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**RESEARCH ARTICLE**

## The Impact of Parental Educational Expectations and Parental Education on Adolescent Academics

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**ABSTRACT**

In today's rapidly developing era, an increasing number of parents hope that their children will have good academic performance and a bright future. Both parental expectations and educational attainment can influence a child's academic level. Excessive expectations can have a negative impact on a child's academic performance, and higher educational attainment can also affect intergenerational expectations. This study is based on data from the China Education Panel Survey (CEPS), using correlation analysis and ANOVA to explore the effects of parental educational expectations and parental educational attainment on the academic performance of adolescents. The results of the study revealed that there is a significant positive correlation between parental expectations and academic performance. However, the impact of parental educational attainment differs between fathers and mothers, with only the mother's educational attainment having an influence on a child's academic performance. We recommend that parents should maintain a moderate level of expectation to ensure that their child's academic performance is at a high level. At the same time, there should be a balance between fathers' and mothers' investment in education.

**KEYWORDS**

Parental educational expectations; Parental education; Academic performance; Desktop research.

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### 1. Introduction

In the rapidly developing new era, the abundance of resources and opportunities has led to an increasing expectation from parents regarding their children's education. Unlike in the past, when parents were satisfied with their children achieving the same level of education as themselves, today's scholars generally have higher educational qualifications. As a result, parents now expect their children to surpass or even exceed their own educational achievements. As the "first teachers" in their children's lives, parents play a significant role (Ma & Zhang, 2022). Adolescents often consider their parents as role models and strive to approach or surpass their parents' educational attainment based on their parents' educational expectations.

The educational background of parents often influences their expectations for their adolescents' education. The higher the parents' educational qualifications, the higher their expectations tend to be. However, under the influence of parental educational expectations, adolescents often perceive significant academic pressure. Generally, the higher the parents' educational expectations, the greater the academic pressure on adolescents. Unfortunately, academic pressure does not always effectively translate into motivation for learning and can instead lead to psychological stress. Prolonged high levels of psychological pressure can result in mental health issues such as anxiety, irritability, and depression (Deng et al., 2022). Increased conflict with parents due to heightened expectations can further exacerbate adolescents' emotional distress (Silva et al., 2020), intensifying their psychological issues and potentially reducing their sense of well-being. Negative emotions arising from conflicts can undermine the positive

qualities of the parent-child relationship, making it more challenging for adolescents to find the motivation to meet their parents' educational expectations, thereby affecting their academic performance. However, some studies have found a positive correlation between parental expectations and students' academic achievements (Hu & Yang, 2009). Based on these findings, we will explore the impact of parental expectations and parents' educational background on adolescents' academic performance through desk research.

## **2. Literature Review**

### **2.1 The Impact of Parental Education on Adolescent Academic Performance**

Some studies have shown a significant positive correlation between parents' educational level and their children's academic performance. The level of education can influence intergenerational expectations, which in turn affect the academic achievement of children. Parents with higher education may have excessively high educational expectations that can impact their children's academic performance, while parents with lower education levels may be at a disadvantage in terms of their educational literacy and may exhibit inappropriate parenting practices (Li et al., 2024). On the other hand, highly educated parents often have access to strong educational resources, and under such conditions, they are often able to cultivate outstanding children.

### **2.2 The Effect of Parental Educational Expectations on Adolescent Academic Performance**

Research has shown that parents' educational expectations have a significant impact on their children's academic performance. Parents with high expectations are more likely to create a favorable learning environment and provide the necessary support, thereby improving their children's academic achievements (Li et al., 2023; Ma et al., 2018). However, excessively high expectations can also cause anxiety in children and have a negative impact on their academic performance (Du & Li, 2023). Current research emphasizes the importance of parents selecting the most appropriate educational approach when raising their children (Du & Li, 2023; Guo et al., 2019), avoiding both excessively high and excessively low expectations.

### **2.3 Discussion of Relevant Mechanisms**

In addition, this study also found that parental involvement (Li et al., 2022), parental educational investment (Zhang et al., 2015), and parenting styles (Guo & Wu, 2011) may all have an impact on adolescent academic performance. Parents' educational background and educational expectations together shape the cultural atmosphere within the family. A home environment that is academically oriented helps cultivate children's interest and motivation for learning, thereby improving their academic performance (Liu & Liu, 2023). Parents' educational background and educational expectations also influence their parenting styles. Parents with higher education tend to adopt democratic and open educational approaches, encouraging their children to think independently and learn autonomously. On the other hand, parents with high expectations focus more on cultivating their children's self-discipline and sense of responsibility to achieve their educational goals. These parenting styles contribute to improving adolescents' academic performance. However, there is limited research exploring the differential impact of fathers' and mothers' educational levels on adolescent academic performance.

This study will focus on the relationship between parental educational background, parental expectations, and adolescent academic achievement and further investigate the reasons for the differential effects of fathers' and mothers' educational levels on adolescent academic performance. The study proposes the following three hypotheses:

Hypothesis 1 (H1): There is a significant positive correlation between parental educational background and adolescent academic performance.

Hypothesis 2 (H2): There is a significant positive correlation between parental expectations and adolescent academic performance.

Hypothesis 3 (H3): Fathers' and mothers' educational levels have differential effects on adolescent academic performance.

## **3 Results & Analysis**

### **3.1 Data Source**

The data for this study were sourced from the China Education Panel Survey (CEPS) database. The survey's sample population includes 28 county-level units, 112 schools, and approximately 20,000 students, along with their parents, teachers, and school administrators from the seventh, eighth, and ninth grades. The survey adopted a multi-stage, proportionate probability sampling method based on the size of the population. In the first stage, primary sampling units were determined by selecting 28 counties from all counties and districts across the country. In the second stage, four schools offering seventh and/or ninth grades were selected within the geographical scope of the 28 counties. In the third stage, two seventh-grade classes and two ninth-grade classes were randomly selected, resulting in a total of four classes. In the final stage, cluster sampling was employed to include all students, parents, teachers, and school administrators from the selected classes as survey participants. The actual sample size upon completion of the survey was 112 schools and 438 classes. This project covers a wide range of data, including students' basic information, developmental experiences, extracurricular activities, social and behavioral development, and educational

expectations. It also includes basic information and educational expectations of parents, making it highly relevant to the topic of this study. The analysis in this study focuses on the tracking data from the 2014-2015 academic year.

**3.2 Independent Variable**

This study focuses on the influence of parental expectations and parental education on adolescents' academic performance. Therefore, the independent variables of this study are parental expectations and parental education. Parental expectations are measured based on the question in the database regarding the level of education parents hope their children will achieve (1. Stop studying now, 2. Junior high school graduation, 3. Vocational school, 4. Vocational high school, 5. Regular high school, 6. College associate degree, 7. College bachelor's degree, 8. Graduate degree, 9. Doctorate). Parental education is measured based on the educational level of the father (1. No education, 2. Primary school, 3. Junior high school, 4. Vocational school, 5. Vocational high school, 6. Regular high school, 7. College associate degree, 8. College bachelor's degree, 9. Graduate degree and above) and the mother (1. No education, 2. Primary school, 3. Junior high school, 4. Vocational school, 5. Vocational high school, 6. Regular high school, 7. College associate degree, 8. College bachelor's degree, 9. Graduate degree and above). Based on these measurements, the experimental design can be summarized as a 9x9 factorial between-subjects design.

**3.3 Dependent Variable**

The dependent variable of this study is the students' midterm exam scores in the autumn semester of 2014, which were provided directly by the school. The study focuses on analyzing the average scores in the subjects of Chinese, mathematics, and English. By comparing the average scores in these subjects, the impact of parental expectations and parental education on students' academic performance can be assessed.

**3.4 Data Analysis**

The data were analyzed using SPSS 24, and the results of the analysis are as follows:

**3.4.1 Descriptive statistics**

After excluding data with missing values, a total of 9139 observations were available for analysis. The descriptive statistics of the data, split by different levels of the dependent variable, are presented in Table 1.

*Table 1 Descriptive statistics of the data*

The Level of Education Parents Hope Their Children Will Achieve	Number of Cases	Average Value	Standard Deviation
Stop studying now	19	63	33
Junior high school graduation	133	41	17
Vocational school	352	51	21
Vocational high school	275	54	21
Regular high school	420	54	20
College associate degree	1377	69	22
College bachelor's degree	3460	79	21
Graduate degree	1625	90	20
Doctorate	1478	84	23
Educational Level of The Father	Number of Cases	Average Value	Standard Deviation
No education	59	62	24
Primary school	1195	68	25
Junior high school	3967	74	24
Vocational school	655	81	23
Vocational high school	350	76	23
Regular high school	1230	79	24
College associate degree	794	87	22
College bachelor's degree	765	90	21
Graduate degree and above	124	82	26
Educational Level of The Mother	Number of Cases	Average Value	Standard Deviation
No education	289	66	25
Primary school	1621	70	24
Junior high school	3755	75	24
Vocational school	625	82	24
Vocational high school	361	77	23

Regular high school	986	80	24
College associate degree	783	87	21
College bachelor's degree	659	89	20
Graduate degree and above	60	83	27

### 3.4.2 Correlation Analysis

Referring to previous research, parental expectations were assigned values based on the current educational system. The educational levels were assigned as follows: "No longer studying (Grade 8)" = 7 years, "Junior high school graduate" = 9 years, "Secondary vocational school" and "Vocational high school" and "High school" = 12 years, "Junior college" = 15 years, "Undergraduate" = 16 years, "Graduate" = 19 years, "Doctorate" = 22 years. Parental expectations were defined as a non-strict interval variable. Pearson correlation analysis was conducted on the data, resulting in  $r = .40$ ,  $p < .001$ , indicating a significant positive correlation between parental expectations and academic performance.

Considering the father's education level as a non-strict interval scale, Pearson correlation analysis was performed, revealing  $r = .24$ ,  $p < .001$ , indicating a significant positive correlation. Similarly, considering the mother's education level as a non-strict interval scale, Pearson correlation analysis showed  $r = .23$ ,  $p < .001$ , indicating a significant positive correlation.

### 3.4.3 Analyses of Variance (ANOVA)

A 9×9 two-way ANOVA was conducted to examine the effects of the father's education level and parental expectations. The results indicated that the main effect of the father's education level was not significant ( $F(8, 9065) = 0.84$ ,  $p > .05$ ), while the main effect of parental expectations was significant ( $F(8, 9065) = 44.07$ ,  $p < .001$ , partial  $\eta^2 = .037$ ). Furthermore, there was a significant interaction effect between father's education level and parental expectations ( $F(57, 9065) = 2.05$ ,  $p < .001$ , partial  $\eta^2 = .013$ ).

Further analysis of simple effects revealed that parental expectations had a significant impact on children's academic performance in all cases except when the father had no education.

Regarding the mother's education level and parental expectations, the 9×9 two-way ANOVA showed a significant main effect of the mother's education level ( $F(8, 9065) = 2.192$ ,  $p < .05$ , partial  $\eta^2 = .002$ ), a significant main effect of parental expectations ( $F(8, 9065) = 50.57$ ,  $p < .001$ , partial  $\eta^2 = .043$ ), and a significant interaction effect between the two factors ( $F(57, 9065) = 3.05$ ,  $p < .001$ , partial  $\eta^2 = .019$ ).

Simple effects analysis indicated that parental expectations had a significant impact on children's academic performance in all cases.

## 4. Discussion

As the most fundamental unit of society, the family serves as an important bridge in interpersonal relationships and plays a crucial role in supporting children's education as the economic entity and source of opportunities. "Parents are their children's first teachers and lifelong teachers." Parental involvement in the education of adolescents is widely recognized as a significant factor in their academic achievement and success. Baumrind (1978) suggests that the development of adolescents is not determined by a single parent or a specific behavior but rather influenced by the overall behavior patterns of both parents.

In a family, it is often observed that the mother's educational level is lower than that of the father. However, after analyzing the data, it was found that the educational effect of the father is not significantly different from that of the mother. We propose two explanations for this phenomenon:

**Influence of Traditional Gender Roles:** The traditional division of labor in the family may play a role in this phenomenon (Gao, 2022). It is commonly believed that fathers primarily assume the responsibility of economic support in family education, while mothers are responsible for nurturing and educating the children. As a result, mothers tend to invest more time and energy in family education. Highly educated mothers, with their own qualities, values, and behaviors, can subtly influence their children's study habits. Throughout the adolescent's growth, due to the mother's constant presence, the child gradually aligns with the mother in terms of lifestyle habits. In terms of learning, highly educated mothers can promptly help their children solve academic problems and cultivate their thinking abilities. In terms of socialization, the values, moral cultivation, and social skills of highly educated mothers become examples for children to learn from.

**Innate Gender Differences:** Another explanation lies in the "natural" differences in character between males and females. When parents have the same high level of education, children may prefer one parent's educational approach and style. Psychological research suggests that women have superior linguistic abilities, empathy skills, and information processing abilities (such as

numbers and memory) compared to men. In terms of personality and character, women exhibit higher levels of empathy, while men tend to display higher levels of openness to thinking. Notably, men often exhibit higher levels of self-confidence and a preference for taking risks, while women tend to be more cautious, graceful, and gentle. In terms of moral ethics, men tend to make rational and fair moral choices, while women are more inclined to make emotional and cautious moral choices. These differences suggest that women are better equipped to fulfill the role of educating children.

It is important to note that these explanations are based on observations and generalizations, and individual circumstances may vary. Further research is needed to delve deeper into the specific reasons for the differential effects of paternal and maternal educational levels on adolescent academic achievement.

## **5. Conclusions**

Although some studies have found that excessively high parental expectations can have negative effects on children's academic performance (Peng et al., 2024; Trinidad, 2019), the findings of this study still support the positive correlation between parental expectations and student academic achievement, as discovered in numerous previous studies (Bowen et al., 2012; Chen & Hesketh, 2021; Froiland & Worrell, 2017). Previous research has not specifically focused on the impact of parental education on children's academic performance. However, this study has found that the mother's education level does have an influence on children's academic achievement, which can be explained by previous research indicating that mothers' increased involvement in their children's education plays a role (Tam, 2009).

Also, the study has certain limitations. For instance, the database used in this study is based on surveys conducted in 2014-2015, which may limit its timeliness. Moreover, this study does not employ a strictly controlled experimental design, making it difficult to directly establish a causal relationship between parental expectations, parental education, and adolescent academic performance.

In real life, this form of high-expectation education is often projected around us through various channels. In various audiovisual works, this high-expectation education style is often manifested by the mother, while the father is rarely involved in family education. Under the pressure of high expectations, teenagers will gradually escape from their families and the world to heal throughout their lives. The overlimit effect often occurs in family education when parents have too high expectations and control too strictly for their children, putting too much pressure on them. Regardless of the expectancy effect or the overlimit effect, in the context of educating teenagers, parents' high academic expectations for teenagers require leading by example, with both parents actively involved in teenagers' studies.

Based on the results obtained from this study, the following recommendations can be made. Firstly, regardless of whether parents have a high or low level of education, it is important for them to understand the principles of parental education. They should recognize that "parents are their children's lifelong teachers, and family education is the foundation of all education." The influence of parents on their children is an essential factor that cannot be ignored during their growth. This influence is subtle long-lasting, and determines their developmental direction, impacting their entire lives. Secondly, in the process of educating their children, both parents are indispensable. The different educational philosophies and personality differences between parents can provide children with a variety of learning experiences. It is important to cultivate children's multidimensional thinking abilities, which will be essential for their future development. Finally, while it is true that parental expectations can have positive effects on children, it is also important to acknowledge that excessively high expectations can lead to children experiencing excessive pressure (Naumann et al., 2012; Silinskas et al., 2015). Parents should not overly involve themselves in their children's learning processes; instead, the ultimate goal of parental involvement should be to cultivate children's ability for independent learning.

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