

Multiple Linear Regression Research on the Integration of Family Education and Ideological and Political Education in Colleges and Universities

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Abstract. Family education and college ideological and political education complement and promote each other, so it is of certain theoretical and practical significance to explore the integration of family education into college ideological and political education. Based on Likert's scale, a questionnaire was compiled. Based on the survey data of college students, multiple linear regression method was adopted to analyze the influencing factors of integrating family education into college ideological and political education from three aspects: individual, family and school. According to the analysis results, the author puts forward some strategies, such as perfecting the family-school contact mechanism, establishing family information files, improving the educational quality of family members, and constructing a new pattern of multi-party cooperative education, so as to break the isolated island effect of family education and college education, and give play to the role of ideological and political education in colleges and universities.

Keywords:Family education;College ideological and political education;Influencing factors; Multiple linear regression analysis

1 Introduction

Sukhomlinsky, a famous educator in the former Soviet Union, once said, "If there is only school without family, or only family without school, no one can undertake the detailed and complex task of shaping human beings alone."^[1] Family is the starting point of life, is an important place for the first education of world outlook, outlook on life, values, and people's character characteristics, temperament types, characteristics of the way of thinking has an inseparable connection. With the vigorous development of education in the new era, the ideological and political education forms show the trend of differentiation and integration, and the ideological and political education system is apart from the mainstream. In addition to family education, college education and social education, new media network education has

also emerged. Different forms of education do not exist in isolation and are completely separated, but penetrate and influence each other.^[2] However, due to the negative ideological elements such as materialism, consumerism, utilitarianism and hedonism in family education mode and social education, the excessive pursuit of material life and western culture deviates from the goal of ideological and political education, ideological and political education in colleges and universities is easy to resolve its unique role under various educational forms. Lead to ideological and political education lost direction. In addition, parents have a weak idea of ideological education after their children enter the stage of college students. They only pay attention to the trifles of their children's life and ignore their learning and moral education, leading to the lack of learning motivation of some students, and the phenomenon of ideological and moral decline. There are frequent incidents such as addiction to the Internet, suicide behavior and violent wounding. Therefore, the ideological and political education of college students is not only the responsibility and obligation of colleges and universities. To do the ideological and political education of college students well, we need to build a complete ideological and political education community system, combine the mass education of colleges and universities with the individual education of families, give play to the flexible role of family education, and resolve the ideological and political education of colleges and universities, "attaching importance to constraints, light communication, emphasis on management, light education". Let the ideological and political education work always focus on students, care about students, serve students, and finally achieve the goal of college students to grow and become talented.^[3]

2 The relationship between family education and ideological and political education in universities

2.1 Family education is the solid foundation of ideological and political education in colleges and universities

Family is the starting point for everyone to receive education, and also an important place for everyone to begin socialization. Each individual is not only an independent individual of society, but also a component of family members. Therefore, the most profound and lasting influence on the growth of college students comes from the education and influence of family members, especially parents. When college students enter colleges and universities, they already have a relatively formed state of mind. To carry out ideological and political education on this basis will inevitably lead to different effects due to the universality and complexity of educational objects.^[4] When the degree of compatibility between family education and ideological and political education in colleges and universities is high, college students can actively cooperate with the ideological and political education in colleges and universities; On the contrary, the lack of family education or ill-conditioned family education of college students will greatly reduce the effectiveness of ideological and political education in colleges and universities, easy to produce a series of problems. Therefore, the combination of family education and college education can play a positive role in the effective development of college ideological and political education.

2.2 College ideological and political education is the effective continuation of family education

The university of the new age is not an ivory tower, nor is it a besieged city. With the development of social informatization, college students have already stepped into the society with "half a foot". Compared with middle and high school students, they are more easily exposed to social problems and contradictions. Therefore, in the case of immature ideological state, they are often influenced by the adverse external environment and easily deviate from the socialist value system which is dominated by our country in the "three-concept" orientation.^[5] As the main front of ideological and political education for college students and full-time educational institutions, colleges and universities have clear goals, thorough plans, scientific organizations and experienced educational workers. Authors can instill correct ideological concepts, political views and moral norms for college students away from home, and promote the development of college students' ideological and moral development to a large extent, which plays a huge role in the continuation of family education.

3 Present Situation of integrating family education into college ideological and political education

3.1 Contents, methods and tools of investigation

In this paper, a university in Fujian Province was taken as the object of investigation, the whole random sampling method was adopted, 580 questionnaires were distributed, 562 were recovered, and 539 were validated, accounting for 95.9% of the actual recovered questionnaires. The data characteristics of the survey are shown in Table 1. In this paper, the family education into the ideological and political education of the university of subtle observation. ^[6]The questions were compiled according to Likert scale, and the answers were divided into five scales, from 1 to 5. In this study, SPSS 21.0 statistical software was used for quantitative analysis of the collected effective data. The applied analysis methods include descriptive statistics and multiple linear regression analysis, etc. The general form of multiple linear regression model is listed below:

Table 1. Overall characteristics of the sample (N=539)

Category	Classification	Number of people	Percentage
Grade	Freshman year	166	30.8
	Sophomore year	171	31.7
	Junior year	122	22.6
	Senior year	80	14.8
Gender	Male	253	46.9
	Female	286	53.1
Political status	Party member	39	7.2
	League member	486	90.2
	The masses	14	2.6
Place of residence	Urban area	239	44.3
	Rural area	300	55.7
Family structure	Family of origin	410	76.1
	Single-parent family	56	10.4
	Other family	73	13.5

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \mu_i, i = 1, 2, \dots, n \quad (1)$$

The least squares estimation of the parameter is as follows:

$$\hat{\beta} = (X^T X)^{-1} X^T y \quad (2)$$

And then we can obtain the estimation of y:

$$\hat{y} = X \hat{\beta} \quad (3)$$

$$e = y - \hat{y} = y - X \hat{\beta} \quad (4)$$

The least squares estimate of the random error is below:

$$\hat{\sigma}^2 = \frac{e^T e}{n - p - 1} \quad (5)$$

3.2 An explanatory analysis of Influencing factors of family education integrating into ideological and political education in colleges and universities

Through the literature review method, input keyword "ideological and political education in colleges and universities", select relevant high-frequency words as the initial influencing factors, and consult ideological and political experts and teachers to modify and improve, and finally determine the factors affecting family education into the ideological and political education in colleges and universities into the following three categories.^[7]

As can be seen from Model 1 in Table 2, political status, residence and family structure have significant influence on the integration of family education into college ideological and political education, and the weight of regression coefficient β represents the influence degree of independent variable on dependent variable. Among them, the political status has the greatest influence and is negative, that is, the ideological consciousness of Party members is higher than that of ordinary students, which has a significant influence on the integration of family education into the ideological and political education in colleges and universities.^[8] Family structure has a negative impact on family education. Generally, the growth environment and mental health of students from native families are better than those from special families, so the effect of ideological and political education in colleges and universities is more significant. Students whose families live in rural areas are affected by many factors such as their educational environment and growing background, which leads to the effect of family education in college ideological and political education being worse than that of urban students. At the same time, we can also conclude from Table 2 that gender, grade and other factors did not reach a significant level.

Model 2 analyzes the influence of family on the integration of family education into the ideological and political education in colleges and universities. Factors such as parents' emphasis on education, cultural attainment, educational management and role model have a significant influence on it. It can be analyzed that parents' emphasis on children's education can effectively promote the smooth development of ideological and political education in

colleges and universities.^[9] The level of parents' cultural accomplishment, whether the family education management is in place, and the role model of parents in family life all affect the ideological politics of colleges and universities educational work is an important factor. The factors of family economic status have not reached a significant level, in other words, whether a family's economic status is rich or poor has no significant influence on the integration of family education into the ideological and political education in colleges and universities. The factor of whether parents take the initiative to check with the school about the student's school situation is also not significant, probably because parents always take the initiative to check with the school when the child has crisis problems.

Model 3 analyzes the influence of family education on ideological and political education in colleges and universities from the perspective of school. It can be seen from the regression analysis model that the establishment of home-school communication mechanism and the consideration of family factors have a significant impact on students' personalized education. This means that the establishment of a good communication mechanism between colleges and families can have a more comprehensive understanding of students.^[10] On this basis, the personalized education of students can give full play to the effect of ideological and political education in colleges and universities, so as to promote family education should be effectively integrated into the ideological and political education work in colleges and universities.

Model 4 comprehensively analyzes the integration of family education into ideological and political education in colleges and universities by integrating three factors: individual, family and school. It can be seen from the optimal scale model that the important coefficients of variables such as family structure, parents' emphasis on education, parents' role model and home-school communication mechanism are relatively large and have passed the significance level test, indicating that these variables play an important role in integrating family education into college ideological and political education.

Table2. Evaluation and Analysis of the Effect of Integrating Family Education into College Ideological and Political Education (N=539)

Variate	B1/ β 1	B2/ β 2	B3/ β 3	B4/ β 4
Gender (male)	-0.022/-0.012			0.047/0.026
Grade (freshman year)	-0.064/-0.073			-0.012/-0.014
Party Member	-0.329/-0.112*			-0.159/-0.54
Rural area	0.099/0.085*			0.105/0.073
Family of origin	-0.156/-0.093*			-0.235/-0.198*
Educational tendency		0.262/0.241***		0.218/0.201***

Economic situation		-0.007/-0.007		-0.044/-0.044
Cultural quality		0.183/0.170**		0.096/0.089
Educational management		0.157/0.157**		0.070/0.070
Role model		0.194/0.191**		0.154/0.152*
Effective communication		0.058/0.063		-0.003/-0.003
Communication mechanism			0.217/0.215**	0.215/0.249***
Cultural presentation			0.115/0.103	0.078/0.068
Campus Open Day			0.086/0.087	0.023/0.023
Family factor			0.065/0.069*	0.071/0.077
Fusion propaganda			0.008/0.008	-0.019/-0.013*
R ²	0.104	0.244	0.303	0.349
Adjusted R ²	0.087	0.235	0.296	0.328
F	3.937*	14.973***	21.169***	11.584***

The final regression equation can be expressed as follows:

$$Y_i = 0.026X_1 - 0.014X_2 - 0.54X_3 + 0.073X_4 - 0.198X_5 + 0.201X_6 - 0.044X_7 + 0.089X_8 + 0.07X_9 + 0.152X_{10} - 0.003X_{11} + 0.249X_{12} + 0.068X_{13} + 0.023X_{14} + 0.077X_{15} - 0.013X_{16}$$

4 Conclusion

Improve the home-school contact mechanism, effective implementation of the work. The investigation shows that the good communication mechanism between home and school has a great influence on the integration of family education into the ideological and political education in colleges and universities. Therefore, family education and school education should change the situation of "separate operation", to avoid the phenomenon of disconnection between the two. Give full play to the convenient and effective communication channels provided by the "Internet Plus" era, and build a communication feedback platform.

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