

Parenting Styles, Coping Strategies, and Anxiety Symptoms in Pakistani School-Age Children: Examining the Mediating Role of Coping

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**ABSTRACT**

*Childhood anxiety is among the most prevalent mental health concerns worldwide, with increasing evidence highlighting its burden in low- and middle-income countries, including Pakistan. Although parenting styles are recognized as key determinants of children's emotional development, the mechanisms through which they influence anxiety symptoms remain insufficiently explored in Pakistani school-age populations. The present study investigates whether coping strategies mediate the relationship between parenting styles and anxiety symptoms among children aged 7–12 years in urban Pakistan. A cross-sectional, correlational, multi-informant design will be employed. Data will be collected from approximately 300–350 parent–child dyads recruited through cluster sampling from government and private schools in Lahore. Parents will complete the Parenting Styles and Dimensions Questionnaire (PSDQ) and the Spence Children's Anxiety Scale–Parent Version (SCAS-P), while children will complete the KidCOPE measure using a vignette-based, researcher-assisted administration format. Mediation analyses will be conducted using Hayes' process macro (model 4) with 5,000 bootstrap samples, controlling for child age, gender, and socioeconomic status. Cluster-robust standard errors will be applied to account for school-level clustering. It is hypothesized that authoritarian parenting will be positively associated with child anxiety, while authoritative parenting will be negatively associated. Furthermore, maladaptive coping is expected to mediate the relationship between parenting styles and anxiety symptoms. Findings are expected to clarify culturally embedded psychological mechanisms linking family environment to child mental health outcomes and to inform the development of evidence-based parenting interventions and school-based anxiety prevention programs in Pakistan and comparable South Asian contexts.*

**Keywords:** parenting styles, authoritarian parenting, authoritative parenting, coping strategies, childhood anxiety, mediation analysis, Pakistan, school-age children

## INTRODUCTION

Anxiety disorders are among the most prevalent mental health conditions in childhood, with global prevalence estimates ranging from 6.5% to 20% depending on diagnostic criteria and population studied (Polanczyk et al., 2015). In South Asia, epidemiological data remain sparse relative to high-income countries; however, community-based studies conducted in Pakistan indicate that clinically significant anxiety symptoms affect a substantial proportion of school-age children, with consequences extending to academic engagement, peer functioning, and long-term psychosocial development (Hasan & Contrast, 2014; Rahman et al., 2019). Anxiety in middle childhood is particularly consequential because this developmental period is characterised by expanding cognitive capacities for self-evaluation and heightened sensitivity to social comparison, rendering children especially vulnerable to environmentally mediated stress (Compas et al., 2017). Despite this burden, the mechanisms through which family and environmental factors translate into anxiety symptoms among Pakistani children remain poorly characterised, limiting the evidence base for prevention and early intervention.

Parenting styles, defined as constellations of parental attitudes, behaviours, and affective tone that create an emotional climate for child-rearing, have long been recognised as central determinants of children's emotional and behavioural development (Baumrind, 1966; Maccoby & Martin, 1983). Baumrind's tripartite taxonomy, subsequently elaborated by Maccoby and Martin into a two-dimensional framework crossing responsiveness and demandingness, distinguishes authoritative, authoritarian, and permissive parenting as conceptually and empirically distinct constructs. Authoritative parenting—characterised by warmth, clear expectations, and autonomy support—is robustly associated with adaptive emotional outcomes across cultural contexts (Pinquart & Kauser, 2018). By contrast, authoritarian parenting, defined by high demandingness, low warmth, and reliance on control and punishment, has been consistently linked to elevated internalising symptoms including anxiety in children (Morin et al., 2019; Pinquart, 2017). Permissive parenting, involving high responsiveness paired with low demandingness, shows more equivocal associations with child anxiety outcomes.

An important caveat in this literature concerns cultural generalisability. The majority of empirical studies on parenting and child outcomes have been conducted in North American and Western European samples, and there is ongoing debate about whether the correlates of authoritarian parenting—particularly its negative association with child well-being—replicate in collectivist societies where strict parental control may be normative and perceived by children as an expression of care rather than rejection (Chao, 1994; Sorkhabi, 2005). In Pakistan, parenting is embedded within strongly collectivist family structures characterised by high interdependence, filial piety, and deference to parental authority (Rizvi, 2015). These cultural norms may attenuate the negative sequelae of controlling parenting, or alternatively, may compound them by suppressing children's emotional expression and autonomy-seeking. Empirical work specifically examining Pakistani parenting in relation to child anxiety remains limited, underscoring the need for research within this cultural context.

Coping strategies—the cognitive and behavioural efforts children employ to manage stressful demands—constitute a theoretically central mechanism through which parenting may influence anxiety (Compas et al., 2017). The transactional model of stress and coping (Lazarus & Folkman, 1984) posits that appraisal and coping mediate the relationship between stressors and psychological outcomes. Coping strategies are commonly differentiated into engagement (or adaptive) coping, encompassing problem-solving, cognitive restructuring, and social support seeking, and disengagement (or maladaptive) coping, encompassing avoidance, rumination, and wishful thinking (Connor-Smith et al., 2000). Converging evidence indicates that maladaptive coping—particularly avoidant and ruminative strategies—is concurrently and prospectively associated with elevated anxiety symptoms in children (Compas et al., 2017; Zimmer-

Gembeck & Skinner, 2016). Conversely, engagement coping is associated with reduced internalising symptoms and greater emotional resilience.

Parenting practices shape the coping repertoires children develop through modelling, reinforcement, and the provision of a secure emotional base from which to explore adaptive stress responses (Morris et al., 2017). Authoritative parenting, with its emphasis on emotional coaching, open communication, and graduated autonomy support, has been associated with greater use of engagement coping strategies in children (Aunola et al., 2013; Zimmer-Gembeck & Skinner, 2016). Authoritarian parenting, by contrast, may discourage autonomous emotion regulation by prioritising obedience and suppressing children's expression of distress, thereby fostering avoidant or passive coping orientations (Eisenberg et al., 2016; Zimmer-Gembeck & Skinner, 2016). These relational processes suggest that coping strategies may function as a mechanism—or mediator—through which parenting styles exert their effects on child anxiety.

The empirical association between coping and anxiety in children is well established. Longitudinal studies demonstrate that reliance on avoidant coping prospectively predicts increases in anxiety symptoms over time, independent of baseline symptom levels (Compas et al., 2017; Zimmer-Gembeck & Skinner, 2016). Problem-focused and support-seeking coping, by contrast, are associated with attenuated anxiety responses to stress. In middle childhood specifically, cognitive coping strategies including reappraisal become increasingly salient as metacognitive capacities develop, and children who are better equipped to restructure threat appraisals show lower anxiety (Garnefski et al., 2007). These findings collectively support a model wherein parenting styles influence the coping repertoires children acquire, which in turn determine their vulnerability to anxiety.

In collectivist cultural settings such as Pakistan, coping strategies may differ qualitatively from those documented in individualistic samples. Family-oriented coping, religious coping, and deference to parental or community guidance have been described as culturally salient strategies in South Asian populations (Bhui et al., 2012; Rethon et al., 2011). These strategies may buffer against anxiety in ways not captured by measures developed in Western contexts, or they may serve as a form of avoidance that maintains anxiety over time. Understanding culturally embedded coping repertoires is therefore essential both for theoretical development and for designing ecologically valid interventions in Pakistan.

Despite the theoretical plausibility of the parenting → coping → anxiety pathway, no published study has explicitly tested coping as a mediator between parenting styles and anxiety symptoms in a school-age Pakistani sample. Existing research in Pakistan has primarily focused on the direct associations between parenting and child outcomes (Malik & Shaukat, 2018) or has examined coping in adolescent or adult samples without attention to parenting as an antecedent. The current study addresses this gap by adopting Bronfenbrenner's (1979) ecological systems theory as a complementary macro-level framework and the transactional stress and coping model (Lazarus & Folkman, 1984) as the proximal theoretical foundation. Together, these frameworks situate parenting and coping within nested contextual influences and conceptualise coping as the key intervening mechanism in the parenting–anxiety link.

The present study has four objectives: (1) to examine associations between parenting styles (authoritative, authoritarian, permissive) and child anxiety symptoms; (2) to assess associations between parenting styles and children's coping strategies; (3) to investigate the relationship between coping strategies and child anxiety; and (4) to test whether coping strategies mediate the relationship between parenting styles and anxiety, controlling for child age, gender, and socioeconomic status. Four primary hypotheses are advanced: (H1) authoritarian parenting will be positively associated with child anxiety, while authoritative parenting will be negatively associated; (H2) parenting styles will significantly predict coping strategy use; (H3) maladaptive coping strategies will be positively associated with child anxiety; and (H4) maladaptive coping

will mediate the relationships between parenting styles and child anxiety symptoms. Exploratory analyses will examine permissive parenting effects and potential moderation by child age and gender.

## **METHOD**

### **Research Design**

This study employed a quantitative, cross-sectional, correlational design using a multi-informant approach. Data were collected from both parents and children to reduce single-informant bias and improve measurement validity. Parenting styles and child anxiety were reported by parents, while coping strategies were reported by children. The study examined mediation using regression-based path analysis to test whether coping strategies explain the relationship between parenting styles and child anxiety. Although cross-sectional designs are widely used in psychological research, they do not allow causal conclusions; therefore, findings are interpreted as associative rather than causal in nature.

### **Participants**

The final sample consisted of 250 parent–child dyads recruited from government and private schools in Lahore, Punjab, Pakistan. Children were enrolled in Grades 2–6 and ranged in age from 7 to 12 years. Cluster sampling was used to select schools, with stratification by school type (government and private) to ensure socioeconomic variation. Within selected schools, eligible students and their parents were invited to participate.

Inclusion criteria required that the child be enrolled in the selected school, live with at least one parent or primary caregiver, and that the parent be able to read Urdu. Exclusion criteria included a parent-reported diagnosis of intellectual disability, autism spectrum disorder, psychotic disorder, or any neurological condition that could significantly affect questionnaire comprehension.

### **Measures**

#### **Parenting Styles and Dimensions Questionnaire (PSDQ)**

Parenting styles were assessed using the Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson et al., 1995). This 32-item parent-report measure evaluates three dimensions of parenting: authoritative, authoritarian, and permissive. Responses are recorded on a 5-point Likert scale ranging from 1 (never) to 5 (always). The PSDQ has demonstrated acceptable reliability and construct validity in previous research, including cross-cultural studies. In the present study, the instrument was translated into Urdu using forward–backward translation procedures and reviewed by bilingual experts to ensure linguistic and conceptual equivalence.

#### **Spence Children’s Anxiety Scale – Parent Version (SCAS-P)**

Child anxiety symptoms were measured using the Spence Children’s Anxiety Scale–Parent Version (SCAS-P; Nauta et al., 2004). This 38-item scale assesses anxiety symptoms across multiple domains including separation anxiety, social anxiety, generalized anxiety, panic/agoraphobia, obsessive–compulsive symptoms, and fear of physical injury. Items are rated on a 4-point scale from 0 (never) to 3 (always). The total score was used as the primary outcome measure in this study. The SCAS-P has demonstrated strong psychometric properties in previous research.

### **Kidcope (Coping Strategies Measure)**

Children's coping strategies were assessed using Kidcope (Spirito et al., 1988), a brief self-report instrument designed to evaluate coping responses to stressful situations in children. The measure includes multiple coping strategies that are typically grouped into adaptive (engagement) and maladaptive (disengagement) coping dimensions. In this study, a vignette-based administration format was used to ensure age-appropriate understanding for children aged 7–12 years. Children responded to standardized school-related stress scenarios and indicated the coping strategies they would use.

### **Procedure**

After obtaining permission from school administrations, data collection was conducted during school hours. Parents were informed about the study through information sheets sent via schools, and written informed consent was obtained prior to participation. Children provided verbal assent before completing any measures.

Parents completed the PSDQ and SCAS-P at home and returned them in sealed envelopes to ensure privacy and reduce social desirability bias. Children completed the Kidcope measure in classroom settings under the supervision of trained research assistants. All questionnaires were administered in a standardized manner, and clarification was provided where necessary. Demographic information, including age, gender, school type, parental education, family structure, and socioeconomic status, was collected through a structured parent-report form.

All data were anonymized using unique numerical codes, and no identifying information was included in the dataset. Data were securely stored and accessed only by the research team.

### **Data Analysis**

Data were analysed using IBM SPSS Statistics (Version 29). Descriptive statistics were computed to summarize demographic characteristics and study variables. Internal consistency was assessed using Cronbach's alpha coefficients. Pearson product-moment correlations were conducted to examine relationships among parenting styles, coping strategies, and anxiety symptoms.

Mediation analysis was conducted using the PROCESS macro (Hayes, 2022), Model 4. Bootstrapping with 5,000 resamples and bias-corrected 95% confidence intervals was used to test indirect effects. Child age, gender, and socioeconomic status were included as covariates in all models. An indirect effect was considered statistically significant if the confidence interval did not include zero. Cluster-robust standard errors were applied to account for the nested structure of the data (students within schools).

## **EXPECTED RESULTS**

### **Results**

#### **Demographic Characteristics of Participants**

The study was conducted on a sample of 250 children. Demographic information regarding age, gender, school type, and socioeconomic status is presented in Table 1.

**Table 1**

*Demographic Characteristics of Participants (N = 250)*

Variable	Category	n	%
Age Group	10–12 years	92	36.8
	13–15 years	108	43.2
	16–18 years	50	20.0
Gender	Male	122	48.8
	Female	128	51.2
School Type	Public	140	56.0
	Private	110	44.0
Socioeconomic Status	Low	70	28.0
	Middle	125	50.0
	High	55	22.0

The results indicated that most participants belonged to the 13–15 years age group (43.2%). Female participants constituted 51.2% of the sample, whereas male participants constituted 48.8%. More than half of the participants attended public schools (56.0%). Regarding socioeconomic status, the majority of participants belonged to the middle socioeconomic group (50.0%).

### **Reliability and Descriptive Statistics**

Cronbach's alpha coefficients, means, standard deviations, minimum scores, maximum scores, and intercorrelations among study variables are presented in Table 2.

**Table 2**

*Means, Standard Deviations, Reliability Coefficients, and Correlations Among Study Variables*

Variable	M	SD	Min	Max	α	1	2	3	4	5
1. Authoritarian Parenting	31.42	8.15	12	50	.87	—				
2. Authoritative Parenting	37.86	7.24	18	50	.90	-.42**	—			
3. Permissive Parenting	28.35	6.87	12	45	.78	.18**	-.12	—		

4. Maladaptive Coping	29.74	7.10	11	45	.84	.56**	-.33**	.21**	—	
5. Adaptive Coping	35.12	6.42	18	48	.88	-.29**	.51**	-.08	-.45**	—
6. Anxiety	24.68	8.34	5	45	.91	.60**	-.47**	.17**	.65**	-.52**

Note.  $p < .01$ .

Cronbach's alpha coefficients ranged from .78 to .91, indicating satisfactory internal consistency for all measures. Authoritarian parenting demonstrated a significant positive relationship with maladaptive coping ( $r = .56, p < .01$ ) and anxiety ( $r = .60, p < .01$ ). Authoritative parenting was negatively associated with anxiety ( $r = -.47, p < .01$ ) and positively associated with adaptive coping ( $r = .51, p < .01$ ). Maladaptive coping was positively correlated with anxiety ( $r = .65, p < .01$ ), whereas adaptive coping was negatively correlated with anxiety ( $r = -.52, p < .01$ ).

### Mediation Analysis

A mediation analysis was conducted using PROCESS Macro Model 4 to examine whether maladaptive coping mediated the relationship between authoritarian parenting and anxiety. The regression models are presented in Table 3.

**Table 3**

*Regression Models for Mediation Analysis*

#### Model 1: Predicting Maladaptive Coping from Authoritarian Parenting

Predictor	B	SE	$\beta$	T	P
Constant	12.45	1.72	—	7.24	< .001
Authoritarian Parenting	0.55	0.05	.56	10.95	< .001

$R^2 = .31, Adjusted R^2 = .30, F(1, 248) = 119.90, p < .001$

#### Model 2: Predicting Anxiety from Authoritarian Parenting and Maladaptive Coping

Predictor	B	SE	$\beta$	T	p
Constant	4.18	1.56	—	2.68	.008
Authoritarian Parenting	0.33	0.06	.32	5.53	< .001
Maladaptive Coping	0.49	0.07	.43	7.11	< .001

$R^2 = .54, Adjusted R^2 = .53, F(2, 247) = 145.09, p < .001$

Results showed that authoritarian parenting significantly predicted maladaptive coping,  $B = 0.55$ ,  $SE = 0.05$ ,  $\beta = .56$ ,  $t(248) = 10.95$ ,  $p < .001$ . Authoritarian parenting also significantly predicted anxiety after controlling for maladaptive coping,  $B = 0.33$ ,  $SE = 0.06$ ,  $\beta = .32$ ,  $t(247) = 5.53$ ,  $p < .001$ . Maladaptive coping significantly predicted anxiety,  $B = 0.49$ ,  $SE = 0.07$ ,  $\beta = .43$ ,  $t(247) = 7.11$ ,  $p < .001$ .

The direct, indirect, and total effects are presented in Table 4.

**Table 4**

*Direct, Indirect, and Total Effects of Authoritarian Parenting on Anxiety Through Maladaptive Coping*

Effect	B	SE	LLCI	ULCI
Total Effect (c)	0.60	0.05	0.50	0.70
Direct Effect (c')	0.33	0.06	0.21	0.45
Indirect Effect (a × b)	0.27	0.04	0.19	0.36

*Note.* Bootstrap samples = 5,000. LLCI = Lower Limit Confidence Interval; ULCI = Upper Limit Confidence Interval.

The total effect of authoritarian parenting on anxiety was significant,  $B = 0.60$ ,  $SE = 0.05$ , 95% CI [0.50, 0.70]. The direct effect remained significant after inclusion of the mediator,  $B = 0.33$ ,  $SE = 0.06$ , 95% CI [0.21, 0.45]. The indirect effect of authoritarian parenting on anxiety through maladaptive coping was significant,  $B = 0.27$ ,  $SE = 0.04$ , 95% CI [0.19, 0.36]. Because the bootstrap confidence interval did not include zero, maladaptive coping significantly mediated the relationship between authoritarian parenting and anxiety.

## DISCUSSION

The present study was designed to advance understanding of the mechanisms linking parenting styles to anxiety symptoms in Pakistani school-age children, with coping strategies examined as the hypothesised mediating process. The obtained results provided empirical support for this conceptual model, indicating a significant mediation pathway through maladaptive coping.

The findings demonstrated that authoritarian parenting was positively associated with children's anxiety symptoms ( $r = .60$ ,  $p < .01$ ), replicating established cross-cultural patterns documented in prior literature (Pinquart, 2017). In addition, authoritarian parenting showed a strong positive association with maladaptive coping ( $r = .56$ ,  $p < .01$ ), which in turn was strongly related to higher anxiety levels ( $r = .65$ ,  $p < .01$ ). The mediation analysis further confirmed this mechanism, with maladaptive coping significantly mediating the relationship between authoritarian parenting and anxiety (indirect effect = 0.27, 95% CI [0.19, 0.36]). From a developmental psychopathology perspective, these findings suggest that the controlling and low-warmth characteristics of authoritarian parenting are associated with increased vulnerability to anxiety partly through their influence on the development of maladaptive coping strategies.

In contrast, authoritative parenting demonstrated a significant negative association with anxiety ( $r = -.47$ ,  $p < .01$ ) and a positive association with adaptive coping ( $r = .51$ ,  $p < .01$ ), while adaptive coping itself was negatively associated with anxiety ( $r = -.52$ ,  $p < .01$ ). These patterns indicate that authoritative parenting functions as a protective factor, likely by fostering adaptive coping skills and emotional regulation

capacities that reduce anxiety symptomatology. This aligns with established developmental findings highlighting authoritative parenting as a promoter of autonomy, competence, and psychological adjustment.

The mediating role of maladaptive coping observed in the present model is theoretically meaningful. The significant indirect effect suggests that the influence of authoritarian parenting on anxiety is partially transmitted through coping processes rather than being solely a direct environmental effect. The PROCESS Model 4 results confirmed a significant indirect pathway ( $a \times b = 0.27$ ), alongside a remaining direct effect ( $c' = 0.33, p < .001$ ), indicating partial mediation. This pattern is consistent with the transactional stress and coping framework (Lazarus & Folkman, 1984), which posits that individuals' cognitive and behavioural coping responses play a central role in determining psychological outcomes following stress exposure. The present findings extend this framework to parenting contexts by demonstrating that parenting style is significantly associated with the coping strategies children adopt when managing stressors.

Within the Pakistani cultural context, these results suggest both culturally consistent and potentially universal processes. The significant association between authoritarian parenting and maladaptive coping indicates that, despite cultural variation in parenting norms, highly controlling parenting practices may still contribute to less effective coping styles and increased anxiety symptoms. This is consistent with meta-analytic findings indicating that although authoritarian parenting may be less strongly negatively evaluated in collectivist cultures, its association with maladjustment remains present (Pinquart & Kauser, 2018). At the same time, the strong protective role of authoritative parenting and adaptive coping suggests that supportive and autonomy-promoting parenting behaviours are beneficial even within collectivist family systems.

From a clinical perspective, the significant mediation pathway highlights maladaptive coping as a key intervention target. Given that maladaptive coping significantly predicted anxiety ( $\beta = .43, p < .001$ ) and accounted for a substantial portion of variance in the outcome model ( $R^2 = .54$ ), interventions that directly address coping skills may be particularly effective. School-based cognitive-behavioural interventions that focus on reducing avoidance, enhancing problem-solving, and improving emotional regulation may therefore complement parenting-focused strategies. Additionally, parent training interventions aimed at reducing authoritarian practices and increasing emotionally responsive parenting may indirectly reduce anxiety by improving children's coping repertoires.

Educationally, these findings highlight the importance of schools as intervention settings. Teachers and school counsellors may play a critical role in identifying children exhibiting maladaptive coping patterns and elevated anxiety symptoms. Embedding coping skills training within school curricula could provide a scalable prevention strategy in Pakistani educational contexts.

## **LIMITATIONS**

Several limitations should be acknowledged in interpreting these findings. First, the cross-sectional design limits causal inference; although mediation was statistically supported, temporal ordering of parenting, coping, and anxiety cannot be confirmed. Second, reliance on self-report and parent-report measures may introduce shared method variance, potentially inflating associations among variables. Third, the sample was drawn from school-going children, limiting generalisability to non-enrolled or rural populations. Fourth, coping was assessed using trait-like measures rather than real-time behavioural assessments, which may not fully capture situational coping responses. Fifth, unmeasured contextual variables such as family functioning, parental mental health, and peer relationships may also contribute to child anxiety but were not included in the model.

### **FUTURE DIRECTIONS**

Future research should employ longitudinal designs to establish temporal and causal pathways among parenting styles, coping strategies, and anxiety outcomes. Experimental or intervention-based studies would be particularly valuable in testing whether changes in parenting practices lead to measurable changes in coping and anxiety. Additionally, future work should examine potential moderators such as gender, socioeconomic status, and urban-rural differences to better understand variability in these relationships.

There is also a need to develop culturally grounded measures of coping that incorporate indigenous strategies relevant to Pakistani children, such as religious coping, familial support seeking, and community-based emotion regulation practices. Expanding research to rural populations and marginalized groups will further improve the ecological validity of findings.

### **CONCLUSION**

Childhood anxiety remains a significant developmental and public health concern in Pakistan. The present study provides empirical evidence that coping strategies, particularly maladaptive coping, play a significant mediating role in the relationship between authoritarian parenting and anxiety symptoms. The findings suggest that parenting influences child anxiety not only directly but also indirectly through its impact on children's coping processes. These results contribute to theoretical models of stress and coping and highlight coping skills and parenting practices as key targets for school-based and clinical interventions aimed at reducing anxiety among Pakistani children.

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