The relationship between parental parenting stress and children 's anger-aggression and anxiety-withdrawal: the mediating effect of parenting efficacy

Tingting Xia 1,2, a, Min Zhou 1,2, b, Jie Chen 1,2, c

1 The CAS Key Laboratory of Mental Health, Institute of Psychology, Beijing 100101, China
2 Department of Psychology, University of Chinese Academy of Sciences, Beijing 100049, China

a.xiatingt17@126.com, b.zhoum@psych.ac.cn, c Corresponding to: chenjie@psych.ac.cn

Abstract. This study aimed to explore the relationships between parenting stress and children 's anger-aggression and anxiety-withdrawal, and further investigate the underlying moderated mediation mechanism. Methods: Parenting Stress Scale, Parenting Efficacy Scale, and Children 's Social Ability and Behavior Rating Scale were used to conduct a questionnaire survey on 525 parents of 2-5-year-old children in five kindergartens in Hunan, Jiangxi and Hainan. Results: (1) Father / mother parenting stress positively related to children ‘s anger-aggression ( rfather = 0.27, P < 0.01 ) and anxiety-withdrawal ( rmother = 0.31, P < 0.01 ) and anxiety-withdrawal ( rmother = 0.50, P < 0.01 ). (2) Parental parenting efficacy mediated the relationships between parenting stress and children ‘s anger-aggression ( βfather = 0.05, 95 % CI [ 0.023, 0.086 ] ; βmother = 0.05, 95 % CI [ 0.032, 0.085 ] ) and anxiety-withdrawal ( βfather = 0.05, 95 % CI [ 0.025, 0.090 ] ; βmother = 0.07, 95 % CI [ 0.046, 0.103 ] ). Conclusion: Parenting stress is related with increased children ‘s anger-aggression and anxiety-withdrawal through decreasing parenting efficacy, which provides a new insight to alleviate the negative outcome of parenting stress.

Keywords: parenting stress; parenting efficacy; children's anger-aggression and anxiety-withdrawal; mediation.

1. Introduction

Children ‘s emotional and behavioral abilities have begun to develop in early childhood. Children can recognize and understand their own emotions, but they are still immature in expressing and regulating emotions, especially negative emotions such as anxiety, fear, and anger. Children ‘s behavior control ability is also insufficient, making them prone to irritability, temper tantrums, and even attacking others.

A study in the United States found that the detection rate of children ‘s anger-aggression and anxiety-withdrawal in preschool children is about 7 % -24 %[1]. In some rural areas of China, the detection rate of children ‘s anger-aggression and anxiety-withdrawal of children aged 3-6 years old is as high as 30 %[2]. Early childhood anger-aggression and anxiety-withdrawal can predict emotional and behavioral problems in children in the lower grades of primary school [3], and continue into the middle and late childhood, and even adulthood [4].

Children ‘s anger-aggression and anxiety-withdrawal in early childhood are affected by many factors. In addition to genetic factors, they are more affected by family factors, especially parenting factors. For example, high levels of parental rejection and control, and low levels of parental warmth positively predict children 's anxiety-withdrawal [5]. Children ‘s anger-aggression are associated with mother protection and interference, and father punishment and interference [6] Positive and harmonious parent-child relationship reduced problems such as anger-aggression and anxiety-withdrawal in children [7]. However, few studies have explored front-end factors such as parenting stress and parenting efficacy.

Parenting stress not only affects parents ' emotions, but also affects children ‘s anger-aggression and anxiety-withdrawal. Parents experience parenting stress when they aware that parenting requirements exceed available resources [8]. Early childhood is a critical period for the development of various abilities. At this stage, parental pressure will affect the development of children ’s brain, cognition, and emotions [9]. Negative emotions and bad parent-child interaction
caused by parenting stress will shape the family psychological environment[10]. The parental effect model holds that parents’ own stress experience is directly related to children’s anger-aggression and anxiety-withdrawal[11]. Parenting stress can lead to more negative emotions for parents and more anger-aggression and anxiety-withdrawal for young children [12-13].

Parenting efficacy, as an individual’s internal psychological resource [14] refers to the belief that parents think they can solve parenting problems [15]. Parenting efficacy increases parents’ participation in family activities, shapes children’s temperament[16], and improves children’s behavior, emotion and social adaptation [17]. Studies have found that children with parents with low parenting efficacy are more likely to have emotional, behavioral and peer interaction problems [18]. Excessive parenting stress reduces parenting efficacy [19]. An intervention study finds that decreased parenting stress promotes parenting efficacy [20].

Previous studies have mostly focused on the impact of parent-child relationship and parenting behavior on children’s anger-aggression and anxiety-withdrawal. Fewer studies explore the role of front-end factors, such as parenting stress. This study intends to examine the relationship between parenting stress and children’s anger-aggression and anxiety-withdrawal, via the mediating role of parenting efficacy. This study hypothesize that: (1) Parenting stress is positively related to children’s anger-aggression and anxiety-withdrawal; (2) Parenting efficacy mediates the relationship between parenting stress and children’s anger-aggression and anxiety-withdrawal.

2. Research Methods

2.1 Participants

A cluster random sampling method was used to select 5 kindergartens from Hunan, Jiangxi and Hainan provinces. A total of 525 father-mother matching questionnaires were collected from parents of children aged 2-5 years. After eliminating invalid questionnaires, 493 valid questionnaires were collected. The effective questionnaire rate was 93.9%. The age of the children was M = 3.88, SD = 0.934. There were 259 boys (52.54%) and 234 girls (47.46%).

2.2 Measures

2.2.1 Parenting Stress

Berry and Jones (1995) [21]’s Chinese version of the Parent Stress Scale [22] was used to measure parenting stress, consisting of 17 items. Responses were given on a 6-point Likert-type scale (1 = very disagree, 6 = very agree). In this study, Cronbach’s α of the mother’s items was 0.901, and Cronbach’s α of the father’s items was 0.780.

2.2.2 Parenting self-efficacy

The parenting efficacy subscale of the parenting self-regulation scale compiled and verified by Hamilton and Crawford (2015) [23] scale was used for measure parenting self-efficacy. This subscale consists of 4 items. Responses were given on a 5-point Likert-type scale (1 = very disagree, 5 = very agree). In this study, Cronbach’s α of the mother’s items was 0.743, and Cronbach’s α of the father’s items was 0.797.

2.2.3 Social Competence and Behavior Evaluation in preschoolers

Using LaFreniere and Dumas (1996)[24] children’s social and behavioral rating scale, it was divided into three dimensions: social ability, anger attack (including nine items measuring explicit behavioral problems such as anger, attack, willfulness and hostility) and anxiety withdrawal (including 11 items measuring emotional problems such as depression, anxiety, loneliness and dependence). In this study, the two dimensions of anger attack and anxiety withdrawal were studied. Responses were given on a 6-point Likert-type scale (1 = never, 6 = always). The children’s, mother filled in the children’s past two months. In this study, Cronbach’s α of the anger-aggression was 0.870, and Cronbach’s α of the anxiety-withdrawal was 0.913.
2.2.4 Procedure and data analysis

After obtaining the informed consent of the parents of the kindergarten, the online questionnaire was distributed to parents, requiring parents to fill in the name, date of birth, and place of residence of the child for later matching. SPSS was used to analyze descriptive statistics. PROCESS macro was used to test the mediating effect.

3. Results

3.1 Common method bias test

Since the data of this study are derived from self-reports, the Harman single factor test is used to test the common method bias. The results show that there are 54 factors with eigenvalues greater than 1, and the variance of the first factor is 20.40%, which does not exceed 40% of the variance. Therefore, there is no serious common method bias problem in this study.

3.2 Descriptive statistics

The mean, standard deviation and correlation coefficient of each variable are shown in Table 1. Maternal parenting stress was positively correlated with children 's anger-aggression and anxiety-withdrawal, and negatively correlated with maternal parenting efficacy. Maternal parenting efficacy was significantly negatively correlated with children 's anger-aggression and anxiety-withdrawal. Father 's parenting stress was positively correlated with children 's anger-aggression and anxiety-withdrawal, and negatively correlated with father 's parenting efficacy. Father 's parenting efficacy was significantly negatively correlated with children 's anger-aggression and anxiety-withdrawal.

Table1 Descriptive statistics and correlations (n=493)

<table>
<thead>
<tr>
<th>variable</th>
<th>M ± SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Maternal parenting stress</td>
<td>2.91±1.02</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Maternal parenting efficacy</td>
<td>3.85±0.72</td>
<td>-0.25**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Children 's anger-aggression</td>
<td>2.58±1.00</td>
<td>0.52**</td>
<td>-0.34**</td>
<td>0.68**</td>
<td>-</td>
</tr>
<tr>
<td>4 Children 's anxiety-withdrawal</td>
<td>2.63±0.97</td>
<td>0.50**</td>
<td>-0.39**</td>
<td>0.65**</td>
<td>0.87*</td>
</tr>
<tr>
<td>1 Father parenting stress</td>
<td>3.21±0.66</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Father parenting effectiveness</td>
<td>3.72±0.88</td>
<td>-0.21**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Children 's anger-aggression</td>
<td>2.63±0.97</td>
<td>0.27**</td>
<td>-0.27**</td>
<td>0.59**</td>
<td>-</td>
</tr>
<tr>
<td>4 Children 's anxiety-withdrawal</td>
<td>2.58±1.01</td>
<td>0.31**</td>
<td>-0.30**</td>
<td>0.64**</td>
<td>0.87*</td>
</tr>
</tbody>
</table>

Note: * p < 0.05, ** p < 0.01, *** p < 0.001.

3.3 Test of mediation model

Model 4 of PROCESS was used to investigate the mediating effect of parental parenting efficacy between parenting stress and children 's anger-aggression and anxiety-withdrawal (Hayes, 2013). The paths were showed in Table 2 and Table 3. The results showed that the mediating effects of maternal parenting efficacy between maternal parenting stress and children 's anger-aggression, $\beta = 0.05$, SE = 0.01, 95 % CI [0.032, 0.085], and between maternal parenting stress and children 's anxiety-withdrawal, $\beta = 0.07$, SE = 0.01, 95 % CI [0.046, 0.103], were significant.
The mediating effects of father's parenting efficacy between father's parenting stress and children's anger-aggression, $\beta = 0.05$, $SE = 0.01$, 95% CI[0.023, 0.086], and between father's parenting stress and children's anxiety-withdrawal, $\beta = 0.05$, $SE = 0.01$, 95% CI[0.025, 0.090] were significant.

Table 2 The regression path of the relationship between maternal parenting efficacy and Children's anger-aggression and anxiety-withdrawal

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Predictors</th>
<th>$\beta$</th>
<th>$p$</th>
<th>$\Delta R^2$</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal parenting efficacy</td>
<td>Maternal parenting stress</td>
<td>-0.25</td>
<td>&lt; 0.001</td>
<td>0.06</td>
<td>33.79</td>
</tr>
<tr>
<td>Children's anger-aggression</td>
<td>Maternal parenting stress</td>
<td>0.46</td>
<td>&lt; 0.001</td>
<td>0.32</td>
<td>115.54</td>
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<tr>
<td>Maternal parenting efficacy</td>
<td>Maternal parenting stress</td>
<td>-0.22</td>
<td>&lt; 0.001</td>
<td>0.06</td>
<td>33.79</td>
</tr>
<tr>
<td>Children's anxiety-withdrawal</td>
<td>Maternal parenting stress</td>
<td>0.42</td>
<td>&lt; 0.001</td>
<td>0.33</td>
<td>121.17</td>
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<td>Maternal parenting efficacy</td>
<td>Maternal parenting stress</td>
<td>-0.28</td>
<td>&lt; 0.001</td>
<td></td>
<td></td>
</tr>
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</table>

Table 3 The regression path of the relationship between father's parenting efficacy and children's anger-aggression and anxiety-withdrawal

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Predictors</th>
<th>$\beta$</th>
<th>$p$</th>
<th>$\Delta R^2$</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father parenting effectiveness</td>
<td>Father parenting stress</td>
<td>-0.21</td>
<td>&lt; 0.001</td>
<td>0.04</td>
<td>24.70</td>
</tr>
<tr>
<td>Children's anger-aggression</td>
<td>Father parenting stress</td>
<td>0.22</td>
<td>&lt; 0.001</td>
<td>0.12</td>
<td>35.90</td>
</tr>
<tr>
<td>Father parenting effectiveness</td>
<td>Father parenting stress</td>
<td>-0.22</td>
<td>&lt; 0.001</td>
<td>0.04</td>
<td>24.70</td>
</tr>
<tr>
<td>Children's anxiety-withdrawal</td>
<td>Father parenting stress</td>
<td>0.25</td>
<td>&lt; 0.001</td>
<td>0.15</td>
<td>45.12</td>
</tr>
<tr>
<td>Father parenting effectiveness</td>
<td>Father parenting stress</td>
<td>-0.24</td>
<td>&lt; 0.001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Discussion

4.1 The relationship between parenting stress and children's anger-aggression and anxiety-withdrawal

This study examined the relationship between parenting stress of parents and children's anger-aggression and anxiety-withdrawal. The results show that parenting pressure of parents is positively associated with children's anger-aggression and anxiety-withdrawal, which is consistent with previous research[25]. The greater the parenting stress, parents are more likely to experience anxiety and depression [25]. Negative emotions easily transfer to children due to poor psychological status of parents. According to attachment theory, parents under high pressure will encounter difficulties in meeting their children's needs [26], so children are more likely to experience anxiety and behave aggressively. A stressful family environment creates a tense and negative family
atmosphere that puts pressure on children, resulting in a variety of anger-aggression and anxiety-withdrawal[27].

4.2 The mediating role of parenting efficacy

The results of this study showed parental parenting efficacy mediated the relationship between parenting stress and children 's anger-aggression, as well as between parenting stress and anxiety-withdrawal. According to Bandura 's (1982) [28]self-efficacy theory, individuals tend to rely on their emotional and physiological states when judging their ability, which will affect individuals' self-efficacy. Parenting pressure makes individuals feel frustration and powerlessness[29]. With low parenting pressure, parents feel more relaxed, and have a more positive and optimistic attitude to the parenting process. Parents are more confident in their ability to fulfil their parenting roles and solve parenting problems when they have low parenting pressure[30].

In families with low parenting efficacy, parenting is negative and there is less warmth for young children, leaving them with more anger-aggression and anxiety-withdrawal[18]. Parents with low parenting efficacy display self-denial in the parenting process, giving their children bad examples and making them self-doubting as well, increasing the likelihood of anger-aggression and anxiety-withdrawal in their children. On the contrary, if parents with high parenting efficacy have higher self-confidence and are more active in finding solutions in the face of parenting difficulties, which gives children a positive demonstration effect and reduces the generation of children 's anger-aggression and anxiety-withdrawal [29].

4.3 Research significance and limitations

This study finds that parental parenting efficacy partially mediates the relationship between parental parenting stress and children 's anger-aggression and anxiety-withdrawal, suggesting that parental parenting stress is an important factor related to children 's anger-aggression and anxiety-withdrawal that should be given full attention. It is important to help parents adjust and relieve stress in order to reduce the negative impact of parenting stress on children. Improving parenting efficacy can be a key step in reducing children 's anger-aggression and anxiety-withdrawal.

There are some limitations in this study. First, this study uses questionnaires to measure the parenting stress and parenting efficacy perceived by parents. Future research can incorporate more objective indicators such as physiological indicators and behavioral observations. Secondly, the cross-sectional design used in this study can not support the causal relationship. Future study can use longitudinal design. Finally, the children’s questionnaires in this study are filled out by mothers. Future research can be conducted from multiple perspectives, in combination with teacher evaluation and other methods.

5. Conclusion

Parenting stress is significantly related to children 's emotional and behavioral problems. Parenting efficacy plays a partial mediating role between parenting stress and children 's emotional and behavioral problems.

References


