



## RESEARCH PAPER

### Impact of Parental Psychological Control on Adolescent Anxiety: Mediated by Self-Esteem among Adolescents

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#### ABSTRACT

The purpose of this study was to examine the mediating effect of self-esteem on the relationship between parental psychological control and adolescent anxiety. Participants included 320 adolescents who completed self-report measures with established reliability and validity to examine their perceptions of parental psychological control, self-esteem, and anxiety. Mediation analysis found that parental psychological control was significantly positively related to anxiety, and self-esteem acted as a significant mediator of this relation. Based on a multiple mediation analysis, parental psychological control was associated with lower levels of self-esteem, which were subsequently linked to higher GI anxiety. The indirect effect was statistically significant, indicating significant mediation. Overall, this study suggests that self-esteem is an essential psychological mechanism by which controlling parenting styles may influence adolescent mental health. The results have important implications on the need to focus on supportive parenting practices, as well as improving adolescent self-esteem to mitigate anxiety. Recommendations includes that future interventions incorporate parental psycho-education and adolescent self-esteem enhancement to reduce anxiety outcomes.

**Keywords:** Parental Psychological Control, Self-Esteem, Anxiety, Adolescents

#### Introduction

Adolescence is often a tumultuous period characterized by shifts in psychological, emotional, or social perspectives, during which some individuals may begin to reflect vulnerabilities in mental health. Anxiety warnings are one of the most common types of mental health problems, they may negatively impact job performance, the quality of family and peer relationships, and a young person's overall health and wellness (Kessler et al., 2012; Bitsko et al., 2022). Understanding the psycho-social contributors to anxiety in adolescents is an expanding field of research given the rapid pace of change in today's world and the complexities of under-explored aspects of how family, school, and peer influences interact.

Anxiety symptoms can differ in presentation for adolescents including social anxiety, and/or generalized anxiety symptoms, or panic symptoms. Anxiety can correlate to a range of adverse outcomes including school absenteeism, sleep abnormalities, and difficulties with social functioning, "e.g. absence from peers " (Costello et al., 2011; Asselmann & Beesdo-Baum, 2022). Increased anxiety symptoms occurring in adolescents around the world makes it necessary to understand antecedents and the psychological mechanisms mediated by or related to anxiety set out on a path to effective approaches to intervention and prevention.

Parenting styles play an important role in shaping adolescent psychological well-being among many other environmental influences. Parental style is a predictor of

emotional regulation, coping skills, and sense of self for children and adolescents (Siegenthaler et al., 2021). Supportive parenting develops resilience, independence, and emotional regulation for youth, while maladaptive parenting can be high in control and low in warmth which would increase the risk of maladaptive internalizing disorders (e.g. anxiety disorders) (Pinquart, 2017).

Psychological control in parenting refers to the controlling strategies that can be manipulative for the child or adolescent and have the potential to obstruct their psychological, emotional, and identity development. Psychological control may include inducing guilt, withdrawing love, or being overly critical (Barber et al., 2005). Thinking of parental control behaviorally; parental control is monitoring and setting appropriate limits for children not influencing their autonomy by restricting the development of self-identity. Many studies have shown strong relationships between psychological control and increased adolescent internalizing symptoms, particularly anxiety and depression (Soenens & Vansteenkiste, 2010; Wang et al., 2023).

The relationship between psychological control and anxiety has been studied cross-culturally. Adolescent who experience high psychological control from parents are typically likely to internalize anxiety, perceive a lack of control or agency, and develop cognitive distortions which lead to anxiety (Muris et al., 2016). Psychological control disrupts the adolescent's capacity to develop secure attachments, to become independent, and cope with stressors, which increase their anxiety symptomology (Yap et al., 2014).

Self-esteem, or the evaluative component of self, is an important developmental asset during adolescent development. It has been suggested that self-esteem could mediate the relation between parenting and mental health measures. Adolescent exposed to psychological control, internalizing feedback from parents, could lower their self-esteem and develop anxiety (Geng et al., 2022; Kim et al., 2021). Higher self-esteem has been shown relate to better emotion regulation and lower anxiety (Orth & Robins, 2014).

There is empirical evidence that supports the mediational role of self-esteem in the relation of psychologically controlling parenting and anxiety in adolescents. Psychological control involves the rejection of autonomy and self-competence, which can lead to reduced self-esteem and ultimately an increased susceptibility to anxiety (Luyckx et al., 2011; Lee & Hankin, 2009). Mediation models allow us to understand how and why psychological control impacts adolescents' emotional outcomes, offering important implications for informing clinical mental health interventions.

In Pakistan or other South Asian cultural contexts, parenting often entails a reliance on authority, obligation, and a close emotional bond. The parenting commitment of individuals in these cultures can create a sense of obligation toward authority, while still maintaining emotional connections. Although parental involvement is a cultural element, perceived parental over-control disguised in concern can yield negative impacts on psychological outcomes in adolescents (Dwairy & Achoui, 2010). Therefore, it is essential to investigate these constructs in their context to understand how culturally normative constructs of responsibility can slip into psychologically controlling behaviors with negative impacts.

While existing research provides us with some knowledge, we still do not have clarity on the specific psychological mechanisms, such as self-esteem, through which parental psychological control transfers to adolescents experiencing anxiety, especially within the South Asian populations, and even fewer studies have actually tested this mediation model in a culture outside of the West, where parenting dimensions and adolescent coping styles may vary quite differently (Soenens, van der Duytso, et al, 2012). We are hoping to fill this missing research by empirically testing the mediating role of self-esteem.

In this study we aim to examine the relationship between parental psychological control and adolescent anxiety and specifically the mediating role of self-esteem. By testing this model, we aim to help provide a culturally relevant intervention for parenting education, and enhancing adolescent self-esteem. Ultimately, improved outcomes for adolescent mental health can be achieved through family intervention prevention models of, and school-based psycho-social supports.

## **Literature Review**

Parental psychological control describes parenting behaviors that intrude upon children's autonomy and emotional development (through guilt inducing, love withdrawal, or conditional love; Barber et al., 2005). While behavior control conveys monitoring and organization, psychological control encroaches upon the child's sense of self. There is a consistent history of the association of psychological control with maladaptive outcomes for children, including identity development, internalizing symptoms, and emotional maladjustment (Soenens & Vansteenkiste, 2010; Wang et al., 2023).

There is considerable evidence to show a strong association between psychological control by parents and greater anxiety symptoms in adolescents; if emotional expression is suppressed by parents or autonomy is not encouraged, adolescents may internalize thoughts of inadequacy and engage in worry, fear, and avoidance factors (Muris et al., 2016). Several studies show longitudinal associations between controlling parenting and increasing risk for anxiety disorders over time (Yap et al., 2014). Recent studies in south-east Asian contexts have provided support that psychological control can predict social anxiety, generalized anxiety, and panic symptoms (Geng et al., 2022; Kim et al., 2021).

The influence of psychological control may depend upon the values and expectations of different cultures. In collectivistic societies found across South Asia, parental authority and emotional closeness were emphasized values, which may conflate controlling behaviors with expressions of concern (Dwairy & Achoui, 2010). Still, research indicates that psychological control can detrimentally affect psychological wellbeing (even where it is normatively excessive) leading to the suggestion that too much restriction on autonomy will lead to the negative outcomes associated with psychological control universally (Soenens et al., 2012).

Self-esteem, defined as the global valuation of one's worth, is an important developmental asset at adolescence. Self-esteem impacts coping and resilience, as well as mental health outcomes (Orth & Robins, 2014). Adolescents with high self-esteem are more likely to experience life as competent and socially accepted which lowers their vulnerability to stress and anxiety. In contrast, low self-esteem is associated with serious emotional problems such as depression and anxiety (Lee & Hankin, 2009; Zeigler-Hill et al., 2021).

A considerable body of research has established an inverse relationship between parental psychological control and adolescent self-esteem. Parenting behaviors associated with psychological control restrict autonomy and conform to dependency and dysfunction, thus all but extinguishing the opportunity for the development of stable, positive self-concept (Soenens & Vansteenkiste, 2010). Research indicates that adolescent children of parents they view as excessively critical or emotionally manipulative anchor these perceptions and may internalize them, thus resulting in low self-worth and feelings of incompetence (Luyckx et al., 2011; Geng et al., 2022).

Self-esteem is offered as a mediator, which can account for how psychological control impacts anxiety symptoms. Adolescents facing high parental control may experience drops in self-esteem that subsequently add to their decreased resistance to the expression of anxiety symptoms (Kim et al., 2021). Several investigations of mediation confirm the mediating role of self-esteem for parenting styles with lower levels of warmth and high

levels of control and other disordered internalizing behaviors (Lee & Hankin, 2009; Laird & Pettit, 2020); this contributes to a developmental model where psychological control limits self-concept and contributes to greater levels of anxiety.

Self-Determination Theory (SDT) provides a solid theoretical framework for understanding the mediation role of self-esteem. In SDT, individuals are viewed as having three basic psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 2000). Parental use of psychological control obstructs adolescents' fulfillment of the three needs, especially autonomy and competence, and—as these needs go unfulfilled—adolescents are more likely to experience anxiety indicating an indirect pathway through self-worth (Soenens & Vansteenkiste, 2010; Ryan & Deci, 2017).

While there is evidence that self-esteem will function as a mediator, most of the research to date has focused on Western populations and there is a pressing need to investigate this mediation model in non-Western cultures, where parenting styles and adolescent adaptive coping styles are quite different (Dwairy & Achoui, 2010; Soenens et al., 2012). Additionally, contextual factors such as gender, socio-economic class, and urban-rural factors may shape the perceptions and internalization of psychological control in adolescents. It is imperative to address these gaps in order to design culturally relevant interventions to foster resilience with adolescents with disaffection for schooling.

### **Hypotheses**

1. Parental psychological control is positively related to self-esteem in adolescents.
2. Parental psychological control is negatively related to self-esteem in adolescents.
3. Parental psychological control and self-esteem have a significant impact on anxiety in adolescents.
4. Self-esteem will mediate the relationship between parental psychological control and anxiety in adolescents.

### **Material and Methods**

#### **Nature**

Cross-sectional research design was used for the present study.

#### **Sample Size and Technique**

Convenient Sampling technique was used to recruit three hundred and twenty adolescents in the present study.

#### **Data analysis technique**

Descriptive analysis, reliability analysis, correlation and mediation analysis was carried out using SPSS process macro.

#### **Measures**

##### **Psychological Control Scale- Youth Self-Report (PCS-YSR)**

The Psychological Control Scale–Youth Self-Report (PCS-YSR) was developed by Barber (1996) with the purpose of assessing adolescents' perceptions of psychologically controlling parenting behaviors, such as guilt induction, love withdrawal, and invalidation

of feelings. Since then the scale has been used in numerous studies examining parenting styles and psychological effects. Its full version typically includes 8-16 items, and is administered using a 5-point Likert style on a scale of "Not like them" to "A lot like them." The scale has shown good internal consistency with reported Cronbach's alpha scores frequently ranging from 0.75 to 0.85 for different populations (Barber et al., 2005; Wang et al., 2023). Additionally, construct validity of the scale has been established through correlational studies with adolescent anxiety, depression, and autonomy suppression. The PCS-YSR is available in different languages and has been adapted for different cultural contexts, which allows it to be used as a reliable measure of psychological control in contexts across the world.

### Rosenberg Self-esteem Scale

The Rosenberg Self-Esteem Scale (RSES), created by Morris Rosenberg in 1965, is still the most commonly used measure of global self-esteem for adolescents and adults. The RSES is a 10-item unidimensional self-report scale that uses a 4-point Likert scale: "Strongly disagree," "Disagree," "Agree," "Strongly agree". The RSES assesses a person's overall feeling of self-worth and self-acceptance. The scale has exhibited excellent reliability at the scale level as indicated by a Cronbach's alpha coefficients typically ranging between 0.82 and 0.93 (Orth & Robins, 2014). The validity of the scale has been shown across cultures, with the scale correlating well with theoretically related constructs, including depression, anxiety, and emotional regulation. The RSES is easy to administer, not provided for a fee in academic research, and is validated in Urdu and other local languages, making it very relevant to South Asian populations.

### Generalized Anxiety Disorder Scale

The GAD-7 (Generalized Anxiety Disorder-7) scale is a short, standardized measure of general anxiety symptoms over the last fourteen days (Spitzer et al., 2006). GAD-7 includes seven items to be rated in the past fourteen days from 0-3 ("Not at all" to "Nearly every day"). GAD-7 is a well-accepted measure in research and clinical practice; it has well-founded psychometric measures, including more than 0.90 Cronbach's alpha, indicating excellent internal consistency (Löwe et al., 2008). GAD-7 has demonstrated criterion validity in both correlated diagnostic interviews and concurrent measurement of anxiety. The GAD-7 has been validated in adolescent samples and has been translated into several languages (e.g., Urdu), thereby making it applicable for use in clinical and cross-cultural research. Thus, the GAD-7 can be useful in identifying adolescents with clinically elevated anxiety symptoms in community and school-based research samples.

## Results and Discussion

**Table 1**  
**Descriptive Characteristics of the Study Sample (N=320)**

Descriptive Characteristics of the Study Sample (N=520)				
Variable		n		%
Gender				
Women		150		46.67
Men		170		53.33
Family Structure				
Nuclear		140		43.33
Joint		180		56.67
Residence				
Rural		130		40.00
Urban		190		60.00
VAR	M	SD	Min	Max
Age	27.12	4.32	11	22

The study sample mainly consisted of adolescents with a reasonably balanced gender distribution, but with slightly more males than females. Participants came from nuclear or joint family systems, and slightly more participants came from joint family systems. Overall, there was considerable fair representation across residential backgrounds; most came from urban areas, while a notable number came from rural areas creating contextually diverse representations. The age range of participants reflected mainly adolescents and young adults with a moderate mean and standard deviation representing developmental relevance to the constructs being inquired.

**Table 2**  
**Psychometric Properties of Study Variables (N=320)**

Scale	K	$\alpha$	M	SD	Range		Skewnes	Kurtosis
					Actual	Potential		
PPCS	16	.86	20.54	8.32	16-64	17-58	1.65	1.01
ANX	7	.79	16.45	5.76	7-28	9-21	.65	.87
RSES	10	.74	14.37	6.86	10-40	15-740	.54	.96

*Note.* PPCS= Parental Psychological Control Scale; ANX= Anxiety; RSES= Rosenberg Self-esteem Scale

The table shows the psychometric properties of the study variables, such as internal consistency (Cronbach's alpha), cut means, standard deviations, observed ranges, potential ranges, and skewness and kurtosis values for normality tests. The variables assessed are Parental psychological control, Anxiety, and Self-esteem. All scales had acceptable to good reliability coefficients (internal consistency) observed by an acceptable range of scores and a theoretical potential range noted for each scale. The data distribution was assessed by looking at the skewness and kurtosis measures, which were all within acceptable limits for parametric testing.

**Table 3**  
**Correlation among Study Variables (N=320)**

VAR	1	2	3
1 PPCS	-		
2 ANX	.61**	-	
3 RSES	-.45**	-.29**	-

*Note.* PPCS= Parental Psychological Control Scale; ANX= Anxiety; RSES= Rosenberg Self-esteem Scale \* $p < .05$ , \*\* $p < .01$ .

Table 3 displays the Pearson correlation quantities among the main study variables. Parental psychological control (PPCS) and anxiety (ANX) were positively significantly correlated ( $r = .61$ ,  $p < .01$ ). This finding indicates that as perceived parental control increases, so too does anxiety in adolescents. PPCS was negatively correlated with self-esteem (RSES) ( $r = -.45$ ,  $p < .01$ ) which indicates that as parental psychological control increased self-esteem in adolescents decreased. Anxiety was also negatively correlated with self-esteem ( $r = -.29$ ,  $p < .01$ ) which again indicates that those reporting greater anxiety had lower self-esteem. This finding is consistent with previous literature suggesting parental psychological control negatively affects the emotional and psychological well-being of adolescents.

**Table 4**  
**Multiple Linear Regression predicting Anxiety (N=320)**

Predictor	B	SE	$\beta$	t	p
Constant	12.76***	3.12		5.642	.00
PPCS	.76***	.18	.54	4.27	.00
RSES	-.32***	.13	-.37	-7.16	.00
R <sup>2</sup>	.15***				
F	54.23***				

*Note.* PPCS= Parental Psychological Control; RSES= Rosenberg Self-esteem Scale

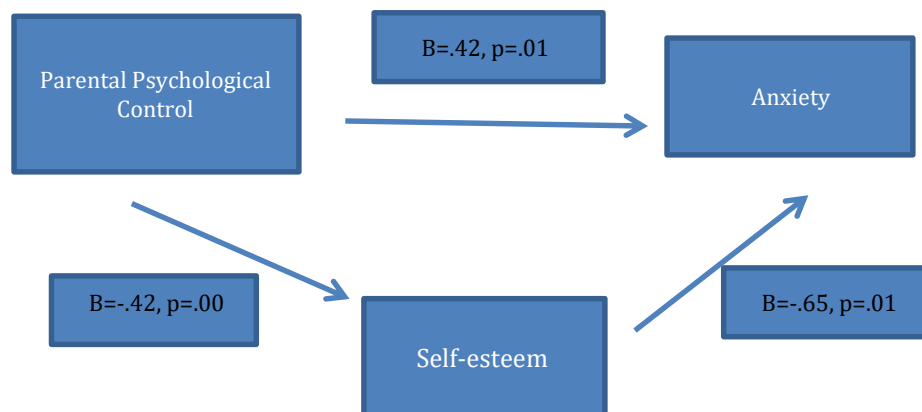
The outcome of a multiple linear regression analysis was provided in table 4 to assess whether parental psychological control and self-esteem predicted anxiety. The overall model was significant and explained a meaningful proportion of variance in anxiety. Results showed that both predicted anxiety in a statistical manner. Each of the measured predictors helped to predict the level of anxiety of the participants; higher levels of perceived parental psychological control contributed to increased anxiety; and higher self-esteem contributed to decreased anxiety. These results indicate the harmful effects of controlling parenting practices and also self-esteem's protective role in these adolescents' emotional well-being.

**Table 5**  
**Mediation of Self-esteem between Parental Psychological Control and Anxiety among Adolescents (N=320)**

Variables	$R^2$	B	SE	t	95% CI	
					LL	UL
Total effect	.67	.51***	.12	22.32	.47	.72
PPC----ANX (c)						
Direct effect	.57	.32***	.07	.23	.43	
PPC----RSES (a)						
RSES----ANX (b)						
PPC----ANX(c')						
Indirect effect	.57	.32***	.07	.23	.43	
PPC---RSES----ANX						

*Note.* PPCS= Parental Psychological Control Scale; ANX= Anxiety; RSES= Rosenberg Self-esteem Scale

The results from the mediation analysis in Table 5 examined self-esteem on the relationship between parental psychological control and anxiety in adolescents. Overall, we estimated a total effect of parental psychological control on anxiety. We estimated that parental psychological control has a statistically significant negative direct effect on self-esteem. Further, we found that self-esteem is a statistically significant predictor of less anxiety. Because self-esteem is in the directional pathway between parental psychological control and anxiety we discussed the self-esteem mediation pathway. After accounting for self-esteem, we found that parental psychological control has a statistically significant direct effect on anxiety which suggests partial mediation. Our indirect effect through self-esteem was also statistically significant, as indicated by the confidence interval which did not include zero. This study suggests that self-esteem serves as a partial mediator between parental psychological control and anxiety. More importantly, this mediation analysis illustrates the psychological pathway through which controlling parenting practices may influence adolescent emotional well-being.



**Fig 1: Mediation Model**

## Discussion

The present research has examined the effects that parental psychological control can have on adolescent anxiety, and investigated whether self-esteem works as a mediating mechanism. The results were consistent with our hypothesized relationships and provided some insight into how psychologically controlling parents can adversely affect adolescents' emotional well-being, especially evident in a collectivistic culture like Pakistan.

Our first hypothesis described a positive relationship with parental psychological control and anxiety that was confirmed through correlation and regression analysis. The positive correlation ( $r = .61$ ,  $p < .01$ ) suggests that adolescents who perceive their parents to be more psychologically controlling, also reported more anxiety. This is consistent with the literature that has emphasized that controlling parenting limits adolescents' autonomy, leading to increased emotional distressed and internalizing signs (Soenens & Vansteenkiste, 2010; Barber et al., 2005). Within Pakistan, parental authority is rooted deeply in family norms, suggesting that PY might be experienced more intensely and was perceived as more emotionally intrusive rather than protective, which may have amplified anxiety symptoms.

The second hypothesis, which proposed a negative relationship between parental psychological control and self-esteem, was also confirmed. The results revealed a significant negative correlation ( $r = -.45$ ,  $p < .01$ ) as well as a strong negative direct path in the mediation model, indicating that adolescents who perceived high levels of psychological control reported lower self-esteem. This finding is consistent with previous research indicating that psychological control negatively impacts adolescents' ability to form a stable and positive sense of self (Inguglia et al., 2015; Soenens et al., 2008). Adolescents who are being controlled by their parents may internalize negative and/or guilt-inducing messages, leading to reduced self-worth and potentially emotional dysregulation.

The third hypothesis predicted that parental psychological control and self-esteem would significantly predict adolescent anxiety, and multiple regression confirmed this hypothesis. Parental psychological control was a significant, positive predictor ( $\beta = .54$ ,  $p < .001$ ) of anxiety, whereas self-esteem was a significant, negative predictor of anxiety ( $\beta = -.37$ ,  $p < .001$ ). These results are consistent with previous research indicating that parental psychological control functions as a risk factor and self-esteem acts as a protective factor for anxiety (Besharat et al., 2022; Wang et al., 2020). For example, adolescents with low self-esteem may struggle to cope with stressors in their life, especially stressors related to parental expectations or criticism, and result in higher levels of anxiety.

The fourth hypothesis was also supported, with self-esteem found to be a significant partial mediator between parental psychological control and anxiety. The mediation analysis indicated a significant indirect effect, ( $B = .32$ ,  $CI [.23, .43]$ ) and significant a direct effect of ( $B = .42$ ). This indicated that while psychological control does have a direct effect on anxiety, it also has an indirect effect on anxiety through its impact on self-esteem. These findings are consistent with Self-Determination Theory (SDT), which posits that psychological need thwarting (e.g., autonomy and competence) undermines intrinsic motivation and well-being (Ryan & Deci, 2000). In regards to self-esteem in the model, it represents a psychological resource that is depleted under controlling parenting, raising levels of anxiety subsequently. Furthermore, Social Comparison Theory (Festinger, 1954) may partly with the explanation of how adolescents under psychological control are more reliant on socially comparing or receiving validation externally, which decreases self-esteem and increases anxiety.

These findings are particularly pertinent to South Asian societies, where the family structure and interdependence is a vital and important aspect of identity development. Parental influence is often viewed positively culturally, however, the damaging effects of psychological control can potentially lead to blurred lines between guidance and

manipulation with unintended emotional consequences for youth. These findings highlight the importance of creating parenting interventions that promote autonomy-supportive behaviors, while still being culturally sensitive.

Overall, the study illustrates the bidirectional nature of parenting and self-views in adolescent emotional well-being. The present findings and study provide further contribution to literature that highlights the psychological routes to how parenting behaviors shape youth development. We recommend future studies to follow longitudinal paths and examine the potential for gender and culture as moderators to understanding the ways in which these paths change depending on the context.

## **Conclusion**

The findings of this mediation analysis provide important evidence that self-esteem plays an important role in understanding how the parental psychological control contributes to anxiety in adolescents. While controlling parenting styles directly contribute to anxiety, a significant amount of the relationship operates indirectly through self-esteem. This suggests that adolescents who perceive their parent(s) as psychologically controlling may develop cognitive distortions about their self, which makes them more likely to experience anxiety. These results emphasize the importance of developing positive parent-child relationships, along with shaping positive self-esteem, as a protective factor in reducing emotional distress in adolescence. In practice, reducing the level of psychological control in parents and supporting adolescents to build their self-worth may be impactful interventions to reduce anxiety in adolescents.

## **Recommendations**

Future research should employ longitudinal designs to capture the dynamic interaction between parental psychological control, self-esteem, and anxiety over time. This approach would help in identifying developmental trajectories and causal pathways, thereby enhancing understanding of how early parenting practices shape psychological outcomes in adolescence. Additionally, exploring other potential mediating and moderating variables, such as coping mechanisms, peer relationships, and perceived social support, can offer a more comprehensive model of adolescent emotional functioning. Experimental designs could be utilized to evaluate the effectiveness of structured interventions aimed at reducing psychologically controlling parenting behaviors and enhancing adolescent self-esteem. Such interventions may help lower anxiety symptoms and promote emotional resilience. Lastly, incorporating cross-cultural comparisons would help identify culturally specific parenting norms and their influence on adolescents' self-concept. This can inform the development of culturally sensitive preventive and therapeutic strategies tailored to the unique needs of different sociocultural groups.

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