

The Association of Parents' Educational Level with Children's Characteristics

Yifan Zhang^{1, a, *}, Jiaxin Chong^{2, b}, Chenyun Lin^{3, c}, Chenxin Yang^{4, d}

¹University of Illinois at Urbana-Champaign, Champaign, IL, USA

²Jiangsu University of Science and Technology, Zhenjiang, Jiangsu, China

³Wenzhou-Kean University, Wenzhou, Zhejiang, China

⁴Hangzhou Dianzi University, Hangzhou, Zhejiang, China

^ayifan15@illinois.edu, ^b1986846814@qq.com, ^cchenyunl@kean.edu, ^d1308367199@qq.com

These authors have contributed equally to this work

Abstract

Environmental factors play important roles in children's mental development. Our research team is interested how parents' educational level can influence a child's development. The research team in Beijing Normal University designed and collected questionnaire aiming to find out associations between parents' educational level and children's characteristics including the likelihood of depression, ability of cooperation, mental resilience, optimistic ability, and self-perception ability. The results show that both parents' educational level is highly associated with depression and cooperation of students, while only father's educational level is associated with mental resilience, optimism, and self-perception of children.

Keywords

Psychology, Developmental psychology; Parents' educational level; Children's characteristics; Depression; Cooperation; Resilience; Optimate; And self-perception.

1. Introduction

In 1978, China made a major decision to implement reform and opening, and this has achieved sustained economic growth. At the same time, China has taken the realization of educational modernization as the goal of struggle. It realized the unconventional development of education, turned a country with a population of nearly 1.4 billion into a country with human resources, and formed a good interaction with economic and social development. According to statistics, in 2016, the consolidation rate of compulsory education reached 93.4%; the gross enrollment rate of high school education increased from 39.56% in 1981 to 87.5% in 2016; the gross enrollment rate of higher education increased from 1.6% in 1981 to 42.7% in 2016. At the same time, China's Pisa scores and university rankings in the world university rankings have good performance. With the development of education, China's human resource structure has undergone significant changes: the average length of schooling of the population aged 16-59 increased from less than five years in 1981 to 10.35 years in 2016; the proportion of people with college education or above rose from 0.58% in 1982 to 12.44% in 2015; the expected length of education of Chinese people was 8.8 years in 1990, ranking 119 in the world In 2015, it rose to 13.5 years, and the world ranking rose to 83rd. [1] There are more and more people with higher education. There are differences in the educational background of individuals.

According to a survey in Japan, people analyze the effects of studying mathematics and of parents' academic profile on the annual labour income of their children in later life. Data was

obtained from graduates of departments of economics at major private universities in Japan. They show that respondents who are good at mathematics (and English) have a higher average income, and that the more educated the parents, the more children tend to excel in mathematics. [2] The influence of father's educational background on children's learning ability is obvious. "Children brought up by fathers have higher IQ and better academic performance," a 12-year longitudinal study by Yale University scientists. The main reason is that the higher the parents' educational background, the more positive they are in dealing with their children's upbringing, that is to say, they use more positive parenting styles. On the contrary, parents with low educational background are more likely to use negative parenting styles. [3]

Chinese scholars have found that there is a significant difference between parents' educational level and students' learning ability. [4] Specifically, the higher the parents' educational background, the higher the scores of their children's learning ability. In other words, parents' words and deeds will influence the next generation imperceptibly. The higher the parents' educational background, the more significant the positive influence on children's learning ability, emotion, will and behavior.

Based on the above background, this paper will further study the relationship between parental education and the dependent variables such as depression, cooperation, general self-perception, optimism and resilience.

2. Method

We used Chi-square test in SPSS to measure the significance of data. (All data are from Children's School of Beijing Normal University)

Participants in this study included 413 students from Children's School of Beijing Normal University. The sample size includes 209 males and 200 females (4 missing) from grades 3-8 (not including grade 6).

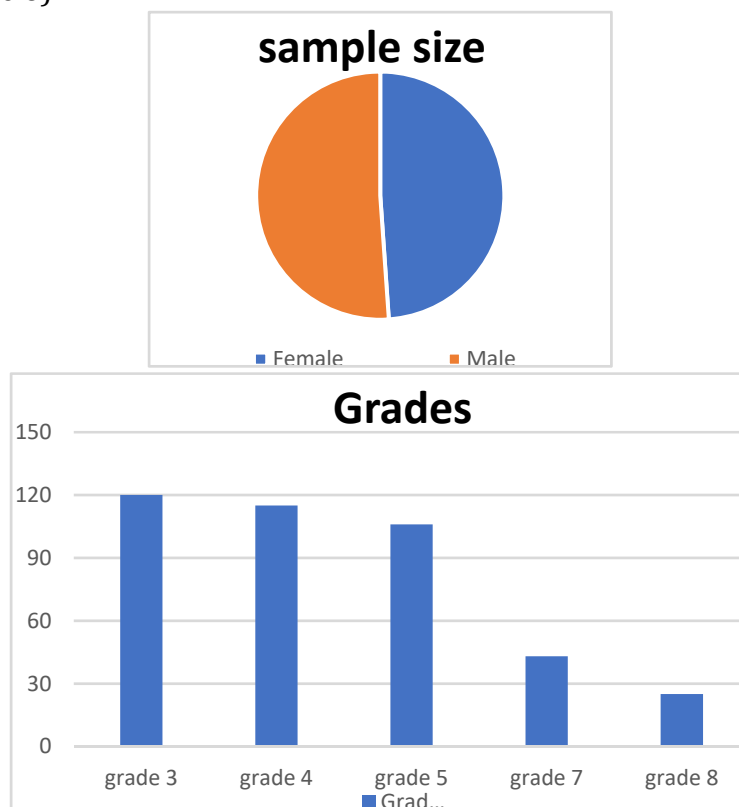


Figure 1. There are 120 sample in grade 3, 115 samples in grade 4, 106 in grade 5, 43 sample in grade 7, and 25 sample in grade 8.

The questionnaire used Likert scale and included five factors (depression, cooperation, optimate, self-perception, resilience) to see whether they have significant differences with educational degree of father and mother or not. The questionnaire was peer reviewed and has been tested twice about the efficiency and accuracy. It is designed according to the Young Likert and revised to better fit the circumstances in China.

3. Results

Table 1. The significant differences with educational degree of father

Pearson Chi-Square	Value	df	Asymptotic Significance (2-sided)
depression	126.384a	66	.000**
cooperation	137.356a	54	.000**
optimate	114.086a	54	.000**
self-perception	157.537a	108	.001**
resilience	252.526a	216	.045*

There is a highly significant association between depression and the educational degree of father. ($X^2(66) = 126.4, p < .001$).

There is a highly significant association between cooperation and the educational degree of father. ($X^2(54) = 137.4, p < .001$).

There is a highly significant association between optimate and the educational degree of father. ($X^2(54) = 114.0, p < .001$).

There is a significant association between self-perception and the educational degree of father. ($X^2(108) = 157.5, p < .05$).

There is a significant association between resilience and the educational degree of father. ($X^2(216) = 252.5, p < .05$).

Table 2. The significant differences with educational degree of mother

Pearson Chi-Square	Value	df	Asymptotic Significance (2-sided)
depression	170.618a	66	.000**
cooperation	89.126a	54	.002**
optimate	62.891a	54	.191
self-perception	123.576a	108	.145
resilience	222.037a	216	.375

There is a highly significant association between depression and the educational degree of mother. ($X^2(66) = 170.6, p < .001$).

There is a highly significant association between cooperation and the educational degree of mother. ($X^2(54) = 89.1, p < .05$).

There is no significant association between optimate and the educational degree of mother. ($X^2(54) = 62.9, p > .05$).

There is no significant association between self-perception and the educational degree of mother. ($X^2(108) = 123.6, p > .05$).

There is a significant association between resilience and the educational degree of mother. ($X^2(216) = 222.0, p > .05$).

This data shows that a child's likelihood of depression and ability of cooperation are highly associated with both the parents' educational lever, while the optimistic character, self-perception, and mental resilience are only associated with the father's educational level.

4. Discussion

This study is designed to explore the effects of parents' educational level on the development of adolescents. According to the results of the study, parents' educational background, especially the educational degree of father, can significantly affect adolescents' depression, cooperation, self-perception, optimism and resilience.

Our research emphasizes the importance of paying attention to adolescents whose parents are less educated in order to prevent psychological problems. Taking depression as an example, low parental educational levels are related to depressive symptoms exhibited by adolescents. A previous study suggested that parental education is correlated to depressive symptoms of children, as determined through a univariate analysis that was adjusted for age and puberty. [1] Parents with low education level are relatively backward in education for the next generation and have less knowledge of parent-child communication which leads to the neglect of children's physical and mental health development. A study showed that children are more likely to have emotional problems if their parents who are not well-educated adopt more refusal, more hostility, more criticism, lack of attention and emotional warmth to their children. [2]

A follow-up study in the United States, which has lasted for 29 years, showed that the level of parental education was even significantly correlated with the depression level of their children in adulthood. Quesnel-Vallée found that the influence of parents' educational level on their children's depression was mediated by their children's educational level and income level in adulthood. [3] For adolescents, the factors mediating the relationship between the two are likely to exist in the family environment. For example, a Chinese study investigated the depressive symptoms and family environment of 6000 adolescents, and found that family conflict and sense of control in family soft environment were positively correlated with depressive symptoms, while family cohesion was negatively correlated with depressive symptoms. [4] A Swedish study screened out high level of depression and low level of depression from middle school students for comparison. The results showed that the self-reported family atmosphere of high depression group was worse than that of control group. [5] A study in Taiwan showed that adolescents with discordant families were prone to sleep late and depression. [6] Combined with the above studies, it is suggested that the influence of parents' educational level on their adolescents' depressive symptoms may be mediated by bad family atmosphere.

Thus, parents' educational level and family atmosphere have a crucial impact on the development of adolescents. Being well-educated not only enables parents to have a general understanding of parenting, but also improve effective communication skills. At the same time, they are more aware of their children's psychological needs in important life periods and how to effectively deal with the problems that may arise during these important life periods. In order to prevent adolescents' psychological problems, it is of great importance to support positive family atmosphere and pay attention

References

- [1] Yuan Zhenguo. Double Priority: The Chinese Model of Education Modernization -- For the 40th Anniversary of Reform and Opening Up [J]. Journal of East China Normal University (Education Science edition), 2008,36(04):1-17+162.
- [2] Japanese Economic Review Volume 57, Issue 4. 2006. PP 533-546.
- [3] Journal of Child Psychology and Psychiatry Volume 61, Issue 9. 2020. PP 1009-1018.
- [4] Li Yanzhang. Research on influencing factors of parenting style [J]. Journal of health psychology,2001,9(02):106-109. Gianya. Study on the Relationship between learning ability, learning motivation and academic Performance of primary and secondary school students [D]. Qinghai Normal University,2016.
- [5] Jackson B, Goodman E. Low Social Status Markers: Do They Predict Depressive Symptoms in Adolescence?. Race & Social Problems. 2011; 3:119–128.
- [6] Tramonte L, Willms D. The prevalence of anxiety among middle and secondary school students in Canada[J]. Can J Public Health, 2010, 101 (Suppl 3): S19 – 22.
- [7] Quesnel-Valle'e A, Taylor M. Socioeconomic pathways to depressive symptoms in adulthood: evidence from the National Longitudinal Survey of Youth 1979[J]. Social Science and Medicine, 2012, 74(5): 734 – 743.
- [8] Yu Y, Yang X, Yang Y, et al. The role of family environment in depressive symptoms among university students: a large sample survey in China[J]. PLoS One, 2015, 10(12): e0143612.
- [9] Olsson GI, Nordström ML, Arinell H, et al. Adolescent depression: social network and family climate- a case-control study[J]. Journal of Child Psychology and Psychiatry, 1999, 40(2): 227 – 237.
- [10] Lin JD, Tung HJ, Hsieh YH, et al. Interactive effects of delayed bedtime and family-associated factors on depression in elementary school children[J]. Res Dev Disabil, 2011, 32(6): 2036 – 2044.