

Parenting Styles On Adolescent Psychosomatic Disorder: A Meta Analysis

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ABSTRACT

Background: Adolescence is a critical developmental stage marked by rapid physical, emotional, and psychological changes, making individuals particularly vulnerable to psychosomatic disorders. While parenting styles are known to influence adolescent mental health, their specific relationship with psychosomatic symptoms remains underexplored. This study aimed to systematically examine the association between authoritative and neglectful parenting styles and psychosomatic issues in adolescents through a meta-analytic approach.

Methods : A meta-analysis was conducted using six peer-reviewed empirical studies published between 2016 and 2022. Data were analyzed using Jamovi software, employing a random-effects model to account for study variability. The standardized mean difference (SMD) was used to quantify the effect size, and heterogeneity across studies was assessed using the I^2 statistic.

Results: Findings revealed that authoritative parenting was significantly associated with a reduction in psychosomatic symptoms such as headaches, fatigue, sleep disturbances, and gastrointestinal problems. In contrast, neglectful parenting showed a positive correlation with increased psychosomatic complaints among adolescents. Substantial heterogeneity was observed ($I^2 = 90.02\%$), but no publication bias was detected.

Conclusion: The results highlight the protective role of authoritative parenting in reducing psychosomatic problems during adolescence. These findings emphasize the importance of promoting emotionally supportive and structured parenting practices in mental health interventions and policy formulation to enhance adolescent psychosomatic well-being

KEYWORDS: Authoritative parenting, Neglectful Parenting, Adolescents, Psychosomatic Disorders, Parenting Styles..

INTRODUCTION

Adolescence is a pivotal phase of human growth and development, during which an individual transitions from childhood to adulthood due to transformations in physical, cognitive, and social-emotional domains (Haghshenas et al., 2024) (Shajari & Hejazi, 2019). This transitional phase from childhood to adulthood is characterized by the emergence of independent thought and action, the onset of puberty, and the assumption of new roles and responsibilities. (Hashemi, T., Badri, R. & Esmailpour, 2018) Consequently, this phase significantly influences an individual's well-being throughout later life stages. From a psychological perspective, it signifies a crucial opportunity for recognizing, rebuilding, and improving numerous facets of personal growth. Psychological characteristics and possible mental health issues—such as anxiety—can profoundly affect teenagers' general well-being and adaptation.

Psychosomatic disorders, in particular, are increasingly prevalent during adolescence, especially among females and older age groups (Högberg et al., 2020) (Corell et al., 2022). They often include various subjective psychological and physical health issues, such as headaches, stomachaches, and insomnia. This category of symptoms is symptomatic of stress and is often seen as a sign of the wider idea of "mental health issues." Psychosomatic disorders are acknowledged as a public health issue in several nations (Inchley et al., 2020).

Among the psychological factors contributing to adolescent mental health, anxiety stands out as a particularly influential condition. Adolescence is often a difficult phase characterized by significant physical and cognitive transformations linked with puberty, during which teenagers encounter several pressures that may result in physical and mental issues, including anxiety disorders. Anxiety disorders are the most prevalent condition among teenagers, impacting over 7% of this population globally (Madasu et al., 2019) (Karande et al., 2018). A substantial correlation exists between early anxiety disorders and the likelihood of developing anxiety and depressive disorders in adulthood, as well as dependence on alcohol, nicotine, and drugs, and educational deficits, which contribute to prolonged suffering and elevated healthcare costs (van Starrenburg et al., 2017). Consequently, to avert the manifestation of this condition and its adverse effects in both infancy and adulthood, screenings and primary preventative measures are essential (Fernando et al., 2018).

The parenting style is a significant social determinant of adolescent's mental health. It includes the attitudes and behaviors shown by parents in their relationships with children, which have enduring consequences on psychological development. Multiple approaches have been proposed to assess parenting styles. Maccoby and Martin's approach, derived on Baumrind's foundational work, delineates parenting styles presented in 1970. Parenting was categorized into four styles according to responsiveness and demandingness. The four parenting styles are authoritative, authoritarian, permissive, and uninvolved. Authoritative parents exhibit high levels of warmth and maintain tight control. They advocate for children's autonomy while also monitoring and regulating their conduct. (Eun et al., 2018) (Arman et al., 2018) Children with authoritarian parents exhibit consistent happiness, self-regulation, conformity, and a relaxed orientation towards accomplishment. Authoritarian parents are characterized by inflexibility, harshness, and an expectation of unquestioned compliance from their children. They maintain rigorous standards and discourage manifestations of dissent. Permissive parents exhibit warmth but impose few expectations on their children. Consequently, they provide their children with contradictory or unclear guidance. The uninvolved parenting style is reported to have the greatest detrimental effect on adolescent outcomes compared to the other three parenting styles. Parents lacking participation often neglect to oversee or regulate their children's behavior and do not promote or support their children's self-regulation. (Benchaya et al., 2019) (Aldhafri et al., 2020) The uninvolved parenting style is characterized by minimal responsiveness and low demand.

Parenting Practices and Adolescent Health

In addition, general parenting approaches, particular parenting practices significantly impact teenage mental health outcomes. Among these, parental support serves as one of the most crucial parenting practices and an independently important source of social support throughout adolescence. Parental support has consistently been associated with better adolescent adjustment and fewer mental health problems, including psychosomatic complaints (Kjellström et al., 2017). Conversely, lower levels of perceived parental support and a lack of parental warmth have been linked to higher levels of mental health problems (Ramberg, 2021). Furthermore, despite the decline in parental support that can occur with age, it has been consistently demonstrated as a significant source of support relevant to mental health throughout adolescence. Moreover, parental support can compensate for low support from other sources (Lyell et al., 2020). Additionally, while certain parenting practices may have varying effects across cultures on adolescent mental health outcomes, the influence of parental support tends to be culturally universal (Sainz et al., 2019). Another important parenting practice associated with adolescent health is parental knowledge. Parental knowledge is commonly assessed by measuring parents' awareness of their child's whereabouts, activities and friends. Some prior research interpreted these findings as a positive effect of parental control and monitoring on youth outcomes, while others showed consistent evidence that parental knowledge is more likely to reflect voluntary youth disclosure (Kerr et al., 2010) and can, therefore, be indicative of the quality of the parent-adolescent relationship and better adolescent adjustment in general. Parental knowledge generally tends to decrease as adolescents grow older (Lippold et al., 2016), and while some studies reported consistent associations between parental knowledge and adolescent mental health problems across the high school years, other research demonstrated that parental knowledge was inversely related to health complaints for younger but not older adolescents. Furthermore, the effect of different sources of parental knowledge can vary across cultures [31]. Parental rule-setting stands as another significant parenting practice promoting adolescent development. While the protective function of parental support is widely documented, the impact of rule-setting on adolescent mental health seems to be more subtle and perhaps culture-specific (Chen et al., 2016). Some studies show that it has a favorable influence on behavioral control, although its efficacy may vary depending on how regulations are communicated and implemented.

The quality of parent-adolescent interactions is crucial for healthy development and is substantially correlated with both short- and long-term physical and mental health outcomes (Huang et al., 2022) (Griesler et al., 2021). Prior studies indicate that adolescents with subpar parent-adolescent connections are more likely to encounter psychosomatic issues (Winding & Andersen, 2019). However, a Lancet commission on adolescent health and wellbeing has underscored that, despite the crucial role of families and parents in the lives of most adolescents, "the scarcity of rigorous research regarding family influences on adolescent health and wellbeing is a notable knowledge gap (Patton et al., 2016). Although the significance of family support is recognized, comprehensive study on this subject is still scarce.

The remaining sections are organized as follows: Section 2 provides an overview of existing work on this study. Section 3 elaborates on the research methodology. Section 4 details the data analysis and discussion also presented. In the end, Section

5 provides a conclusion.

REVIEW OF LITERATURE

In this part, we explore the existing body of research on the Parenting Styles on Adolescent Psychosomatic Disorder. The findings and insights from prior studies are synthesized and presented, effectively encapsulating the identified research gaps.

(Philippova et al., 2023) found that somatic factors play a significant role in psychosomatic health disorders in children and adolescents during their early stages of mental development. The research involved 1000 children aged 13-18, with 54% of cases exhibiting psychosomatic pathologies, with 63% being female. The findings could help understand the role of somatization factors in these disorders and emphasize the need for improved prevention methods.

(Leung & Shek, 2020) explained that parental behavioral and psychological control significantly impact adolescent wellbeing. Paternal behavioral control had a stronger impact on life satisfaction when paternal psychological control was higher. Maternal behavioral control was stronger for boys but negatively related to life satisfaction for girls. Both paternal and maternal psychological control moderated the relationship between paternal behavioral control and adolescent hopelessness.

A study by (Bülow et al., 2022) derived that adolescent well-being can be improved by providing warmth and autonomy from parents. The research followed 159 Dutch parent-adolescent dyads for over three months, finding positive effects of these factors in 91-98% of families. The effects varied in strength but were universal in direction. Adolescents who benefited most from need-supportive parenting had higher sensitivity to environmental influences.

(Gorostiaga et al., 2019) reviewed the relationship between parental socialization styles and depression, anxiety, and suicidal ideation among adolescents found that parental warmth, behavioral control, and autonomy inversely affect internalizing symptoms, while psychological control and harsh control positively affect anxiety, depression, and suicidal ideation. The findings suggest considering these variables when designing programs for promoting healthy parenting styles.

(Bi et al., 2018) investigated the relationship between parenting styles and parent-adolescent relationship factors in mainland China. Results show similar levels of conflict frequency for all parenting styles, but neglectful and authoritarian parents reported higher conflict intensity. Adolescents' expectations for behavioral autonomy mediated the links between parenting style and conflict, while beliefs about parental authority mediated the links between parenting style and cohesion.

(Keijser et al., 2020) explored the impact of parenting styles and parental depression on depressive symptoms in adolescents. Results show that positive parenting styles (Warmth, Structure, Autonomy support) reduce depressive symptoms, while negative parenting styles (Rejection, Chaos, Coercion) and parental depression increase them. The effect is stronger among females. A positive parenting style at 16-18 years is associated with less depressive symptoms at 19-21 years.

(Bibi et al., 2022) examined the impact of parenting styles on psychological flexibility in Pakistani adolescents aged 12-18. Results showed that parenting styles positively correlate with psychological flexibility, and significantly predict it. No gender differences were found, highlighting the importance of parenting styles and psychological flexibility in adolescents' mental health.

(Pal et al., 2016) investigated the perceived parenting styles and their association with stress among adolescents in rural Karnataka, South India. The results showed that authoritarian parenting style was the most prevalent, followed by authoritative style. Boys and girls reported permissive parenting styles, while substance use did not change parenting styles. Permissive parenting styles were associated with higher stress levels, while authoritative parenting styles were associated with higher stress levels. The study highlighted the importance of parental involvement in shaping children's behavior and stress levels.

(Kaushik & Sundaresan, 2024) investigated the relationship between parenting styles and adolescent behavioral characteristics. With 30 participants from India, data was collected using Beck's Youth Inventory and Parenting Styles and Dimensions Questionnaire. Results showed that authoritative, authoritarian, and permissive parenting styles did not significantly affect self-concept, anxiety, depression, anger, or disruptive behavior in adolescents. Girls reported more somatic complaints than boys, and gender differences varied significantly. Mothers' psychological control negatively affected body complaints, while anxious monitoring negatively affected the child's health. Paternal support and psychological control contributed to lower somatic complaints. The study highlighted the different roles of fathers and mothers in adolescents' health (Seiffge-Krenke et al., 2021).

(Sobhani et al., 2024) analyzed the resilience of patients with psychosomatic disorders based on parenting styles and coping strategies. The study included 347 women aged 18-55. Results showed that parenting styles (dependency, preoccupied/untransformed self) negatively impacted resilience. Coping strategies focused on emotion and physical restraint negatively affected resilience. However, problem-solving and cognitive evaluation strategies positively impacted resilience. The study suggested that enhancing childhood conditions, improving parent-child relationships, and strengthening coping strategies can prevent psychosomatic disorders.

(Vafaenejad et al., 2018) discussed parenting styles are strategies used by parents to control their children's behaviors, influenced by socio-economic, cultural, and psychological factors. A systematic review of 416 articles found that factors related to parents include mental status, self-efficacy, parenting stress, perfectionism, personality traits, childhood trauma, marital satisfaction, attachment style, perceived parenting style, and substance abuse. Factors related to children include child developmental and mental disability, temperament, and anxiety.

(Shibata et al., 2020) examined the link between parenting style and chronic pain in patients, comparing high and low care and overprotection parenting styles. Results show that adverse parenting styles are more common among chronic pain patients, with low care and high overprotection being the most common. This suggested that parental low care and overprotection during childhood contribute to the risk of chronic pain and the need for psychosomatic treatment in adulthood.

(O'Neill et al., 2019) Supportive parenting helps protect against psychosomatic distress in children, with self-esteem partially mediated by relationship quality. A large Canadian sample found that self-esteem partially mediated these associations, accounting for more variance among younger children. Older children had a smaller effect, but the direct effect of parent-child relationship on psychosomatic problems was larger.

(Shaydukova, 2024) reviewed the history of studying these disorders, modern concepts, and their features in childhood and adolescence. It highlights the similarities with neurotic disorders and the community of family relationships through "neurotic" and "somatic" symptoms. Identifying somatoform disorders' mechanisms in childhood and adolescence contributes to the increase in "frequently ill children."

(Bulut et al., 2023) investigated the experiences of adolescents with psychosomatic disorders, focusing on their challenges and coping strategies. Through semi-structured interviews with 35 adolescents, the study identified two main themes: "Challenges" and "Coping Strategies." Challenges include stigma, isolation, peer misunderstanding, academic pressure, emotional distress, and communication barriers. Coping strategies include seeking professional help, social support, personal coping mechanisms, educational adjustments, advocacy, self-understanding, resource utilization, and building a supportive environment. The study emphasized the need for holistic support systems and tailored interventions for this unique population.

A study conducted by (Buli et al., 2024) analyzed the relationship between psychosomatic symptoms (PSS) and lifestyle factors in Sweden. It surveyed 9,196 15-year-olds using the Health Behavior in School-aged Children (HBSC) symptom checklist. The results showed a generally increasing trend in PSS mean scores from 2002 to 2018, with significant changes in each survey year compared to the preceding years. Regular breakfast intake, daily fruit and vegetable consumption, and higher PA were associated with lower PSS mean scores, while smoking and drunkenness had opposite associations. The only significant interaction between survey year and lifestyle factors was observed regarding drunkenness in the high FAS group.

(Grigorian et al., 2023) showed that parental support and knowledge decrease psychosomatic complaints, while support and knowledge at 15-16 years are not. The study emphasizes the importance of ongoing parental engagement.

Research Gap

Despite comprehensive research on parenting styles and adolescent mental health, significant gaps persist in comprehending their particular effects on psychosomatic diseases. Although many studies have investigated the impact of parenting on overall psychological outcomes such as anxiety, depression, and life satisfaction, fewer have concentrated on the direct correlation between parenting methods and psychosomatic symptoms, including headaches, stomachaches, and exhaustion. Additionally, the majority of research has been undertaken within Western cultural frameworks, resulting in a deficiency of region-specific data, especially from nations such as India, where parental methodologies and teenage experiences vary considerably. While parental support and understanding have consistently correlated with improved teenage adjustment, their longitudinal impacts and variations across various periods of adolescence remain little researched. Moreover, discrepancies are seen in the studies about the impact of authoritative and permissive parenting on teenage stress and psychosomatic results. The interplay of parenting techniques with factors like as gender, resilience, coping mechanisms, and cultural norms is yet little examined. These limitations highlight the need for thorough, culturally attuned, and longitudinal research to comprehensively grasp the intricate relationship between parenting approaches and adolescent psychosomatic diseases.

METHODOLOGY

Research Design

This research used a meta-analysis to systematically investigate the influence of parenting styles—on psychosomatic diseases in adolescents. Meta-analysis is a statistical method that synthesizes information from several independent studies to provide a comprehensive understanding of overall impact effect of parenting styles on adolescent psychosomatic symptoms, including headaches, fatigue, sleep disturbances, and gastrointestinal problems. This method improves statistical power and the applicability of results across various demographics and cultural situations by combining varied data sources. The primary focus of this study on authoritative and neglectful parenting to elucidate the psychological effects of both parenting styles on adolescents.

Search Criteria

This study obtained pertinent research papers published from 2016 to 2022 from three online databases: Scopus, Web of Science, and Science Direct. Only original articles were included in the search parameters that were published exclusively in the English language. The search terms employed to find pertinent research were (“parenting style” AND “adolescents” AND “psychosomatic symptoms”) OR (“authoritative parenting” AND “psychosomatic disorders”) OR (“neglectful parenting” AND “mental health”) OR (“parenting style” AND “psychosomatic complaints” AND “teenagers”) OR (“parent-child relationship” AND “somatic symptoms” AND “adolescents”) OR (“authoritative parenting” AND “stress” AND “psychosomatic”) OR (“neglectful parenting” AND (“headaches” OR “sleep problems” OR “fatigue”) AND “adolescents”).

Criteria for Inclusion and Exclusion

Inclusion criteria

Studies published in peer-reviewed journals or prominent academic magazines.

Research examining the influence of parenting styles, particularly authoritarian and neglectful, on psychosomatic symptoms in adolescents.

Research focusing on teens between the ages of 12 and 18 years as the primary demographic.

Research that offers quantitative data, including means, standard deviations, and sample sizes, enough for meta-analytical synthesis.

Research providing a definitive operational description and assessment of parenting styles and psychosomatic symptoms using standardized instruments or questionnaires.

Empirical study undertaken in many cultural and geographical settings.

Articles created and disseminated in the English language.

Research conducted from 2016 to 2022, maintaining relevance to current scholarly trends and adolescent developmental frameworks.

Exclusion criteria

Research that fails to explicitly identify or quantify parenting methods or psychosomatic symptoms.

Research focused on non-adolescent demographics (e.g., children under 12 or adults).

Research examining parenting in non-psychosomatic situations (e.g., academic achievement, behavior, drug use) without direct association with psychosomatic health.

Articles devoid of the statistical data necessary for effect size computation or comparison analysis.

Theoretical articles, reviews, editorials, or conceptual frameworks without empirical evidence.

Research disseminated in languages other than English.

Research published before 2016, to ensure consistency with contemporary developments in teenage mental health and parenting research.

Research from non-peer-reviewed sources, like blogs, periodicals, or unpublished theses.

Data Extraction

The major findings were gathered from each qualifying research through a standardized process. The retrieved data included the authors' names, publication year, sample size for each parenting group, averages and standard deviations of psychosomatic symptom ratings, and the instruments used to evaluate parenting styles and psychosomatic symptoms. This procedure guaranteed uniformity and comparability among all included studies. Data extraction was performed meticulously to prevent mistakes and omissions, with any ambiguities addressed by discussion or consultation with supplementary sources as needed.

Data Synthesis

For data synthesis, the meta-analysis was conducted using Jamovi statistical software, applying a random-effects model to address heterogeneity across the studies. The impact size was determined using the standardized mean difference (SMD), facilitating comparisons across studies using various scales. The analysis yielded a summary estimate of the total effect size, accompanied with a 95% confidence range to evaluate its statistical significance. Heterogeneity metrics, including the Q-statistic, I^2 , and tau-squared (τ^2), were used to assess the variety across research results. A prediction interval was calculated to determine the range in which future investigations may occur. Diagnostic tests were conducted to evaluate the robustness of the data by identifying probable outliers using studentized residuals and detecting important studies through Cook's

distance values. Additionally, assessments for publication bias—including Egger’s regression test, Begg and Mazumdar’s rank correlation test, and Rosenthal’s Fail-Safe N—were performed to confirm that the findings were not disproportionately affected by selective reporting of favorable results.

RESULTS

Introduction

The results of the present study, aimed at examining the impact of parenting styles on adolescent psychosomatic disorders, are presented in this section. Statistical analyses were conducted using Jamovi, a user-friendly statistical software designed for behavioral and social sciences research. The data were carefully coded and subjected to appropriate statistical tests to explore patterns, relationships, and differences among key variables, including various parenting styles and reported psychosomatic symptoms in adolescents. The outcomes of these analyses provide insights into the nature and strength of associations between parenting approaches and the psychosomatic well-being of adolescents.

Table 1 Data For analysis

Study	Parenting style	Mean	std Dev	Sample	Parenting style	Mean	std Dev	Sample
(Aniemeka et al., 2021)	Authoritative	17.25	4.046	516	Neglectful	14.08	4.623	326
(Romero-Acosta et al., 2021)	Authoritative	6.29	4.39	274	Neglectful	7.16	4.45	270
(Rafiee & Chehrei, 2016)	Authoritative	45.44	15.99	49	Neglectful	41.65	17.21	43
(Aaron & Oliver, 2022)	Authoritative	1.7778	0.83977	99	Neglectful	1.4071	0.71788	99
(Romero-Acosta et al., 2021)	Authoritative	10.43	4.33	86	Neglectful	10.08	4	270

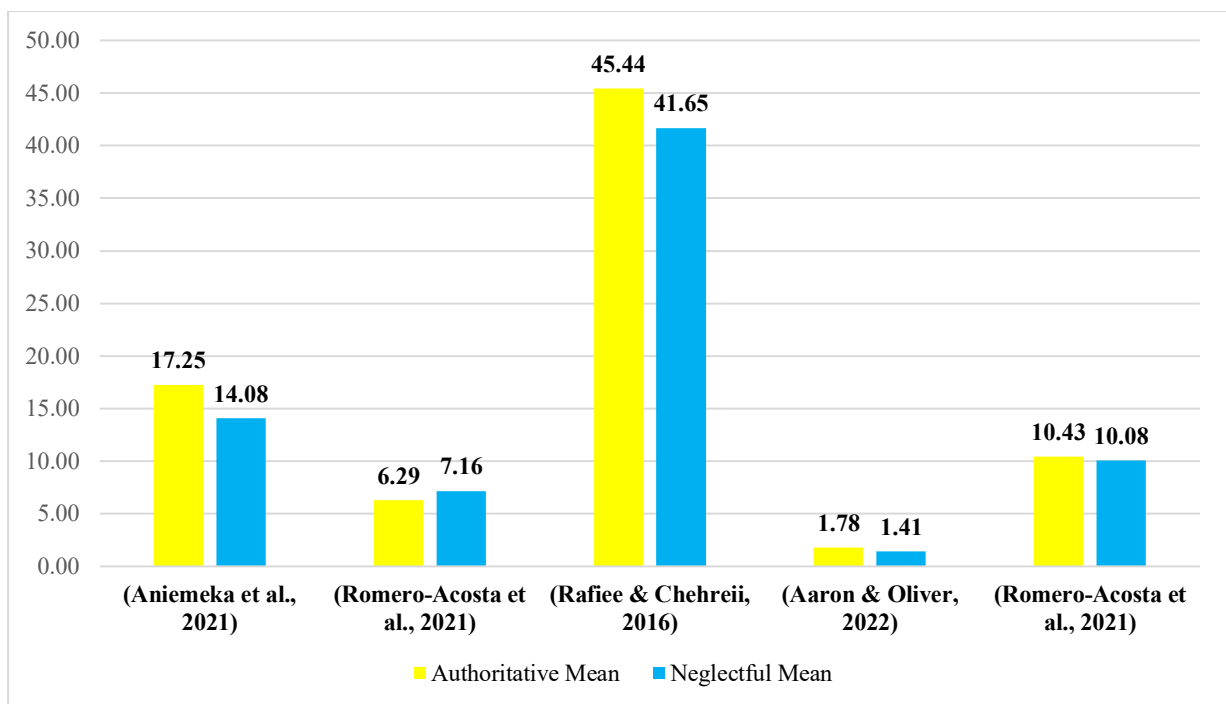


Figure 1 psychosomatic disorders

Mean Differences (n, M, SD)

Table 2 Mean differences

Random-Effects Model (k = 6)							
	Estimate	se	Z	p	CI Lower Bound	CI Upper Bound	
Intercept	0.33	0.159	2.08	0.038	0.019	0.64	

Note. Tau ² Estimator: Restricted Maximum-Likelihood							
Heterogeneity Statistics							
Tau	Tau ²	I ²	H ²	R ²	df	Q	p
0.359	0.1287 (SE= 0.0952)	90.02%	10.016	.	5	77.04	< .001

The analysis was carried out using the standardized mean difference as the outcome measure. A random-effects model was fitted to the data. The amount of heterogeneity (i.e., tau²), was estimated using the restricted maximum-likelihood estimator (Viechtbauer 2005). In addition to the estimate of tau², the Q-test for heterogeneity (Cochran 1954) and the I² statistic are reported. In case any amount of heterogeneity is detected (i.e., tau² > 0, regardless of the results of the Q-test), a prediction interval for the true outcomes is also provided. Studentized residuals and Cook's distances are used to examine whether studies may be outliers and/or influential in the context of the model. Studies with a studentized residual larger than the 100 x (1 - 0.05/ (2 X k)) th percentile of a standard normal distribution are considered potential outliers (i.e., using a Bonferroni correction with two-sided alpha = 0.05 for k studies included in the meta-analysis). Studies with a Cook's distance larger than the median plus six times the interquartile range of the Cook's distances are considered to be influential. The rank correlation test and the regression test, using the standard error of the observed outcomes as predictor, are used to check for funnel plot asymmetry.

A total of k=6 studies were included in the analysis. The observed standardized mean differences ranged from -0.1966 to 0.7403, with the majority of estimates being positive (83%). The estimated average standardized mean difference based on the random-effects model was $\hat{\mu} = 0.3295$ (95% CI: 0.0187 to 0.6404). Therefore, the average outcome differed significantly from zero (z = 2.0778, p = 0.0377). According to the Q-test, the true outcomes appear to be heterogeneous (Q(5) = 77.0404, p < 0.0001, tau² = 0.1287, I² = 90.0163%). A 95% prediction interval for the true outcomes is given by -0.4391 to 1.0982. Hence, although the average outcome is estimated to be positive, in some studies the true outcome may in fact be negative. An examination of the studentized residuals revealed that none of the studies had a value larger than ± 2.6383 and hence there was no indication of outliers in the context of this model. According to the Cook's distances, none of the studies could be considered to be overly influential. Neither the rank correlation nor the regression test indicated any funnel plot asymmetry (p = 0.7194 and p = 0.6266, respectively).

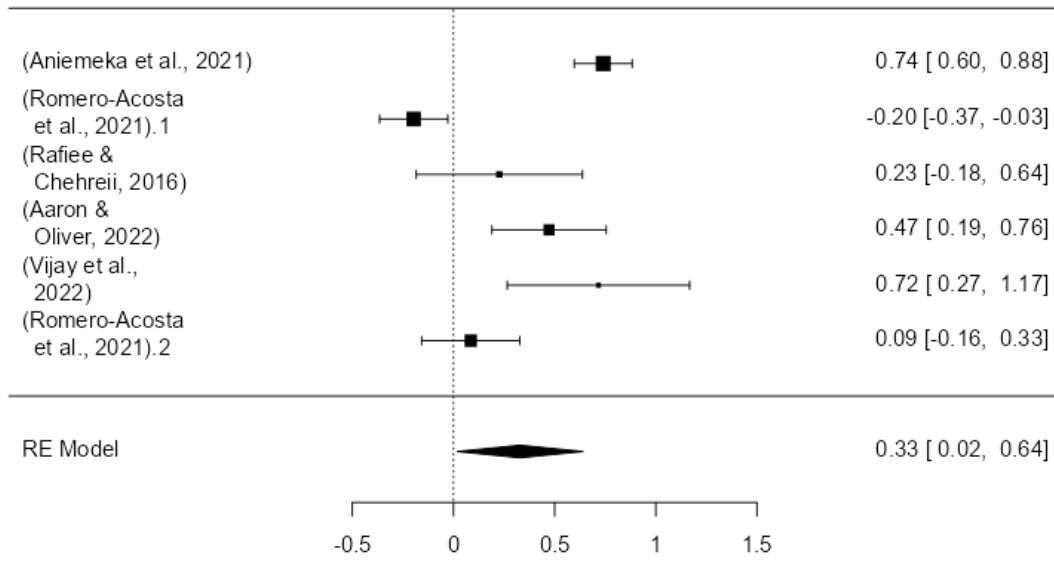


Figure 2 Forest Plot

Table 3 Publication Bias Assessment

Publication Bias Assessment		
Test Name	value	p
Fail-Safe N	89	< .001
Begg and Mazumdar Rank Correlation	0.2	0.719
Egger's Regression	0.487	0.627
Trim and Fill Number of Studies	0	.
Note. Fail-safe N Calculation Using the Rosenthal Approach		

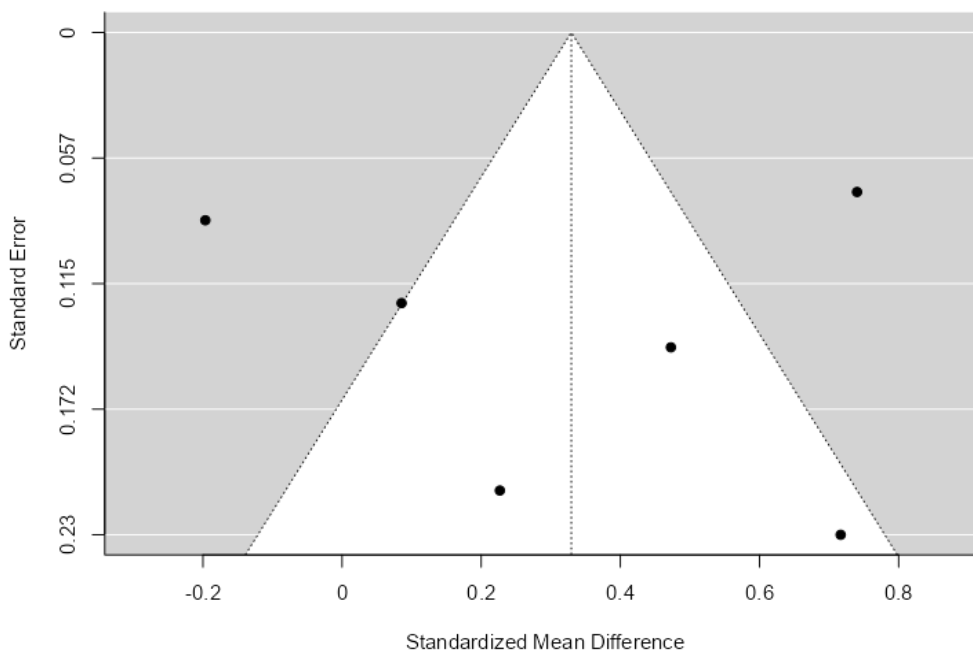


Figure 3 Funnel Plot

DISCUSSION

The findings from the comparative meta-analysis of parenting styles indicate that authoritative parenting consistently correlates with more favorable outcomes in adolescent psychosomatic well-being when compared to neglectful parenting. Studies included in the analysis reflect a pattern where adolescents exposed to authoritative parenting report fewer psychosomatic symptoms such as headaches, sleep disturbances, and emotional distress. This may be attributed to the balanced nature of authoritative parenting, which combines warmth and structure, promoting emotional security and adaptive coping strategies in adolescents. In contrast, neglectful parenting, characterized by emotional disengagement and a lack of responsiveness, appears to contribute to higher psychosomatic distress. The consistency of this trend across diverse studies highlights the critical role of parental involvement and emotional support in mitigating the development of psychosomatic issues during adolescence. These results reinforce the importance of promoting supportive parenting practices as a protective factor for adolescent mental and physical health.

CONCLUSION

This meta-analysis explored the influence of parenting styles—specifically authoritative and neglectful—on adolescent psychosomatic disorders. Drawing on six empirical studies, the results consistently favoured authoritative parenting, suggesting a beneficial association with reduced psychosomatic symptoms in adolescents. The standardized mean differences reported across the studies ranged from -0.1966 to 0.7403, with 83% of them indicating a positive effect of authoritative parenting.

The overall estimate from the random-effects model was statistically significant, with a mean difference of 0.33 (SE = 0.159, $p = 0.038$), and the 95% confidence interval ranging from 0.019 to 0.64. This indicates that, on average, adolescents raised with authoritative parenting exhibit notably fewer psychosomatic issues compared to those under neglectful parenting. However, the prediction interval (-0.4391 to 1.0982) suggests that the effect may vary across contexts, with some studies showing weaker or even negative effects.

A high degree of heterogeneity was observed ($I^2 = 90.02\%$, $Q(5) = 77.04$, $p < 0.001$), indicating substantial variability among study results. Despite this, no influential outliers were identified, and publication bias tests (e.g., Egger's test $p = 0.627$; Begg and Mazumdar's test $p = 0.719$) suggested no significant bias in the selection of studies.

In summary, this analysis supports the view that authoritative parenting is more effective in promoting adolescent psychosomatic well-being than neglectful parenting. The statistically significant positive effect, even amid high heterogeneity, highlights the critical importance of emotionally responsive and structured parenting in reducing psychosomatic disorders among adolescents.

STATEMENTS

Statement of Informed Consent: Not Applicable

Ethical approval: Ethical approval was not required for this study

Statement Regarding the welfare and animals: Not Applicable

Data Transparency Statement

This study offers a meta-analysis based exclusively on previously published, peer-reviewed studies. No primary data were collected. The analyzed data have not been previously published or are under consideration elsewhere by the authors. The manuscript investigates the association between parenting styles and psychosomatic symptoms in adolescents. All procedures for study selection, data extraction, and statistical analysis are delineated with sufficient detail to enable replication.

REFERENCES

1. Aaron, N., & Oliver, J. (2022). A Longitudinal study of the association between parenting styles and adolescent mental health outcomes. *Revista de Psiquiatria Clinica*, 8. <https://doi.org/10.15761/0101-60830000000504>
2. Aldhafri, S. S., Alrajhi, M. N., Alkharusi, H. A., Al-Harthy, I. S., Al-Barashdi, H. S., & Alhadabi, A. S. (2020). Parenting styles and academic self-efficacy beliefs of Omani school and university students. *Education Sciences*, 10(9), 229.
3. Aniemeka, O. O., Akinnawo, E. O., Akintola, A. A., Akpunne, B. C., Kumuyi, D. O., & Onisile, D. F. (2021). Parenting Styles as Determinants of Psychopathological Symptoms among Nigerian In-School Adolescents. *Psychology*, 12(06), 959–975. <https://doi.org/10.4236/psych.2021.126058>
4. Arman, S., Salimi, H., & Maracy, M. R. (2018). Parenting styles and psychiatric disorders in children of bipolar parents. *Advanced Biomedical Research*, 7(1), 147.
5. Benchaya, M. C., Moreira, T. de C., Constant, H. M. R. M., Pereira, N. M., Freese, L., Ferigolo, M., & Barros, H. M. T. (2019). Role of parenting styles in adolescent substance use cessation: Results from a Brazilian prospective study.

- International Journal of Environmental Research and Public Health, 16(18), 3432.
6. Bi, X., Yang, Y., Li, H., Wang, M., Zhang, W., & Deater-Deckard, K. (2018). Parenting styles and parent-adolescent relationships: The mediating roles of behavioral autonomy and parental authority. *Frontiers in Psychology*, 9(NOV), 1–13. <https://doi.org/10.3389/fpsyg.2018.02187>
 7. Bibi, A., Hayat, R., Hayat, N., Zulfiqar, S., Shafique, N., & Khalid, M. A. (2022). Impact of Parenting Styles on Psychological Flexibility Among Adolescents of Pakistan: A Cross-Sectional Study. *Child and Adolescent Social Work Journal*, 39(3), 313–322. <https://doi.org/10.1007/s10560-021-00754-z>
 8. Buli, B. G., Lehtinen-Jacks, S., Larm, P., Nilsson, K. W., Hellström-Olsson, C., & Giannotta, F. (2024). Trends in psychosomatic symptoms among adolescents and the role of lifestyle factors. *BMC Public Health*, 24(1), 1–11. <https://doi.org/10.1186/s12889-024-18327-x>
 9. Bülow, A., Neubauer, A. B., Soenens, B., Boele, S., Denissen, J. J. A., & Keijsers, L. (2022). Universal ingredients to parenting teens: Parental warmth and autonomy support promote adolescent well-being in most families. *Scientific Reports*, 12(1), 16836.
 10. Bulut, S., Bukhori, B., & Hassan Bhat, R. (2023). The Experience of Psychosomatic Disorders among Adolescents: Challenges and Coping Strategies. *Journal of Personality and Psychosomatic Research*, 2(2), 19–25. <https://doi.org/10.61838/kman.jpjr.2.2.4>
 11. Chen, B., Soenens, B., Vansteenkiste, M., Van Petegem, S., & Beyers, W. (2016). Where do the cultural differences in dynamics of controlling parenting lie? Adolescents as active agents in the perception of and coping with parental behavior. *Psychologica Belgica*, 56(3), 169.
 12. Corell, M., Friberg, P., Löfstedt, P., Petzold, M., & Chen, Y. (2022). Subjective health complaints in early adolescence reflect stress: a study among adolescents in Western Sweden. *Scandinavian Journal of Public Health*, 50(4), 516–523.
 13. Eun, J. D., Paksarian, D., He, J.-P., & Merikangas, K. R. (2018). Parenting style and mental disorders in a nationally representative sample of US adolescents. *Social Psychiatry and Psychiatric Epidemiology*, 53, 11–20.
 14. Fernando, L. M. N., Sim, W. H., Jorm, A. F., Rapee, R., Lawrence, K. A., & Yap, M. B. H. (2018). Parenting Resilient Kids (PaRK), an online parenting program to prevent anxiety and depression problems in primary school-aged children: Study protocol for a randomised controlled trial. *Trials*, 19, 1–12.
 15. Gorostiaga, A., Aliri, J., Balluerka, N., & Lameirinhas, J. (2019). Parenting styles and internalizing symptoms in adolescence: A systematic literature review. *International Journal of Environmental Research and Public Health*, 16(17), 3192.
 16. Griesler, P. C., Hu, M.-C., Wall, M. M., & Kandel, D. B. (2021). Assessment of prescription opioid medical use and misuse among parents and their adolescent offspring in the US. *JAMA Network Open*, 4(1), e2031073–e2031073.
 17. Grigorian, K., Östberg, V., Raninen, J., & Låftman, S. B. (2023). Parenting Practices and Psychosomatic Complaints Among Swedish Adolescents. *International Journal of Public Health*, 68(December). <https://doi.org/10.3389/ijph.2023.1606580>
 18. Haghshenas, R., Fereidooni-Moghadam, M., & Ghazavi, Z. (2024). The relationship between perceived parenting styles and anxiety in adolescents. *Scientific Reports*, 14(1), 25623.
 19. Hashemi, T., Badri, R. & Esmaeilpour, F. (2018). The role of perceived parenting styles and borderline personality disorder in cyberbullying: Role mediator of empathy. *Shenakht J. Psychol.* [https://doi.org/Psychiatry.5\(2\),81-92](https://doi.org/Psychiatry.5(2),81-92)
 20. Högberg, B., Strandh, M., & Hagquist, C. (2020). Gender and secular trends in adolescent mental health over 24 years—the role of school-related stress. *Social Science & Medicine*, 250, 112890.
 21. Huang, Y., Procházková, M., Lu, J., Riad, A., & Macek, P. (2022). Family related variables' influences on adolescents' health based on health behaviour in school-aged children database, an AI-assisted scoping review, and narrative synthesis. *Frontiers in Psychology*, 13, 871795.
 22. Inchley, J., Currie, D. B., Budisavljevic, S., Torsheim, T., Jastad, A., Cosma, A., Kelly, C., & Arnasson, A. M. (2020). Spotlight on adolescent health and wellbeing: Findings from the 2017/2018 Health Behaviour in School-aged Children (HBSC) survey in Europe and Canada. International report. Volume 1: Key findings.
 23. Karande, S., Gogtay, N. J., Bala, N., Sant, H., Thakkar, A., & Sholapurwala, R. (2018). Anxiety symptoms in regular school students in Mumbai City, India. *Journal of Postgraduate Medicine*, 64(2), 92–97.
 24. Kaushik, Y., & Sundaresan, M. J. (2024). The Impact of Parenting Styles on Specific Behavioral Patterns of the Adolescent. *The International Journal of Indian Psychology*, 12(1). <https://doi.org/10.25215/1201.152>
 25. Keijsers, R., Olofsson, S., Nilsson, K. W., & Åslund, C. (2020). The influence of parenting styles and parental depression on adolescent depressive symptoms: A cross-sectional and longitudinal approach. *Mental Health &*

- Prevention, 20, 200193. <https://doi.org/https://doi.org/10.1016/j.mhp.2020.200193>
26. Kerr, M., Stattin, H., & Burk, W. J. (2010). A reinterpretation of parental monitoring in longitudinal perspective. *Journal of Research on Adolescence*, 20(1), 39–64.
27. Kjellström, J., Modin, B., & Almquist, Y. B. (2017). Support from parents and teachers in relation to psychosomatic health complaints among adolescents. *Journal of Research on Adolescence*, 27(2), 478–487.
28. Leung, J. T. Y., & Shek, D. T. L. (2020). Parental control and adolescent wellbeing in Chinese adolescents in Hong Kong. *Child Indicators Research*, 13(2), 703–727.
29. Lippold, M. A., Fosco, G. M., Ram, N., & Feinberg, M. E. (2016). Knowledge lability: Within-person changes in parental knowledge and their associations with adolescent problem behavior. *Prevention Science*, 17, 274–283.
30. Lyell, K. M., Coyle, S., Malecki, C. K., & Santuzzi, A. M. (2020). Parent and peer social support compensation and internalizing problems in adolescence. *Journal of School Psychology*, 83, 25–49.
31. Madasu, S., Malhotra, S., Kant, S., Sagar, R., Mishra, A. K., Misra, P., & Ahamed, F. (2019). Anxiety disorders among adolescents in a rural area of northern India using Screen for Child Anxiety-Related Emotional Disorders tool: A Community-based Study. *Indian Journal of Community Medicine*, 44(4), 317–321.
32. O'Neill, A. C., Kuhlmeier, V. A., & Craig, W. M. (2019). Examining the association between parenting and psychosomatic problems: self-esteem as a mediator across ages in early adolescence. *International Journal of Adolescence and Youth*, 24(2), 137–148. <https://doi.org/10.1080/02673843.2018.1482771>
33. Pal, A., Parmar, A., Mandal, P., & Sagar, R. (2016). Mental Health and Human Behaviour. *Journal of* (November 2018), 19–22. <https://doi.org/10.4103/jmhbb.jmhbb>
34. Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., Arora, M., Azzopardi, P., Baldwin, W., & Bonell, C. (2016). Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet*, 387(10036), 2423–2478.
35. Philippova, A., Malkina, O., Korotun, V., & Shatova, E. (2023). The role of somatic factors in early childhood and adolescent psychosomatic disorders. *Bangladesh Journal of Medical Science*, 22(3), 687–694. <https://doi.org/10.3329/bjms.v22i3.66964>
36. Rafiee, S., & Chehrei, S. (2016). The relationship between perceived parenting styles and loneliness in students. *Asian Social Science*, 12(9), 230–235. <https://doi.org/10.5539/ass.v12n9p230>
37. Ramberg, J. (2021). The association between parental support and adolescents' psychological complaints: The mediating role of a good school climate. *Children*, 8(7), 550.
38. Romero-Acosta, K., Gómez-De-Regil, L., Lowe, G. A., Lipps, G. E., & Gibson, R. C. (2021). Parenting styles, anxiety and depressive symptoms in child/adolescent. *International Journal of Psychological Research*, 14(1), 12–32. <https://doi.org/10.21500/20112084.4704>
39. Sainz, M., Martínez, R., Rodríguez-Bailón, R., & Moya, M. (2019). Where does the money come from? Humanizing high socioeconomic status groups undermines attitudes toward redistribution. *Frontiers in Psychology*, 10, 771.
40. Seiffge-Krenke, I., Sattel, H., Cavdar, D., & Öncü, B. (2021). Adolescents' somatic complaints in eight countries: what influence do parental rearing styles have? *European Child and Adolescent Psychiatry*, 30(10), 1533–1545. <https://doi.org/10.1007/s00787-020-01628-y>
41. Shajari, K., & Hejazi, M. (2019). Relationship between parental parenting styles with emotional maturity and Alexithymia by mediating educational compatibility among female students in Zanjan city. *Development Strategies in Medical Education*, 6(2), 25–38.
42. Shaydukova, L. K. (2024). Mechanisms of conversion, somatoform and psychosomatic disorders in adulthood and childhood-adolescence. *Kazan Medical Journal*, 105(5), 771–781. <https://doi.org/10.17816/kmj633527>
43. Shibata, M., Ninomiya, T., Anno, K., Kawata, H., Iwaki, R., Sawamoto, R., Kubo, C., Kiyohara, Y., Sudo, N., & Hosoi, M. (2020). Parenting style during childhood is associated with the development of chronic pain and a patient's need for psychosomatic treatment in adulthood: A case-control study. *Medicine (United States)*, 99(29), E21230. <https://doi.org/10.1097/MD.00000000000021230>
44. Sobhani, S., Jamilian, H., & Paknejad, I. (2024). Prediction of resilience based on parenting and coping strategies in patients with psychosomatic disorders. *BMC Psychology*, 12(1), 1–16. <https://doi.org/10.1186/s40359-024-01784-9>
45. Vafaenejad, Z., Elyasi, F., Moosazadeh, M., & Shahhosseini, Z. (2018). Psychological factors contributing to parenting styles: A systematic review. *F1000Research*, 7, 1–23. <https://doi.org/10.12688/F1000RESEARCH.14978.1>
46. van Starrenburg, M. L. A., Kuijpers, R. C. M. W., Kleinjan, M., Hutschemaekers, G. J. M., & Engels, R. C. M. E. (2017). Effectiveness of a cognitive behavioral therapy-based indicated prevention program for children with elevated anxiety levels: A randomized controlled trial. *Prevention Science*, 18, 31–39.

47. Winding, T. N., & Andersen, J. H. (2019). Do negative childhood conditions increase the risk of somatic symptoms in adolescence?—a prospective cohort study. *BMC Public Health*, 19, 1–9.
48. Aaron, N., & Oliver, J. (2022). A Longitudinal study of the association between parenting styles and adolescent mental health outcomes. *Revista de Psiquiatria Clinica*, 8. <https://doi.org/10.15761/0101-60830000000504>
49. Aldhafri, S. S., Alrajhi, M. N., Alkharusi, H. A., Al-Harthy, I. S., Al-Barashdi, H. S., & Alhadabi, A. S. (2020). Parenting styles and academic self-efficacy beliefs of Omani school and university students. *Education Sciences*, 10(9), 229.
50. Aniemeka, O. O., Akinnawo, E. O., Akintola, A. A., Akpunne, B. C., Kumuyi, D. O., & Onisile, D. F. (2021). Parenting Styles as Determinants of Psychopathological Symptoms among Nigerian In-School Adolescents. *Psychology*, 12(06), 959–975. <https://doi.org/10.4236/psych.2021.126058>
51. Arman, S., Salimi, H., & Maracy, M. R. (2018). Parenting styles and psychiatric disorders in children of bipolar parents. *Advanced Biomedical Research*, 7(1), 147.
52. Benchaya, M. C., Moreira, T. de C., Constant, H. M. R. M., Pereira, N. M., Freese, L., Ferigolo, M., & Barros, H. M. T. (2019). Role of parenting styles in adolescent substance use cessation: Results from a Brazilian prospective study. *International Journal of Environmental Research and Public Health*, 16(18), 3432.
53. Bi, X., Yang, Y., Li, H., Wang, M., Zhang, W., & Deater-Deckard, K. (2018). Parenting styles and parent-adolescent relationships: The mediating roles of behavioral autonomy and parental authority. *Frontiers in Psychology*, 9(NOV), 1–13. <https://doi.org/10.3389/fpsyg.2018.02187>
54. Bibi, A., Hayat, R., Hayat, N., Zulfiqar, S., Shafique, N., & Khalid, M. A. (2022). Impact of Parenting Styles on Psychological Flexibility Among Adolescents of Pakistan: A Cross-Sectional Study. *Child and Adolescent Social Work Journal*, 39(3), 313–322. <https://doi.org/10.1007/s10560-021-00754-z>
55. Buli, B. G., Lehtinen-Jacks, S., Larm, P., Nilsson, K. W., Hellström-Olsson, C., & Giannotta, F. (2024). Trends in psychosomatic symptoms among adolescents and the role of lifestyle factors. *BMC Public Health*, 24(1), 1–11. <https://doi.org/10.1186/s12889-024-18327-x>
56. Bülow, A., Neubauer, A. B., Soenens, B., Boele, S., Denissen, J. J. A., & Keijsers, L. (2022). Universal ingredients to parenting teens: Parental warmth and autonomy support promote adolescent well-being in most families. *Scientific Reports*, 12(1), 16836.
57. Bulut, S., Bukhori, B., & Hassan Bhat, R. (2023). The Experience of Psychosomatic Disorders among Adolescents: Challenges and Coping Strategies. *Journal of Personality and Psychosomatic Research*, 2(2), 19–25. <https://doi.org/10.61838/kman.jprr.2.2.4>
58. Chen, B., Soenens, B., Vansteenkiste, M., Van Petegem, S., & Beyers, W. (2016). Where do the cultural differences in dynamics of controlling parenting lie? Adolescents as active agents in the perception of and coping with parental behavior. *Psychologica Belgica*, 56(3), 169.
59. Corell, M., Friberg, P., Löfstedt, P., Petzold, M., & Chen, Y. (2022). Subjective health complaints in early adolescence reflect stress: a study among adolescents in Western Sweden. *Scandinavian Journal of Public Health*, 50(4), 516–523.
60. Eun, J. D., Paksarian, D., He, J.-P., & Merikangas, K. R. (2018). Parenting style and mental disorders in a nationally representative sample of US adolescents. *Social Psychiatry and Psychiatric Epidemiology*, 53, 11–20.
61. Fernando, L. M. N., Sim, W. H., Jorm, A. F., Rapee, R., Lawrence, K. A., & Yap, M. B. H. (2018). Parenting Resilient Kids (PaRK), an online parenting program to prevent anxiety and depression problems in primary school-aged children: Study protocol for a randomised controlled trial. *Trials*, 19, 1–12.
62. Gorostiaga, A., Aliri, J., Balluerka, N., & Lameirinhas, J. (2019). Parenting styles and internalizing symptoms in adolescence: A systematic literature review. *International Journal of Environmental Research and Public Health*, 16(17), 3192.
63. Griesler, P. C., Hu, M.-C., Wall, M. M., & Kandel, D. B. (2021). Assessment of prescription opioid medical use and misuse among parents and their adolescent offspring in the US. *JAMA Network Open*, 4(1), e2031073–e2031073.
64. Grigorian, K., Östberg, V., Raninen, J., & Låftman, S. B. (2023). Parenting Practices and Psychosomatic Complaints Among Swedish Adolescents. *International Journal of Public Health*, 68(December). <https://doi.org/10.3389/ijph.2023.1606580>
65. Haghshenas, R., Fereidooni-Moghadam, M., & Ghazavi, Z. (2024). The relationship between perceived parenting styles and anxiety in adolescents. *Scientific Reports*, 14(1), 25623.
66. Hashemi, T., Badri, R., & Esmailpour, F. (2018). The role of perceived parenting styles and borderline personality disorder in cyberbullying: Role mediator of empathy. *Shenakht J. Psychol.* [https://doi.org/Psychiatry.5\(2\),81-92](https://doi.org/Psychiatry.5(2),81-92). <https://doi.org/10.29252/dsme>.

67. Högberg, B., Strandh, M., & Hagquist, C. (2020). Gender and secular trends in adolescent mental health over 24 years—the role of school-related stress. *Social Science & Medicine*, 250, 112890.
68. Huang, Y., Procházková, M., Lu, J., Riad, A., & Macek, P. (2022). Family related variables' influences on adolescents' health based on health behaviour in school-aged children database, an AI-assisted scoping review, and narrative synthesis. *Frontiers in Psychology*, 13, 871795.
69. Inchley, J., Currie, D. B., Budisavljevic, S., Torsheim, T., Jastad, A., Cosma, A., Kelly, C., & Arnasson, A. M. (2020). Spotlight on adolescent health and wellbeing: Findings from the 2017/2018 Health Behaviour in School-aged Children (HBSC) survey in Europe and Canada. International report. Volume 1: Key findings.
70. Karande, S., Gogtay, N. J., Bala, N., Sant, H., Thakkar, A., & Sholapurwala, R. (2018). Anxiety symptoms in regular school students in Mumbai City, India. *Journal of Postgraduate Medicine*, 64(2), 92–97.
71. Kaushik, Y., & Sundaresan, M. J. (2024). The Impact of Parenting Styles on Specific Behavioral Patterns of the Adolescent. *The International Journal of Indian Psychology*, 12(1). <https://doi.org/10.25215/1201.152>
72. Keijsers, R., Olofsdotter, S., Nilsson, K. W., & Åslund, C. (2020). The influence of parenting styles and parental depression on adolescent depressive symptoms: A cross-sectional and longitudinal approach. *Mental Health & Prevention*, 20, 200193. <https://doi.org/https://doi.org/10.1016/j.mhp.2020.200193>
73. Kerr, M., Stattin, H., & Burk, W. J. (2010). A reinterpretation of parental monitoring in longitudinal perspective. *Journal of Research on Adolescence*, 20(1), 39–64.
74. Kjellström, J., Modin, B., & Almquist, Y. B. (2017). Support from parents and teachers in relation to psychosomatic health complaints among adolescents. *Journal of Research on Adolescence*, 27(2), 478–487.
75. Leung, J. T. Y., & Shek, D. T. L. (2020). Parental control and adolescent wellbeing in Chinese adolescents in Hong Kong. *Child Indicators Research*, 13(2), 703–727.
76. Lippold, M. A., Fosco, G. M., Ram, N., & Feinberg, M. E. (2016). Knowledge lability: Within-person changes in parental knowledge and their associations with adolescent problem behavior. *Prevention Science*, 17, 274–283.
77. Lyell, K. M., Coyle, S., Malecki, C. K., & Santuzzi, A. M. (2020). Parent and peer social support compensation and internalizing problems in adolescence. *Journal of School Psychology*, 83, 25–49.
78. Madasu, S., Malhotra, S., Kant, S., Sagar, R., Mishra, A. K., Misra, P., & Ahamed, F. (2019). Anxiety disorders among adolescents in a rural area of northern India using Screen for Child Anxiety-Related Emotional Disorders tool: A Community-based Study. *Indian Journal of Community Medicine*, 44(4), 317–321.
79. O'Neill, A. C., Kuhlmeier, V. A., & Craig, W. M. (2019). Examining the association between parenting and psychosomatic problems: self-esteem as a mediator across ages in early adolescence. *International Journal of Adolescence and Youth*, 24(2), 137–148. <https://doi.org/10.1080/02673843.2018.1482771>
80. Pal, A., Parmar, A., Mandal, P., & Sagar, R. (2016). Mental Health and Human Behaviour. *Journal of (November 2018)*, 19–22. <https://doi.org/10.4103/jmhbb.jmhbb>
81. Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., Arora, M., Azzopardi, P., Baldwin, W., & Bonell, C. (2016). Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet*, 387(10036), 2423–2478.
82. Philippova, A., Malkina, O., Korotun, V., & Shatova, E. (2023). The role of somatic factors in early childhood and adolescent psychosomatic disorders. *Bangladesh Journal of Medical Science*, 22(3), 687–694. <https://doi.org/10.3329/bjms.v22i3.66964>
83. Rafiee, S., & Chehrei, S. (2016). The relationship between perceived parenting styles and loneliness in students. *Asian Social Science*, 12(9), 230–235. <https://doi.org/10.5539/ass.v12n9p230>
84. Ramberg, J. (2021). The association between parental support and adolescents' psychological complaints: The mediating role of a good school climate. *Children*, 8(7), 550.
85. Romero-Acosta, K., Gómez-De-Regil, L., Lowe, G. A., Lipps, G. E., & Gibson, R. C. (2021). Parenting styles, anxiety and depressive symptoms in child/adolescent. *International Journal of Psychological Research*, 14(1), 12–32. <https://doi.org/10.21500/20112084.4704>
86. Sainz, M., Martínez, R., Rodríguez-Bailón, R., & Moya, M. (2019). Where does the money come from? Humanizing high socioeconomic status groups undermines attitudes toward redistribution. *Frontiers in Psychology*, 10, 771.
87. Seiffge-Krenke, I., Sattel, H., Cavdar, D., & Öncü, B. (2021). Adolescents' somatic complaints in eight countries: what influence do parental rearing styles have? *European Child and Adolescent Psychiatry*, 30(10), 1533–1545. <https://doi.org/10.1007/s00787-020-01628-y>
88. Shajari, K., & Hejazi, M. (2019). Relationship between parental parenting styles with emotional maturity and Alexithymia by mediating educational compatibility among female students in Zanjan city. *Development Strategies*

in *Medical Education*, 6(2), 25–38.

89. Shaydukova, L. K. (2024). Mechanisms of conversion, somatoform and psychosomatic disorders in adulthood and childhood-adolescence. *Kazan Medical Journal*, 105(5), 771–781. <https://doi.org/10.17816/kmj633527>
90. Shibata, M., Ninomiya, T., Anno, K., Kawata, H., Iwaki, R., Sawamoto, R., Kubo, C., Kiyohara, Y., Sudo, N., & Hosoi, M. (2020). Parenting style during childhood is associated with the development of chronic pain and a patient's need for psychosomatic treatment in adulthood: A case-control study. *Medicine (United States)*, 99(29), E21230. <https://doi.org/10.1097/MD.00000000000021230>
91. Sobhani, S., Jamilian, H., & Paknejad, I. (2024). Prediction of resilience based on parenting and coping strategies in patients with psychosomatic disorders. *BMC Psychology*, 12(1), 1–16. <https://doi.org/10.1186/s40359-024-01784-9>
92. Vafaenejad, Z., Elyasi, F., Moosazadeh, M., & Shahhosseini, Z. (2018). Psychological factors contributing to parenting styles: A systematic review. *F1000Research*, 7, 1–23. <https://doi.org/10.12688/F1000RESEARCH.14978.1>
93. van Starrenburg, M. L. A., Kuijpers, R. C. M. W., Kleinjan, M., Hutschemaekers, G. J. M., & Engels, R. C. M. E. (2017). Effectiveness of a cognitive behavioral therapy-based indicated prevention program for children with elevated anxiety levels: A randomized controlled trial. *Prevention Science*, 18, 31–39.
94. Winding, T. N., & Andersen, J. H. (2019). Do negative childhood conditions increase the risk of somatic symptoms in adolescence?—a prospective cohort study. *BMC Public Health*, 19, 1–9.

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