting styles by itself cannot determine students' academic achievement; goal orientation as a mediator also affects how parents impact their kids and

how they learn (Chen 2015).

A limitation of the current study is that its structural equation modeling results point to complex, bidirectional relationships among perceived parenting, goal orientations, and academic achievement. As the current model merely examines how students' perceptions of their parents' parenting styles can affect their academic success by shaping goal orientations, future research including longitudinal studies is needed to further explore these intricate connections. Additionally, conclusions drawn in the study are based on students' variable perceptions rather than the actual, observed, parenting styles and behaviors, potentially skewing the findings. To enhance accuracy, future studies should incorporate parental reports to accurately gather real parenting styles use in the family. Despite these areas for improvement however, the study contributes to the literature by a) including academic achievement as an outcome measure to understand the combined influence of familial and motivational factors on school success; b) Employing the three-component goal orientation framework for a comprehensive analysis of its connections with perceived parenting styles and academic achievement; and c) Examining research questions within the Chinese cultural context to highlight the unique learning dynamics of Chinese students (Chen 2015).

To conclude, this study has demonstrated the effectiveness of authoritarian parenting in promoting performance-approach goals, or aims to excel others, in students, which can be extremely beneficial to students' academic achievements<sup>[7]</sup>.

## 5. External Factors

Finally, it is important to recognize that although authoritarian parenting may be the best for yielding satisfactory academic results from students, it may not apply well to every child. For instance, although authoritarian parenting may be the most successful in increasing students' extrinsic motivation and performance-approach goals, allowing them to excel academically, it may not be the healthiest or most appropriate way to learn and grow for every child. Some may find it oppressive or even toxic.

Furthermore, while parenting styles (authoritative, authoritarian, permissive) are easy for categorizing parenting behaviors, they do not encompass all facets of parenting. Various other methods exist for evaluating parenting, such as Skinner, Johnson, and Snyder's six parenting dimensions. Moreover, parents typically employ a mix of parenting styles rather than sticking to a single approach (Mendez 2022). One parenting style may not fully encapsulate a parent's involvement and behaviors. Perhaps the best parenting style for cultivating school success is a mix of parenting practices from differing styles. Therefore, to arrive at a more holistic understanding of the relationship between parenting and academic achievement, broader measures to evaluate a parent's influence on a child's development and success are vital.

Lastly, future research endeavors could delve into specialized and nuanced areas, such as investigating the impact of parenting styles on academic performance across specific subjects (e.g., arts versus sciences)<sup>[8]</sup>. Then, examining the potential effects of growing up in intact families compared to non-intact families (divorced, separated, or widowed) on students' academic achievements, while accounting for variables like age, gender, and socioeconomic status, could offer finer insights. Finally, to be more well-rounded, an exploration into how more social influences such as peers and teachers shape motivation and goal orientations and subsequently influence academic achievement could also be beneficial.

## 6. Conclusion

While the relationship between parenting styles and academic achievement is complex, given cultural, social and cognitive factors, substantial studies have found that authoritarian parenting

positively correlates with academic achievement of Chinese students while authoritative and permissive parenting have no correlation or correlate negatively with academic achievement. Additionally, mediating factors like motivation and goal orientations of the student indeed influence how parenting affect academic achievement<sup>[9]</sup>. To conclude, although the authoritarian parenting styles is most relevant in predicting high academic achievement in Chinese students, it may not be the most fruitful in promoting students' motivation and goal orientations, both of which may boost their academic achievement.

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