



Maladaptive emotion-focused coping and anxiety in children: The moderating role of authoritative parenting

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Abstract

This one-year longitudinal study examined the potential buffering role of authoritative parenting in the relationship between maladaptive emotion-focused coping and anxiety in children. Participants were 128 preadolescent children (41.4% female) aged between 10 and 14 years ($M = 12.15$, $SD = 1.30$) in Hong Kong. The results of the latent moderated structural equations model revealed that T1 paternal authoritative parenting significantly moderated the association between T1 maladaptive emotion-focused coping and T2 anxiety while controlling for T1 anxiety, such that the association was weaker when T1 paternal authoritative parenting was higher. T1 maladaptive emotion-focused coping was positively related to T2 anxiety when T1 paternal authoritative parenting was low. This relationship was not significant when T1 paternal authoritative parenting was medium or high. Unexpectedly, the moderating role of T1 maternal authoritative parenting was not significant. These findings suggest that paternal authoritative parenting may function as a protective factor that ameliorates the unfavorable impact of maladaptive emotion-focused coping on anxiety in children.

Keywords Anxiety · Maladaptive emotion-focused coping · Parenting · Authoritative parenting

Introduction

Anxiety refers to a cognitive-affective state characterized by apprehension about negative future events, physiological arousal, and feelings of tension or nervousness (Leary, 2013; Finan et al., 2020). A certain level of anxiety in children may serve adaptive functions, but excessive anxiety will disrupt children's functioning (March et al., 1997; Wong et al., 2020). Research has documented that anxiety has detrimental impacts on psychological, social, and academic outcomes among children aged 8 to 16 years. For example, March et al. (1997) found that anxiety was positively related to depression among children aged 8 to 16 years. Storch et al.'s (2007) study showed that anxiety was positively linked to loneliness among children aged 8 to 18 years. Mazzone et al. (2007) revealed that anxiety was negatively associated with academic performance among children aged from 8 to 16 years. Without proper interventions, anxiety in childhood is likely to persist through adolescence and adulthood, leading to

long-term impairments (Bittner et al., 2007; Wong et al., 2020). Therefore, it is of paramount importance to investigate the risk factors for childhood anxiety and the moderators that can buffer the detrimental effects of the risk factors.

Researchers have noted that theories have primarily sought to explain the development and maintenance of childhood anxiety in terms of single main effects (Lo et al., 2020a; Wood et al., 2003). Previous studies have mostly investigated the main effects of various factors affecting anxiety in children. For example, the use of maladaptive emotion-focused coping has been documented as a risk factor for anxiety in children (Vulić-Prtorić & Macuka, 2006; Schäfer et al., 2017; Zhuang et al., 2020). Moreover, authoritative parenting has been associated with lower anxiety in children (Silva et al., 2007; Wolfradt et al., 2003). Nonetheless, most theoretical models have not explained much variance in anxiety in children (Wood et al., 2003). For instance, the effects of maladaptive emotion-focused coping and authoritative parenting on anxiety have been weak and inconsistent (Pinquart, 2017; Vulić-Prtorić & Macuka, 2006; Zhuang et al., 2020).

More recently, scholars have highlighted the importance of investigating the development and maintenance of mental health problems from a developmental psychopathology

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perspective, which proposes that the effect of a risk factor may depend on the context (Lo et al., 2020a; Wood et al., 2003). The current study endeavors to provide a fuller account of the development of anxiety symptoms by investigating whether authoritative parenting may provide an environmental context that moderates the impact of maladaptive emotion-focused coping using a sample of preadolescent children.

Maladaptive Emotion-Focused Coping and Anxiety

Maladaptive emotion-focused coping is a personal risk factor for anxiety (Vulić-Prtorić & Macuka, 2006; Schäfer et al., 2017; Zhuang et al., 2020). Coping refers to the process of dealing with situations that are appraised as stressful or exceeding one's resources (Lazarus & Folkman, 1984). In the coping literature, there are two broad types of coping: problem-focused coping and emotion-focused coping. Problem-focused coping refers to cognitive and behavioral strategies aimed to manage the circumstances that lead to distress, whereas emotion-focused coping refers to strategies aimed to regulate emotional distress elicited by stressful circumstances (Lazarus & Folkman, 1984).

Research has generally indicated that the use of problem-focused coping leads to better child outcomes, whereas the use of emotion-focused coping leads to poorer child outcomes (Compas et al., 2001; Siu et al., 2021). Scholars have distinguished between adaptive (e.g., positive reappraisal, seeking emotional support) and maladaptive (e.g., avoidance, self-blame) emotion-focused coping strategies (Garnefski & Kraaij, 2018). While some adaptive emotion-focused coping strategies may lead to positive outcomes, many emotion-focused coping strategies are maladaptive ones that lead to undesirable consequences (Garnefski & Kraaij, 2018; Schäfer et al., 2017).

Studies have revealed that maladaptive emotion-focused coping is associated with higher anxiety in children and adolescents (Vulić-Prtorić & Macuka, 2006; Schäfer et al., 2017; Zhuang et al., 2020). Avoidance, wishful thinking, and self-blame are three common types of maladaptive emotion-focused coping strategies (Vitaliano et al., 1985). Avoidance involves avoiding adverse psychological (e.g., negative emotions) or external events (Schäfer et al., 2017). Although avoidance may alleviate anxiety in the short-term, it results in higher anxiety in the long-term (Schäfer et al., 2017), because children relying on this strategy may not be able to develop effective coping strategies to address the anxiety-provoking situations (Smith et al., 2006). Wishful thinking involves fantasizing a stressful situation will change in a favorable direction (Folkman et al., 1986). This strategy engenders unrealistic optimism and provides an excuse not to address the negative situation (Liang et al., 2019). Self-blame involves considering oneself to be responsible

for experiencing an unpleasant event (Garnefski & Kraaij, 2018). Blaming oneself tends to elicit feelings such as guilt and shame, which in turn lead to distress (Zahn et al., 2015). Previous studies have found that the maladaptive emotion-focused coping strategies of avoidance (Schäfer et al., 2017), wishful thinking (Bolger & Sarason, 1990; Cramer et al., 2016), and self-blame (Bolger & Sarason, 1990; Zhuang et al., 2020) predict more anxiety symptoms in children. Hence, this study focused on the effects of avoidance, wishful thinking, and self-blame on anxiety.

Authoritative Parenting as a Moderator

Researchers have contended that personal and environmental factors may interact to influence psychological problems such as anxiety. In particular, a specific personal risk factor may not lead to psychological problems if there exists a protective environmental factor (Hettema et al., 2005; Lo et al., 2020a). Parenting is a crucial environmental factor that affects the development, maintenance, and amelioration of anxiety in children (Cartwright-Hatton et al., 2018; Zhuang et al., 2020). While past studies have revealed the impacts of maladaptive emotion-focused coping on anxiety in children, whether parenting may ameliorate this relationship has not been well researched.

The theory of parenting styles (Baumrind, 1991; Maccoby & Martin, 1983) holds that parenting behavior can be understood in terms of two dimensions: parental demandingness (or control) and responsiveness (or warmth). Parental responsiveness refers to the sensitivity and support parents exhibit toward their children, whereas parental demandingness refers to the levels of control and monitoring parents exercise over their children's behavior (Baumrind, 1991; Lo et al., 2021). By combining the two dimensions, four parenting styles are identified: authoritative parenting (high demandingness and high responsiveness), authoritarian parenting (high demandingness and low responsiveness), permissive parenting (low demandingness and high responsiveness), and neglectful parenting (low demandingness and low responsiveness; Baumrind, 1991; Maccoby & Martin, 1983).

Some earlier scholars have questioned whether authoritative parenting is applicable to Chinese parents, as Chinese parents traditionally emphasize parental control and downplay emotional closeness (Kelley & Tseng, 1992). However, recent researchers have suggested that Chinese parents' parenting styles have been changing (Fan & Chen, 2020; Li, 2020). In Chinese societies such as Hong Kong and Mainland China, low birth rates over the past few decades have resulted in decreased number of children in the family (Li, 2020), and therefore each child tend to receive more material and emotional resources from parents (Fan & Chen, 2020). Moreover, increased knowledge of Western parenting models has enhanced Chinese parents' emphasis

on parental warmth and support (Cheah et al., 2009; Li, 2020). Research has shown that authoritative parenting is not only observed in Western countries but also in Chinese societies such as Hong Kong (Chan et al., 2009) and Mainland China (Fan & Chen, 2020).

Previous work comparing children with authoritative, authoritarian, permissive, and neglectful parents has revealed that children with authoritative parents show the highest levels of psychosocial and academic outcomes and lowest levels of psychological and behavioral problems, whereas the opposite is true for children with neglectful parents (Lamb, 2012; Lamborn et al., 1991; Pinquart, 2017). Moreover, both authoritarian parenting and permissive parenting are related to negative child outcomes (Pinquart, 2017; Lo et al., 2020b; Wong et al., 2019). Authoritative parenting has been associated with lower anxiety in children (Silva et al., 2007; Wolfradt et al., 2003). In addition, Morris et al.'s (2017) tripartite model on children's emotion regulation posits that positive parenting make children experience emotional security, which is important for children to regulate emotions effectively. Positive parenting also involves clearly defined rules and limits that help children learn how to express and manage emotions in socially acceptable manners, resulting in increased emotional security (Morris et al., 2017). Therefore, positive parenting such as authoritative parenting may alleviate anxiety in children indirectly, through enhancing children's use of adaptive emotion-focused coping strategies.

Besides, research has indicated that authoritative parenting may serve as a moderator that alleviates the negative effects of personal stressors in children. For example, Zhang et al. (2015) found that authoritative parenting significantly buffered the detrimental effect of sensation seeking on dysfunctional cognitions about Internet use. Hence, this study focused on the potential moderating role of authoritative parenting in the relationship between maladaptive emotion-focused coping and anxiety in children.

According to the transactional model of child development, environmental stressors may interact with children's emotion regulation strategies to influence children's psychological outcomes (Chaplin et al., 2005; Feng et al., 2009). As negative parenting is a prominent stressor for children that may exacerbate the negative impact of children's ineffective emotion regulation, positive parenting may mitigate the risk for mental health problems among children with difficulty in emotion regulation (Feng et al., 2009; Morris et al., 2017). Feng et al. (2009) found that parental acceptance significantly buffered the relationship between sadness regulation and depressive symptoms. Authoritative parenting is characterized by high levels of responsiveness and demandingness (Baumrind, 1991; Maccoby & Martin, 1983). It has been documented that parental responsiveness can serve as a protective factor that alleviates the negative

effects of stressors in children (Asok et al., 2013). Besides, as Chinese culture emphasizes family hierarchy and filial piety, parental demandingness is considered a way to maintain the functioning of Chinese families (Chan et al., 2022; Wong et al., 2019). Therefore, authoritative parenting may prevent Chinese children from experiencing stressors. Thus, as a positive parenting style, authoritative parenting may reduce the effect of children's maladaptive emotion-focused coping styles on anxiety.

The Current Study

Theories and research findings on anxiety in children have mostly examined the main effects of predictors of anxiety. The current study endeavors to examine the potential moderating role of authoritative parenting in the association between maladaptive emotion-focused coping and anxiety in preadolescent children. Developmental psychological research has suggested that neurological development in preadolescence such as the growth of executive functioning abilities (e.g., working memory, inhibition, abstract reasoning) lead to increased use of emotion-focused coping strategies (Blakemore & Robbins, 2012; Dumontheil, 2014). Furthermore, developmental researchers have pointed out that parenting may be more influential for preadolescents or younger children, because peer relationships may become more salient and important in adolescence (Kawabata et al., 2011). It is of practical value to examine whether the detrimental effect of maladaptive emotion-focused coping on anxiety in preadolescence can be mitigated by parenting factors such as authoritative parenting. Hence, the present study used a sample of preadolescent children aged from 10 to 14 years. Besides, while past studies on the effects of emotion-focused coping and authoritative parenting on anxiety in children have mainly used a cross-sectional design (Schäfer et al., 2017; Silva et al., 2007; Wolfradt et al., 2003; Zhuang et al., 2020), a longitudinal design may provide stronger support for possible causality. This study adopted a two-wave longitudinal design with a one-year interval. It was hypothesized that maternal and paternal authoritative parenting will moderate the prospective relationship between maladaptive emotion-focused coping and anxiety, such that the effect of maladaptive emotion-focused coping on increased anxiety will be weaker when maternal and paternal authoritative parenting are stronger.

Method

Participants

Because the hypothesized moderating effect of authoritative parenting on the relationship between maladaptive

emotion-focused coping on anxiety has not been examined previously and the effect size is unknown, power analyses were conducted using the conventional large, medium, and small effect sizes with a desired statistical power level of .80 to calculate the minimum sample sizes required. It was found that sample sizes of 40, 161, and 1713 were needed to detect large, medium, and large effects, respectively. A total of 131 children participated at T1, and 128 children participated at T2. The attrition rate was 2.29%. The present sample provided sufficient statistical power to detect an effect falling between the medium and large range. Missing data per variable ranged from 0 to 7.0%. The Little's missing completely at random test was not significant ($\chi^2 = 25.76, p = .476$), indicating that the data were missing completely at random. These missing data were handled using robust maximum likelihood estimation.

Participants were 128 children (75 male and 53 female) who participated at both T1 and T2. They ranged in age from 10 to 14 years ($M = 12.15, SD = 1.30$). Regarding their grade level, 18.8% were in grade five, 10.2% were in grade six, 39.1% were in grade seven, and 32.0% were in grade eight. As for their family income, 33.6% reported a monthly income below 2564 USD, 33.6% reported a monthly income between 2564 to 4487 USD, and 32.8% reported a monthly income above 4487 USD. All participants' parents were married. All participants were ethnic Chinese who could read and write Chinese. No participants were diagnosed with a mental disorder or referred to a mental health specialist.

Instruments

Multidimensional Anxiety Scale for Children (MASC) The MASC (March et al., 1997) was used to measure participants' anxiety symptoms. This instrument consists of 39 items assessed using a 4-point Likert scale ranging from 0 (*never true about me*) to 3 (*always true about me*), with higher scores indicating higher levels of anxiety. The MASC assesses four types of anxiety symptoms: physical symptoms, harm avoidance, social anxiety, and separation anxiety. The MASC demonstrated good internal consistency reliability at T1 ($\alpha = .88$) and T2 ($\alpha = .90$).

Revised Ways of Coping Checklist (RWCCCL) The RWCCCL (Vitaliano et al., 1985) is a multidimensional measure of coping strategies. This study only adopted the 21 items measuring maladaptive emotion-focused coping strategies, including self-blame, wishful thinking, and avoidance. Each item is rated on a 4-point scale ranging from 0 (*never used*) to 3 (*regularly used*). The maladaptive emotion-focused coping subscale exhibited good internal consistency reliability at T1 ($\alpha = .85$).

Parental Authority Questionnaire (PAQ) The PAQ (Buri, 1991) is a measure of perceived parenting styles. It encompasses three subscales: authoritative parenting, authoritarian parenting, and permissive parenting. This study only used the 20 items measuring maternal authoritative parenting (10 items) and paternal authoritative parenting (10 items). The items are measured on a 5-point scale ranging from 1 (*never*) to 5 (*very often*). Maternal authoritative parenting ($\alpha = .83$) and paternal authoritative parenting ($\alpha = .85$) showed good internal consistency reliability at T1.

Procedure

This study used a two-wave longitudinal design with a one-year interval. The longitudinal data were collected from 2015 to 2016. The participants were recruited from a primary school and a secondary school in Hong Kong. A questionnaire survey method was adopted. The questionnaire was written in traditional Chinese. The original English measures of anxiety, maladaptive emotion-focused coping, and authoritative parenting were translated into Chinese with back-translation to ensure language equivalence. Written parental consent and child assent were obtained before the collection of data. The participants were asked to complete the questionnaire in their classrooms during school hours. Prior to participation, a research team member explained the purposes of the study. The participants reserved the right to withdraw from the study at any time. At T1, the participants completed the MASC, RWCCCL, and PAQ. One year later, the participants completed the MASC again. This study received research ethics committee approval from a local university.

Data Analysis

Because of the small sample size relative to the number of measurement items, three item parcels were created for each latent construct using the domain-representative approach (Little et al., 2002), such that items from each subscale were assigned into different item parcels. To test the hypothesized moderating role of maternal and paternal authoritative parenting in the prospective relationship between maladaptive emotion-focused coping and anxiety, the latent moderated structural equations (LMS) method (Maslowsky et al., 2015) was conducted using Mplus with robust maximum likelihood estimation. The LMS method was performed in two steps. First, a model with no latent interaction term (Model 0) was estimated. Second, LMS models with a maladaptive emotion-focused coping \times maternal authoritative parenting latent interaction term (Model 1a) and a maladaptive emotion-focused coping \times paternal authoritative parenting latent interaction term (Model 1b) were estimated. The latent interaction terms were created using the XWITH

command of Mplus (Maslowsky et al., 2015). T1 anxiety was included as a control variable. Autocovariances between the measurement errors of the same observed indicators across the two time points were estimated (Ye et al., 2015). Standardized coefficients were computed as effect size measures (Smithson & Shou, 2017). Besides, the change in R^2 (ΔR^2) for the addition of the interaction terms was calculated as the effect size of the moderating effect (Smithson & Shou, 2017).

The model fit was evaluated with a combination of fit indices, including the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). A CFI > .95, a TLI > .95, a RMSEA < .06, and a SRMR < .08 indicate a good model fit (Hu & Bentler, 1999). Because model fit indices are not available for a LMS model estimated using the XWITH command in Mplus, a log-likelihood test was performed to compare the model fit between Model 0 and Model 1a (or Model 1b). A significant log-likelihood test indicates that the addition of the latent interaction term results in a significantly improved model fit. If Model 0 fitted well and Model 1a (or Model 1b) fitted better, then Model 1a (or Model 1b) was also a well-fitted model (Maslowsky et al., 2015).

Results

Descriptive Statistics

Table 1 presents the descriptive statistics of the major variables. All variables exhibited high internal consistency reliability ($\alpha = .83$ to $.90$). T1 anxiety was substantially related to T2 anxiety ($r = .56, p < .001$). T1 maladaptive emotion-focused coping was positively associated with T1 anxiety ($r = .53, p < .001$) and T2 anxiety ($r = .40, p < .001$). T1 maternal authoritative parenting was positively associated with T1 paternal authoritative parenting ($r = .47, p < .001$) T1 maternal and paternal authoritative parenting were not associated with T1 maladaptive emotion-focused coping, T1 anxiety and T2 anxiety.

Latent Moderated Structural Equations

Multivariate skew and kurtosis tests indicated that the data did not follow multivariate normality ($ps < .001$). Nonnormality was handled using robust maximum likelihood estimation. Following the LMS method, a model with no latent interaction term (Model 0) was estimated first. Model 0 demonstrated a satisfactory model fit, $\chi^2(77) = 92.38, p = .112, CFI = .99, TLI = .98, RMSEA = .040, 90\% CI [.000, .067], SRMR = .044$. All standardized factor loadings for the latent variables were high, ranging from $.71$ to $.92$. The predictors explained 40% of the variance in T2 anxiety ($R^2 = .40, p < .001$). T2 anxiety was significantly predicted by T1 anxiety ($\beta = .54, p < .001$). However, the main effects of T1 maladaptive emotion-focused coping ($\beta = .14, p = .141$), T1 maternal authoritative parenting ($\beta = -.00, p = .974$) and T1 paternal authoritative parenting ($\beta = .03, p = .774$) on T2 anxiety were not significant.

Next, a LMS model with a T1 maladaptive emotion-focused coping \times T1 maternal authoritative parenting latent interaction term (Model 1a) was estimated. The log-likelihood test was not significant, $\chi^2(1) = .18, p = .675$, indicating that Model 1a was not significantly better than Model 0. Therefore, the addition of the latent interaction term did not improve the model fit. Moreover, the T1 maladaptive emotion-focused coping \times T1 maternal authoritative parenting interaction effect was not significant ($\Delta R^2 = .00, \beta = -.03, p = .647$). Therefore, Model 1a was not retained and the interaction term was not added.

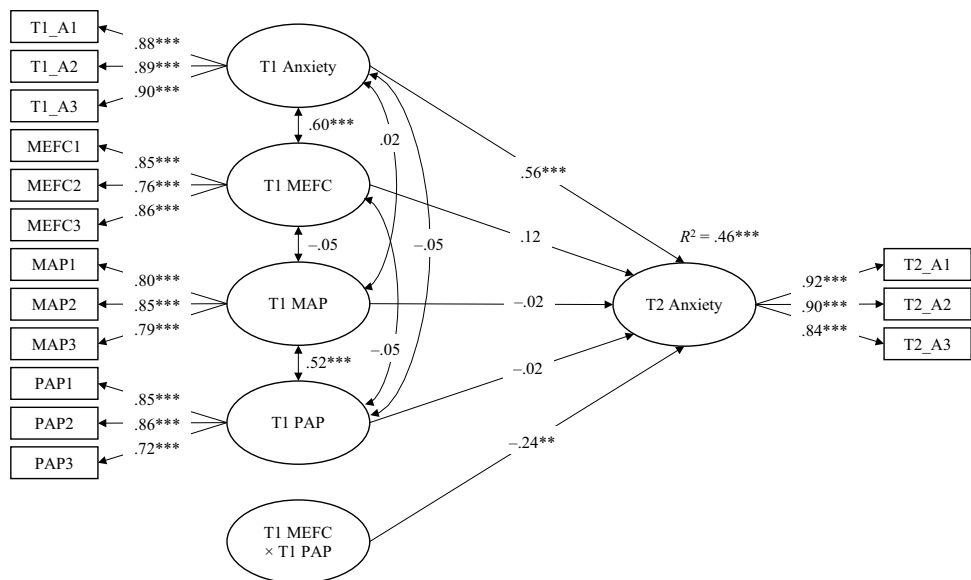
Furthermore, a LMS model with a T1 maladaptive emotion-focused coping \times T1 paternal authoritative parenting latent interaction term (Model 1b) was estimated. The log-likelihood test was significant, $\chi^2(1) = 6.52, p = .011$, indicating that Model 1b was significantly better than Model 0. Therefore, the inclusion of the latent interaction term led to improved model fit. Model 1b was retained as the final LMS model (see Fig. 1). The T1 maladaptive emotion-focused coping \times T1 paternal authoritative parenting interaction effect was significant ($\Delta R^2 = .06, \beta = -.36, p = .007$), indicating that T1 paternal authoritative parenting significantly buffered the positive effect of T1 maladaptive emotion-focused coping on T2 anxiety. The observed power for this moderating effect was $.83$, indicating an adequate power.

Table 1 Descriptive statistics of the major variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. T1 Maladaptive Emotion-Focused Coping	1.36	.42	(.85)				
2. T1 Maternal Authoritative Parenting	3.45	.63	-.03	(.83)			
3. T1 Paternal Authoritative Parenting	3.36	.62	-.02	.47***	(.85)		
4. T1 Anxiety	.91	.39	.53***	.02	-.04	(.88)	
5. T2 Anxiety	.77	.40	.40***	-.01	-.02	.56***	(.90)

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

Fig. 1 The final latent moderated structural equations model. MEFC=Maladaptive emotion-focused coping; MAP=Maternal authoritative parenting; PAP=Paternal authoritative parenting. Coefficients are standardized. Error variances and autocovariances are omitted for brevity. * $p < .05$. ** $p < .01$. *** $p < .001$



To interpret the significant T1 maladaptive emotion-focused coping × T1 paternal authoritative parenting interaction effect, simple main effects of T1 maladaptive emotion-focused coping were examined at low (one standard deviation below the mean), medium (mean), and high (one standard deviation above the mean) levels of T1 paternal authoritative parenting. When T1 paternal authoritative parenting was low, T1 maladaptive emotion-focused coping was positively associated with T2 anxiety ($\beta = .36, p = .004$). However, the effect of T1 maladaptive emotion-focused coping on T2 anxiety was not significant when T1 paternal authoritative parenting was medium ($\beta = .12, p = .201$) or high ($\beta = -.11, p = .365$). The simple slopes are illustrated in Fig. 2.

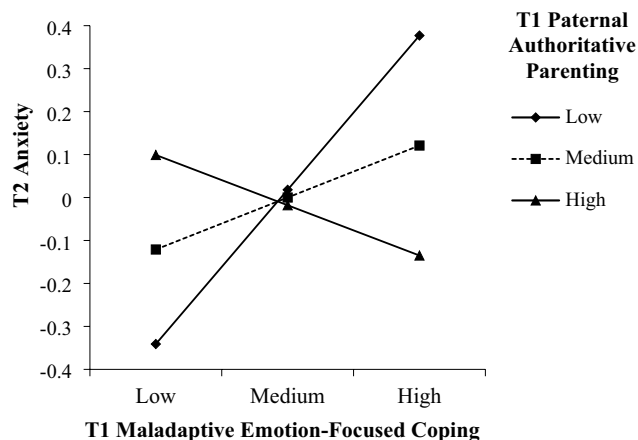


Fig. 2 The moderating effect of T1 paternal authoritative parenting on the relationship between T1 maladaptive emotion-focused coping and T2 anxiety while controlling for T1 anxiety

Discussion

The literature on the development of childhood anxiety has predominantly focused on the main effects of factors including maladaptive emotion-focused coping (Schäfer et al., 2017; Zhuang et al., 2020) and authoritative parenting (Silva et al., 2007; Wolfradt et al., 2003). This study seeks to contribute to the extant literature by examining the extent to which the unfavorable influence of maladaptive emotion-focused coping on anxiety symptoms in children was moderated by authoritative parenting. To the best of our knowledge, this study is the first to examine the potential moderating role of authoritative parenting in the association between emotion-focused coping and anxiety. In accordance with our hypothesis, the current results revealed that paternal authoritative parenting significantly ameliorated the prospective relationship between maladaptive emotion-focused coping and anxiety symptoms. In particular, maladaptive emotion-focused coping positively predicted subsequent anxiety symptoms when children perceived a low level of paternal authoritative parenting. Nonetheless, the prospective relationship between maladaptive emotion-focused coping and anxiety symptoms became non-significant when children perceived medium or high levels of paternal authoritative parenting. Nevertheless, maternal authoritative parenting did not significantly moderate the prospective relationship between maladaptive emotion-focused coping and anxiety symptoms.

Contrary to past research findings that more frequent use of maladaptive emotion-focused coping strategies is related to higher anxiety in children (Schäfer et al., 2017; Zhuang et al., 2020), this study found that T1 maladaptive emotion-focused coping did not significantly predict T2 anxiety while controlling for T1 anxiety. However, this finding is in line with the other studies which have shown little or

no effect of maladaptive emotion-focused coping on child outcomes (Aldridge & Roesch, 2007; Aldwin & Revenston, 1987; Hampel & Petermann, 2006). Indeed, research on emotion-focused coping has produced mixed findings (Aldridge & Roesch, 2007), suggesting that its effects may depend on a moderator (Ng et al., 2021).

The current study revealed that the prospective relationship between maladaptive emotion-focused coping and anxiety in children was significantly buffered by paternal authoritative parenting, suggesting that paternal authoritative parenting serves as a protective factor that reduces the detrimental impact of maladaptive emotion-focused coping. This finding is consistent with past research showing that authoritative parenting may function as a moderator that buffers the harmful effect of some personal risk factors. For instance, one study revealed that the association between sensation seeking on dysfunction cognitions about Internet use was reduced by authoritative parenting (Zhang et al., 2015). The present results showed that more frequent use of maladaptive emotion-focused coping predicted greater anxiety symptoms only when paternal authoritative parenting was low, indicating that high paternal authoritative parenting buffers the harmful effect of maladaptive emotion-focused coping on anxiety. This finding is in line with the notion that negative parenting, as a key stressor for children, provides a boundary condition for the detrimental effect of children's maladaptive emotion regulation (Feng et al., 2009; Morris et al., 2017). Therefore, a positive parenting style (e.g., authoritative parenting) may reduce the risk for anxiety among children with a high tendency to use maladaptive emotion-focused coping. Paternal authoritative parenting did not show a significant main effect on subsequent anxiety in this study. This finding is consistent with past findings that the effect of authoritative parenting on anxiety in children was weak and inconsistent (Pinquart, 2017). However, this study showed that paternal authoritative parenting may interact with maladaptive emotion-focused coping to influence anxiety in children.

Unexpectedly, the moderating role of maternal authoritative parenting in the prospective relationship between maladaptive emotion-focused coping and anxiety symptoms was not significant. This finding is contrary to the view that maternal parenting styles are more influential in child development than paternal parenting styles because mothers spend longer time on childcare compared with fathers (Chan et al., 2022; Yaffe, 2020). One possible explanation is that in Chinese families, fathers traditionally serve as authority figures who make all important decisions for their children and are responsible for disciplining their children, whereas mothers are primarily responsible for daily childcare routines (Chang et al., 2011). In this light, paternal authoritative parenting may have greater influences on Chinese children than maternal

authoritative parenting. While research on Chinese parenting has mostly focused on maternal parenting (e.g., Chan et al., 2022; Gao et al., 2021), a recent study showed that paternal authoritative parenting, but not maternal authoritative parenting, was significantly associated with lower academic exhaustion among Chinese high school students (Zhu et al., 2021). The differential impacts of paternal and maternal authoritative parenting on Chinese children deserve further investigations.

In this study, authoritative parenting is defined as a parenting style characterized by high parental demandingness (or control) and responsiveness (or warmth) following the theory of parenting styles (Baumrind, 1991; Maccoby & Martin, 1983). However, more recent researchers have argued that parental responsiveness and warmth are distinct constructs and have differential effects on child outcomes (Davidov & Grusec, 2006). Specifically, parental responsiveness was related to better regulation of negative affect, whereas parental warmth was related to better regulation of positive affect (Davidov & Grusec, 2006). In this light, it is possible that parental responsiveness, but not parental warmth, would buffer the harmful effect of maladaptive emotion-focused coping on anxiety. Future research is needed to verify this claim.

Implications

This study highlights the importance of the interaction between a personal factor (maladaptive emotion-focused coping) and an environmental factor (paternal authoritative parenting) in the development of anxiety symptoms among preadolescent children. The present findings offer valuable insights into the interventions for childhood anxiety. Specifically, as the current findings reflect that paternal parenting may buffer the adverse effect of a personal risk factor, it may be beneficial to involve fathers in the interventions for childhood anxiety. Research has revealed that involving parents in interventions for anxious children may improve treatment efficacy (Wong et al., 2020). Besides, this study found that maladaptive emotion-focused coping was related to greater anxiety at a low level of paternal authoritative parenting. In this light, parent education programs that promote authoritative parenting practices (Wolfe & Hirsch, 2003) may be efficacious in reducing anxiety in children, especially those children with dysfunctional emotion regulation styles.

Limitations and Directions for Further Research

This study has several limitations. First, this study relied on self-reported data from a single informant. Future research is suggested to use data from multiple informants such as

children and parents. Second, this study focused on emotion-focused coping strategies (avoidance, wishful thinking, and self-blame) that are regarded as maladaptive. Scholars have identified various emotion-focused coping strategies (e.g., acceptance, positive reappraisal) that are more adaptive (Garnefski & Kraaij, 2018). Further research is needed to understand whether authoritative parenting may also moderate the effect of adaptive emotion-focused coping. Third, this study focused on the moderating role of authoritative parenting only. While authoritative parenting is regarded as a positive parenting style that promotes children's well-being, the other three parenting styles, authoritarian parenting, permissive parenting, and neglectful parenting are viewed as negative parenting styles that undermine children's well-being (Pinquart, 2017; Lo et al., 2020b; Wong et al., 2019). Further studies are recommended to determine whether these three parenting styles may increase the association between maladaptive emotion-focused coping and anxiety in children. Fourth, this study only examined a parenting style but not parenting dimensions and practices. Future work is suggested to investigate whether positive parenting dimensions and practices may buffer the detrimental effect of maladaptive emotion-focused coping. Fifth, the current study recruited a non-clinical sample of children. Future work is required to investigate whether the current findings are applicable to clinical samples of anxious children.

Conclusion

Previous work on childhood anxiety has mainly focused on the main effects of predictors on anxiety. This study extends the existing literature by examining the potential moderating effect of authoritative parenting on the association between maladaptive emotion-focused coping and anxiety among preadolescent children using a longitudinal design. The results showed that the prospective relationship between maladaptive emotion-focused coping and anxiety was significantly buffered by paternal authoritative parenting. More use of maladaptive emotion-focused coping predicted higher anxiety when paternal authoritative parenting was low but not when paternal authoritative parenting was medium or high. These findings offer valuable practical implications for alleviating children's anxiety symptoms.

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Data Availability No additional data are available.

Declarations

Research Involving Human Participants All procedures performed in our study involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from parents prior to the children's participation in the study.

Conflict of Interest The authors declare that they have no conflict of interest.

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