

Educational Background and Academic Achievement of Poverty-Stricken College Students—Thinking Based on “Small-Town Swot”

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Abstract: Recently, the term “small-town swot” has once again exploded all over the Internet due to the incident of the top stream star taking the editorial exam. The special group of “poverty-stricken college students” has also attracted widespread attention. Based on the consideration of “small-town swot”, this paper aims to study the relationship between the educational background of poverty-stricken college students and their academic achievement from the perspective of both hard and soft educational environments, and the three important stages of educational starting point, educational process and educational outcome. The data from the questionnaire survey and empirical analysis were used to obtain significant correlations between family economic conditions, parental education, and regional differences in educational resources, respectively, and college students' academic achievement. In order to reduce this gap, it is necessary to make policy recommendations from the small “family” unit. To reduce this gap, it is necessary to make policy recommendations for economically disadvantaged families to provide better quality family education for their children, starting from the small “family” unit and incorporating family therapy tools such as the Satir’s Iceberg Theory.

1. Introduction

The term “small-town swot” first appeared in the “985 waste introduction program” Douban group, and then quickly attracted nearly 100,000 netizens. The group brought together a group of college students from small towns or rural areas, who were admitted to prestigious colleges and universities after twelve years of hard work, but suffered a double blow in college and life, the gap between ideals and reality put them in a daze [1]. Recently, the “small-town swots” have come under the spotlight again due to the strong dissatisfaction expressed by the stars in the preparation exam. The negative impact of their poor background does not only stay in the education stage, and the same tragedy of the “scales” of education tilting in their integration into society again.

From a macro point of view, “small-town swot” reflects the current situation of society. The social issues behind the term, such as education equity and class mobility, are worth considering. On the micro level, “small-town swot” is related to the mentality of a specific group in society [2]. On the one hand, family backgrounds such as parents' education and family income have an inevitable impact on educational starting points; on the other hand, the family environment of poor families has a limited role in raising children with high self-esteem. Self-positioning bias and identity construction dilemma are inextricably linked to “small-town swots” educational background.

Then, what is the relationship between the performance of “small-town swots” in academic performance and their social anxiety and confusion at the psychological level and their families? Based on the existing domestic and international data and psychological interventions such as the Satir’s Iceberg Theory, this paper will conduct an in-depth study on the above questions and further explore the influence of the “hard” and “soft” family environment on the academic performance and

psychological conditions of “small-town swots”. The paper will further explore the extent to which the “hard” and “soft” family environments affect the academic performance and psychological status of “small-town swot”.

2. Literature Review

2.1 The Impact of Poverty-Stricken Students' Family Background on Students' Academic Performance

In terms of domestic research, although the research methods used by various experts and scholars differ, they have reached broadly similar conclusions that family background may be psychologically burdensome to students, which in turn affects academic performance.

For example, Xie Qian and Zhu Lifang showed that poverty-stricken students have higher psychological problems than non-poverty-stricken students in “The relationship between the mental health status of poverty-stricken college students and their family environment” [3]. Another example is that Professors Chen Yiting and Yang Xiangdong used a sample survey to reason that family socio-economic conditions are related to children's performance in mathematics [4].

In terms of foreign studies, some scholars have examined the relationship between specified outcomes (academic achievement, choice of major, and cumulative debt) and the dependent variable family income for 1464 Jefferson Medical College graduates between 1992 and 2002, and found that the mean cumulative educational debt was significantly higher for the low-income group. There are also foreign experts who, after conducting sample experiments, have confirmed significant gaps in academic achievement, attendance, and behavioral performance between students with lower family socioeconomic status and those with higher family socioeconomic status.

From this, it can be concluded that most of the existing national and international studies agree that poor family background has an impact on students' academic performance and that the negative impact is greater than the positive one.

2.2 The Impact of Poverty-Stricken Students' Family Education on Students' Academic Performance

Domestic studies show that family education is also an important variable affecting the psychological condition and academic performance of “small-town swot” after getting into colleges and universities. For “small-town swot”, whose family economic capital, cultural capital and social capital are difficult to form strong support, the relatively fair path of exam-oriented education is the important or even the only way for them to achieve social mobility. As a result, parents of “small-town swot” are more likely than other parents to keep pushing their children from an early age to study hard and obtain advanced degrees. On the one hand, children who have studied hard for several years in a high-pressure environment may become self-indulgent after entering higher education, which is not conducive to their academic development [5]. On the other hand, the definition of success by “small-town swots” is biased. They are accustomed to using one-sided quantitative indicators such as economic and social status to measure success or not [6]. On the other hand, the definition of success by “small-town swots” is biased. In the long run, this is not conducive to their future development.

Foreign studies have shown that “small-town swots” have a more limited role in broadening their horizons than students whose parents are both college graduates. An early study showed that when we examined only the relationship between family socioeconomic status and student achievement, we found a strong positive correlation between the two. Children's grades, test scores, graduation rates, and higher education enrollment tend to increase with the level of education received by the mother to complete.

Based on existing research, it is clear that most poverty-stricken families provide their children with deficient home education, which can have a profound impact on their children's academic performance and mindset.

3. Research Thought

Based on the above thinking about “small-town swot”, the following study will focus on college students in China's double first-class colleges and universities. This paper intends to analyze and study education specifically in three parts: educational starting point, educational process, and educational outcome. The starting point of education refers to the objective environment that cannot be changed by the child, that is. family background, including family economic conditions and parents' education. The educational process, from both micro and macro perspectives, is the simultaneous action of family education and local educational resources on the child's learning process, which eventually leads to different academic achievements of students, that is, educational outcomes.

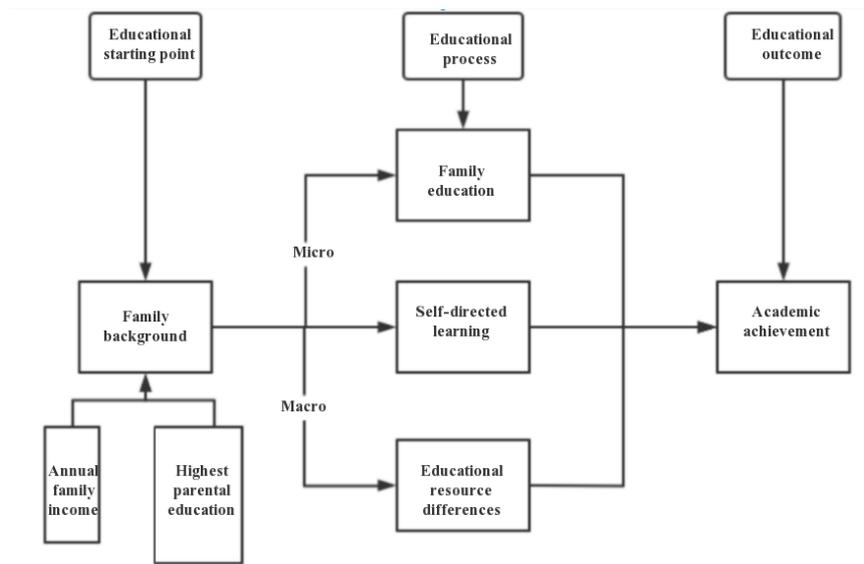


Fig.1 Framework of Analysis Ideas

The author will explore the impact of the educational starting point and educational process on the educational outcomes of “small-town swots” from both hard and soft environments. The hard environment refers to the objective conditions and environment, including the family's economic support, parents' highest education level and local educational resources. The soft environment refers to the family education provided by the parents during the child's learning process.

4. Formulating a Hypothesis

An excellent family background may have a contributing effect on the academic situation of college students in dual-college universities [7]. On the one hand, family financial support allows children to focus more on their studies without having to earn a living through part-time jobs and other means. On the other hand, parents with higher education will pay more attention to their children's academic performance and urge them to put in more effort.

Considering that small-town swot usually come from areas with relatively scarce educational resources, differences in educational opportunities may also be one of the important factors influencing college students' academic achievement from the perspective of uneven regional development.

For the components of hard environment, we proposed the following conjectures respectively.

Hypothesis 1: Family economic conditions are one of the important influencing factors of college students' academic performance.

Hypothesis 2: Parents' education will affect college students' academic performance.

Hypothesis 3: Regional differences in educational resources have significant effects on college students' academic achievement.

5. Empirical Analysis

5.1 Indicator Selection

For family background, this study used annual household income to measure family economic conditions and the indicator of highest parental education to represent parental education. For regional education resource differences, the location of compulsory education stages according to urban hierarchy was selected as an indicator.

5.2 Research Object

A double-class university in a city was selected as the research sample. A total of 500 questionnaires were distributed, 482 were collected, with a recovery rate of 96.40%. Thirteen invalid questionnaires were excluded, and the recovery efficiency was 97.30%. For the statistical survey, there were 257 male students and 212 female students; 93 freshmen, 109 sophomores, 125 juniors and 142 seniors.

5.3 Research Tool

The data of this study was surveyed by questionnaire. The questionnaire survey was divided into three parts. The first is the basic personal information of college students, including grade and academic grade point average. The second is the family background, including the annual family income and the highest parental education. The last is the area where the compulsory education stage is located.

5.4 Exploration of the Correlation between Family Economic Conditions and College Students' Academic Achievement

The data distribution of annual income and academic performance of different families obtained from the questionnaires is as follows.

Table 1 Annual Family Income (yuan) * Academic Performance (points) Cross-tabulation

Counting		Academic Performance (points)				Total
		0-70	70-80	80-90	90-100	
Annual Family Income (yuan)	0-12000	18	22	9	2	51
	12000-20000	16	12	6	3	37
	20000-50000	13	20	9	6	48
	50000-100000	21	27	28	12	88
	100000-250000	18	21	39	19	97
	250000-500000	11	17	45	24	97
	500000+	5	5	24	17	51
Total		102	124	160	83	469

To verify whether there is a correlation between family economic income and college students' academic achievement, a chi-square test was conducted on the above data (Table 1) to obtain Table 2.

Table 2 Chi-square Test

	Value	Degree of freedom	Progressive Significance (Bilateral)
Pearson Chi-square	79.126 ^a	18	0.000
likelihood ratio	82.177	18	0.000
Number of active cases	469		

a. The expected count for 0 cells (0.0%) is less than 5. The minimum expected count is 6.55.

From Table 2, a two-sided asymptotic significance of $P = 0.000 < 0.01$ was obtained, indicating a significant correlation between family economic income and college students' academic achievement.

5.5 Exploration of the Correlation between Parental Education and College Students' Academic Achievement

The highest parental education and the academic performance of college students were obtained through the preliminary questionnaire as shown in the following table.

Table 3 Highest Parental Education * Academic Performance (Points) Cross-tabulation

Counting		Academic Performance (points)				Total
		0-70	70-80	80-90	90-100	
Highest Parental Education	Junior high school and below	27	33	26	13	99
	High school, technical secondary school or junior college	33	25	34	19	111
	Undergraduate	28	45	57	24	154
	Master and above	14	21	43	27	105
Total		102	124	160	83	469

To verify whether there is a correlation between the highest parental education and college students' academic achievement, a chi-square test was conducted on the above data (Table 3) to obtain Table 4.

Table 4 Chi-square Test

Table 4 Chi-square Test				
	Value	Degree of freedom	Progressive Significance (Bilateral)	
Pearson Chi-square	22.873 ^a	9	0.006	
likelihood ratio	22.804	9	0.007	
Number of active cases	469			
a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 17.52.				

From Table 4, a two-sided asymptotic significance of $P=0.006 < 0.01$ was obtained for both, indicating a significant correlation between parental education and college students' academic achievement.

5.6 Exploration of the Correlation between Educational Resource Differences and College Students' Academic Achievement

The following data were obtained by investigating the location and academic performance of college students receiving compulsory education.

Table 5 Compulsory education location * Academic Performance (points) Cross-tabulation

counting		Academic Performance (points)				Total
		0-70	70-80	80-90	90-100	
Compulsory education location	Rural area	33	34	24	8	99
	Other cities	23	37	36	20	116
	Third and fourth tier cities	25	30	47	26	128
	First and second tier cities	21	23	53	29	126
Total		102	124	160	83	469

To verify whether there is a correlation between the location of compulsory education and the academic achievement of college students, a chi-square test was performed on the above data (Table 5) to obtain Table 6.

Table 6 Chi-square Test

Table 6 Chi-square Test			
	Value	Degree of freedom	Progressive Significance (Bilateral)
Pearson Chi-square	28.801 ^a	9	<0.001
likelihood ratio	29.499	9	<0.001
Number of active cases	469		

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 17.52.

From Table 6, a two-sided asymptotic significance of $P < 0.001 < 0.01$ was obtained for both, indicating that there is a significant correlation between the difference in educational resources at the compulsory education level and the academic achievement of college students.

In conclusion, hypotheses 1, 2 and 3 are valid.

6. Family Education

6.1 Family Education Environment Scale

According to the family environment scale developed by American psychologists R. Moss and B. Moss in 1981 and revised by Zou Dinghui and Fei Lipeng in 1991, the scale contains 10 subscales to analyze the characteristics of educational environments in different families [8]. This study used its Chinese version to study 1000 Chinese college students using a stratified sampling method with 934 valid data.

6.2 Data Processing

The valid data were analyzed by ANOVA, correlation analysis (person correlation coefficient) and t-test using SPSS 21.0 statistical software. The scale was scored on a two-level scale, with questions answered as “yes” and “no”, with “yes” being scored as 1 and “no” being scored as 0. The subjects were divided into two groups, with non-poverty-stricken students as the reference group and poverty-stricken students as the control group for comparative analysis.

6.3 Comparison of Home Education Environment Scores of Poverty-Stricken Students and Non-Poverty-Stricken Students

Table 7 Comparison of Family Education Environment Scores of Poverty-Stricken Students and Non-Poverty-Stricken Students($\bar{X} \pm s$)

Factor	Poverty-stricken students(n=456)	Non-poverty-stricken students(n=478)	T value
Intimacy	6.54±1.24	7.63±1.32	-4.34**
Emotional expression	4.52±1.31	4.61±1.33	-0.81
Ambivalence	4.23±2.67	3.10±1.87	2.75*
Independence	6.43±1.47	6.21±1.43	2.47*
Success	6.13±1.57	5.58±1.52	3.68**
Intellectuality	1.03±1.07	1.53±1.34	-3.47**
Entertainment	3.64±1.97	4.36±1.99	-6.78**
Moral-religious	5.36±1.55	5.23±1.53	1.04
Organizational	5.34±1.67	5.55±1.73	-0.97
Control	2.90±1.54	2.76±1.52	1.67

Note: * $P < 0.05$, ** $P < 0.01$

The data in Table 7 shows that compared to non-poverty-stricken students, the family education of poverty-stricken students showed significant negative correlations in intimacy, knowledge, and entertainment, and significant positive correlations in ambivalence and independence. Thus, the families of poverty-stricken students are characterized by low intimacy, low knowledge, low entertainment, high ambivalence, and high independence, which are significantly different from the family education environment of non-poverty-stricken students.

6.4 The Result of the Family Education Environment

First, rural families make up the majority of families of poverty-stricken students. The closeness between parents and children in rural areas is low, parent-child attachment is not strong, and the frequency of parent-child interactions is low. This confirms that poverty-stricken students have weaker intimate relationships in their families, which will affect children's interpersonal interactions. Second, the low intellectual nature of the family educational environment will affect the degree to which the child develops an interest in cultural activities, resulting in a lower level of social concern. Third, the low recreational nature leads to less social and recreational activities in which the child is involved.

6.5 Educational Resource Differences

Unbalanced regional economic development leads to differences in educational resources between regions. Based on the exploration of the correlation between educational resource differences and college students' academic achievement in the previous paper, it is necessary for us to analyze the educational resource differences between rural and urban areas.

Table 8 is reproduced from the paper *A Study on the Differences in the Distribution of High School Education Resources between Urban and Rural Areas in the Perspective of Equal Opportunities in Quality Higher Education* written by Liu Yuanli (2021). It can be seen that the number of rural middle school graduates and public high school enrollments are significantly higher than those in urban areas, and the rate of advancement to public high schools in rural areas is significantly lower than that in urban high schools. The fact that most rural children do not succeed in getting into high school also indicates that rural education resources lag far behind those of urban areas. With nine years of compulsory education, some rural middle school graduates do not get into high school, and their education may stop there.

Table 8 Enrollment in Public High Schools in Guangxi's Urban and Rural Education Sector (Unit: Persons)

Year	Area	Number of junior high school graduates	Number of public high school graduates	Public high school promotion rate
2017	Urban	136607	114242	83.63%
	Rural	500800	186967	37.33%
2018	Urban	142367	119417	83.88%
	Rural	4997217	196968	39.61%
2019	Urban	159787	138520	86.69%
	Rural	521394	200262	38.41%

With the rapid development of the information age, the market for education platforms has expanded and extra-curricular tuition is divided into online and offline teaching. This enables students to receive teaching from quality teachers at home and abroad, and they have a broader scope of learning. However, remote and backward areas in China have problems such as few off-campus tuition resources, irregular teachers and unscientific education methods. Moreover, the low intimacy of poverty-stricken families leads to relatively little help from parents in their children's education, and they pay less attention to and collect less information about teaching than non-poverty-stricken parents. As a result, poverty-stricken students mostly rely on their internal drive for independent learning. Many factors, such as economic and educational resources distribution inequality, lead to the disparity in academic achievement between urban and rural students.

7. Application of Satir's Iceberg Theory

To explore the issue of educational inequality in China, in addition to focusing on policy and institutional settings, it is also necessary to focus on the parent-child interaction or socialization process within different families at the micro level. In the following, the author applied Satir's Iceberg Theory to the analysis of family education and presented his views.

7.1 Start from the “Self” -- Stimulate the Intrinsic Motivation of Children

Focusing on the “ego” layer of the child's iceberg can help the child interpret his or her self-worth, develop self-esteem and self-confidence, and stimulate intrinsic motivation. In the families of poverty-stricken college students, it is necessary for parents to make their children feel that. Even if material conditions are scarce, it is still possible for the child to achieve spiritual enrichment through his or her own efforts and reach his or her ideal goals in life. Parents should evaluate their children objectively with encouragement.

The evaluation of others, accompanied by the corresponding psychological activity, will invariably become an important criterion for self-evaluation. The development of a sense of self-worth is particularly important in poverty-stricken families. If a parent consistently devalues a child, the child will automatically believe that he or she has no value in the parent's mind. In order to maintain a balance with the parent's perception, the child may break down and behave in a degenerate manner, or turn around and accuse the parent of being incompetent and unable to provide better material conditions for himself or herself, leading to increased family conflicts.

On the contrary, if parents of poverty-stricken families can evaluate their children objectively, encourage them appropriately and even “lift them up”, their children's self-confidence will remain at a high level for a long time. Even if they find that there is still a gap between themselves and others in terms of material conditions and academic achievements, they will not allow themselves to “lie flat” for a long time. Such a “small-town swots” will not burn out due to the uneven distribution of social resources because they have the confidence to be status quo breakers.

7.2 Focus on “Desire” - Meeting Children's Psychological Needs

In some “small-town swot” families, parents continue to instill in their children the idea that “studying is the only way out”, and even supplement it with “stick” education. The psychological need to be respected is not satisfied for a long time, which leaves a hidden danger for the psychological problems that they may show when they enter college. They enter colleges with an unmet desire to be recognized by others that are stronger compared to their peers. After recognizing the gap, the children discover that this unmet need is not delayed, but may never be met. The desire to be respected in childhood is not satisfied by parents, and the need to be recognized in society is not satisfied in adulthood, coupled with the view that “studying is the only way out” has shackled their eyes, and their definition of “success” is narrower. Once the desired “success” cannot be achieved, the desire is not met, “small-town swots” psychological defenses may collapse, serious cases even carrying excessive pressure, threatening their physical and mental health.

If parents of poverty-stricken families can pay attention to the needs of their children from an early age, even if they enter college and society, they will not be discouraged. Because they know that there is a gas station that can always meet their desire to be loved, respected and recognized - home.

8. Conclusion

The following conclusions can be obtained from the research analysis of this paper.

(1) There are significant correlations between family economic income, parents' education, and differences in compulsory education resources all and college students' academic achievement.

(2) Different family environments have different effects on children's education, and differences in educational background can widen the gap between children.

In response to the above significant effects of educational starting point and process on educational outcomes, respectively, the following four policies are proposed:

Suggestions.

(1) Colleges and universities should improve the grant application mechanism to ensure that the grants are distributed to each poor student fairly and impartially. At the same time, colleges and universities can make appropriate innovations in their policies, such as learning the new initiative of helping poverty-stricken students proposed by some colleges and universities: for students who dine

in the dining hall for a long time and the amount of each meal is much lower than the average, they can adopt a silent way to increase their meal card balance for financial assistance. This kind of initiative not only takes care of the self-esteem of poverty-stricken students, but also avoids, to a certain extent, the phenomenon of non-poverty-stricken students pretending to be poor students to receive grants.

(2) Colleges and universities can establish the voluntary activity of “academic support by seniors”. Senior students with good academic performance will volunteer for this activity to help junior students with poor academic performance to improve their knowledge (priority will be given to poverty-stricken students), including appropriate supervision and free tutoring for a fixed period of time every week.

(3) To address the inequality of regional education resources. On the financial side, the government can make students have better education facilities and education conditions by increasing education funding in remote areas. In terms of teachers, the state can encourage more excellent teachers to flock to educationally backward areas by improving the welfare of teachers in remote and underdeveloped areas.

(4) Parent-child relationship patterns (parenting style, level of intimacy, and cultural capital investment) have significant effects on adolescents' academic development and are one of the productive mechanisms of urban-rural or class inequalities in educational outcomes. In addition to focusing on policy and institutional settings, exploring educational inequality in China requires attention to parent-child interactions or socialization processes within different families at the micro level. We should intervene in the minds of parents from poor families to make them understand the importance of family education and try to brainstorm on parenting styles, always care about their children's growth, listen to their children's thoughts, and draw closer to them, etc.

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