The Relationship between Parents' Education Level, Family Economic Situation, and Expectations for Children's Education

Leyan Li*

Department of Japanese Language, Anhui University, Hefei, Anhui, 230601, China

*Corresponding author: G32114027@stu.ahu.edu.cn

Abstract. With the arrival of the knowledge economy era, education has been increasingly emphasized. Family education as an important part of education, by all sectors of society, has also attracted the attention of many scholars. Scholars have conducted a number of studies on various aspects of family education, existing research has explored the many influences on family education, but most of them focus on the interrelationships between the various factors, and seldom involves the comparison between the two groups of comparisons between related variables. The purpose of this study is to explore the relationship between parents' educational attainment, family economic status and children's educational expectations. It also attempts to compare which of these two factors has a greater impact on children's educational expectations. By studying and analyzing the previous literature and using the method of empirical analysis, this paper concludes that family economic status and parents' education level have a significant effect on children's educational expectations. In addition, family economy has a relatively small effect on children's educational expectations compared to parents' education level.

Keywords: Family education, Educational expectations, Economic level of the family, Educational level of parents.

1. Introduction

1.1. Research Background

After entering the era of the knowledge economy, knowledge has become the most valuable capital. People with more knowledge often have easier access to other resources, such as high-income and good-treatment jobs, rich social networks, etc., thus making it easier to achieve their life goals.

In order to manage education properly, the family, the school, the government, and the community all have the responsibility. Family is the most significant educational institution in life, and parents are children's primary educators. The family, as a part of society, is essential to a child's education. The importance of family education is growing along with the adoption of the "double reduction" program. On October 23, 2021, the "Law of the People's Republic of China on the Promotion of Family Education" was adopted, demonstrating the importance the Party and the government place on family education and elevating it to the status of a legal requirement.

Existing research has demonstrated that parental expectations of their children have a significant impact on family education spending and ultimate education acquisition, and that parents' educational attainment and family financial situation also have a significant impact on children's educational expectations [1,2]. The education level of parents can directly reflect their cognitive level and cultural literacy, while the economic situation of the family is likely to affect education expenditure. These factors will comprehensively affect parents' understanding and expectations of their children's education

This article aims to explore the impact of parents' education level and family economic situation on their children's educational expectations, and attempt to compare their correlation and the strength of the impact, providing targeted suggestions and references for the formulation of future education policies and the promotion of social mobility.

1.2. Research Meaning

Education is important for both a nation's progress and the achievement of personal beliefs. Family education is a crucial component of education as well, and a thorough investigation of the influences of parents' educational attainment and family economic standing on their children's educational expectations can contribute to a better understanding of these aspects and their relationships.

The expected number of years of education will be negatively impacted, according to Engel's regression coefficient of -0.010 (t=-4.98, p=0.0000.01).

The gender endowment regression coefficient is 0.072 (t=1.05, p=0.293>0.05), which indicates that there is no statistically significant relationship between gender endowment and the number of years of education that are anticipated.

The child's skill will undoubtedly have a positive influence on desired years of schooling, as shown by the regression coefficient value for the child's talent of 0.067 (t=3.929, p=0.000-0.01).

2. Review of the Literature and Research Assumptions

2.1. Literature Review

Family background factors play an important role in influencing children's education. Among them, parents' level of education and family economic situation are two important family background factors, and the expectations for children's education are closely related to them.

It has been shown that children's expectations for their schooling are strongly influenced by the educational standing of their parents. According to Hou Qianqian's research, parents' educational attainment had a favorable impact on their children's educational expectations [1]. Yang Bao Yan and Wan Minggang's study further explored the effects of father's education level and economic capital on children's academic performance through the analysis of mediating and moderating effects [3]. They found that fathers' educational attainment and economic capital indirectly affect children's academic performance by influencing the family learning environment and the provision of educational resources [3]. Additionally, Yu Xiulan's research demonstrated the significance of parents' educational beliefs and social background on their children's educational expectations [4].

The financial position of the family also affects the educational expectations of the children. In their empirical investigation, Wang Fuqin and Shi Yiwen found a substantial correlation between family background and educational aspirations for pursuing a university education [5]. The study by Liu Baozhong, Zhang Yueyun, and Li Jianxin, on the other hand, emphasized the significance of parental engagement in this situation by highlighting the mediating function between family socioeconomic position and teenagers' educational goals [6]. The study by Cai Qingfeng, Cheng Zhangji and Chen Wuyuan, on the other hand, explored the relationship between family educational expectations and class mobility from the perspective of social capital [7].

To summarize, there is an important relationship between parents' education level and family economic situation and educational expectations for their children [8]. Understanding and studying this relationship is important for promoting the development of children's education. Therefore, this study will further explore this relationship and verify the relevant hypotheses through empirical research, with a view to providing a valuable reference basis for educational decision-making.

2.2. Research Hypothesis

The four research hypotheses listed below are proposed based on the overview above:

H1: Children's aspirations for their education and parents' educational levels are considerably positively connected.

H2: Children's expectations for their schooling and family income are significantly positively correlated.

H3: Parents' educational level is more correlated with the expectation of their children than that of the family economy.

H4: Parents' educational level has more influence on children's expectation than family income.

3. Research Design

3.1. Definition of the Concept

3.1.1. Parents' educational level

Parental educational attainment can be determined using one of two basic methods: the greatest degree of education, or the number of years of schooling. In this paper, the author applies the first approach, which is to gauge parents' educational achievement based on the highest degree they have earned.

3.1.2. Family Economic Situation

There are also many indicators to measure the economic level of a household, such as total household income, per capita household income, and household net worth, but all of these indicators have a certain degree of error. In this paper, the Engel coefficient is used to measure the economic level of the family.

3.1.3. Expectations for Children's Education

In the Modern Chinese Dictionary, expectation is understood to mean "to expect, or await, the future. "Parents' expectations are what parents think and plan for the future of their children, based on their experience, their level of education, and what they think, and that's what parents think about the future of their kids. Parents' education expectations, on the other hand, refer to what parents expect of their children in terms of their experience, level of education, and ideas.

3.2. Research Techniques

3.2.1. Empirical analysis

In this paper, the China Education Tracking Survey (CEPS) data was selected as the research sample, and stata17 was used to study the sample data using the method of empirical analysis.

3.2.2. Comparative study

By comparing the strength of the correlation to see who has a stronger correlation between the two variables and by comparing the regression coefficients, an attempt was made to examine who has a greater influence on the educational expectations of children.

3.3. Components and Data

3.3.1. Data sources and data processing

The China Family Tracking Survey (CFPS2020), conducted by Peking University's China Center for Social Science Surveys in 2020, collected home microdata on a sample of 28,590 households in 31 provinces, municipalities, and autonomous areas. The survey contains four questionnaires: family member questionnaire, individual questionnaire, child proxy questionnaire, and household economic questionnaire, and four databases are generated based on these four questionnaires. The data used in this paper was cleaned and data processed by integrating these four databases and centralizing the desired variables in one database. After screening and processing the data, 5106 samples were finally retained.

3.3.3. Description of variables

The educational attainment of the parents and the family's financial situation are treated as independent factors in this study, whereas the parents' expectations for their own schooling are treated as dependent variables. In this article, parents' educational level is measured by parents' highest education. Using stata17, the parents' educational level is analyzed, and the parents' highest educational level is converted into years of education. If, for instance, both parents have the highest

level of education at primary school, they have six years of schooling; if both parents have the highest education, they have nine years of education Engel's coefficient, which is computed as (food expenditure/total household expenditure) *100%, is used to determine a household's economic status. The Engel's coefficient decreases as family wealth increases [9]. The WD2 "Desired Educational Attainment" in Section D of the CFPS Child Surrogate Questionnaire is used to assess expectations for children's schooling. Expectations for children's education are evaluated using the WD2 "Desired Educational Attainment" in Section D of the CFPS Child Surrogate Questionnaire. According to the options, the desired educational attainment is converted to the anticipated number of school years for children. For instance, six school years are ideal if elementary school is the recommended level of study.

In addition to that, there are four control variables in this paper, which are the gender of children, children's talent, children's physical condition, and household book collection.

4. Result

4.1. Descriptive Analysis

After screening and processing the CFPS2020 data, a final sample of 5106 was retained, of which 43.52% of the children were female and 56.48% of the children's gender was male. The descriptive statistics for each variable are shown in Table 1.

Table 1. Descriptive statistical analysis

Variable names	sample size	Min.	Max..	Avg.	SD	Median
parents' educational expectations for their children	5106	1.000	23.000	16.262	2.455	16.000
parents' education level	5106	3.000	24.000	9.535	3.969	9.000
Engel's coefficient	5106	1.000	100.000	31.209	17.166	29.000
Household book collection	5106	0.000	3000.000	66.672	172.005	20.000
children's talent	5106	1.000	10.000	7.120	2.011	7.000
children's physical condition	5106	1.000	50.000	3.039	3.085	2.000

As shown in Table 1, the dependent variable is parents' desired years of education, whose mean is 16.262 and median is 16. Through the distribution of the data, it is found that 75.28% of the parents want their children's years of education to be 16, which indicates that the majority of the parents' desired years of their children's education is about 16 years, which means that they want their children's highest education to be a bachelor's degree.

The independent variables are years of parental education and Engel's coefficient, and the maximum values of these two variables are both more than 3 standard deviations above the mean, indicating that the data fluctuates a lot. By analyzing the data, we know that 11.59% of parents have 3 years of education; 17.90% of parents have 6 years of education; 33.94% have 9 years of education; 20.56% have 12 years of education; 15.28% have 16 years of education; and 0.73% have more than 16 years of education. It can be seen that parents' years of education are concentrated in 9 to 12 years, which means that parents' education level is concentrated in junior and senior high school education.

For Engel's coefficient, it can be seen that its average value is 31.209, but the difference of its maximum value is very big, and the overall distribution is relatively even, and there is no concentrated distribution.

For the family book collection, children's talent, and the number of medical consultations for illness in the past 12 months, the differences in the maximum values are large, and the overall distribution is relatively even, with no centralized distribution.

4.2. Correlational Research

4.2.1. Analysis of the link between the parents' own educational years and the years they estimate their children will spend in school

Table 2. Correlation analysis between parents' desired years of children's education and parents' years of education

	parents' expectations for their kids' education	parents' education level
parents' educational expectations for their children	1	
parents' education level	0.104**	1

* $p<0.05$** $p<0.01$

Correlation analysis was used to analyze the relationship between the years of education of the parents and the years of education of their children. The strength of the connection was assessed using Pearson's correlation coefficient. Table 2 analysis demonstrates that:

According to the correlation coefficient between parents' desired years of schooling for their children and parents' years of schooling, which is 0.104 and significant at the 0.01 level, there is a significant positive correlation between parents' desired years of schooling for their children and parents' years of schooling.

4.2.2. Analysis of the relationship between the Engel coefficient and the number of years parents want their kids to spend in school

Table 3. Analysis of the connection between the Engel coefficient and the number of years that parents want their children to spend in school

	parents' expectations for their kids' education	Engel's coefficient
parents' educational expectations for their children	1	
Engel's coefficient	-0.077**	1

* p<0.05** p<0.01

The strength of the relationship between the number of years of schooling the parents wanted and Engel's coefficient was assessed using the Person's correlation coefficient, as shown in Table 3. According to the detailed analysis, there is a significant negative correlation between parents' desired years of education and Engel's coefficient, with a correlation coefficient between parents' desired years of education and Engel's coefficient of -0.077 and significance at the level of 0.01.

4.2.3. Conclusions of the relevance analysis

Through correlation analysis, the following conclusions were obtained:

Parents' willingness to educate their children is positively correlated with the amount of years of education they have. It has been demonstrated that the expected length of parental education depicts that length and that the length of parental expectations reveals the degree of parental education. The implication is that there is a strong positive correlation between parents' educational backgrounds and their children's educational aspirations.

Parental expectations for their children's school years and Engel's coefficient show a very large inverse connection. As was previously stated, parents' expectations for their children's education are represented by the number of years they believe they will spend in school; however, the family's financial situation is demonstrated by the Engel's coefficient, with a lower Engel's coefficient indicating a higher level of economic well-being for the family [10]. Then the author can get: the

family economic level and the educational expectations for children are significantly positively correlated, hypothesis 2 is valid, and the correlation coefficient of these two takes the absolute value of -0.077, which is 0.077.

The author may determine that there is a higher association between parents' educational attainment and their expectations for their children's schooling by comparing the correlation coefficients. The third theory is likewise accurate.

4.3. Multiple linear regression

After comparing the stronger correlation between parents' educational attainment and their children's instructional expectations using correlation coefficients, this study investigates whether the influence of parents' educational attainment on children's expectations has a greater utility than the influence of families' economic status on children's educational expectations [11]. In order to compare the magnitude of the regression coefficients while accounting for other factors, a multiple linear regression equation was utilized for this question. Table 4 displays the findings of linear regression after adjusting for the child's gender, family book collection, talent, and the frequency of sick visits in the previous 12 months:

Table 4. Results of multiple linear regression analysis

Variables	(1) Expected years of schooling for children
parents' expectations for their kids' education	0.059***
	(0.008)
Engel's coefficient	-0.010***
	(0.002)
Children’s gender	0.072
	(0.067)
Household book collection	0.001***
	(0.000)
children's talent	0.067***
	(0.019)
Number of medical consultations for illnesses in the last 12 months	-0.021
	(0.018)
Constant	15.496***
	(0.186)
Observations	5,106
R-squared	0.0238
Fpvalue	0
r2_a	0.0227
F	20.85

Parents' years of education, Engel, gender of the child, child's endowment, number of medical appointments due to illness in the last 12 months, and family book collection were used as independent variables while desired years of education was used as the dependent variable in a linear regression analysis with the model equation:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + +\beta_n X_n + \mu_i$$

From the above table, it can be concluded that: Desired years of education = 15.496 + 0.059*years of parental education - 0.010*Engel + 0.072*Gender assignment + 0.067*Children's talent -

0.021*Number of visits to the doctor due to illnesses in the last 12 months + 0.001*Household book collection.

The model's R-square value of 0.0238 indicates that the number of years of education of the parents, the Engel's coefficient, the gender and ability of the child, the number of sick visits in the previous 12 months, the number of books in the home, and the number of sick visits all contribute to explaining 2.38% of the variation in the desired number of years of education.

Next, each independent variable's effect on the dependent variable is considered separately:

Regression coefficient of 0.059 (t=6.86, p=0.0000.01) shows that years of parental education have a significant positive influence on desired years of schooling.

The expected number of years of schooling will be negatively impacted, according to Engel's regression coefficient of -0.010 (t=-4.98, p=0.0000.01).

There is no statistically significant correlation between gender endowment and the projected number of years of school, according to the gender endowment regression coefficient of 0.072 (t=1.05, p=0.293>0.05).

The child's talent will undoubtedly have a positive impact on desired years of education, as shown by the regression coefficient value for the child's talent of 0.067 (t=3.929, p=0.000-0.01).

A regression coefficient value of -0.021 for the number of ill visits during the last 12 months (t=-1.950, p=0.052>0.05) indicates that there is no correlation between the number of sick visits and the required number of school years.

Family book collection showed a significant positive correlation with projected years of schooling, with a regression value of 0.001 (t=4.55, p=0.000-0.01).

The findings indicate that: The regression coefficient is 0.059, and parental expectations for education have a substantial beneficial impact on educational years.

The influence of Engel's coefficient on the expected age of education was significantly negative, and the regression coefficient was -0.010. It can be argued that the family economic level has a strong beneficial impact on the projected age of schooling since the lower the Engel's coefficient, the higher the level of family economy, and the regression coefficient is -0.010 in absolute value of 0.010.

Since the regression coefficient is 0.059>0.010, it may be concluded that the family's economic status will have a considerable impact on the projected number of years of education, as opposed to the parents' anticipation of the number of years of education. Hypothesis 4 is valid.

5. Conclusion

This topic enriches related research by focusing more on micro factors on top of existing research results. This paper focuses on three factors of family education and uses the data in CFPS for statistical analysis.

The final analysis finds that both parental education and family economic capital are correlated with children's educational expectations, with parental education level having a greater influence. C orrelation analysis and the creation of numerous linear regression models are used to arrive at this result. This study may be unique in that it assesses each relationship's strength and looks at the correlation between parents' educational success and their children's expectations apart from the linkage between social capital in the family and those expectations.

This paper has some limitations in data selection. Panel data can provide more information and better respond to dynamic changes, but because of the need to focus on the parents' education level, and the parents' education level has the possibility of some changes over time, there will be a certain degree of error, so this paper does not use the panel data but the cross-section of the data to analyze.

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