

The Relationship between Parenting Styles and Secondary Child Mental Health in Second-Child Families: The Mediating Role Played by Sibling Relationships

Yuxin Feng^{1, a, *}

¹*Institute of Political Science and Law, Baoji University of Arts and Sciences, Baoji, Shaanxi, China
a. 202040889@st.usst.edu.cn*

**corresponding author*

Abstract: With the development of the two-child policy and changes in family structure patterns, the relationship between parents and young children has received increasing attention, the more prominent of which is the way parents parent their children and their sibling relationship, and the development of children's mental health is particularly important in both relationships. The study explores the mediating role of the sibling relationship between parenting style and preschool children's mental health in second-child families. A total of 369 children and their parents and younger siblings (preschool age) from a primary school in a city in Shaanxi Province were used in this study. The Parenting Style Nurture Questionnaire and Sibling Relationship Scale completed by the parents and the preschool children's mental health questionnaire were used. The results found that: (1) parenting styles of first-born children were significantly correlated with their sibling relationships, i.e. positive (democratic) parenting styles contributed to warm sibling relationships and sibling relationships were significantly correlated with children's psychological health, i.e. warm sibling relationships led to healthy psychological states; (2) sibling conflict and sibling rivalry and jealousy in parenting styles ; (3) sibling conflict and sibling rivalry and jealousy are significant mediators of the four dimensions of parenting styles: coddling, permissiveness, authoritarianism, inconsistency and preschool children's mental health, i.e. children's mental health problems are significantly correlated with sibling conflict and sibling rivalry and jealousy.

Keywords: parenting styles, sibling relationships, second children, mental health

1. Introduction

For the past thirty years or so, China has been implementing a family planning policy. In recent years, with the serious aging of the population and the traditional perception of an imbalance in the ratio of men to women, China issued and implemented a comprehensive two-child policy in 2016. The emergence of this has led to a change in the structure of many families, from an only-child family model to a multiple-child family combination. A new type of family relationship has emerged the sibling relationship in which the attitude of the first-born child towards the second child (i.e., the sibling acceptance relationship) and the parenting style of the first-born child have a significant impact on the second child [1]. Parenting style refers to a relatively stable pattern of behavior and

behavioral tendencies displayed by parents in the upbringing and education of their children [2]. Sibling relationships involve both warmth and conflict. It has been shown that good sibling relationships lead to positive interactions between children and others, while poor sibling relationships lead to negative problem behavior [3]. The positive impact of sibling relationships on young children is second only to that of parent-child relationships [4]. Positive sibling relationships include aspects of sibling warmth, such as companionship and protection, while negative sibling relationships are characterized by sibling conflict and sibling rivalry and jealousy, such as aggressive behavior and unpleasant and jealous emotions.

At the same time, sibling relationships have an important influence on the development of the individual. Sibling relationships are an important relationship in the family system, in addition to parent-child and couple relationships, and are the longest-lasting relationships from birth to death, and have an important impact on individual development [5]. Such sibling relationships, in turn, can have a significant impact on children's early development and can affect them at all stages of their development [6]. For example, the more negative a child's early sibling relationship is, the more likely it is that their psychological well-being will be compromised as they develop. Conversely, the more positive sibling relationships they have, the less loneliness and depression they will experience later in life, i.e., their mental health will be healthier [7]. In family parenting relationships, the parenting style of the eldest child indirectly affects the psychological and behavioral profile of the second child. As the second child is younger and has a developing mind, not only the behavior of the parents, but also the behavior of the older siblings, can have an impact on the second child.

In the current research, the relationship between parenting styles and the first-born child or the sibling relationship of the first-born child has been studied, but rarely has the mental health of the second-born child been addressed. This study analyses the correlation between parenting styles and sibling relationships for the first-born child, in order to deduce the effect of sibling relationships on the mental health of the second-born child, i.e., the effect of parenting styles on the mental health of the second-born child in second-born families. The impact of different parenting styles on sibling relationships and the mental health of their second child is explored. The conceptual pathways between the variables in the study are shown in Figure 1.

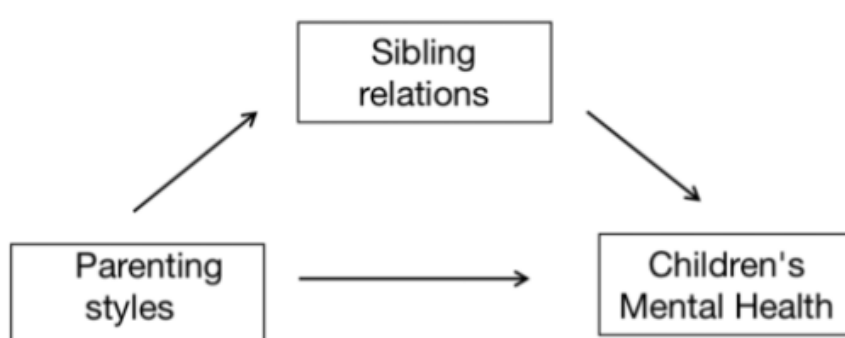


Figure 1: Conceptual path diagram 1 between variables. (Photo credit: Original)

2. Research Methodology

2.1. Study Population

A total of 369 parents with two children in a primary school in the city of Shaanxi Province were studied. The older child in grades 1 to 3 (6-8 years old) and the second child (a preschooler) were selected for the study. Of these, 167 were male (45.26%) and 202 were female (54.74%) for the first child and 185 were male (50.14%) and 184 were female (49.86%) for the second child.

2.2. Research Tool

2.2.1. Parenting Style Questionnaire

The Parenting Style Questionnaire developed by Yang Liju and Yang Chunqing was selected as the research instrument [8]. The questionnaire classifies parenting style in five dimensions: spoilt, democratic, permissive, authoritarian and inconsistent. The questionnaire is completed by the parents and assesses the frequency of each parental behavior, using a 5-point scale with options of never, rarely, sometimes, often and always, on a scale of 1-5, with higher scores on a dimension indicating a more prominent parenting style. In this study, the scale structure reliability was good at 0.74.

2.2.2. Quality of Early Childhood Sibling Relationships Questionnaire (Parent Version)

The Quality of Early Childhood Sibling Relationships Questionnaire (Parent Version), jointly developed by Li Yan, Liu Tiantian, Zhao Jinjuan, Li Youjia and Niu Xiaobing, was selected [9]. The questionnaire was divided into three dimensions, namely warmth behavior, conflict behavior, competition and jealousy behavior. The questionnaire was rated by parents on the quality of their children's sibling relationships and was completed by parents on a five-point scale of "1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always".

2.2.3. Survey on the Psychological Condition of Preschool Children

The questionnaire was selected from Zhang Xiquan's Preliminary Compilation and Investigation of Mental Health Scales for Preschool and Primary School Children [10]. In this study, the mental health questionnaire for preschool children was scored on a scale of 1, 2 and 3, and the scores were as follows: 1 = never; 2 = sometimes, but not once a week; 3 = at least once a week. The higher the score, the more severe the mental health problem. In this study, the reliability of the scale structure was good at 0.90.

2.3. Data Processing and Common Method Bias Test

SPSS26 was used to statistically analyze the questionnaire data, and the analysis methods included the following: descriptive statistics, correlation analysis, and regression analysis. As the questionnaire was used in this study, the Harman one-way test was used to test for common method bias in order to avoid possible common method bias. The results showed that the explained variance of the first factor was 21.17%, which was less than 40%. Therefore, there was no common method bias in this study.

3. Research Results

3.1. Descriptive Statistics and Correlation Analysis

Pearson's correlation analysis was used to test the significance of parenting style and sibling relationships. The variables were coddling, democratic, permissiveness, authoritarianism,

inconsistency, sibling warmth, sibling conflict, sibling rivalry and jealousy. From Table 1, it can be seen that coddling, permissiveness, authoritarianism and inconsistency are all significantly correlated with sibling conflict and sibling rivalry and envy, i.e., the higher the scores of the first four dimensions the more negative the sibling relationship; while livelihood and sibling warmth are significantly correlated.

Table 1: Descriptive statistics and correlation analysis of each variable (N=369).

Variables	M±SD	Coddling	Democracy	Permissiveness	Authoritarianism	Inconsistency	Sibling warmth	Sibling conflict	Sibling Jealousy	Mental Health
Coddling	1.91±0.6 3	1								
Democracy	3.78±0.6 0	-0.23**	1							
Permissiveness	2.08±0.5 9	0.39**	-0.35**	1						
Authoritarianism	2.14±0.7 0	0.35**	-0.35**	0.58**	1					
Inconsistency	2.28±0.7 0	0.39**	-0.16**	0.46**	0.53**	1				
Sibling warmth	3.54±0.6 9	-0.14**	0.49**	-0.24**	-0.22**	-0.11*	1			
Sibling conflict	2.39±0.8 2	0.28**	-0.09	0.32**	0.48**	0.48**	-0.17**	1		
Sibling Jealousy	2.23±0.8 1	0.26**	-0.05	0.33**	0.40**	0.42**	-0.04	0.66**	1	
Mental Health	1.46±0.3 1	0.34**	-0.24**	0.48**	0.48**	0.42**	-0.17**	0.48**	0.49**	1

That is, among parenting styles, the four dimensions of coddling, permissiveness, authoritarianism and inconsistency all showed significant negative correlations with the tendency for sibling warmth, with all correlation coefficients having a significance p less than 0.05 and all correlation coefficients less than 0.

The four dimensions of coddling, permissiveness, authoritarianism and inconsistency all showed significant positive correlations with sibling conflict and sibling rivalry and jealousy tendencies, with all correlation coefficients having a significance p less than 0.05 and all correlation coefficients greater than 0. Democracy showed significant positive correlations with sibling warmth tendencies, with correlation coefficients having significance p less than 0.05 and all correlation coefficients greater than 0. Democracy showed significant positive correlations with Democracy and sibling conflict and sibling rivalry and jealousy tendencies show significant negative correlations, with correlation coefficients of significance p less than 0.05 and correlation coefficients less than 0.

Among the sibling relationships, sibling warmth showed a significant negative correlation with preschoolers' mental health tendencies, with the significance of the correlation coefficient p less than 0.05 and the correlation coefficient less than 0. Sibling conflict and sibling rivalry and jealousy showed a significant positive correlation with preschoolers' mental health tendencies, with the significance of the correlation coefficient p less than 0.05 and the correlation coefficient greater than 0.

3.2. The Mediating Role of Sibling Relationship

This study hypothesized that there is a mediating effect of the sibling relationship in the effect of parenting style on the mental health of second children. To test this hypothesis and investigate the mediating role of the sibling relationship in the effect of parenting style on the mental health of the second child, this study used Wen Zhonglin's test on mediating variables. A mediating effect is when the independent variable has an effect on the outcome variable through a mediating variable.

In this study, for the mediating effect of the sibling relationship in the relationship between parenting style and secondary child's mental health to be valid, a significant correlation between parenting style and secondary child's mental health must first be satisfied. Then a significant correlation between parenting style and secondary child's mental health, parenting style and sibling relationship, and sibling relationship and secondary child's mental health must all be satisfied. Therefore, this study needs to examine the two-by-two correlations between the three variables of parenting style, sibling relationship and young child anxiety.

The correlation analysis in Table 1 shows that democracy is not significantly correlated with sibling conflict, sibling rivalry and jealousy, and is negatively correlated with child psychological well-being, while coddling, permissiveness, authoritarianism and inconsistency are all negatively correlated with sibling warmth. Therefore, the mediating effects of the above pathways were not significant.

The mediation model was further analyzed using a bias-corrected non-parametric percentile Bootstrap method with 5000 samples and a 95% confidence interval. The confidence interval did not contain 0, indicating a significant mediation effect. The significant mediation model diagram is shown in Figure 2. The mediation analysis revealed that sibling conflict and sibling envy mediated significantly between the four dimensions of parenting style: coddling, permissiveness, authoritarianism and inconsistency, and the mental health status of preschool children.

Based on the results of the above analysis, sibling conflict played a significant positive mediating role in doting, with a mediating effect size of 0.0578 ($p < 0.05$) and a confidence interval of 0.0335-0.0578. The mediating effect accounted for 34.4% of the total effect; sibling jealousy played a significant positive mediating role in doting, with a mediating effect size of 0.0556 ($p < 0.05$) and a confidence interval of 0.03 The proportion of the total effect that was mediated was 33.1%; sibling

conflict played a significant positive mediating role in permissiveness, with a mediating effect size of 0.0556 ($p < 0.05$) and a confidence interval of 0.0301-0.843.

Sibling conflict played a significant positive mediating role in permissiveness, with a mediator effect size of 0.0616 ($p < 0.05$) and a confidence interval of 0.0388-0.0855. The mediating effect was 23.9% of the total effect; sibling envy played a significant positive mediating role in permissiveness, with a mediator effect size of 0.0657 ($p < 0.05$) and a confidence interval of the mediating effect was 25.5% of the total effect; sibling conflict played a significant positive mediating role in authoritarianism, with a mediating effect size of 0.0684 ($p < 0.05$) and a confidence interval of 0.0465-0.0944. The mediating effect was 31.8% of the total effect; sibling envy played a significant positive mediating role in authoritarianism, with a mediating effect size of 0.0684 ($p < 0.05$) and a confidence interval of 0.0465-0.0944. The mediating effect was 31.8% of the total effect; sibling jealousy played a significant positive mediating role in authoritarianism. The mediating effect was 30.0% of the total effect; sibling conflict played a significant positive mediating role in inconsistency, with a mediating effect size of 0.0769 ($p < 0.05$) and a confidence interval of 0.0520-0.1036. The mediating effect was 30.0% of the total effect; sibling conflict played a significant positive mediating role in inconsistency, with a mediating effect size of 0.0769 ($p < 0.05$) and a confidence interval of 0.0520-0.1036. The mediating effect was 30.0% of the total effect. Sibling envy played a significant positive mediating role in inconsistency, with a mediating effect size of 0.0720 ($p < 0.05$) and a confidence interval of 0.0751-0.1600. The mediating effect was 38.0% of the total effect.

Thus, it is clear from the above that parenting styles of coddling, permissiveness, authoritarianism, and inconsistency can mediate the mental health of the second child through the two sibling relationships of sibling conflict and sibling rivalry and envy.

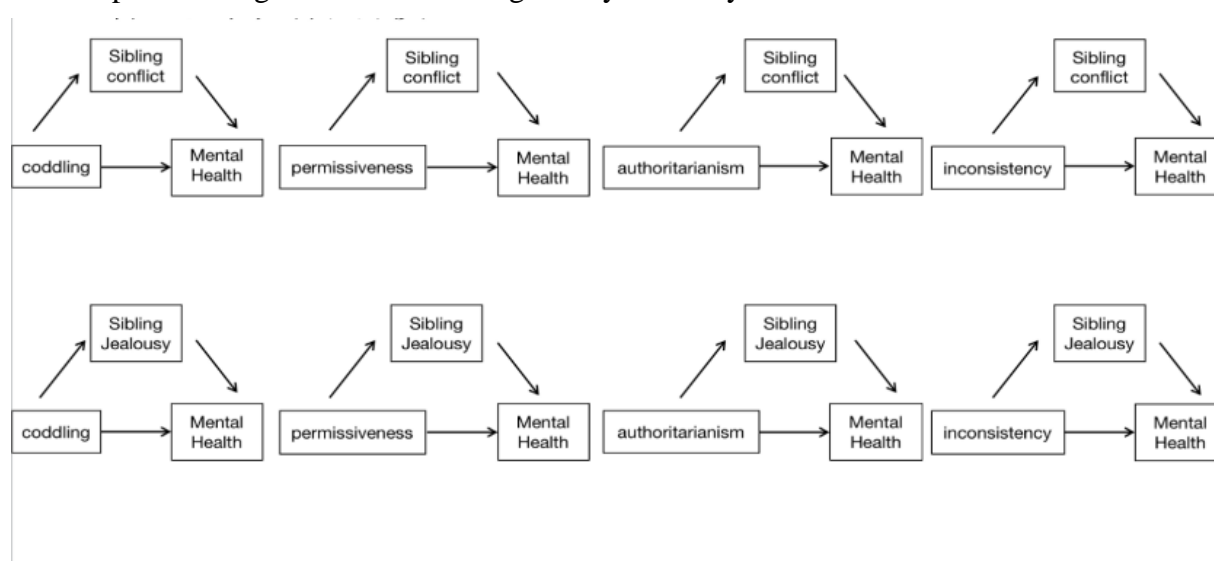


Figure 2: Conceptual path diagram 2 between variables. (Photo Credit: Original)

4. Discussion

This study found that the mean score for each dimension of parenting styles was highest for democracy, followed by inconsistency, with authoritarianism and permissiveness in third and fourth place, and the lowest mean score for coddling. This indicates that the level of democracy in the parenting of firstborns is high today. This also indicates that parents are able to respect their children most of the time in their day-to-day parenting, give them more warmth, love, support and understanding, interact and communicate well with them, and educate them in a reasonable and effective way.

The mean score of sibling warmth for first-born children is higher than the median score, which indicates that first-born children have higher levels of sibling warmth. This is because parents' good parenting of their older children has influenced sibling relationships, resulting in higher sibling warmth scores and thus a more friendly sibling relationship for the second child. That is, there is a significant correlation between parenting style and sibling relationship, i.e., positive parenting style (democratic) leads to a warm sibling relationship, and sibling relationship is significantly correlated with the child's mental health, i.e., a warm sibling relationship leads to a healthy mental state.

Democratic parenting was significantly and positively associated with sibling warmth in first-born children, and hand-to-hand conflict and hand-to-hand jealousy play an important role in mediating between the four dimensions of parenting styles - indulgence, permissiveness, authoritarianism and inconsistency and the mental health status of pre-school children.

The higher the score on this child's mental health questionnaire, the more severe the child's mental health problems. That is, children's mental health problems were significantly correlated with sibling conflict and sibling rivalry and jealousy. Whereas sibling warmth was negatively correlated with children's mental health problems.

It means that good sibling relationships are conducive to improving children's mental health problems, and that the mental health of the second child is significantly correlated with good parenting practices and sibling relationships.

5. Conclusion

According to the findings of this study, good parenting styles have an important role in influencing the behavior of their first-born toddlers, and in terms of sibling relationships, good sibling relationships are particularly important in influencing the mental health of second-born toddlers. Based on the above research this paper makes the following recommendations

Parents should adopt a more democratic approach to parenting their young children, acting as role models for their children in terms of their own behavior, having a set of standards for themselves and their children, treating themselves and their children as equals, communicating positively and thinking differently. It is more about making the child aware of their own problems rather than imposing their own wishes on the child.

For the mental health aspect of children, on one hand, there is a need for parental care, which requires parents to treat both children equally. On the other hand, a good sibling relationship is essential. For young children, the better the relationship between siblings, the warmer the child will feel and the more responsible, caring and humble the child will be. These require parents to use the right values to guide their children in their relationships.

As the age range of the second-born children in this study was preschool age, the results of the questionnaire were obtained from their parents and did not provide an understanding of their perceptions of sibling relationships and mental health from the perspective of young children. Therefore, the results of the survey are one-sided.

References

- [1] Liu T. T., Li Y., Li Y. J., Jiang X. M. (2021). *The relationship between co-parenting and preschoolers' social behavior: the chain mediating role of parent-child and sibling relationships*. *Psychological Development and Education*. 37(5),638-647.
- [2] Zhang Wenxin. (1997). *A comparative study of parenting styles of urban and rural adolescents*. *Psychological Development Education*. 3, 46-51.
- [3] Buist, K. L., Deković, M., & Prinzie, P. (2013). *Sibling relationship quality and psychopathology of children and adolescents: A meta-analysis*. *Clinical Psychology Review*, 33(1), 97-106.
- [4] Dunn, J. Kendrick, C. (1981). *Social behavior of young siblings in the family on text: Differences between same-sex and different sex-days*. *Child development*. 52(4).1265-1273.

- [5] Noller, P. (2005). *Sibling relationships in adolescence: Learning and growing together*. *Personal Relationships*, 12(1), 1–22.
- [6] Hartup, W. W. (1989). *Social relationships and their developmental significance*. *American Psychologist*, 44(2), 120-126.
- [7] Yeh, H. C., & Lempers, J. D. (2004). *Perceived sibling relationships and adolescent development*. *Journal of Youth & Adolescence*, 33(2), 133-147.
- [8] Du Xue Ke. (2020). *The Effect of Parenting Style on Sibling Relationships of Firstborn Children*. Central China Normal University.
- [9] Li Yan, Liu Tiantian, Zhao Jinjuan, Li Youjia, Niu Xiaobing. (2019). *Development of the Quality of Early Childhood Sibling Relationships Questionnaire (Parent Version)*. *Modern Basic Education Research*.36(4),166-174.
- [10] Zhang Xizhuan. (2006). *Preliminary compilation and survey of mental health scales for preschool and primary school children*.