

The Relationship between Family Parenting Style and Test Anxiety Among College Students in China

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ABSTRACT

This paper is to explore the relationship between family parenting styles and test anxiety among college students. The paper measured 120 students using a survey of randomly posted online questionnaires. Our analysis shows that one of the important result is that there were significant differences in test anxiety between students from only and non-only families; another one is that significant differences existed between only and non-only families on emotional warmth type and authoritarian type; the last one is that there is a significant correlation between family parenting style and test anxiety. These results show that family parenting style is closely related to test anxiety, and children from emotionally warm families will have lower test anxiety, so parents who give more understanding and care to their children can effectively help students reduce test anxiety.

KEYWORDS

College students; Family parenting style; Test anxiety; Only child and non-only child

DOI: 10.47297/wspiedWSP2516-250016.20230702

1 Introduction

(1) Background of the study

In contemporary society, college students are facing intense employment pressure, pressure of further education, social competition pressure and fierce competition from all social strata, and the challenges faced by college students are getting bigger and bigger^[1]. And due to the weak mental capacity of college students, mental health problems are getting more and more attention, and the psychological problems of college students mainly include emotional distress, anxiety, learning disorders and personality disorders. Among them, test anxiety is one of the common psychological problems among college students, and some studies show that test anxiety will directly affect students' academic performance, self-evaluation and other aspects, and also lead to their interpersonal relationship and other problems, and even have negative effects on their future development. Therefore, it is important to study the current situation of college students' test anxiety and its influencing factors. Meanwhile, among the influencing factors of test anxiety, family upbringing is one of the most important factors. Family parenting style not only has a direct impact on individuals, but also has an indirect impact on their emotions, cognition and behavior.

(2) Significance of the study

1) Theoretical significance

This paper uses empirical research to explore the relationship between college students' family parenting style and test anxiety at a deeper level, to explore the influence of family parenting style on test anxiety from the perspective of individual factors at school, and to provide theoretical support for alleviating college students' test anxiety.

2) Realistic significance

This study conducts empirical analysis based on the questionnaire data, and presents the relationship between family parenting style and test anxiety in the form of data in an intuitive and clear manner, and studies the influence of the relationship between family parenting style and test anxiety to provide data reference and realistic basis for schools to understand the current situation of college students' study and test, so that schools and parents can take reasonable measures to improve the current situation of college students' test anxiety in a more targeted manner, thus promoting the academic development of college students. This will enable schools and parents to take more targeted and reasonable measures to improve the current situation of test anxiety among college students, thus promoting their academic development.

2 Literature Review

With the gradual expansion of the group of college students, the research on test anxiety has received more and more attention from researchers in recent years. From previous studies, it can be seen that researchers have mostly studied the influencing factors of test anxiety, intervention programs, case (group) studies, or studies related to individual factors, such as achievement motivation, personality traits, psychological resilience, and so on. Among them, case (group) studies occupy a larger proportion, and most of these studies use a combination of questionnaire, interview and observation methods, which can precisely analyze and intervene in a case or a group and can solve the problem well. As research theories continue to advance, researchers are increasingly inclined to study the role of mediating variables in the influencing factors of test anxiety in order to better understand the mechanisms of relevant factors on test anxiety to help individuals alleviate their test anxiety levels. Test anxiety is influenced by individual physical and psychological factors such as individual cognitive structure, personality factors, and ability differences. Parents' family parenting style is also a reflection of parents' educational concepts and behaviors. Children spend their developmental period with their parents, so parents' parenting style has a decisive influence on children's personality development and individual physical and mental factors such as personality and cognition to a large extent, and also has an important influence on children's test anxiety at this stage of college. Therefore, this study was conducted to investigate the correlation between family parenting style and test anxiety among college students.

Kim and Bergen (1998) showed that it is normal for college students to experience anxiety in the face of stressful situations; Henderson and Veitch (1995) studied the level of anxiety that college students exhibit in the face of exams; Sheldon and Schmidt (1995) studied the anxiety that college students exhibit in the face of exams. level. Sheldon and Schmidt (1995) studied the anxiety levels of college students in the face of examinations. All these studies indicate that the anxiety levels of college students in the face of examination pressure are normal. The research on test anxiety in China

started late, and the quantity and quality of relevant studies are far from meeting the actual needs. However, from the studies in recent years, research on test anxiety has attracted the attention of researchers in China and has achieved certain results. For example, among Japanese and American college students, Chinese college students have the heaviest fear of examinations. Zheng Richang et al. also found that the level of test anxiety among college students in China was significantly higher than that of Japanese students^[2]; Zhu Min et al. (2007) conducted a survey on college freshmen and found that more than 30% of college students had test anxiety problems. From the survey results, the problem of test anxiety among college students in China is a fairly common problem that deserves attention and research.

Baumrind, a professor and psychologist at the University of California, conducted a 10-year study and classified family parenting styles through the dimensions of "demand" (the degree of parental control and monitoring of children) and "response" (the level of concern, support, encouragement and appreciation of children). He classifies family parenting styles as authoritarian, coddling, indifferent, and authoritative^[3]. In practice, it is found that the classification criteria are basically suitable for the current situation of family parenting patterns in China. Meanwhile, in previous studies, it has been shown that family parenting style has an important influence on test anxiety. In a study by Mengqi Zhang et al. it was concluded that the trust and encouragement dimension and the emotional warmth dimension of family parenting style had a significant negative correlation with test psychological problems, and the authoritarian, coddling and neglectful parenting styles had a significant positive correlation with test psychological problems^[4]. According to Chao Feng, family parenting style influences junior high school students' test anxiety through the mediating role of academic self-concept. In a study by Miao-Miao Wang et al. it was concluded that parental emotional warmth and understanding (FF1, MF1) were significantly and negatively correlated with test anxiety among the investigated sophomore students; both father's rejection and denial (FF5) and mother's over-interference and over-protection (MF2) were positively correlated with test anxiety^[5]. In Yalin Liu et al.'s study, it was concluded that parents' emotional warmth and understanding were the main family factors influencing children's test anxiety; mothers' over-interference and over-protection also had some influence on test anxiety, but this influence was not as obvious as parents' emotional warmth^[6]. Although the research on family parenting style and test anxiety has been rich in research results, some aspects have not been considered: 1. Although rich research has been done on most groups of secondary school students, no research has been done on the important group of college students. 2. In most of the previous studies, longer scales were used, which may lead to the subjects taking too much time to do the questions, the subjects being exhausted and not answering the data accurately enough. In order to ameliorate the effects of this problem, this paper chose a questionnaire with a smaller number of questions to ensure the accuracy of the data.

3 Related Concepts

(1) Family parenting style

Baumrind, a professor and psychologist at the University of California, conducted a 10-year study in which he classified family parenting styles through the dimensions of "demand" (the degree of parental control and monitoring of children) and "response" (the level of concern, support, encouragement and appreciation of children). He classified family parenting styles as authoritarian, coddling, indifferent, and authoritative. In practice, we found that the classification criteria are basically suitable for the current situation of family parenting in China.

(2) Test anxiety

Test anxiety refers to a strong, uncontrollable fear when an individual faces an examination, which is manifested by rapid heartbeat, muscle tension, sweaty palms and shortness of breath. Test anxiety is a common psychological phenomenon among college students at home and abroad, and according to a survey, about 15%-20% of college students in the United States experience test anxiety (Thomas, Cassady, & Finch, 2018) phenomenon, and the level of test anxiety among Chinese college students is higher than 28% (Huang, Qiong, and Zhou, Renlai, 2019), which has an important impact on the academic development and physical and mental health of college students. College students' test anxiety is detrimental to their academic performance as well as to their physical and mental development.

4 Research Design

(1) Research instrument

1) General information questionnaire

Self-designed, including grade, gender, only student, non-only student, and place of birth.

2) Family parenting style questionnaire

The Parenting Style Questionnaire, developed by Yehwa Gong, was used, which included five dimensions: authoritarian, emotionally warm, doting, trusting, and neglecting, with a total of 21 questions. The scale was rated on a Likert scale of 5, and the reliability of the questionnaire was good.

3) Test anxiety scale (TAS)

This scale was developed by Sarason in 1977 and contains 37 yes or no questions. "Yes" is scored as 1 and "No" is scored as 0. Questions 3, 15, 26, 27, 29, and 33 are scored in reverse. The total score of 12 and 20 is the cut-off point, less than 12 is mild anxiety, more than 20 is severe anxiety, and the rest is moderate anxiety. The scale was later translated by Chinese scholar Wang Cai Kang. The questionnaire has good reliability and validity, good structural validity, and is more commonly used.

(2) Study subjects

An online questionnaire was randomly distributed to college students at Beijing Normal University, Zhuhai in May 2023. A total of 120 questionnaires were returned in this paper, and two invalid data were excluded, and finally 120 valid questionnaires were used. Through the valid questionnaires, the demographic information of the subjects was compiled, as shown in:

Table 1. Demographic information

Name	Options	Frequency	Percentage(%)	Cumulative percentage(%)
Gender	Male	61	50.833	50.833
	Female	59	49.167	100
Grade	Freshmn year	34	28.333	28.333
	Sophomore	27	22.5	50.833
	Junior	30	25	75.833
	Senior year	29	24.167	100
Place of origin	City	80	66.667	66.667
	Rural	40	33.333	100

Family Status	One child	34	28.333	28.333
	Not an only child	86	71.667	100
Specialty	Arts and Sciences	38	31.667	31.667
	Science	11	9.167	40.833
	Engineering	43	35.833	76.667
	Other	28	23.333	100
Total		120	100.000	100.000

There is little difference in the ratio of male to female subjects, with more male students, 61 (50.833%) and 59 (59%) female students; 34 (28.3%) are in the first year of university, 27 (22.5%) in the second year, 30 (25%) in the third year, and 29 (24.167%) in the fourth year, with the largest number in the first year of university; there is a significant difference in family status. There are 86 people from non-only families, accounting for 71.667%; the largest number of people whose major is engineering, 43 people (35.833%).

(3) Statistical methods

SPSS24.0 statistical software was used for data analysis.

5 Results of Data Analysis

(1) Differences in test anxiety in terms of demographic information

1) Differences in test anxiety among college students with different birthplace situations

Table 2. Differences in test anxiety among college students with different birthplace situations

Variable Name	Variable Value	Sample size	Average value	Standard deviation	t	P	Mean Difference	Cohen's d value
Total anxiety score	City	80	14.562	8.615	-1.554	0.123	2.688	0.301
	Rural	40	17.25	9.54				
	Total	120	15.458	8.984				

From the table, it can be seen that the mean values of students with urban and rural origin on test anxiety are: 14.562/17.25 respectively; the p-value of the significance result is 0.123, so the statistical result is not significant, indicating that there is no significant difference between students with urban and rural origin on test anxiety; the Cohen's d value of its difference magnitude is: 0.301, the difference magnitude is small.

2) Comparison of test anxiety among college students with different family situations

Table 3. Comparison of test anxiety among college students with different family situations

Variable Name	Variable Value	Sample size	Average value	Standard deviation	t	P	Mean Difference	Cohen's d value
Total anxiety score	One child	34	21.882	8.817	5.496	0.000***	8.963	1.113
	Not an only child	86	12.919	7.733				
	Total	120	15.458	8.984				

From the table, it is clear that the mean values of students from only family and students from non-only family on test anxiety are: 21.882/12.919, respectively; the p-value of the significance result is 0.000***, therefore the statistical result is significant, indicating that there is a significant difference between students from only family and students from non-only family on test anxiety; its difference magnitude Cohen's d value is: 1.113, the difference magnitude very large.

(2) Test for differences in scores between only and non-only students on different family parenting styles

Table 4. Test for differences in scores between only and non-only students on different family parenting styles

Variable Name	Variable Value	Sample size	Average value	Standard deviation	F	P
Ignore type	One child	34	10.324	5.151	1.168	0.282
	Not an only child	86	9.477	3.235		
	Total	120	9.717	3.87		
Emotional warmth type	One child	34	1.882	1.149	25.277	0.000***
	Not an only child	86	0.733	1.121		
	Total	120	1.058	1.239		
Trusted	One child	34	13.265	4.595	3.333	0.070*
	Not an only child	86	14.64	3.315		
	Total	120	14.25	3.753		
Coddling type	One child	34	7.588	3.34	0.174	0.677
	Not an only child	86	7.349	2.607		
	Total	120	7.417	2.821		
Autocratic	One child	34	3.941	1.391	20.638	0.000***
	Not an only child	86	2.756	1.246		
	Total	120	3.092	1.39		

From the table, it can be seen that there is no significant difference between only family and non-only family in neglectful, trustful, and spoiled type. Significant differences exist in emotional warmth type and authoritarian type.

(3) Correlation between family parenting style and test anxiety

Table 5. Correlation between family parenting style and test anxiety

Results of linear regression analysis n=120									
	Non-standardized coefficient		Standardization factor	t	P	VIF	R ²	Adjustment of R ²	F
	B	Standard error	Beta						
Constants	0.089	0.079	-	1.13	0.261	-	0.911	0.907	F=233.722 P=0.000***
Ignore type	0.005	0.003	0.079	1.641	0.104	2.949			
Autocratic	0.074	0.008	0.423	9.659	0.000***	2.463			
Coddling type	-0.006	0.004	-0.068	-1.513	0.133	2.626			
Emotional warmth type	0.114	0.009	0.58	13.242	0.000***	2.464			
Trusted	-0.002	0.003	-0.027	-0.541	0.590	3.144			
Dependent variable: test anxiety									

From the analysis of the results of the F-test in the table, we can get that the significance P presents significance at the level and rejects the original hypothesis that the regression coefficient is 0. Therefore, the model basically meets the requirements. For the performance of variable co-linearity, VIF is all less than 10, so the model has no problem of multiple co-linearity and the model is well constructed.

6 Conclusion and Prospects

(1) Sub-analysis of the influencing factors of college students' examination anxiety

According to the survey results, the overall score of test anxiety of university undergraduates is

15.458, which belongs to the level of good degree. There is no significant difference between gender and place of origin on test anxiety, and this result is in good agreement with the results of Wang Caikang's study on college students, Cui Na's study on high school students, and Zheng Xifu's study on middle school students [12-14]; it is different from the results of other studies [15-16]. In contrast, there was a significant difference in test anxiety between only and non-only students, and the magnitude of the difference was very large. The test of 21.9 for children from only families is a higher level, indicating that only students have more severe test anxiety than non-only students, and only students may be more likely to show anxiety and worry during the test than non-only students. This may be due to the fact that most of the college students of this generation born in the 21st century are only children due to the national policy. And with the rapid development of the national economy during this period, many families are leading a good life. Since there is only one child, parents also devote a lot of efforts to it, and careful care and over-protection may lead to children's psychological fragility, poor stress resistance, and the ability to live independently may also decline, and this ability will lead to students' poor self-control and self-regulation ability for difficult situations in learning, which will further affect test anxiety.

(2) Analysis of the factors influencing college students' family parenting style

According to the results of the survey, it can be seen that there are significant differences in the emotional warmth and authoritarianism between only and non-only families, and it can be seen from the table that students from only families have higher scores than non-only students in both emotional warmth and authoritarianism, probably because there is only one child in the family, so they will take good care of them; at the same time, they will also have high expectations of them, strict requirements, and hope that their children will become a dragon, for example, many students will reflect that For example, many students report that they have been subjected to strict discipline and achievement requirements since they were young, and there are non-stop cramming classes on weekends, etc.

(3) The correlation between family parenting style and test anxiety

The results of the study show that test anxiety is closely related to family parenting style, in which authoritarian and emotional warm family parenting styles have a significant correlation with test anxiety. There is a Chinese saying that family is a warm harbor, and parents are the children's support and strength. Parents' emotional warmth, understanding, compassion and care for their children can bring a great sense of security and trust to their children. Children from such families will have enough confidence to accept challenges when they meet exams, and will be able to rise to the challenge. If the parents do not care about the child and do not send positive interactions and encouragement, the child will also become progressively more intimidated and less confident.

An authoritarian family is also an important family factor associated with test anxiety. The authoritarian type is usually too strict with the child and may lack emotional warmth, not allowing the child to feel enough love and affection. Many students grow up in authoritarian families and are sensitive to criticism and fear failure because failure means they may be blamed, and many students may not be able to reconcile with failure, which makes them extra sensitive to test anxiety.

Parents should take care to be emotionally warm and understanding to their students and show more concern for their students' status. Students are officially entering adulthood at this stage, and parents can choose to communicate with their students in an equal way to make them feel respected and understood, or they can use adult thinking to teach their children back how to face problems and

help them become more psychologically mature and able to face test anxiety correctly. If a student's test anxiety is very serious or produces a physiological reaction, he or she needs to seek medical treatment in a timely manner.

(4) Research limitations and perspectives

Based on the impact of previous research, in writing by their own cognitive level and understanding of the constraints of this paper in the research process there are some limitations: First, the research method, this paper is mainly taken by the questionnaire survey method and statistical analysis method and so on, the selection of the sample range is narrow, the sample size is not sufficient, and the data collected are subjective. Second, the content of the study, mainly focusing on the theoretical aspects of the study, the combination of theory and specific practice is less.

In order to solve the shortcomings of this study, the future development direction is proposed: First, expand the scope of foreign literature research and conduct more in-depth research. The second is to refine the research theme more. Thirdly, multiple comparative analyses of domestic and foreign literature are conducted, while the combination of theory and empirical evidence is emphasized.

About the Author

Yifan Hu is undergraduate of Institute of Education in Beijing Normal University, Zhuhai, and her research field is the family parenting style and test anxiety.

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