

The Influence of Parenting Style on Depression of College Students is Mediated by Peer Relationship

Yuxi Huang^a, Na Ni^{b,*}, Beilei Yao^c, Juan Ma^d

Shaanxi University of Chinese Medicine, Xianyang, 712046, China

^a411653539@qq.com, ^bnina_kx@163.com, ^c1132864011@qq.com, ^dshximaj@126.com

**Corresponding author*

Keywords: Parenting Style, Depressed Mood, Peer Relations

Abstract: Objective: To explore the mediating effect of peer relationship on parental rearing style and depression of college students. Methods: A total of 1337 students from freshmen to fifth-graders in six universities in Shaanxi province were investigated by using the Simple Parenting Style Evaluation Scale, peer relationship Scale and self-rating depression Scale. Common method deviation test, descriptive analysis and correlation analysis were performed using SPSS 21.0 data. PROCESS model4 was used to analyze the mediation effect. Results: ①there was a correlation between the three kinds of parenting differences; Rejection and over-protection are positively correlated with depression, while emotional warmth is negatively correlated with depression. Rejection and over-protection are negatively correlated with peer relationship, while emotional warmth is positively correlated with peer relationship. ②Rejection, emotional warmth and over-protection had significant direct predictive effects on depression (β rejection = 0.78, $P < 0.001$; β warmth = -0.502, $P < 0.001$; β over-protection = 0.488, $P < 0.001$); Rejection and over-protection directly and negatively predicted peer relationship (β rejection = -1.394, $P < 0.001$; β warm = -0.10, $P < 0.01$; β over-protection = -0.7059, $P < 0.01$), and emotional warmth was a direct positive predictor of peer relationship (β warmth = 1.098, $P < 0.01$). Conclusion: Parenting style has an effect on college students' depression through the mediating effect of peer relationship.

1. Introduction

Depressive mood is one of the common emotional components and is a negative emotional response that exists in every person. According to the Lancet-Psychiatry research paper written by Professor Huang Yueqin et al. in 2019, the long-term prevalence of depression in China is 6.9% and the 12-month prevalence is 3.6%. And based on the above statistics, there are about ninety-five million depressed patients in China. From past studies related to depression [1], the incidence of depression among college students is higher than that of the general population, and how to reduce depression has attracted widespread attention in universities across the country. In terms of factors influencing depression, the main ones are related to the individual himself, the environment and the way the individual reacts in the face of the problem [2]. The factors contributing to depression in college students are multifaceted, and the accepted view in the academic community is to explore

them from an integrated bio-psycho-social model [3]. Family factors affect college students from all three perspectives triggering a great deal of attention from scholars. The family environment refers not only to the material level of life, but more to the support and attitude from the family behind the material. The family environment factors mainly include family environment climate, parenting style, and parent-child relationship. Among them, the dimensions of parenting style were significantly different from the different levels of depression of students. Parental emotional warmth, rejection, and overprotective dimensions were significantly associated with depressed mood in high school students [4]. However, the internal mechanism of action of parenting style in relation to depression remains to be explored.

Peer relationships are common activities and cooperative relationships between children of similar ages, and are interpersonal relationships established and developed by individuals or peers at comparable levels of psychological development. The results of a study by Manning (2011) showed that parenting styles have a positive impact on child-peer relationships, while healthy parenting styles have a positive impact on child-peer relationships [5]. The interpersonal risk model is one of the leading models of depression onset mechanisms, which suggests that interpersonal factors influence individual depression [6]. Negative peer relationships in adolescents can lead to school maladjustment and high-risk behaviors, but positive peer relationships can help mitigate the negative effects of negative family environments on personal development [7]. It has been shown that peer support is closely related to depression [8]. Studies have found that children raised in a gentle parenting style are better able to interact with people when communicating with them; however, children raised in a negative parenting style model are more likely to have problems with interpersonal aspects.

Based on this, peer relationships are strongly associated with family parenting styles, and there is a significant correlation between depression and peer relationships. This study investigates the relationship between parenting styles and depression in the context of parenting styles and peer relationships as a mediator, enriching the content related to depression and exploring the content related to depressed mood in parenting styles. As a result, this paper proposes the hypothesis that peer relationships mediate the relationship between parenting styles and depressed mood.

2. Objects and Methods

2.1. Subjects

In this study, a stratified sampling method was used to select a total of six colleges and universities in Shaanxi Province in science, engineering, literature, medicine and arts for the survey. 1200 people were planned to be sampled and 1348 people were actually sampled, of which 1337 were valid questionnaires, with an efficiency rate of 99.18%.

There were 496 male students (37.1%) and 841 female students (62.9%); 712 freshmen (53.3%), 349 sophomores (26.1%), 146 juniors (10.9%), 92 seniors (6.9%), and 38 juniors (2.8%); 321 only children (24%) and 1016 non-only children (76%); In terms of place of residence, 323 (24.25%) in urban areas, 296 (22.1%) in rural areas, 145 (10.8%) in townships and 573 (42.9%) in rural areas; In terms of place of residence, 323 (24.25%) in urban areas, 296 (22.1%) in rural areas, 145 (10.8%) in townships and 573 (42.9%) in rural areas; In terms of annual household income, there were 818 (61.2%) with \$50,000 or less, 350 (26.2%) with \$50,000-\$100,000, 101 (7.5%) with \$100,000-\$150,000, and 68 (5.1%) with \$150,000 or more. In terms of parents' education level, 837 (62.6%) had fathers in junior high school and below, 333 (24.9%) in high school/junior college/technical school, and 167 (12.5%) in college and above, while 897 (67.1%) had mothers in junior high school and below, 294 (22%) in high school/junior college/technical school, and 146 (10.9%) in college and above.

2.2. Research Tools

2.2.1. Short Form Parenting Style Rating Scale

A short-form parenting style scale developed by Jiang Prize et al. was used, and the scale evaluated the subjects' parenting style. A short-form parenting style scale developed by Jiang Prize et al. was used, and the scale evaluated the subjects' parenting style. The scale includes three dimensions of rejection, over-protection, and emotional warmth, with 21 items. Using a 4-point scale on the scale, questions were scored in reverse for 15. The higher the score of the result, the greater the degree to which the parent is using this parenting style. The consistency coefficient of the scale ranged from 0.74-0.84, the fold-half reliability from 0.73-0.84, and the retest reliability from 0.70-0.81.

2.2.2. Peer Relationship Scale

The peer relationship scale from the Interpersonal Relationship Scale prepared by Liu Naiwei et al. was selected to evaluate college students' peers their. The four dimensions of the scale are affective communication, utilitarian interaction, self-centeredness, and self-awareness. The scale has 28 items and is scored on a 5-point scale, with items 1, 2, 4, 5, 8, 9, 12, 13, 14, 16, 17, 18, 20, 21, 23, 25, and 27 requiring reverse scoring. Higher scale scores indicate better interpersonal interactions. The internal consistency coefficient value of the scale was 0.776 and the structural validity was 0.792, which showed good reliability and validity.

2.2.3. Depression Self-Rating Scale

Zung was used to write the Depression Self-Rating Scale, which was designed to measure the severity of depression and the change in treatment. The scale has 20 items and is scored on a 4-point scale. The scale considers the degree of depression severity = cumulative score of each item $\times 1.25$, with a standard score of 53 as the upper normal reference value. A total standard score of 53-62 is considered mild depression, 63-72 is moderate depression, and 72 or more is severe depression.

2.3. Statistical Processing

SPSS 21.0 data were used for common method deviation tests, descriptive and correlation analyses; PROCESS model4 was used for mediating effects analysis.

3. Results

3.1. Common Method Deviation Test

The Harman one-way test for common method bias, proposed by Hao Zhou and Lirong Long (2004), was used to analyze the exploratory factors in the no-rotation condition. The results showed that in the no-rotation condition, with 11 factors with characteristic roots greater than 1, the explained variance of the first factor was 18.193%, which was much less than the critical criterion of 40%. From this, it is clear that there is no serious common methodological bias in the data in the study.

3.2. Correlation Analysis of Each Variable

Table 1: Descriptive statistics of gender in various dimensions

	male(N=170)		female(N=208)		t
	M	SD	M	SD	
Negative parenting style	2.21	0.39	2.21	0.36	-0.25
Relationship of peers	88.76	9.18	93.73	9.82	0.63**
Emotional Interaction	23.94	4.35	24.82	4.62	-1.88
Utilitarian Interaction	20.49	3.43	21.57	3.40	-3.06**
Self-centered	21.39	5.16	23.82	5.00	-0.51**
Self-awareness	22.95	2.98	23.53	3.25	-1.78
depression	57.49	7.82	58.13	7.99	-0.78

Table 2: Descriptive statistics of single child in each dimension

	The only child(N=99)		Non-only child(N=279)		t
	M	SD	M	SD	
Negative parenting style	2.27	0.4	2.19	0.36	1.95
Relationship of peers	68.88	10.1	69.73	10.27	-1.3
Emotional Interaction	15.1	4.6	15.7	4.59	-2.01*
Utilitarian Interaction	20.8	3.2	20.31	3.2	2.273*
Self-centered	17.15	4.24	17.1	4.24	0.12
Self-awareness	15.83	3.74	16.6	3.64	-3.33*
depression	50.59	10.26	51.7	10.28	-1.68

According to previous literature, 378 students were in line with negative parenting style. Among the demographic variables, gender and one-child variables were described in the figure above under various dimensions (Table 1 and Table 2).

Table 3: Description statistics and correlation of each variable

	1	2	3	4	5	6	7	8
1 Rejection	—							
2 Over-protection	0.58**	—						
3 Emotional warmth	-0.41*	-0.18**	—					
4 Depression	0.39**	0.28**	-0.43**	—				
5 Emotional Interaction	-0.29**	-0.17**	0.34**	-0.38**	—			
6 Utilitarian Interaction	-0.06*	-0.06*	0.07*	-0.13**	-0.27**	—		
7 Self-centered	-0.24**	-0.14**	0.30**	-0.40**	-0.02	0.56**	—	
8 Self-awareness	-0.35**	-0.22**	0.46**	-0.55**	0.58**	0.08**	0.45**	—
$\bar{x} \pm s$	9±2.74	16.5±3.34	19.0±4.3	51.4±10.3	26.5±4.6	21.6±3.2	24.9±4.2	25.6±3.7

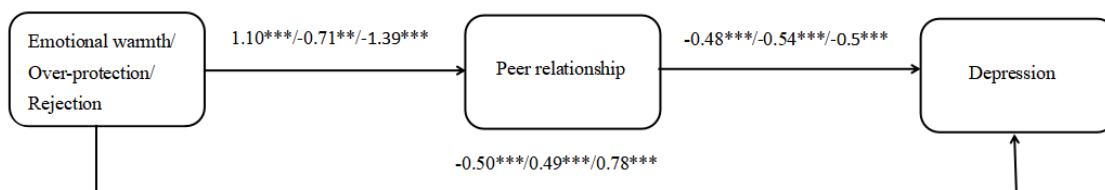
Note: *p<0.05, **P<0.01

Descriptive statistics and correlation results indicated (see Table 3) that there was a correlation between all three types of correctional differences. Depression was significantly and positively associated with rejection and over-protection, and significantly and negatively associated with emotional warmth, emotional interactions, utilitarian interactions, self-centeredness, and

self-awareness. Emotional interactions, utilitarian interactions, self-centeredness, and self-awareness were negatively associated with rejection and over-protection and positively associated with emotional warmth. Emotional interactions, utilitarian interactions, self-centeredness, and self-perception were significantly and negatively associated with depression.

3.3. Agency Analysis

Using Model 4 in the PROCESS macro program prepared by Hayes. Models were constructed with rejection, emotional warmth, and over-protection as independent variables, peer relationships as mediating variables, and depression as dependent variables, respectively, to analyze the mediating role of peer relationships in parenting style on depression. Results indicated (as in Figure 1) that rejection, emotional warmth, and over-protection were significant direct predictors of depression (β rejection=0.78, $p<0.001$; β warmth=-0.502, $p<0.001$; β over-protection=0.488, $p<0.001$). Rejection, and over-protection directly negatively predicted peer relations (β rejection =-1.394, $P<0.001$; β warmth =-0.10, $P<0.01$; β over-protection =-0.7059, $P<0.01$), and emotional warmth directly positively predicted peer relations (β warmth = 1.098, $P<0.01$). These results suggest that the findings of this study support the influence of parenting style on depressed mood in college students through the mediating role of peer relationships.



Note: The order from left to right is parental rejection, emotional warmth, and overprotective standardized regression coefficients;*** $p<0.001$

Figure 1: The mediating model of peer relationship between parenting style and depression.

The results of the analysis of mediating effects showed (as shown in Figures 1 and Table 4) that peer relationships partially mediated the relationship between rejection, emotional warmth, over-protection, and depression, with the magnitude of the mediating effect being 0.69, 0.52, and 0.38, respectively, accounting for 46.98%, 51.01%, and 44.08% of the effect of parenting style on depression, with Bootstrap 95% confidence intervals all did not contain 0, indicating that the mediating effects all reached significant levels.

Table 4: Analysis of the mediating effect of peer relationship.

Parenting Style	Indirect effect value	Boot Standard Error	Boot CI lower limit	Boot CI Ceiling	Intermediary effect volume
Rejection	0.692	0.059	0.582	0.813	46.98%
Emotional warmth	0.523	0.037	-0.598	-0.449	51.01%
Over-protection	0.38	0.047	0.2871	0.4741	44.08%

4. Conclusion

4.1. Related Analysis

This study found that parenting style, peer relationships, and depression were significantly

correlated. Of these, rejection and over-protection were positively associated with depression, and emotional warmth was negatively associated with depression. The results of the study showed that emotional warmth from parents was significantly helpful in reducing depression in children, while frequent rejection and over-protection increased the chances of depression in children. The reasons for this situation are complex. On the one hand, it may be because differences in parenting often lead to marital conflict and do not contribute to a harmonious and healthy family atmosphere. A good family atmosphere is usually more conducive to the development of positive psychological qualities. A poor family climate can lead to a vicious cycle in which children gradually reduce their self-efficacy due to their inability to cope with themselves and self-blame, and self-efficacy can influence adolescent depression by affecting self-esteem [9]. On the other hand, this may be because their parents have been positive and warm to their children from an early age, which makes them believe in themselves, and their parents' support and understanding makes them feel safe and have more strength to face difficulties, which makes their mental health level higher. Overprotective parents can make the child diminish the idea of exploring the outside world. This plays a negative role in the formation of the child's positive psychological capital, which reduces the child's mental health [10].

Depression was negatively and significantly associated with peer relationships, which is consistent with previous studies [11]. The findings show that good peer relationships help reduce depression, while negative peer relationships are more likely to produce depression. According to the interpersonal susceptibility-stress model proposed by Yang and Juan (2015), poor interpersonal relationships increase susceptibility to depression.

Parenting styles were significantly associated with peer relationships, with parental rejection and over-protection negatively associated with peer relationships and emotional warmth positively associated with peer relationships. Previous research on parenting styles and peer relationships concluded that children influenced by warm parenting styles are prone to form secure attachments and are more likely to establish and maintain good interpersonal relationships with their peers, whereas children influenced by rejecting parenting styles show greater hostility and aggression, and such children are more likely to have strained peer relationships and are often rejected by their peers (Wang, Na, 2006) [12].

4.2. Intermediary Role

Model analysis of the relationship between parenting style, depression, and peer relationships. The results showed that parenting style rejection dimension and overprotective dimension negatively predicted peer relationships, emotional warmth positively predicted peer relationships, and peer relationships negatively predicted depression, thus peer relationships partially mediated the role between parenting style and depression. It shows that parenting styles influence depression, partly directly and partly through peer relationships. This is mainly due to the doctrine of significant others developed by the American sociologist Mills, who believes that "significant others" are those individuals who have a significant impact on the socialization process of individuals. As children grow up, the most dominant other person is the parent, after which the socialization of children gradually increases as they gradually grow up and reach college. The evolutionary trend of dominance over individuals is from parental dominance, to progressive teacher dominance, and finally peer dominance. In the Brownian Brenner ecosystem view, both parental and interpersonal belong to the microsystem, and the impact of the microsystem, as the factor that most affects an individual's mental health, on the individual's depression is undoubtedly enormous. This suggests that both parenting and peer relationships can play an important role in an individual's mental health as the child grows up. This result suggests that parenting, as one of the types of family environment,

has a profound impact on children, that the type of parenting used needs to be of concern to parents, and that a harmonious and warm family atmosphere is necessary for happy growth.

4.3. Summary

This paper investigated the effect of parenting style on depression in college students using peer relationships as a mediator, and demonstrated that parenting style was significantly associated with depression and could be mediated through peer relationships. The results of the current study are generally consistent with those of other scholars. The innovation of this study is to explore the factors influencing depression among college students, and to improve the overall health of college students by revealing the influence of parenting styles, peer relationships, and other factors, and to inspire parents to help maintain their children's mental health by adjusting family parenting styles to a certain extent. We can find that children with positive parenting have more outstanding interpersonal skills, however negative parenting leads to depression more often. In summary, in order for children to reduce depression, parents should cultivate their children's independence during the process of growing up, and build a good interpersonal skills by refusing unreasonable requests in a timely manner while giving enough emotional protection. However, we should be aware that this paper is still based on cross-sectional studies and lacks longitudinal comparisons, which need to be followed up and investigated in future studies.

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