

The Relationship between Parental Psychological Control and Depression in Junior High School Students: The Chain Mediating Effect of Psychological Capital and Loneliness

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Abstract: The relationship between parenting style and adolescent depression is a heated topic in the research of the pathogenesis of the latter. This paper explores the role of psychological capital and loneliness in the relationship between parental psychological control and depression through a questionnaire survey of junior high school students. The results showed that psychological capital and loneliness played a chain mediating role in between. This study makes clear that parental psychological control worsens adolescents' depressive symptoms by reducing their psychological capital and enhancing their loneliness.

1. Introduction

Depression is an emotional state characterized by extreme sadness, lack of interest and persistent down mood. Adolescence is a high-incidence period of depression. Especially in junior high school, due to the pressure from family, interpersonal relationship and academic study, preventing the risk of depression has become an important issue to maintain the mental health of teenagers. Many studies have shown that adolescents who have experienced much parental psychological control have a significantly higher level of depression [1-2]. As a means of family education, parental psychological control has been widely concerned in recent years. It is an intention of control involved in children's psychological and emotional development, which controls their behavior through the withdrawal of love and arousing guilt and anxiety [3]. Parents' psychological control deprives children of their needs for autonomy, competence, and relatedness, resulting in emotional problems such as anxiety and depression [4].

Although previous studies have demonstrated that parental psychological control and depression are to some extent related, there is still a lack of research evidence on the internal mechanism between parental psychological control and depression. This means that there are mediating variables between parental psychological control and depression, and parental psychological control may lead to depression through other factors. Researchers found that middle school students who lack psychological capital have relatively poor academic performance and are prone to anxiety, depression and other psychological problems [5]. Psychological capital is an internal resource of self-improvement. Individuals with high psychological capital have enough psychological resources to

cope with environmental changes, and have strong self-regulation ability to negative emotions. In view of this, parental psychological control may increase the level of depression by weakening psychological capital. However, the mediating effect of psychological capital between parental psychological control and depression has not been verified so far, and other factors may also play a role in it. According to previous studies, loneliness is related to parental psychological control and depression [6-8]. Loneliness is defined as an unpleasant experience caused by the lack of intimacy, which is a state of inner conflict [9]. Parental psychological control may increase adolescents' depression by reducing their psychological capital and increasing their loneliness.

In this study, 813 junior high school students were investigated with the Parental Psychological Control Questionnaire, Center for Epidemiologic Studies Depression Scale, the Positive Psycap Questionnaire and the Children's Loneliness Scale. The purpose is to verify whether the psychological capital and loneliness of junior high school students play a chain mediating role between parental psychological control and depression. The hypotheses of this study are as follows. First, psychological capital plays a mediating role between parental psychological control and depression, indicating that parental psychological control increases junior high school students' depression by reducing their psychological capital. Secondly, psychological capital and loneliness play a chain mediating role between parental psychological control and depression, indicating that parental psychological control reduces psychological capital, increases the loneliness of junior high school students, and ultimately worsens the level of depression.

2. Methods

2.1. Subjects

With the method of convenient sampling, 813 junior high school students were selected from Heilongjiang Province as subjects. Excluding the subjects who missed or regularly answered the questions, there were 781 effective subjects remained. The effective rate of the questionnaire was 96.06%. There were 326 boys, accounting for 41.74%, and 455 girls, accounting for 58.26%. There were 256 students (32.78%) in grade one (12-13 years old), 273 students (34.96%) in grade two (13-14 years old) and 252 students (32.26%) in grade three (14-15 years old).

2.2. Tools

Parental Psychological Control Questionnaire: The Parental Psychological Control Questionnaire revised by Wang, Pomerantz and Chen [10]. was used. It has three dimensions – guilt induction, including Item 1, 2, 3, 6, 7, 8, 9, 11, 14, and 15; love withdrawal, including Item 4, 5, 10, 12, and 13; and power assertion, including Item 16, 17, and 18. There are a total of 18 items. The Likert 5-point scale was used to evaluate, from "strongly disagree" to "strongly agree". The scale has good reliability and validity, and is suitable for measuring the level of parental psychological control on junior high school students. The Cronbach's alpha of this measurement is .910.

The Center for Epidemiological Studies Depression Scale (CES-D): The Chinese version of the Center for Epidemiological Studies Depression Scale revised by Chen Zhiyan et al. [11]. was used. The scale has four factors – depressed affect, including Item 1, 3, 6, 9, 10, 14, 17, and 18; positive affect, including Item 4, 8, 12, and 16; somatic complaints and interpersonal problems, including Item 2, 5, 7, 11, 13, and 20. It has a total of 20 items. CES-D adopts four grades – less than one day in the past week, 1-2 days in the past week, 3-4 days in the past week and 5-7 days in the past week. The scale has good reliability and validity, and is suitable for measuring the degree of depressive symptoms of junior middle school students. The Cronbach's alpha of this measurement is .921.

Positive Psycap Questionnaire (PPQ): The Positive Psycap Questionnaire compiled by Zhang Kuo et al. [12]. The questionnaire has four dimensions of self-efficacy, including Item 1, 3, 5, 7, 9, 11, and

13; resilience, including Item 2, 4, 6, 8, 10, 12, and 14; hope, including Item 15, 17, 19, 21, 23, and 25; optimism, including Item 16, 18, 20, 22, 24, and 26; and a total of 26 items. PPQ was scored by Likert 7-point scale, from "completely inconsistent" to "completely consistent". The scale has good reliability and validity, and is suitable for measuring the level of psychological capital of junior middle school students. The Cronbach's alpha of this measurement is .926.

Children's Loneliness Scale (CLS): The Chinese version of the Children's Loneliness Scale compiled by Asher in 1984 and revised by Li Xiaowei et al. [13] was used. The scale includes four dimensions of mere loneliness, perception of social ability, peer status evaluation and social needs unsatisfaction, with a total of 21 items. CLS was scored by Likert 5-point scale, from "strongly disagree" to "strongly agree". The scale has good reliability and validity, and is suitable for measuring the loneliness level of junior middle school students. The Cronbach's alpha of this measurement is .926.

2.3. Test

The group test was carried out with the class as the unit. The experimenters were the researcher and the class teacher. Before the test, unified training was conducted on the explanation of the instruction. The experimenters asked students to fill in and hand in the questionnaires on the spot. In the process of testing, the general demographic information, such as gender and grade, were obtained.

2.4. Data processing

SPSS25.0 was used for correlation test, and Process was used for testing the mediating effect and chain mediating effect.

3. Results

3.1. Correlation Analysis

Descriptive statistics and Pearson correlation analysis were conducted on parental psychological control, depression, psychological capital and loneliness. The results are shown in Table 1. From the correlation between variables, it is shown that parental psychological control is positively correlated with depression ($r = .453, p < .01$) and loneliness ($r = .362, p < .01$), and negatively correlated with psychological capital ($r = -.339, p < .01$). Psychological capital is negatively correlated with depression and psychological capital. To a certain extent, it reflects the influence of parental psychological control, psychological capital and loneliness on depression.

Table 1: Intercorrelations of Study Variables.

	Parental psychological control	Depression	Psychological capital	Loneliness
Parental psychological control	1			
Depression	.453**	1		
Psychological capital	-.339**	-.693**	1	
Loneliness	.362**	.612**	-.612**	1

* $p < .05$, ** $p < .01$, *** $p < .001$.

3.2. Chain mediation of psychological capital and loneliness between psychological capital and depression

Parental psychological control is the independent variable, depression is the dependent variable, and psychological capital and loneliness are the mediating variables. The results showed that the total effect c of parental psychological control on depressive symptoms was significant ($\beta = .453, p < .01$), and it could positively predict depression; c' was also significant ($\beta = .203, p < .01$). By adding psychological capital variables into the equation, it is found that psychological capital has a significant mediating effect between parental psychological control and depression. Parental psychological control could negatively predict the level of psychological capital ($\beta = -.340, p < .01$), and psychological capital could negatively predict the symptoms of depression ($\beta = -.471, p < .01$). Including loneliness in the equation, it was found that parental psychological capital and loneliness had significant chain mediating effect between parental psychological control and depression. Parental psychological control could positively predict the level of loneliness ($\beta = .175, p < .01$). Psychological capital could negatively predict loneliness ($\beta = -.553, p < .01$). Loneliness could positively predict depressive symptoms ($\beta = .250, p < .01$). (Figure 1)

In order to further test the relationship among several variables, the significance of the three models was tested by taking parental psychological control, psychological capital and loneliness as independent variables and depression as dependent variables. In Model 1 (parental psychological control \rightarrow psychological capital \rightarrow depression), parental psychological control could negatively predict the psychological capital $a1$ significance ($\beta = -.340, p < .01$), psychological capital can negatively predict the depression $b1$ significance ($\beta = -.610, p < .01$), and the direct effect $c1'$ of parental psychological control on depression is significant ($\beta = .025, p < .01$), with psychological capital playing a partial mediating role in between. In Model 2 (parental psychological control \rightarrow loneliness \rightarrow depression), parental psychological control can positively predict loneliness and $a2$ is significant ($\beta = .367, p < .01$). Loneliness can positively predict depression, and $b2$ is significant ($\beta = .515, p < .01$). The direct effect $c2'$ of parental psychological control on depression is significant ($\beta = .267, p < .01$). In Model 3 (psychological capital \rightarrow loneliness \rightarrow depression), psychological capital control can negatively predict loneliness, and $a3$ is significant ($\beta = -.612, p < .01$); loneliness can positively predict depression, and $b2$ is significant ($\beta = .300, p < .01$); and the direct effect $c3'$ of psychological capital on depression is significant ($\beta = -.510, p < .01$), with loneliness playing a partial mediating role in between.

The mediating effect analysis (Table 2) shows that the mediating effect between psychological capital and loneliness is significant in the Bootstrap 95% confidence interval, and the mediating effect is .251, accounting for 55.3% of the total effect (.453). The mediating effect of psychological capital and loneliness are mainly realized through the following three paths: (1) Indirect effect 1 (.160): parental psychological control \rightarrow psychological capital \rightarrow depressive symptoms; (2) Indirect effect 2 (.044) parental psychological control \rightarrow loneliness \rightarrow depressive symptoms; (3) Indirect effect 3 (.047): parental psychological control \rightarrow psychological capital \rightarrow loneliness \rightarrow depressive symptoms. Indirect effect 1, Indirect effect 2 and Indirect effect 3 account for 35.30%, 9.65% and 10.35% of the total effect respectively.

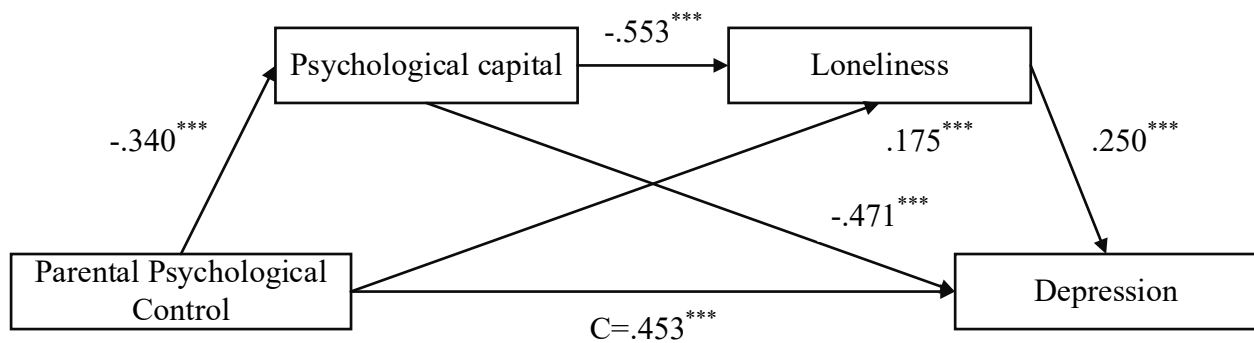


Figure 1: Chain mediating effect.

Table 2: Mediating effect test.

	Indirect effect	Boot Standard Error	BootCI lower bounds	BootCI upper bounds	Relative mediating effect
Total intermediating effect	.251	.027	.200	.306	55.30%
Indirect effect 1	.160	.021	.120	.203	35.30%
Indirect effect 2	.044	.010	.026	.064	9.65%
Indirect effect 3	.047	.008	.032	.065	10.35%

4. Discussion

4.1. Mediating effect of psychological capital between parental psychological control and depression

Firstly, there is a significant correlation between parental psychological control and adolescent depression, which is consistent with previous studies [1, 3, 14-15]. Secondly, there is a significant correlation between the level of psychological capital and the level of depression [5]. Finally, this paper creatively finds that psychological capital plays a mediating role between parental psychological control and depression. This is because parental psychological control over junior high school students makes children feel forced psychologically and feel that they can't meet parents' requirements, which weakens their sense of self-efficacy [16].

4.2. Mediating effect of loneliness between parental psychological control and depression

The study also finds that loneliness plays a mediating role between parental psychological control and depression, which is consistent with previous studies [17]. This is because, on the one hand, the strong parental psychological control affects the parent-child relationship, and then enhances the loneliness of students. On the other hand, adolescents who are lonely for a long time are more likely to have depression [18].

4.3. Chain mediation of psychological capital and loneliness between parental psychological control and depression

This study innovatively finds that psychological capital and loneliness play a chain mediating role between parental psychological control and depression. Under the parental psychological control, adolescents' emotion is attached to their parents, their peer relationship is relatively poor, and their need for intimate relationship is not satisfied, so they will feel lonelier and more depressive. In the meanwhile, the negative relationship between psychological capital and loneliness will have a negative effect, that is, the lower the level of psychological capital is, the stronger the loneliness will be [19]. This shows that excessive parental psychological control reduces teenagers' psychological energy, which is all kinds of psychological capital, and teenagers experience loneliness in interpersonal relationship, which increases the risk of teenagers suffering from depressive symptoms.

5. Conclusions

This paper expands the research on the effect of parental psychological control on depression, and finds that psychological capital and loneliness play a chain mediating role in between. In particular, the stronger parental psychological control junior high school students feel, the less their psychological capital will be, and they will experience more loneliness, so they are more likely to produce depressive symptoms.

6. Limitations

The limitations of this study are as follows. 1. The sample of the questionnaires is limited to the junior middle school students in Northeast China, and is difficult to represent the overall situation of all teenagers. 2. The study is only based on the data of teenagers themselves, and does not take into account the data and opinions of parents, so it is biased to judge the parental control.

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