

# The Influence of Teacher-Student Relationship on Anxiety and Depression in Children

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**Abstract.** Children's mental health plays a very important role in their personality development in the early age, while negative mental situation will probably make strong influence to their development of mental health. In order to discuss the reasons of children's emotion of anxiety and depression, this research used Social Anxiety Scale for Children (SASC), teacher-student relationship (TSRS), Children's Depression Rating Scale (CDRS), Self Perception Profile for Children (SPPC) to measure specific emotional fields among 340 students from Shandong province. The results show that: 1. Teacher-Students relationship predicted anxiety and depression level of primary school students in high grades; 2. Teacher-students intimacy significantly negative predicted the children's anxiety and depression level, while Teacher-students conflict significantly positive predicted the degree of children's anxiety; 3. Children's self-perception and optimism also have significant influence on children's anxiety and depression level.

**Keywords:** Teacher-students relationship, children's anxiety, children's depression, optimism, self-perception.

## 1. Introduction

Nowadays, depression and anxiety emotions have gradually become obstacles during the development of children's growth. Children's anxiety disorder is a psychological disorder which is mainly experienced by excessive anxiety, worry and fear, and excessive, out-of-control anxiety can affect a child's mental health. High grade students in primary school are in the critical period of children's physical and mental development, which is showing drastic changes in both physical and psychological aspects. Some studies have shown that depression and anxiety in children have a negative impact on children's academic achievement and the development of healthy personality [1]. Therefore, it is crucial to identify the causes of anxiety and depression in children, and find ways to avoid them. However, previous studies have mostly focused on children's anxiety about their academic performance [2] and family environment [3], which is the lack of discussion on the teacher-students relationship as a significant psychological inducement in the school environment. In the school, the relationship between teachers and students is an important link in the construction of student society, which is also an important way that the school puts influence on the physical and mental development of students. Therefore, this study deeply explores the influence of teacher-student relationship on children's anxiety and depression, which is of great significance for guiding children's positive development and preventing depression and anxiety in children.

The causes of depression and anxiety in children mainly include internal factors such as students' personality traits, self-perception and cognitive style, and external factors such as social support, family environment and school factors. Compared with stable internal factors, external factors (such as teacher-student relationship) have more room for improvement, so it is more valuable to study the generation of depression and anxiety in children. From environmental factors, the attitude of family members, peer relationship and teacher-students relationship can significantly affect the development of children's physical and mental health, which is an important factor for the generation of anxiety and depression. Many studies have shown that good family environment [4] and peer relationship [5] can effectively prevent depression and anxiety in children. However, none of these studies mentioned the correlation between teacher-student relationship and children's anxiety and depression. Therefore,

it is necessary to regard teacher-students relationship in school as an important factor of children's anxiety and depression and make further exploration.

## **2. Method**

### **2.1. Participant**

The samples were collected from grade 3, 4 and 5 students in a primary school in Shandong Province, including 176 boys (51.2%) and 164 girls (47.7%). Divided by grade, the sample included 121 students in grade 3, 116 students in grade 4, and 107 students in grade 5, all of which were evenly distributed.

### **2.2. Measures**

#### **2.2.1 Anxiety levels**

The Social Anxiety Scale for Children developed by La Greca was used, and children were asked to complete the scale and evaluate it by themselves. The scale included two dimensions: fear of negative evaluation, social avoidance and distress, among which fear of negative evaluation included 5 items, and social avoidance and distress included 5 items. It indicates that the data in this study have a good fit for the measurement of anxiety in children. Fear of rejection refers to the child's fear of being made fun of or that other children will not like him. Social avoidance and distress refers to the avoidance emotion caused by the pressure and tension that children feel in the social environment. Example: "I feel shy when surrounded by children I don't know" and "I feel nervous when talking to strange children". The scale uses a three-point scoring system: "Never" (0 points), "sometimes" (1 points), "always" (2 points), with higher scores indicating higher anxiety.

#### **2.2.2 Depression levels**

Children's Depression Scale (CDI) was used to evaluate children's self-feelings in the past two weeks. The scale has a single dimension with 27 questions, including 5 factors: Negative emotions, interpersonal problems, low efficiency, lack of pleasure and low self-esteem. Lack of pleasure contains eight projects, negative emotions contains six projects, low self-esteem contains five projects, low efficiency contains four projects, interpersonal problem contains four projects, which includes sleep disorders, loss of appetite, suicidal ideation, and other typical symptoms of depression. This scale uses 0,1 and 2 scores, which respectively represent "occasionally", "often" and "always", indicating the frequency of symptoms. According to the norm of the original scale, 19 points were used to determine the demarcation score of depressive symptoms.

#### **2.2.3 Teacher-student relationship**

The teacher-student Relationship Scale which was compiled by pianta (2001), translated and revised by QuZhiYong (2002) Later, Zhang Wenjuan, Cheng Yujie, Zou Hong and Yang Ying (2012) revised again was used to require students to complete the scale and evaluate it by themselves. The scale contains 10 items in two dimensions, teacher-student intimacy and teacher-student conflict, among which teacher-student intimacy contains 5 items and teacher-student conflict contains 5 items. Teacher-student intimacy refers to the attitude and behavior of intimacy between teachers and students. teacher-students Conflict refers to the discordance of emotions and behaviors between teachers and students. The scale is based on a five-point Likert scale ranging from "not at all" to "totally yes". The higher the score they get, the closer the relationship between teachers and students they show. The scale has high reliability and validity, which is suitable for evaluating the perception of teacher-student relationship from kindergarten to primary school.

#### **2.2.4 General self-perception**

The Perceived Competence Scale for Children (PCSC) compiled by Harter (1982) was used. This scale contains a total of 6 items in 1 dimension. In order to avoid social approval effects, each item

contained two descriptions in opposite directions, allowing children to choose which description was more closely related to their perception. Students filled in the scale and the score would be added in total at last. the higher the score they got, the stronger the self-perception they were.

### 2.2.5 Optimistic groups

The optimism group scale was adapted from the Personality questionnaire, which contains a single dimension with 3 items. The total score is calculated after the children fill in the scale themselves. The higher the score they got, the higher the degree of optimism they had.

### 2.3. Procedures and data Analysis

The children in the study were organized by reserchers to fill in the scale. The contents of the scale included anxiety and depression, children's self-perception, and teacher-student relationship. The data collection was completed within a week. Epidata was used to double record the data and check the consistency. SPSS20.0 was used to manage and analyze the data.

## 3. Results

The results of the study include the following three parts: (1) children's anxiety and depression situation, including the differences of anxiety and depression in children of different ages and in children of different subgroups; (2) Correlation analysis: the correlation among variables was analyzed to reveal the correlation between teacher-student intimacy/conflict and students' anxiety/depression; (3) Regression analysis: To investigate the predictive effect of teacher-student intimacy/conflict on students' anxiety/depression.

### 3.1. Depression condition in children

#### 3.1.1 Development of anxiety and depression in children of different grades

The mean anxiety scores and standard deviations of children in different grades are shown in Table 1, and the depression scores of children in different grades are shown in Table 2. One-way ANOVA was used to investigate the differences in anxiety and depression scores among children in different grades. The results showed that there was no significant difference in anxiety scores among children in different grades ( $F=1.54$ ,  $p>0.05$ ). There was also no significant difference in depression scores of children in different grades ( $F=0.96$ ,  $p>0.05$ ).

**Table 1.** Anxiety scores of children in different grades

	Number (N)	Mean (M)	standard deviations (SD)
Grade 3	115	15.17	4.40
Grade 4	112	16.21	4.86
Grade 5	101	15.62	4.10

**Table 2.** Depression scores of children in different grades

	Number (N)	Mean (M)	standard deviations (SD)
Grade 3	68	14.62	1.54
Grade 4	51	14.98	1.50
Grade 5	46	14.70	1.23

#### 3.1.2 Differences in anxiety and depression scores among children in different subgroups

Independent sample t test was used to investigate the differences in anxiety scores of different subgroups of children. The anxiety scores of boys and girls, only child and not only child, optimistic and non-optimistic children, and children with high or low self-perception were shown in Table 3. Independent sample t-test results showed that there was no significant difference in gender ( $t=0.11$ ,  $p>0.05$ ), indicating that there was no significant difference in anxiety scores between boys and girls.

There was no significant difference between optimistic and non-optimistic children ( $t=-1.40$ ,  $P>0.05$ ), indicating that there was no significant difference in anxiety scores between optimistic and non-optimistic children. There was no significant difference between only children and not only children ( $t=1.32$ ,  $P>0.05$ ), indicating that there was no significant difference in anxiety scores between only children and not only children. There was a significant difference in the level of self-perception ( $t=5.35$ ,  $p<0.01$ ), indicating that there was a significant difference in the level of children's anxiety in self-perception. The mean score of children with high self-perception (14.67) was significantly lower than that of children with low self-perception (17.36).

**Table 3.** The anxiety scores of boys and girls, high and low optimistic, only and not only, and high and low self-perception children

		Number (N)	Mean (M)	Standard deviation (SD)	t	p
Gender	Boys	166	15.73	4.51	0.11	0.91
	Girls	159	15.67	4.47		
High and low optimistic	High	107	16.11	4.65	1.40	0.16
	Low	216	15.38	4.35		
only and not only	Only	227	15.89	4.49	1.32	0.19
	Not only	101	15.18	4.45		
high and low self-perception	high	206	14.67	4.09	-5.35	0.00**
	low	115	17.36	4.71		

Independent sample t test was used to investigate the differences in depression scores among different subgroups of children. The depression scores of boys and girls, only children and not only children, optimistic and non-optimistic children, and high and low self-perception children are shown in Table 4. Independent sample t-test results showed that there was no significant difference in gender ( $t=-0.96$ ,  $P>0.05$ ), indicating that there was no significant difference in depression scores between boys and girls. There was a significant difference between optimistic and non-optimistic children ( $t=2.20$ ,  $p<0.05$ ), indicating that there was a significant difference in optimism in children's depression level. The average value of children with high level of optimism (14.57) was lower than that of children with low level of optimism (15.09). There was no significant difference between only-child and non-only-child children ( $t=-0.94$ ,  $p>0.05$ ), indicating that there was no significant difference in depression scores between only-child and non-only-child children. There was a significant difference in the level of self-perception among children ( $t=-2.63$ ,  $p<0.01$ ), indicating that there was a significant difference in the level of depression among children in terms of self-perception. The specific comparison showed that the average of students with a high degree of self-perception (14.60) was lower than that of students with a low degree of self-perception (15.40).

**Table 4.** Depression scores of boys and girls, high and low optimistic, single child or not, and high or low self-perception

		Number (N)	Mean (M)	Standard deviation (SD)	t	p
Gender	boys	82	14.65	1.51	-0.96	0.34
	girls	81	14.86	1.39		
High and low optimistic	Low	56	15.09	1.82	-2.20	0.03*
	High	107	14.57	1.18		
Only and not only	Only	112	14.68	1.33	-0.94	0.35
	Not only	53	14.91	1.67		
High and low self-perception	high	136	14.60	1.35	-2.63	0.009**
	low	25	15.40	1.63		

### 3.2. The influence of teacher-student relationship on anxiety of children

#### 3.2.1 Relationship between teachers and students and children's anxiety

Pearson correlation was used to investigate the correlation between teacher-student relationship and children's depression and anxiety, and the relevant results are shown in Table 5. The results of correlation analysis show that there is a significant negative correlation between teacher-student intimacy and teacher-student conflict. The closer the relationship between students and teachers is, the less conflict correlated with teacher-student intimacy, but there is no corelation between teacher-student conflict and children's depression score, which indicated that the closer the relationship between students and teachers in school, the lower the degree of depression. The anxiety score of children is significantly negatively correlated with teacher-student intimacy, and positively correlated with teacher-teacher conflict, indicating that the closer the relationship between students and teachers, the less the conflict with teachers, the lower the anxiety score of children. The score of anxiety in children is positively correlated with the score of depression in children, indicating that the higher the anxiety in children, the higher the degree of depression.

**Table 5.** Correlativity among teacher-student relationship, depression and anxiety in children

	1	2	3	4
1.teacher-student intimacy	-			
2.teacher-student conflict	-0.25**	-		
3.depression	-0.21**	-0.37	-	
4.anxiety	-0.28**	0.195**	0.198*	-

Plus: \* p < .05. \*\*p < .01. \*\*\*p < .001. The same below.

#### 3.2.2 Regression analysis of teacher-student relationship on children's anxiety

Regression analysis was used to investigate the predictive effect of teacher-student relationship on children's anxiety. The results of regression analysis are shown in Table 6. The results showed that after controlling for children's gender, grade, singlechild or not, teacher-student intimacy had a negative predictive effect on children's anxiety. The R<sup>2</sup> of the model was 0.095, which meant that teacher-student relationship could explain 9.5% of the change in anxiety.

The regression coefficient value of teacher-student intimacy was -0.393 (t=-4.018, P=0.000), indicating that teacher-student intimacy had a significant negative predictive effect on children's anxiety. The regression coefficient of teacher-student conflict was 0.262 (t=2.643, P<0.01), indicating that teacher-student conflict could significantly positively predict students' anxiety.

**Table 6.** Linear regression analysis of teacher-student relationship on students' anxiety

Model	Unstandardized coefficient		The standard coefficient	t	Sig.	R2
	B	standard deviation	trial version			
1	(constant)	16.507	1.708		9.662	.000
	Only child or not	-.725	.564		-1.284	.200
	grade	.070	.323		.216	.829
	gender	-.035	.517		-.068	.946
2	(constant)	19.547	2.336		8.366	.000
	Only child or not	-.488	.542		-.900	.369
	grade	.008	.310		.024	.981
	gender	.145	.497		.291	.771
	Teacher-student intimacy	-.393	.098		-4.018	.000
Teacher-student conflict	.262	.099		2.643	.009	
a. Dependent variable: anxiety						

### 3.2.3 Regression analysis of teacher-student relationship on children's depression

Regression analysis was used to investigate the predictive effect of teacher-student relationship on children's anxiety. Since there was no significant correlation between teacher-student conflict and children's depression, only the regression analysis of teacher-student intimacy on children's depression was conducted here. The results of regression analysis are shown in Table 7. The results show that, after controlling for children's gender, grade, singlechild or not, teacher-student intimacy has a negative predictive effect on children's depression, and the model R<sup>2</sup> is 0.059, which meant that teacher-student intimacy explained 5.9% of the change in students' depression.

The regression coefficient value of teacher-student intimacy was -0.148 ( $t=-2.765$ ,  $p=0.006<0.01$ ), indicating that teacher-student intimacy negatively predicted students' depression.

**Table 7.** Linear regression analysis of the relationship between teacher-student intimacy and students' depression

Model	Unstandardized coefficient		The standard coefficient	t	Sig.	R2
	B	standard deviation	trial version			
1	(constant)	13.932	.767		18.173	.000
	Only child or not	.245	.254		.965	.336
	Grade	.046	.146		.317	.752
	gender	.214	.233		.917	.361
2	(constant)	16.095	1.084		14.846	.000
	Only child or not	.254	.248		1.023	.308
	grade	.011	.143		.075	.940
	gender	.245	.229		1.071	.286
	Teacher-student intimacy	-.148	.054		-2.765	.006
a. Dependent variable: depression						

## 4. Discussion

### 4.1. There is no significant grade difference between students' anxiety and depression. Anxiety and depression are showed in both middle and upper grades of primary school

The study found that in the survey of sample students in grades 3, 4 and 5, there were students in different grades with different degrees of depression and anxiety. From the score of view, anxiety level did not fluctuate greatly since different grades. According to Kohlberg's moral development stage theory, this may be due to the students in 3, 4 or 5 grades are at the preconventional level of morality. In this level, students are tend to stay in at the cognitive level of relative utilitarian orientation phase. Students are more inclined to take the same or similar means to self-adjust the pressure in life and study, and there is no fundamental cognitive difference due to the different age. Therefore, there was no obvious grade tendency in the anxiety and depression scale test.

### 4.2. There are significant differences in the level of optimism between students' anxiety and depression. The more optimistic children are, the lower their anxiety and depression levels are

This study found that there were significant differences between optimistic and non-optimistic students in the performance of depression. Specifically, the scores of depression and anxiety scale of the students in the optimistic group were significantly lower than those in the non-optimistic group. For the same thing, optimistic people and pessimistic people will have completely different psychological reactions, and then lead to different psychological states. Optimistic people tend to maintain a positive attitude in life, even when encountering setbacks, it is easier to bounce back, so as to dispel the negative impact of failure or negative events on themselves. Therefore, schools and teachers should pay attention to the cultivation of students' optimistic attitude, through example

demonstration, emotional cultivation and other methods, subtly cultivate students' positive and optimistic attitude, so as to suppress the level of students' depression.

#### **4.3. The degree of self-perception makes an important influence on the level of anxiety and depression of students. The higher the level of self-perception, the lower the level of anxiety and depression**

Self-perception refers to an individual's understanding and evaluation of himself, including material self, social self, spiritual self and so on. In the self-perception scale used in this study, the higher the score is, the higher the degree of self-perception shows. Students with a higher degree of self-perception have a higher overall evaluation of themselves, which means that they are more satisfied with themselves. This sense of satisfaction further encourages students to have confidence in their social, mental and academic performance, which negatively affects their anxiety and depression levels. Therefore, how to help students establish correct self-perception and build self-confidence is an important topic for teachers.

#### **4.4. The more intimate teacher-student relationship is, the lower the level of students anxiety and depression is**

This study found that the relationship between teachers and students could significantly predict the level of anxiety and depression. When the relationship between teachers and students is intimate, students will be in a more relaxed psychological environment, and the natural sense of alienation and class status distance in the relationship between teachers and students will be shortened or even ignored. In teaching practice, many teachers and students have formed a teacher-friend relationship, and some experienced teachers will even take the initiative to get along with students well and deliberately close the distance with students. This has obvious benefits. On the one hand, the intimacy between teachers and students can reduce students' fear and worry. When they encounter difficulties in their studies, students are more likely to ask teachers for advice in this intimate atmosphere, which is beneficial to their academic progress; On the other hand, teacher-student intimacy preserves an emotional outlet for students when they face social pressure. A student can confide in or ask for help from a teacher whom he trusts.

Teachers play a very important role in the relationship between teachers and students. Due to the differences in age, experience, social role and so on, teachers play a dominant role in the teacher-student relationship. Therefore, in order to form a intimate teacher-student relationship and reduce the anxiety and depression level of students, teachers should take a more prudent attitude to deal with the problems in teacher-student relationship.

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