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The Nerve: Associations between Perceived Parenting Style and Coping with Stress

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Abstract

Throughout a lifetime, women are twice as likely as men to develop an anxiety disorder. Several factors – biological, psychological, and social/environmental – are involved in the mechanisms of anxiety. The present study was designed with particular interest in the association between parents' parenting styles and daughter anxiety, specifically paternal influences in correlation with how daughters cope with stress. Previous studies suggest that anxious tendencies in parents can be transferred to their children (Ballash, Leyfer, Buckley, & Woodruff-Borden, 2006). Studies have also identified three main parenting styles – authoritarian, authoritative, and permissive – which may also play a role in a child's emotional state (Baumrind, 1967). This study explores the association between current feelings of stress and how these relate to retrospective perceptions of parenting style of each parent. Data from 95 participants (62 female) at Bellarmine University were used. Each participant was given a shortened version of the Coping with Stress Inventory (COPE; Carver, 1997), The Generalized Anxiety Disorder 7-item scale (GAD-7; termed "Nervous Thoughts and Behaviors Inventory"; Spitzer, Kroenke, Williams & Löwe, 2006), and the Parental Authority Questionnaire (Buri, 1991). It was hypothesized that the authoritarian parenting style would be associated with less adaptive coping strategies and higher self-reported experience of nervous thoughts and behaviors. Results showed positive associations between authoritarian scores for fathers and daughters' self-reported levels of nervous thoughts and behaviors. Further, this association was fully mediated by maladaptive coping strategies in the female participants. Specifically, higher authoritarian scores in fathers positively predicted maladaptive coping strategies in female participants, which positively predicted their anxiety-related scores. Higher authoritative scores in fathers had the opposite effect, negatively predicting maladaptive coping strategies.

The Nerve: Associations between Perceived Parenting Style and Coping with Stress

According to the National Institute of Health (NIH), anxiety disorders generally affect women more than men. Over the course of one's lifetime, the prevalence of generalized anxiety disorder in women is 6.6%, while in men it is 3.6%. Depression and mood disorders, which are often comorbid with anxiety, are likewise more frequently occurring in women. A variety of biological and societal influences are involved in the mechanism of anxiety.

Biological Associations

Are women simply “wired” to be more emotionally unstable? NIH research of these gender-related differences in anxiety and internalizing disorders suggests several possible causal reasons. Scientists are investigating hormonal factors, biological factors, and differences in experiences, to name a few. For example, compared to men, women experience much more hormonal fluctuation, which is associated with symptoms of depression. A study by Albert (2015) suggests that changes in ovarian hormones, particularly during puberty and the start of menstruation, could play a role in the increased prevalence of depression in women. Female hormonal differences might also be a factor in the mechanisms of anxiety. Fluctuations in hormone levels throughout a woman's menstrual cycle may also have an effect on anxiety. Women that underwent extinction training during a high-estrogen (luteal) phase demonstrated higher extinction recall than women who were in a phase of lower-estrogen production (Mild et al., 2010).

As far as genetic factors are concerned, studies conducted with female rats provide much information about the implications of varying sex hormone roles. Scientists know that estrogen interacts with serotonin (Dalla et al., 2010; Leuner et al., 2014), but details of these interactions are not yet fully known. Several studies done in rats that suggest that hormone differences in

female versus male rats may cause females to be more inclined toward anxiety than males. Frye et al. (2006) demonstrated that the administration of progesterone significantly decreased anxiety behavior in mice. Progesterone is an essential sex hormone in women, and is involved – along with estrogen – in the regulation of the menstrual cycle. However, women going through perimenopause have lower progesterone levels, which is associated with increased anxiety (Prior, 2011). This finding was shown to exist in rats, as well. Reis et al. (2014) demonstrated that female rats that were put into an induced perimenopausal state were more likely to exhibit anxiety-like behavior. This study provides a model to show how progesterone plays a role in anxiety in human women. Essentially, this model supports that women have unique hormone interactions, which may play a role in the development of anxiety.

Stressful events also induced different responses in female and male rats. Corticotropin releasing factor (CRF) is a hormone that is a primary mediator of the stress response (Gold, Wong, Chrousos, & Licinio, 1996). CRF is signaled and moves differently in female rats in a way that could result in a greater response and decreased adaptation to stressors (Bangasser et al., 2010). Female rats were also more sensitive from the start to CRF (Bangasser et al., 2010), which has very interesting implications in terms of how differently males and females may respond to stress. Valentino (2010) showed that estradiol levels affected rats' learning ability. In female rats, estradiol levels increased in response to stress, which decreased the female rats' ability to learn. In contrast, adrenal steroid levels increased in male rats, which increased their ability to learn (Valentino, 2010). These results provide a basis for further studies on the effects of sex differences in humans.

Environmental Associations

Environmental influences are often overlooked, but are still equally important. The environment or experiences can dictate the likelihood of developing anxiety disorders. Men and women learn how to act and present themselves through the teaching of gender roles. For instance, young boys and girls are often conditioned to respond a certain way based on their gender. Girls are coddled and reinforced for displaying emotions, while boys are taught to suppress emotions because the expression of emotions is seen as “un-manly.” Women and men in the media often display these stereotypes, which are observed and mimicked by children. When adults react differently to boys and girls, boys and girls learn that they must respond in different ways. Ironically, girls are reinforced for showing emotion and then often made fun of for being “overemotional” when they grow up. Anxiety involves a lot of internalization and repressing of emotions, which women learn to practice as they get older in to avoid being labeled “overemotional.”

It is well accepted that girls and women are more likely to be victims of mental and physical abuse than boys and men. This type of abuse can lead to the development of severe anxiety disorders such as post-traumatic stress disorder. Further, the increased likelihood of abuse occurring in women can actually alter brain structure. Animal studies reveal that stress can harm cells in the hippocampus, which processes emotion and memories. Human female victims of sexual abuse have also been shown to have abnormal blood flow to the hippocampus (Walsh, Galea, & Karestan, 2012).

Parents are the central teachers of children throughout their developmental years. It is arguable that gender roles instilled in children by their parents provide a basis for explaining how children understand and experience the world as they grow up. Baumrind (1997) identified three categorizations of parenting styles: permissive, authoritarian, and authoritative. Permissive

parents are very lax and have very few demands of their children, rarely discipline their children, and are generally very nurturing and communicative. Authoritarian parents are very strict and expect their children to follow the firm rules they establish, expect rules to be followed without any explanation or retaliation, and punish their children when they do not follow the rules.

Authoritative parents are the “middle ground” between permissive and authoritarian.

Authoritative parents establish rules and guidelines, but are more responsive to their children’s concerns, willing to discuss the rules and listen to their children’s questions, and are more nurturing and forgiving rather than punishing.

The strategies that parents use to guide and discipline their children may influence their emotional health. Lipps et al. (2012) explored possible associations between parenting style and manifestation of depressive symptoms in Jamaican adolescents. They found that, in general, authoritative and permissive parenting styles were both associated with lower levels of depressive symptoms (Lipps et al., 2012). Parents of children with anxiety disorders were found to be over controlling and more rejecting in parent-child interactions (Bögels et al., 2008).

Studies have suggested that parental influences play a role in a child’s development of anxiety. University of Louisville’s Dr. Janet Woodruff-Borden conducted numerous research studies examining the relationship between childhood anxiety and familial influences. One of her studies – “Parental perfectionism and overcontrol: Examining mechanisms in the development of child anxiety” – suggests that “perfectionistic” parents exhibit extreme levels of control over their children, which in turn increases childhood anxiety levels. The findings suggest that parent perfectionism and overcontrol, together, may represent a specific pathway of risk for the development of anxiety disorders in children (Affrunti & Woodruff-Borden, 2015). Research also suggests that anxious tendencies in parents can be transferred to their children

(Ballash, Leyfer, Buckley, & Woodruff-Borden, 2006). Might these parent/child interactions be different or have different outcomes for females compared with males? And, further, might these parent-child interactions influence later (e.g., late adolescent or early adulthood) problems with anxiety and coping with stress?

Bögels and Phares (2007) have noted that most proposed models concerning parental factors in child anxiety do not take into account that fathers and mothers might influence children's anxiety in different ways – “It is likely that fathers' biological and socially reinforced masculine qualities predispose them to treat their children differently than do mothers” (p. 540). Silverstein and Lynch (1998) found that fathers reporting attitudes of male superiority were more likely to have daughters with anxious depression. Paternal depression and anxiety was demonstrated as a contributor to the prediction of internalizing behavior problems in daughters (Bosco et al., 2003).

In terms of coping mechanisms, research suggests that negative parental actions may increase the likelihood of children engaging in maladaptive coping strategies. Wolfradt, Hempel, and Miles (2003) suggested that parental acceptance might lead children to engage in more adaptive coping strategies when faced with stressors. Rostad, Medina, and Hurtid-Crosby (2014) found that fathers' – but not mothers' – acceptance and rejection was associated with depressive symptoms in young adult college students. Vulic-Protorić and Macuca (2006) demonstrated that perceived father rejection and avoidance as a coping strategy were best predictors of anxiety in children. In terms of parenting style connections, university students with perceived authoritarian or uninvolved parents were more likely to use avoidance as a coping strategy when dealing with feelings of homesickness (Nijhof & Engels, 2007).

Previous research exploring the psychopathology of children of anxiety-disordered parents often combined mother and father into a “parent anxiety disorder group” (e.g. Beidel & Turner, 1997; Biederman, Rosenbaum, Bolduc, Faraone, & Hirschfield, 1991; Merinkangas, Dierker, & Szatmari, 1998; Turner, Beidel & Costello, 1987). The present research is interested in the role of father interactions in the occurrence of anxious tendencies in females.

Purpose and Hypotheses

The purpose of the current study was to focus on the environmental correlates of anxiety – and explore social influences in the home as children are growing up. Specifically, the associations between a parent’s parenting style and a child’s development of anxious tendencies were explored. The present research study was designed with particular interest in how these factors may be related to the experience of anxiety in college-aged women. The current study explored a potential avenue for the impact of parental influences on a young woman’s level of anxiety – that is, the mechanisms of coping with stress. Finally, due to the scarcity of existing research, the current study emphasized and focused on the role of the father in the experience of anxiety in college-aged females. The exploration of paternal influences on and associations with their daughter’s anxiety is important and may help to determine if and how father/daughter interactions are uniquely involved in the development of nervous thoughts and behaviors. Specifically, I was interested in investigating if a young woman’s self-reported nervous thoughts and behaviors and their preferred types of coping methods may be correlated with an authoritarian – that is, more strict – father.

Method

Participants

Ninety-five Bellarmine University undergraduates (35% male, 65% female) participated in this study. Students in upper-level psychology courses received extra credit points for their participation. The mean age of participants was 21.5, and ages ranged between 18 and 26 years.

Procedure

The survey was conducted via Google Forms, and participants were provided with a link for its completion. Many participants were recruited from three sections of an upper-level psychology course, and were given extra credit by their professor for participating. While I was particularly interested in female experiences, there were no exclusions as to who was allowed to participate. Participants were asked to read through the informed consent, which was required before proceeding. Participants were also asked to indicate their age and gender. No personal identifying information was taken. The professor provided participants with my email address for follow-up debriefing or if participants had any questions or concerns about the survey. Participants were assured that no personal information would be connected with their survey responses, and that they could choose to discontinue the survey at any time.

Participants completed three questionnaires. An abbreviated version of the COPE Coping with Stress Inventory (Carver, 1997) was administered to identify key adaptive and maladaptive strategies used when dealing with stress were employed in participants' lives. The Generalized Anxiety Disorder 7-item scale (Spitzer, Kroenke, Williams & Löwe, 2006) was administered to assess how anxiety manifested on a general daily basis. The complete version of the Parental Authority Questionnaire (Buri, 1991) was also administered to determine participants' perceptions of their parents' parenting styles. SPSS software was used to run a

Pearson correlation analysis between 1) parenting styles and self-reported Nervous Thoughts and Behaviors Questionnaire (NTBQ), 2) COPE coping styles and self-reported NTBQ, and 3) parenting style scores, NTBQ scores, and COPE coping styles. The data from each group was analyzed using a two-tailed hypothesis test.

Materials

COPE Coping with Stress Inventory. The first questionnaire administered was the COPE Coping with Stress Inventory, taken from Charles Carver's (1997) developed assessments and questionnaires. This study used the Brief COPE, an abbreviated version of Carver's original assessment tool, in order to provide a more concise survey.

The Brief COPE assessment included 26 statements designed to reflect various approaches to dealing with stress, both adaptive (e.g., use of emotional support, positive reframing) and maladaptive (e.g., behavioral disengagement, self-blame). After the coping strategy of "substance use" was omitted for legal reasons, thirteen adaptive and maladaptive traits were assessed. Participants were asked to rate the frequency at which they had been engaging in each approach on a 4-point Likert scale, with 1 being "I haven't been doing this at all" and 4 being "I've been doing this a lot."

Nervous Thoughts and Behaviors Questionnaire (NTBQ). This second section attempted to assess participants' stress levels generally on a daily basis. The Generalized Anxiety Disorder 7-item (GAD-7) scale, developed by Spitzer, Kroenke, Williams, and Löwe, was used in this assessment. The scale includes seven items designed to indicate the nervous thoughts and behaviors experienced by participants. Participants were asked to rate the frequency at which they had been engaging in each behavior (e.g. "Feeling nervous, anxious, or

on edge,” “Worrying too much about different things”) on a 4-point Likert scale, with 1 being “Not at all” and 4 being “Nearly every day.”

Parental Authority Questionnaire. Participants received the Parental Authority Questionnaire (PAQ), taken from John Buri’s (1991) assessment, which was developed for the purpose of measuring Diana Baumrind’s (1991) permissive, authoritarian, and authoritative parenting types. The PAQ contains 30 items for each parent.

Follow-up Questions. In the final section of the survey, participants were asked questions that would reflect their general perceptions of how much anxiety and stress current college students experience. Responses were rated on a 5-point Likert scale, with 1 being “strongly disagree” that current college students experience more stress/anxiety and 5 being “strongly agree” that current college students experience more stress/anxiety. Participants were also asked to rate the extent to which they believe that gender is related to the amount of stress or anxiety experienced by college students on a 5-point Likert scale, with 1 being “males experience more anxiety” and 5 being “females experience more anxiety.”

Results

Pearson’s correlation values between parenting styles and the self-reported NTBQ can be found in Table 1. Values for the COPE coping styles and self-reported NTBQ can be found in Table 2. Values for parenting style scores, NTBQ scores, and COPE coping styles can be found in Table 3. Since there was an interest in female experiences, data for individuals who were male or other is omitted from these analyses.

A series of two-tailed Pearson correlations was conducted between parenting styles and self-reported NTBQ, shown in Table 1. There was a negative association between parent authoritative style scores and self-reported anxiety in female college students ($r(62) = -.29, p <$

.05 for mothers; $r(62) = -.26, p < .10$ for fathers) meaning those female participants with parents with higher scores on the authoritative scale had lower scores on the anxiety measure. There was a positive association between authoritarian style scores and anxiety ($r(62) = .25, p < .10$ for mothers; $r(62) = .47, p < .001$ for fathers); those females with mothers and fathers with the higher incidences of authoritarian style behaviors reported higher levels of anxiety in college.

The two-tailed Pearson correlation analyses between values for the COPE coping styles and self-reported NTBQ is shown in Table 2. Several adaptive and maladaptive coping methods were outlined. Associations between self-reported NTBQ scores and the maladaptive coping strategies of self-blame, denial, behavioral disengagement, and venting were all positively correlated and significant at $p < .001$. Females who reported experiencing frequent nervous thoughts and behaviors were more likely to engage in maladaptive coping strategies.

Associations between parenting style scores, NTBQ scores, and coping styles can be seen in Table 3. With regard to the mother data, there is a negative association between authoritative mother scores and anxiety scores in females ($r(62) = -.29, p < .05$); females with mothers with higher authoritative scores report lower levels of anxiety. With regard to fathers, similarly there is a trend for daughters of fathers with higher authoritative style scores to report lower levels of anxiety ($r(62) = -.26, p < .10$) and lower levels of maladaptive coping strategy use ($r(62) = -.35, p < .05$). Importantly, females with fathers with higher authoritarian scores reported higher levels of anxiety and higher levels of maladaptive strategy use ($r(62) = .49, p < .001$).

When asked to rate the extent to which they believe that today's college students experience more stress than previous generations of college students, females – more than males – believe that the current generation of college students experiences more stress than previous generations ($M = 3.94$ for males, $M = 4.48$ for females). Similarly, when asked to rate the extent

to which they believe that today's college students experience more anxiety than previous generations of college students, more females than males believed that the current generation of college students experiences more anxiety than previous generations ($M = 4.00$ for males, $M = 4.51$ for females). These findings are in correlation with anxiety research that demonstrates females' higher anxiety prevalence than males, and may be indicative of a higher female perception of anxious tendencies.

When asked to rate the extent to which they believe that gender is related to the amount of stress or anxiety experienced by college students, both male and female students tended to believe that stress and anxiety are related to being female ($M = 3.42$ for males, $M = 3.75$ for females). There is a marginally significant difference between male and female perceptions, with female participants believing that stress/anxiety is more associated with the female gender than male participants.

Table 4 shows the associations between mother and father parenting style scores for female participants. For female participant reports, mothers with higher scores on the authoritarian style had lower scores on the permissive style; and mothers with higher scores on the authoritative style had lower scores on the authoritarian style. These associations are logical and lend support to the validity of the parenting style questionnaire and to the participant responses. Likewise, the same pattern of associations held for the father reports. With regard to the associations between mother and father parenting styles, positive associations were found for the permissive mother and permissive father ($r(62) = .37, p < .01$), the authoritarian mother and authoritarian father ($r(62) = .51, p < .001$), and the authoritative mother and authoritative father ($r(62) = .40, p < .01$). One negative correlation was found – there was a trend for females with fathers with higher authoritarian scores to also have lower authoritative mother scores.

While this study suggested that fathers in particular play a unique role in determining how their daughters in particular may experience anxiety, I was interested in further exploration that would lead to a deeper understanding of these distinctive interactions. To accomplish this, a mediation model was proposed to show the correlations between parenting style, maladaptive coping methods, and nervous thoughts and behaviors. This model is shown in Figure 1.

Conceivably, fathers may impact daughters' current levels of anxiety through the coping styles that have been shaped and developed throughout the developmental period. To explore this notion, a series of regression analyses was performed predicting current levels of self-reported anxiety in females. The predictors were paternal authoritarian scores and participant negative (maladaptive) coping style scores.

First, data showed that paternal authoritarian scores predict daughters self-reported anxiety, $F(1,46) = 13.13, p = .001$. Data for this analysis is shown in Figure 2. The standardized beta value between authoritarian fathers and self-reported NTBQ scores is $.47 (p = .001)$. These two variables are positively related, meaning that higher authoritarian scores are associated with higher levels of anxiety.

Next, tests demonstrated that paternal authoritarian scores predict daughters' use of coping styles, $F(1,46) = 14.31, p < .001$. This data can be found in Figure 3. The standardized beta value between authoritarian fathers and maladaptive coping styles is $.49 (p < .001)$. These two variables are positively related, which shows that higher authoritarian scores are associated with higher use of maladaptive coping strategies.

It was then demonstrated that maladaptive coping styles predict participants' self-reported NTBQ scores, $F(1,59) = 60.63, p < .001$. This data can be found in Figure 4. The standardized beta value between maladaptive coping styles and NTBQ scores is $.71 (p < .001)$.

These two variables are positively related, which means that higher use of maladaptive coping styles is associated with higher reported levels of anxiety.

Data was then tested for mediation (see Figure 5). The association between authoritarian parenting scores and anxiety is significantly reduced – and is no longer significant – when concurrently including maladaptive coping styles into the equation, $F(2,45) = 26.32, p < .001$. When authoritarian father scores and negative coping scores are both entered at the same time as predictors of self-reported anxiety, the parenting style is no longer significant. This suggests that the influence of paternal parenting style on current levels of anxiety is dependent upon the relation between parenting style and coping styles. Essentially, fathers are teaching their daughters how to handle stress by the way in which they interact with them. These coping skills, created in an environment with an authoritarian father, are strongly associated with anxiety in college-aged daughters.

How would fathers with a more authoritative approach fair? To explore this question, a series of regression analyses was performed predicting current levels of self-reported anxiety in females. The model for this hypothesis is shown in Figure 6. The predictors were paternal authoritative scores and participant negative (maladaptive) coping style scores. It was shown that paternal authoritative scores marginally predicts daughters' self-reported anxiety, $F(1,46) = 3.34, p = .07$. This analysis is shown in Figure 7. The standardized beta value between authoritative fathers and self-reported NTBQ scores is $-.26 (p = .07)$. Since these two variables are negatively related, higher authoritative scores are associated with lower levels of anxiety.

Analyses then demonstrated that paternal authoritative scores predict daughters' use of maladaptive coping styles, $F(1,46) = 6.36, p = .015$. This data is shown in Figure 8. The standardized beta value between authoritative fathers and maladaptive coping styles was $-.35 (p$

= .15). Since these two variables are negatively related, higher authoritative scores are associated with lower use of negative coping strategies.

Next, it was shown that maladaptive coping styles predict participants' self-reported NTBQ scores, $F(1,59) = 60.63, p < .001$. This data is shown in Figure 9. The standardized beta value between maladaptive coping styles and self-reported NTBQ scores is .71 ($p < .001$). Since these two variables are positively related, higher use of maladaptive coping styles are associated with higher reported levels of anxiety.

Finally, a test for mediation was performed (see Figure 10). The association between authoritative parenting scores and anxiety is significantly reduced – and is no longer significant – when concurrently including maladaptive coping styles into the equation, $F(2,45) = 26.32, p < .001$. When authoritative father scores and negative coping scores are both entered at the same time as predictors of self-reported anxiety, the parenting style is no longer significant. This suggests that the influence of paternal parenting style on current levels of anxiety is dependent upon the relation between parenting style and coping styles. Fathers are teaching their daughters how to handle stress by the way in which they interact with them. For fathers with higher authoritative scores, these coping skills were less likely to be negative ones. Again, this influence was fully mediated by coping strategy.

Discussion

This study was designed to explore the impact of paternal parenting styles upon the incidence of self-reported anxiety in their daughters, as well as the likelihood that daughters would engage in maladaptive coping strategies. The results of this study have implications for the role a father can have in his daughter's upbringing, specifically in how she experiences stress and anxiety. Results of the current study support literature suggesting that there are significant

differences in the role a father may play in these factors versus the role of a mother (Bögels & Phares, 2007; Bosco et al., 2003).

The mediation model demonstrated that authoritarian fathers are very likely to have daughters who engage in nervous thoughts and behaviors, and these nervous thoughts and behaviors are fully mediated through the use of maladaptive coping styles, which are taught by authoritarian fathers. Because authoritarian fathers tend to be very strict and to create rules that they expect to be followed without question, it could be inferred that such fathers ascribe to a much more “traditional” gender role, in which they retain a great deal of power and influence, which could relate to their “masculinity.” Additional research may explore how an authoritarian mother and authoritarian father might be different in some way, since participants who had one authoritarian parent were likely to have another, but only the authoritarian father had such a significant impact.

Since the current and previous research studies were correlational studies, causality cannot be inferred. For instance, Bögels et al. (2008), who showed that parents with anxiety disorders were more likely to be over-controlling and rejecting in interactions with their children, emphasized that it is unclear whether parents’ control and rejection is a response to child’s anxiety, or may result from parents’ own anxiety. Future research may explore whether the internalizing (anxious) behavior of fathers in particular may have an affect on their daughters’ anxious tendencies. A comparison between the affect on daughters versus sons may also provide further insight into if and how father/daughter interactions differ compared to those between fathers and sons.

Further research would do well to demonstrate that these results could be replicated elsewhere, and perhaps even cross-culturally. A possible limitation to the current study could be

the fact that all of the participants were undergraduate students of Bellarmine University, many of who were enrolled in upper-level Psychology courses. A majority of the participant were Psychology majors, and would therefore possess background knowledge on the subject, possibly leading them to answer the questions to yield a certain effect. As a small, private university, drawing a sample from Bellarmine could make it difficult for external validity, as the population of such a university may be considered different than populations of other larger, public universities. So, once again, it would be beneficial to see if these results are replicable in larger and “different” sample populations.

Since I had a special interest in college females, a possible follow-up study could examine possible associations between fathers and sons, to determine if paternal rearing qualities would affect males differently. Overall, the current research provides insight into the unique interactions in the father/daughter relationship in terms of teaching and use of coping mechanisms, and of the harmfulness of certain male attitudes. Moreover, information obtained in this study could pave the way for future research on the perpetuation of gender role stereotypes in society, and how these stereotypes may play a role in how parents raise their sons and daughters. Results of this study would be useful for parents raising young children – particularly of fathers with daughters – as results may provide implications for the last negative affects of certain parental attitudes and parenting styles.

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Table 1

Pearson correlation values for parenting style scores and self-reported nervous thoughts and behaviors in females

Mother			Father		
Permissive	Authoritative	Authoritarian	Permissive	Authoritative	Authoritarian
.08	-.29*	.25*	.04	-.26 [†]	.47***

Note. [†] $p < .10$, * $p < .05$, ** $p < .01$, $p < .001$; all tests were two-tailed; $N=62$ for all tests

Table 2

Pearson correlation values for coping styles and self-reported nervous thoughts and behaviors

Adaptive Coping Strategies		Maladaptive Coping Strategies	
<i>Composite</i>	.22	<i>Composite</i>	.71 ^{***}
<i>Positive reframing</i>	.03	<i>Self-blame</i>	.66 ^{***}
<i>Planning</i>	.30 [*]	<i>Denial</i>	.56 ^{***}
<i>Active coping</i>	.23	<i>Behavioral disengagement</i>	.49 ^{***}
<i>Instrumental support</i>	.12	<i>Venting</i>	.48 ^{***}

Note. ^{*} $p < .05$, ^{**} $p < .01$, ^{***} $p < .001$

Table 3

Pearson correlation values for parenting style scores, nervous thoughts and behaviors scores, and coping styles

	Mothers			Fathers		
	<u>NTBQ</u>	<u>Adp</u>	<u>Mal</u>	<u>NTBQ</u>	<u>Adp</u>	<u>Mal</u>
<i>Permissive</i>	.08	-.08	.14	.04	-.03	.04
<i>Authoritative</i>	-.29*	.06	-.25 [†]	-.26 [†]	.22	-.35*
<i>Authoritarian</i>	.25 [†]	.002	.17	.47***	.09	.49***

Note. [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

Pearson correlation values for mother and father parenting style scores for female participants

	Mother- permissive	Mother- authoritarian	Mother- authoritative	Father- permissive	Father- authoritative	Father- authoritarian
Mother-permissive	-					
Mother-authoritarian	-.46***	-				
Mother-authoritative	.16	-.37**	-			
Father-permissive	.37**	-.15	.04	-		
Father-authoritarian	-.07	.51***	-.31*	-.47**	-	
Father-authoritative	-.14	-.13	.40**	-.03	-.43**	-

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

Figure 1

Proposed model: Paternal parenting style impacts current levels of anxiety in daughters through teaching maladaptive coping styles

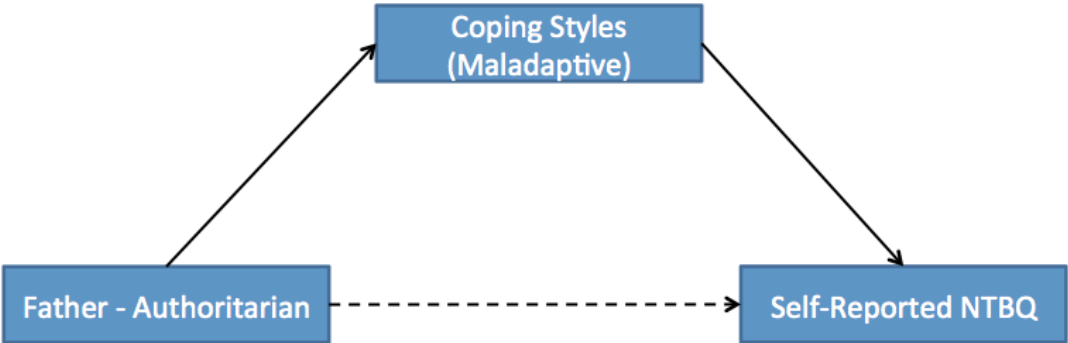


Figure 2

Step 1 of mediation testing: Paternal authoritarian scores predict daughters self-reported anxiety, $F(1,46) = 13.13, p = .001$

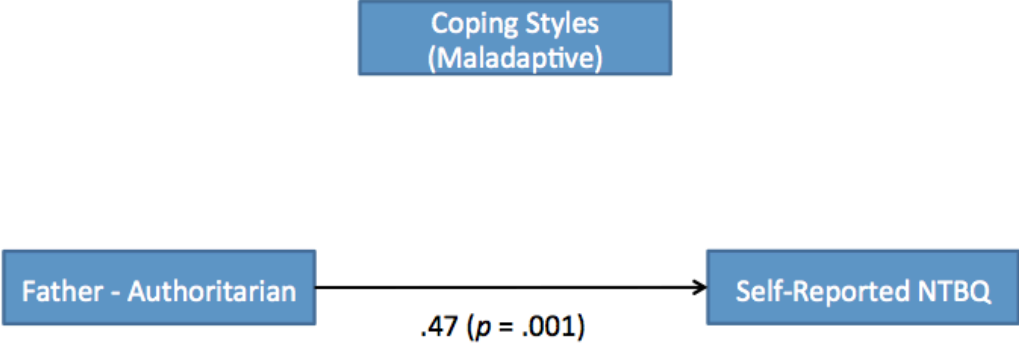


Figure 3

Step 2 of mediation testing: Paternal authoritarian scores predict daughters' use of coping styles, $F(1,46) = 14.31, p < .001$

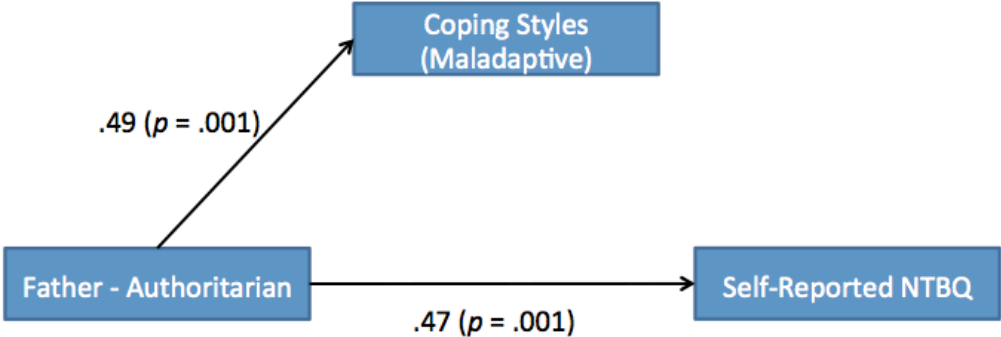


Figure 4

Step 3 of mediation testing: Maladaptive coping styles predict participants' self-reported NTBQ scores, $F(1,59) = 60.63, p < .001$

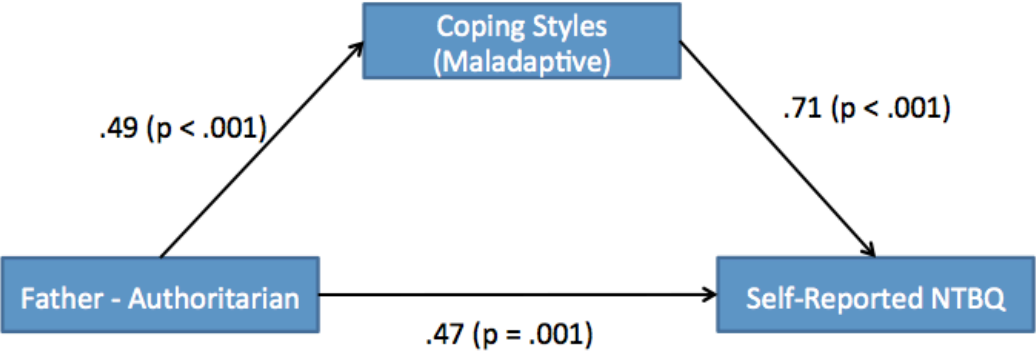


Figure 5

Step 4 of mediation testing: The association between authoritarian parenting scores and anxiety is significantly reduced – and is no longer significant – when concurrently including maladaptive coping styles into the equation, $F(2,45) = 26.32, p < .001$.

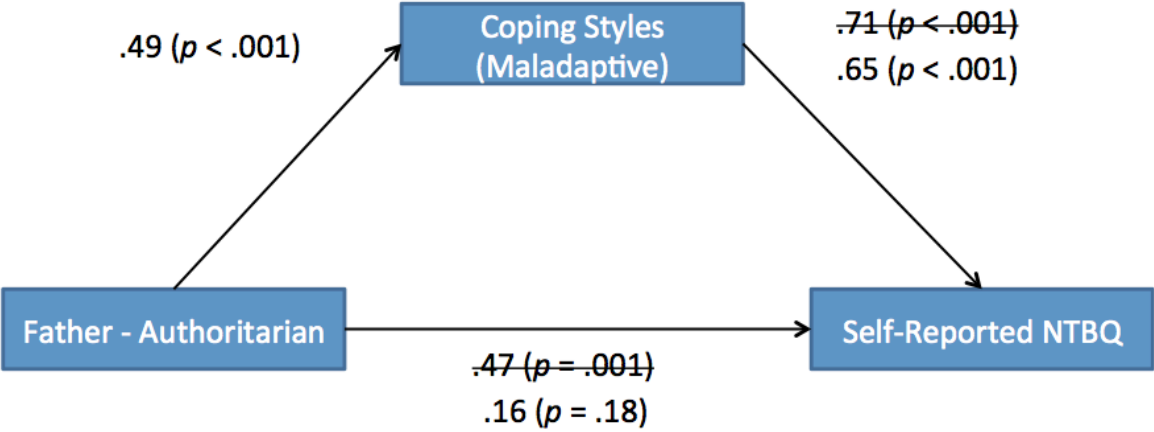


Figure 6

Proposed model: Paternal parenting style, authoritative, impacts current levels of anxiety in daughters through coping styles

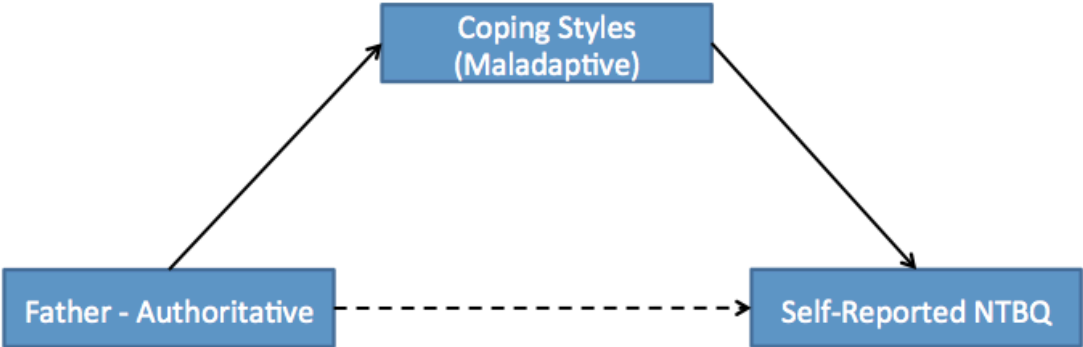


Figure 7

Step 1 of mediation testing: Paternal authoritative scores marginally predicts daughters' self-reported anxiety, $F(1,46) = 3.34, p = .07$

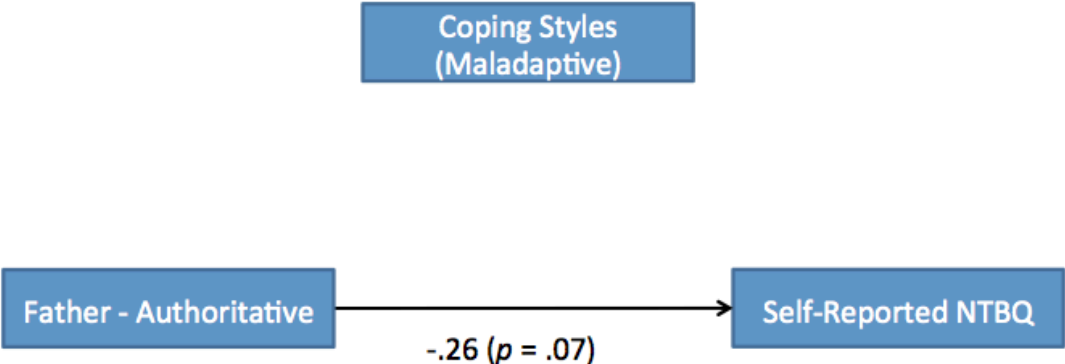


Figure 8

Step 2 of mediation testing: Paternal authoritative scores predict daughters' use of coping styles,

$F(1,46) = 6.36, p = .015$

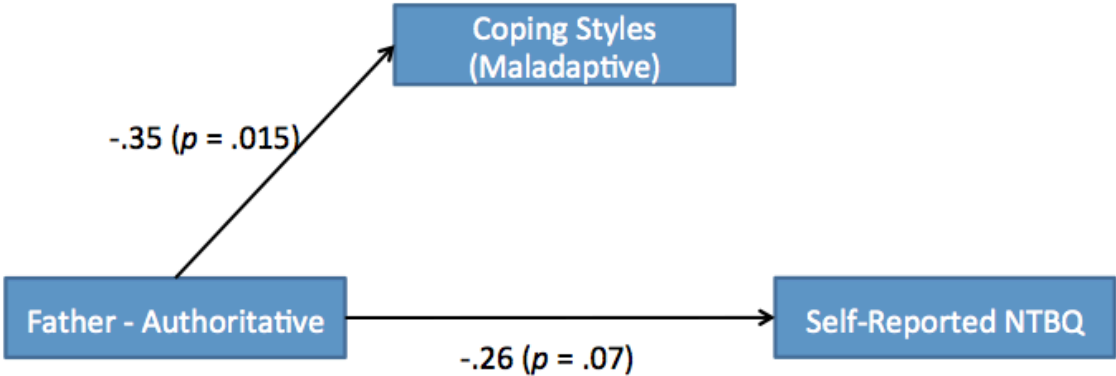


Figure 9

Step 3 of mediation testing: Maladaptive coping styles predict participants' self-reported NTBQ scores, $F(1,59) = 60.63, p < .001$

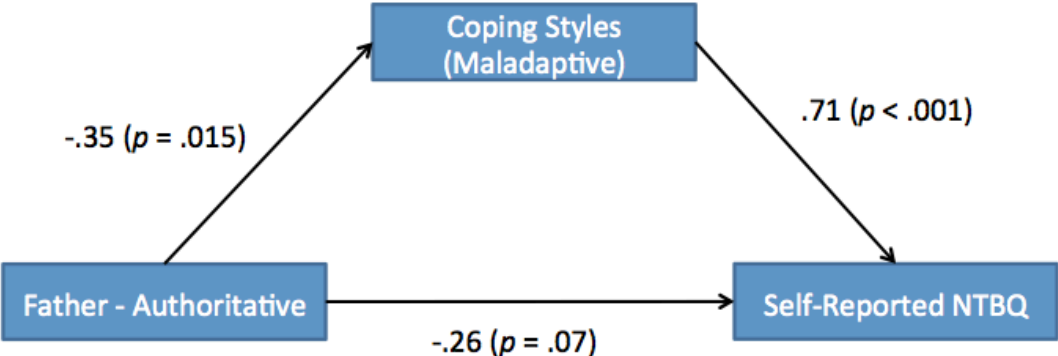


Figure 10

Step 4 of mediation testing: The association between authoritative parenting scores and anxiety is significantly reduced – and is no longer significant – when concurrently including maladaptive coping styles into the equation, $F(2,45) = 26.32, p < .001$

