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Parenting Styles and School Adjustment: Which is the Optimal Parenting to Reinforcing Academic Success among Middle and High School Students?

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Although parental strictness has been identified in classic studies as a beneficial component in protecting the student education process, especially in school, more recent studies question its benefits. The present study examines the relationship between academic adjustment and parenting styles among students from middle (grades 7-8) and high school (grades 9-10). Participants were 437 Spanish adolescents aged 12-18 years, 266 females (56.4%). Participants were classified into one of four families (authoritative, indulgent, authoritarian and neglectful) based on their responses to parental warmth and strictness. School adjustment was assessed based on engagement (behavioural, affective and cognitive), school satisfaction, academic self-concept, and academic achievement. The main objective was to identify which parenting style best supports adolescent academic adjustment in both middle and high school. A multivariate 4 × 2 × 2 factorial MANOVA was applied for all school adjustment components, whereas parenting style, sex and educational level were the independent variables. Main and interaction effects were examined to test differences on academic adjustment depending on parenting styles, sex and educational level. Overall, worse academic adjustment was observed in high school and among male students. Parenting and school adjustment showed a relative common pattern by sex and educational level, although more evident in males and in middle school. The indulgent style was a more positive style than the authoritative style, which was associated with outcomes as negative as the authoritarian and neglectful parenting. Contrary to the general belief about the benefit of parental strictness to achieve good students, parental warmth without strictness could be especially beneficial for good academic adjustment in middle and high school.

Keywords: school adjustment, parenting styles, academic engagement, self-concept, teaching, learning

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INTRODUCTION

Success or failure in school depends on students having adequate orientation in coping with the requirements and demands of the school environment (Siacor et al., 2024; Wentzel et al., 2019). Academic adjustment, which predicts meaningful student learning, depends on multiple influences, including instructional practices and the immediate school context, but also on other influences beyond the instructional environment (Ari, 2025; Wang et al., 2026). The reduced influence of family and teachers compared with that of peers may help explain the decline in academic adjustment sometimes identified from middle school to high school. Academic adjustment problems represent a serious risk factor for educational trajectories, potentially leading to school dropout but also serious problems in personal and social adjustment (Cupar et al., 2025; Harma et al., 2025; Morris et al., 2021). However, the family as an informal learning setting can act as either a protective or a risk factor through parental socialization (i.e., warmth and strictness), not only during middle school but even at the period of greatest psychosocial vulnerability usually identified in high school (Bartolo et al., 2023; Krauss & Orth, 2024; Wang & Zheng, 2024).

For decades the classic literature mainly from European-American families has indicated that parental strictness is a protective for school adjustment when combined with high warmth (i.e., authoritative parenting), and even when parental strictness occurs with low warmth (i.e., authoritarian parenting). By contrast, based on classical evidence lack of strictness is a serious risk factor for school adjustment even when warmth is present: adolescents with indulgent parents (i.e., warmth but not strictness) tend to be disengaged from school and show other forms of deviance such as substance use and school misconduct, probably because they are especially oriented to peers and more vulnerable to peer pressure toward group norms that sometimes contradict social standards (e.g., misbehaving in class or alcohol use). However, the authoritative style (i.e., strictness and warmth) is the only one parenting consistently associated with optimal scores (Lamborn et al., 1991; Morris et al., 2021; Steinberg et al., 1994). Among high-strictness parenting, the authoritarian style (i.e., strictness without warmth), although associated with good scores on measures of obedience and conformity to social standards (e.g., doing well in school and low involvement in deviant activities), is related to poor self-confidence and low self-perceptions.

However, emerging research, mainly from Southern Europe and Latin America, questions the benefits of parental strictness as protective against deviance and for healthy development. Contrary to what classic research would predict, the indulgent style (i.e., warmth without strictness) is associated with equal or better outcomes than the authoritative style (i.e., strictness with warmth) on school maladjustment indicators (e.g., poor academic performance) and other serious outcomes of maladjustment such as alcohol and drug use, aggression, and even delinquency (Climent-Galarza et al., 2022; Garcia & Gracia, 2009; Garcia, Serra et al., 2020; Perez-Gramaje et al., 2020; Villarejo et al., 2024). Lack of warmth combined with strictness (i.e., authoritarian parenting) is related to poor development and serious adjustment problems similar to those found in the neglectful style (i.e., neither warmth nor strictness). The benefits of combining strictness with warmth (i.e., the authoritative style), mainly identified in

European-American family contexts, may not be universal across cultures (Baumrind, 1972; Chao, 2001; Darling & Steinberg, 1993; Garcia & Gracia, 2009; Garcia et al., 2019; Palacios et al., 2022; Pinquart & Lauk, 2024). Previous evidence on parenting styles and academic functioning has sometimes been limited to academic achievement or school misconduct. The present study aims to clarify whether the four parenting styles (authoritative, authoritarian, indulgent, and neglectful) act as protective or risk factors for students' school adjustment across six key indicators: behavioral, emotional, and cognitive engagement; school satisfaction; academic self-concept; and academic achievement.

The optimal parenting for psychosocial adjustment and school success

In general, studies conducted with European-American families widely identify that the authoritative style (i.e., high strictness and high warmth) is related to greatest scores on psychosocial adjustment (Baumrind, 1971; Morris et al., 2021; Steinberg & Morris, 2001). Children with strict and warm parents tend to show higher scores on a broad set of indicators such as self-esteem and peer group orientation (Durbin et al., 1993), peer and romantic relationships (Morris et al., 2021), maturity (Darling & Steinberg, 1993) and lower scores on maladjustment such as behavioral and substance use problems (Lamborn et al., 1991; Steinberg et al., 1994). By contrast, the neglectful parenting (i.e., neither warmth nor strictness) is related to the lowest adjustment. In the middle position between the optimal scores (i.e., authoritative parenting) and the lowest (neglectful parenting) were found the parenting styles characterized by low scores on parental warmth (i.e., authoritarian parenting) and parental strictness (i.e., indulgent parenting), both related to a mixture of positive and negative traits (Lamborn et al., 1991; Steinberg et al., 1994).

The broad benefits of the combination of parental strictness and warmth among European-American families extend to school success (Gonzalez et al., 2002; Pinquart & Kauser, 2018; Spera, 2005; Steinberg et al., 1992). Children from authoritative families are more likely to achieve higher school performance (Gonzalez et al., 2002), to achieve better results in specific subjects such as mathematics (Pratt et al., 1992), to use adaptive learning strategies (Aunola & Nurmi, 2005), to make functional attributions of school success as dependent on their high ability or effort (Glasgow et al., 1997), and to engage less in deviant behavior at school (Lamborn et al., 1991). Children from authoritarian families benefit from the strict component by achieving obedience and conformity to authority such as teachers and parents, they do well in school and are less involved in deviant activities, e.g., school misconduct, but they may pay the cost of low parental warmth by having poor self-confidence, in terms of low self-reliance and academic self-concept (Darling & Steinberg, 1993; Lamborn et al., 1991; Steinberg et al., 1994). On the opposite side, children from indulgent families may pay the cost of having poor parental strictness by reporting poor school achievement, are less engaged in school, and tend to have more deviant activities in school, but they have some positive traits (shared with children from authoritative families) such as higher self-confidence and self-conceptions (Lamborn et al., 1991; Steinberg et al., 1994). The lowest scores in school outcomes and adjustment

correspond to those from neglectful families characterized by neither warmth nor strictness (Lamborn et al., 1991; Steinberg et al., 1994).

However, optimal parenting does not always seem to be the same across cultures (Chen et al., 2024; Darling & Steinberg, 1993; Garcia & Gracia, 2009; Martinez-Escudero et al., 2023; Pinquart & Lauk, 2024), the authoritative style cannot be related to universal benefits for all adolescents (Palacios et al., 2022). Studies conducted in US minority ethnic groups such as African-American (Baumrind, 1972) or Chinese-American (Chao, 2001) as well in Arab societies (Dwairy & Achoui, 2006) revealed some benefits related to the authoritarian parenting. In this sense, the relationship between authoritarian parenting and child and adolescent adjustment might not be the same as in European-American families (Chao, 2001; Wang & Phinney, 1998). For example, the authoritarian parenting is related to academic performance in Chinese-American adolescents (Chao, 2001) or offer protection against maladaptive behaviors such as alcohol abuse among ethnic US minorities (Clark et al., 2015). In school settings, well-adjusted Asian adolescents from authoritarian households reported high self-esteem, strong self-reliance, good interpersonal relationships, and a low sense of inadequacy. In collectivistic societies that value hierarchical rather than egalitarian relationships, authoritarian parenting may promote adolescent academic success and positive attitudes toward school and teachers (Ang & Goh, 2006).

Additionally, a growing number of recent studies conducted in different European and Latin American countries suggest that the indulgent style (i.e., warmth without strictness) is associated with broad psychosocial benefits (Alcaide, Garcia, Gomez-Ortiz et al., 2025; Calafat et al., 2014; Garcia et al., 2019, 2024; Martin-Blesa et al., 2024; Martinez et al., 2020). Indulgent parenting is related to equal or even greater positive scores in different indicators such as personal competence (Villarejo et al., 2020), internalization of social values (Jacome-Mora et al., 2025; Martinez et al., 2020), including greater priority toward environmental values (Queiroz et al., 2020), self-concept and self-esteem (Palacios et al., 2022; Perez-Gramaje et al., 2020), and cognitive and effective empathy (Fuentes et al., 2022). Overall, parental warmth seems always benefits whereas parental strictness might be unnecessary or even detrimental to help adolescents to protect against social deviance, for example, in terms of lower levels drug use (Calafat et al., 2014; Villarejo et al., 2024), including specifically alcohol related outcomes (Garcia, Serra et al., 2020), aggression (Alcaide et al., 2023) and delinquency (Climent-Galarza et al., 2022).

Warmth, involvement, and support for a child's autonomy may be sufficient for effective socialization toward social norms and self-regulation, even without a strictness component (Axpe et al., 2023; Escamilla et al., 2024; Rodriguez-Menendez et al., 2026). This emerging evidence comes mainly from contexts in Europe and Latin America (e.g., Italy, Spain, Greece, the Czech Republic, and Mexico), where the family is culturally highly valued and relationships among members are relatively egalitarian (Koutra et al., 2022; Krejčova et al., 2023; Melero & Sánchez-Sandoval, 2026; Rinallo et al., 2025; Vazquez-Valencia & Campos-Uscanga, 2024). By contrast, lack of strictness—when combined with warmth in the indulgent style—does not produce the severe maladjustment outcomes (e.g., substance abuse) predicted by U.S.-European

research (Escamilla et al., 2024); moreover, components of parental strictness itself may be harmful (e.g., behavioural control by both mothers and fathers), particularly for children's emotional self-regulation (Rodriguez-Menendez et al., 2026).

Additionally, recent evidence seems to suggest that parenting based on warmth without strictness (i.e., the indulgent style) may be especially beneficial for school success. The indulgent style is associated with indicators of school adjustment such as greater academic performance and academic self-concept, and lower rates of failing grades and school misconduct (Fuentes et al., 2015; Garcia & Gracia, 2009; Reyes et al., 2023). Adolescents with indulgent parents score as well as or better than their peers from authoritative families on other school outcomes, including overall academic engagement (Martinez et al., 2019), self-regulated learning (Fuentes et al., 2019) or school-related problems within the context of peers such as traditional bullying and cyberbullying problems (Martinez et al., 2019). These results seriously question whether optimal parenting for academic success is always associated with parental strictness. In studies of European-American families, adolescents with warm and firm parents (i.e., authoritative) tend to show the best academic adjustment across broad indicators, although those from strict but non-warm families (i.e., authoritarian) sometimes also do well in school (Lamborn et al., 1991; Steinberg et al., 1994). By contrast, emerging studies, mainly from Europe and South America, indicate that loving, involved and close parents are the ones who help their adolescents adapt more successfully to school demands and become good students.

School adjustment across middle and high school

Parents play a key role in the way their adolescent develop, either positively or negatively, but socialization also take place in other relevant context: the school. From middle to high school, there has been described a decline not only in school achievement, but also in some components related to the adjustment (Daily et al., 2020; Salmela-Aro et al., 2021; Wigfield et al., 2015). For example, compared to middle school, students in high school might have lower levels of school involvement (Salmela-Aro et al., 2021; Wigfield et al., 2015); the most drastic decline seem to be in sense of school belonging and, to a lesser extent, in school participation (Wang & Eccles, 2012). Similarly, students in high school tend to report lower academic self-concept (Marsh, 1989) and school satisfaction (Daily et al., 2020) than their peers from middle school. The decrease in school adjustment seems to be more pronounced in males, while females tend to report more positive academical outcomes such as greater academic engagement and school satisfaction (Fredricks et al., 2004), academic achievement (Voyer & Voyer, 2014), and lower school misconduct (Garcia & Gracia, 2009).

Overall, the decline in academic adjustment is especially marked from primary to middle school, and to a lesser degree, from middle to high school; over the high school years academic adjustment tends to stabilize (Eccles et al., 1993; Garcia-Ros et al., 2018; Wigfield et al., 2015). Academic adjustment is necessary to educational success and in turn to become competent member of society and it is positively related to completing secondary education and preparing for a career and/or entering the world of

work (Benner, 2011). Middle and high school is a preparation in many cases for higher education, in which students, who are adults, must be especially responsible for their learning (Mañez et al., 2024). However, school adjustment can be undermined during adolescence (Veiga et al., 2023; Wentzel et al., 2019), a period related to greater vulnerability compared to childhood and adulthood.

Compared to middle school, high school is related to more difficulties for most students such as an increased school size, disintegration of peer groups, lessening of adult support, more challenging subject matter, and greater numbers of teachers with differing instructional styles (for a review, see Benner, 2011). The mismatch between adolescence characteristics and school demands can seriously undermine school adjustment. In general, adolescents are positive helped by their peers to develop independence and autonomy (Ertema et al., 2025; Morris et al., 2021). The intensification of peer relationships and the need for social approval is normative and developmentally beneficial because it allows for the consolidation of a sense of self, both distinct and belonging to a social reference group. However, peer standards can be sometimes contrary to social standards (Fuentes et al., 2020; Morris et al., 2021). When peer standards are contrary to the social standard (e.g., school achievement), the adolescent can either be guided by his or her own criteria, rejecting peer pressure, or follow the group norm (e.g., school misconduct) (Eccles et al., 1993; Garcia & Serra, 2019). Although in general a decreasing trend in school adjustment from middle school to high school has been described in part due to adolescence characteristics, there are also important differences between those students with good school adjustment, who then manage to achieve graduation and begin university studies, and those with poor school adjustment who are more likely to drop out of school (Cairns & Cairns, 1994; Wang & Fredricks, 2014)

The present study

The present study examines the relationship between parenting styles (authoritative, indulgent, authoritarian and neglectful) with school adjustment based on six indicators especially beneficial for school success: school engagement (behavioral, cognitive and emotional involvement), school satisfaction, academic self-concept and academic achievement. Additionally, the main effects of sex and educational level on school adjustment in adolescence will be also analyzed, as well as their potential interaction effect with parenting styles. Traditional studies mainly conducted with European-American families highlight that authoritative parenting (i.e., warmth and strictness) is associated to the highest school adjustment, including the greatest school achievement (Lamborn et al., 1991; Spera, 2005; Steinberg et al., 1992, 1994). However, emergent research seriously questions the benefits of parental strictness, indulgent parenting seems to be related to greater or even more positive scores than authoritative parenting (Garcia & Gracia, 2009; Garcia et al., 2019), although academic outcomes have been less explored.

It is expected lower scores on school adjustment indicators in high school students (9th to 10th grade) than in their peers from middle school (7th to 8th grade) as well as females will show significantly higher scores than males. Parenting styles characterized

by warmth (i.e., authoritative and indulgent parenting), in comparison to parenting without warmth (i.e., authoritarian and neglectful parenting) will be related to greater school adjustment in terms of school engagement (behavioral, cognitive and affective involvement), school satisfaction, academic self-concept and academic achievement. Additionally, within families characterized by warmth, it expected that adolescents from indulgent homes (without strictness) will show significantly equal or higher school adjustment than their peers from authoritative homes (with strictness).

METHOD

Participants and procedure

Participants were 472 Spanish adolescents from six public schools, 206 males (43.6%) and 266 females (56.4%), aged 12-18 years (M =13.9 years, SD =1.38). Participants were from middle school, including 7th grade (n = 86) and 8th grade (n = 138), and high school, including 9th grade (n = 116) and 10th grade (n = 132). Based on an a priori power analysis, the minimum sample needed to detect with a statistical power of 0.95 a small-medium effect size (f = 0.20) for the univariate F-test with comparisons between the four parenting styles was .436. In addition, a sensitivity analysis for the four parenting styles revealed that the detection of an effect size minimum of 0.191 (f = 0.191, α = 0.05, $1 - \beta$ = 0.95). The G*Power software was used to calculate the statistical power. The study was reviewed and approved by the Ethics Committee of the University of Valencia (code H1523870265031). Schools were contacted based on an official list and principals were asked to participate. After obtaining the informed consent of the schools and families of the participants, the students filled out the instruments collectively and voluntarily during school hours the week before the first semester exams. The instruments were administered by collaborating psychologists from the research team in a 50-minute session.

Measures

Parenting

Parental warmth was measured with the Warmth/Affection Scale and parental strictness was measured with the Parental Control Scale, both integrated in the Parental Acceptance-Rejection/Control Questionnaire (Rohner et al., 1978). The Warmth/Affection Scale includes 20 items assessing the dimension of warmth, in which adolescents rated how often they perceive their parents to be caring, responsive and involved with them (e.g., "They are interested in what I think and they like me to talk about it"). The alpha value was .91. The Parental Control Scale integrates 13 items that assess the dimension of strictness, in which adolescents rate the frequency with which their parents control them in an imposing, firm and demanding way (e.g., "They are always telling me how I should behave"). The alpha value was .93. The Warmth/Affection Scale and the Parental Control Scale have a Likert-type 4-level response scale (1 = "never", 4 = "always"). Greater scores on both scales represent a higher sense of parental warmth and strictness.

Then, considering the participants' scores in Warmth/Affection and Parental Control dimensions, their families were classified within one of the four households. To do so,

taking into account the sex and age of the participants, the sample was dichotomized at the median (Pc50), considering both dimensions simultaneously, so that (1) families that scored above the median on both dimensions were defined as authoritative (high warmth/affection and high control), (2) families that scored above the median on warmth/affection and below the median on control were classified as indulgent (high warmth/affection and low control), (3) families that obtained scores below the median on warmth/affection and above the median on control were defined as authoritarian (low warmth/affection and high control), and (4) families that scored below the median on both dimensions were classified as neglectful (low warmth/ affection and low control) (Lamborn et al., 1991; Steinberg et al., 1994).

School adjustment

School Engagement. Multidimensional school engagement based on behavioral, emotional and cognitive engagement was measured with the School Engagement Questionnaire (Lam et al., 2014). The questionnaire integrates three subscales or complementary dimensions of the student engagement. The behavioral subscale integrates 12 items assessing the effort and persistence in schoolwork and participation in school activities (e.g., "In class, I work as hard as I can"). The alpha value was 0.80. The emotional subscale integrates 9 items assessing feelings linked to the school learning and context (e.g., "I like what I am learning in school"). The alpha value was 0.78. The cognitive subscale integrates 12 items assessing the cognitive and motivational strategies used in learning (e.g., "When learning things for school, I try to see how they fit together with other things I already know"). The alpha value was 0.78. The questionnaire has a five-level Likert-type response scale (1= "strongly disagree", 5 = "strongly agree"). High scores represent a high degree of emotional, behavioral and cognitive engagement, respectively.

School satisfaction. It was assessed by satisfaction with school subscale from the Multidimensional Students' Life Satisfaction Scale (Huebner, 1994). The subscale includes 8 items that assess the degree to which the students feel satisfied with their school (e.g., "I enjoy school activities"). The subscale uses a five -level Likert-type response scale (1 = "strongly disagree", 6 = "strongly agree"). Alpha value was .86. Greater scores represent a higher sense of school satisfaction.

Academic Self-Concept. It was assessed through the general academic self-concept subscale of the Self-Description Questionnaire II-Short Form (Marsh, 1989). It integrates four items that assess general academic self-concept based on the degree to which the students perceive their ability, enjoyment and interest in school subjects (e.g., "I'm good at most school subjects"). The subscale uses a six -level Likert-type response scale (1 = "strongly disagree", 6 = "strongly agree"). Alpha value was .86. Higher scores imply a greater sense of school satisfaction.

Academic achievement. It was assessed through the students' grade point average (GPA) (Garcia & Gracia, 2009; Lamborn et al., 1991). The grades were provided by administrative services of the participating centers at the end of the academic year. To ensure comparability across middle and high school grade levels, the GPA was based on the following subjects: math, science, national language (Spanish) and foreign language

(English). In this sense, to permit comparability across different grades and educational levels, GPA was based on common subjects rather than on a global average (Steinberg et al., 1989). The GPA was assessed on a scale of 0 to 10. Higher scores represent more academic achievement.

Statistical analyses

Partial bivariate correlations (controlling for sex and educational level) were computed between the two parenting dimensions (i.e., warmth and strictness) and school adjustment indicators. A 4 × 2 × 2 multivariate factorial analysis of variance (MANOVA) was then conducted on school adjustment indicators: school engagement (behavioral, cognitive, and emotional dimensions), school satisfaction, academic self-concept, and academic achievement. Parenting style (authoritative, indulgent, authoritarian, neglectful), sex (male, female), and educational level (middle school, high school) were included as independent variables to test main and interaction effects. Follow-up univariate ANOVAs were performed for statistically significant multivariate effects, and post hoc Bonferroni tests were applied for comparisons between pairs of means ($\alpha = .05$).

FINDINGS

Parenting dimension and school adjustment

Table 1 showed the partial correlations (controlling for sex and educational level) between parental warmth and strictness and the school adjustment components. Parental warmth and strictness were not correlated ($r = .03$, $p > .05$), consistent with theoretical orthogonality. Parental warmth showed significant positive correlations with all school adjustment indicators. Parental strictness was significantly negatively related to behavioral engagement, school satisfaction, and academic achievement, but positively related to cognitive engagement. All school adjustment indicators were positively correlated between them.

Table 1
Descriptives and partial correlation matrix of the main parenting dimension and school adjustment indicators controlling for sex and educational level.

Variables	1	2	3	4	5	6	7	8
1. Parental Warmth	–							
2. Parental Strictness	.03	–						
3. Behavioral Engagement	.25***	-.11*	–					
4. Emotional Engagement	.25***	-.07	.56***	–				
5. Cognitive Engagement	.16***	.11*	.44***	.43***	–			
6. School Satisfaction	.20***	-.10*	.50***	.67***	.32***	–		
7. Academic Self-Concept	.34***	-.06	.57***	.45***	.40***	.37***	–	
8. Academic Achievement	.28***	-.12 **	.54***	.39***	.31***	034***	.55***	–
Mean	3.18	2.65	3.43	3.42	3.27	4.33	3.67	5.47
Standard Deviation	0.58	0.38	0.62	0.67	0.75	0.82	1.06	2.05

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

Parenting Style Groups

Adolescents were classified into four parenting groups (authoritative, indulgent, authoritarian, neglectful; see Table 2). The authoritative group included 90 adolescents (19.1%), characterized by high warmth (M = 3.65, SD = 0.17) and high strictness (M = 2.94, SD = 0.24). The indulgent group had 134 adolescents (28.4%), with high warmth (M = 3.66, SD = 0.21) and low strictness (M = 2.51, SD = 0.31). The authoritarian group contained 96 adolescents (20.3%), characterized by low warmth (M = 2.79, SD = 0.51) and high strictness (M = 2.89, SD = 0.36). The neglectful group included 152 adolescents (32.2%), with low warmth (M = 2.74, SD = 0.46) and low strictness (M = 2.46, SD = 0.30). The distribution of parenting styles did not differ by sex, $\chi^2(3) = 6.49$, $p > .05$, or educational level, $\chi^2(3) = 1.70$, $p > .05$.

Table 2
Number of cases in parenting style groups and descriptives on measures of parental dimensions.

	Total	Authoritative	Indulgent	Authoritarian	Neglectful
Frequency	472	90	134	96	152
Percentage	100	19.1	28.4	20.3	32.2
Parental Warmth					
Mean	3.19	3.65	3.66	2.79	2.74
SD	0.58	0.17	0.21	0.51	0.46
Parental Strictness					
Mean	2.65	2.94	2.51	2.89	2.46
SD	0.38	0.24	0.31	0.36	0.30

Multivariate factorial effects

The MANOVA on school adjustment indicators indicators showed significant main effects of parenting style, $\Lambda = .80$, $F(18, 1365) = 5.84$, $p < .001$, $\eta^2 = .07$, sex, $\Lambda = .90$, $F(6, 453) = 8.42$, $p < .001$, $\eta^2 = .10$, and educational level, $\Lambda = .85$, $F(6,453) = 12.87$, $p < .001$, $\eta^2 = .15$. The interaction effect of parenting styles by sex, $\Lambda = .89$, $F(18, 1281.8) = 2.94$, $p < .001$, $\eta^2 = .04$, and parenting style by educational level, $\Lambda = .91$, $F(18, 1281.8) = 2.26$, $p < .05$, $\eta^2 = .03$ reached the statistical significant level, but not sex by educational level, $\Lambda = .99$, $F(6,453) = 1.13$, $p > .05$, $\eta^2 = .02$. The interaction effect of parenting style by sex by educational level was statistically significant, $\Lambda = .95$, $F(6, 451) = 4.36$, $p < .01$, $\eta^2 = .06$.

School adjustment in middle and secondary school

Differences by educational level in school adjustment indicators reached statistical significance in the univariate results (see Table 3). There was a significant decrease associated with educational level on all school adjustment indicators ($p < .05$), except cognitive engagement. High school students reported lower behavioral and emotional engagement, school satisfaction, academic self-concept, and academic achievement than middle school students; cognitive engagement was higher in high school students than in those from middle school. Some sex-related differences reached statistical significance ($p < .05$): females scored higher than males on behavioral engagement, school satisfaction, and academic achievement.

Table 3
Descriptive statistics (mean and standard deviations in parenthesis) for sex and educational level, univariate *F*-values, and effect size on school adjustment indicators

	Males	Females	*F*(1, 458)	η²	Middle school	High school	*F*(1, 458)	η²
Behavioral Engagement	3.33 (0.57)	3.51 (0.65)	15.17***	0.03	3.52 (0.68)	3.35 (0.56)	7.93**	0.02
Emotional Engagement	3.34 (0.68)	3.48 (0.65)	3.05	0.01	3.64 (0.64)	3.22 (0.63)	47.38***	0.09
Cognitive Engagement	3.19 (0.74)	3.33 (0.76)	0.66	0.00	3.20 (0.77)	3.33 (0.73)	0.10	0.00
School satisfaction	4.13 (0.86)	4.48 (0.75)	19.06 ***	0.04	4.63 (0.78)	4.05 (0.75)	51.60***	0.10
Academic Self-Concept	3.67 (0.94)	3.65 (1.15)	0.13	0.00	3.86 (1.12)	3.49 (0.97)	13.46***	0.03
Academic Achievement	5.05 (2.07)	5.80 (1.99)	22.54***	0.05	5.78 (2.12)	5.20 (1.96)	5.56*	0.01

Parenting and school adjustment

Differences by parenting styles showed a relative consistent pattern on the six indicators of school adjustment (see Table 4). Parenting styles based on warmth were associated with the highest scores, but indulgent parenting tended to be associated with more positive scores than the authoritative. On the opposite side, the lowest scores on the six indicators corresponded to parenting without warmth (i.e., authoritarian and neglectful). The general pattern between parenting styles and school adjustment components, nonetheless, showed some nuances related to both educational level and sex. The interaction between parenting style and education level was statistically significant on behavioral engagement, $F(3, 458) = 2.72$, $p < .05$, $\eta^2 = .02$, cognitive engagement, $F(3, 456) = 6.57$, $p < .001$, $\eta^2 = .04$, and school satisfaction, $F(3, 456) = 3.46$, $p < .05$, $\eta^2 = .02$ (see Figure 1). Also, the interaction between parenting style and sex was statistically significant in behavioral engagement, $F(3, 456) = 7.92$, $p < .01$, $\eta^2 = .05$, cognitive engagement, $F(3, 456) = 4.21$, $p < .01$, $\eta^2 = .03$, and school satisfaction, $F(3, 456) = 2.79$, $p < .05$, $\eta^2 = .02$ (see Figure 2). The interaction effect of parenting style by sex and educational level did not reach statistical significance for any of the six indicators in the univariate tests ($p > .05$).

Table 4
Descriptive statistics (mean and standard deviations in parenthesis) for parenting style, univariate *F*-values, and effect size on school adjustment indicators

School adjustment	Authoritative	Indulgent	Authoritarian	Neglectful	*F*(3, 458)	η^2
Behavioral Engagement	3.37 [2] (0.51)	3.67 [1] (0.64)	3.30 [2] (0.68)	3.34 [2] (0.60)	6.35***	0.04
Affective Engagement	3.35 [2] (0.62)	3.70 [1] (0.66)	3.29 [2] (0.76)	3.28 [2] (0.56)	7.16***	0.05
Cognitive Engagement	3.46 [1] (0.64)	3.26 (0.66)	3.34 (0.86)	3.10 [2] (0.79)	4.88**	0.03
School satisfaction	4.17 [2] (0.94)	4.69 [1] (0.74)	4.24 [2] (0.84)	4.15 [2] (0.69)	9.79***	0.06
Academic Self-Concept	4.00 [1] (0.90)	4.17 [1] (1.10)	3.35 [2] (1.10)	3.23 [2] (1.44)	14.44***	0.09
Academic Achievement	5.26 [2] (1.79)	6.40 [1] (1.87)	5.10 [2] (1.96)	5.02 [2] (2.16)	11.67***	0.07

Note. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; 1 > 2

In engagement, the results showed benefits of parental warmth—especially the indulgent style—whereas parenting without warmth (i.e., authoritarian and neglectful) was associated with low scores. (i) For behavioral engagement, indulgent parenting was related to higher scores compared to authoritative, authoritarian, and neglectful parenting. The parenting profile by educational level showed that indulgent parenting was associated with the highest behavioral engagement in both middle and high school, while the lowest behavioral engagement was related to authoritarian and neglectful parenting in middle school and to authoritarian parenting in high school. The parenting profile by sex showed a pattern similar to the main effects among females; differences among males did not reach statistical significance ($p > .05$). Daughters from indulgent homes reported higher behavioral engagement than daughters from authoritative, authoritarian, and neglectful homes. The highest levels of behavioural engagement were observed in females from indulgent homes, whose scores exceeded those positive rates of males with indulgent parents. Conversely, the lowest scores were found in males from authoritarian homes, who scored even more negatively than their female counterparts. (ii) For emotional engagement, the indulgent style was associated with the highest scores, while authoritative, authoritarian, and neglectful parenting yielded the lowest scores. (iii) For cognitive engagement, main effects of parenting style showed that authoritative parenting was associated with higher scores than neglectful parenting. The parenting profile by educational level showed differences only within middle school ($p < .05$): parenting styles characterized by warmth (i.e., indulgent and authoritative) were associated with higher cognitive engagement compared to neglectful parenting. Although neglectful parenting was related to low cognitive engagement, scores were lower in middle school than in high school. The parenting profile by sex showed higher cognitive engagement in males from authoritative parents than in females from indulgent and neglectful parents.

(iv) In school satisfaction, results showed benefits associated with the indulgent style: the highest satisfaction corresponded to indulgent parenting, while authoritative, authoritarian, and neglectful parenting were related to the lowest scores. Across educational levels, all parenting styles were associated with lower satisfaction in middle school than in middle school, except neglectful parenting, which showed low school satisfaction at both levels. Within high school, indulgent parenting was associated with higher school satisfaction than authoritative, authoritarian, and neglectful parenting. By sex, indulgent parenting benefited both females and males: daughters from indulgent homes reported higher school satisfaction than daughters from authoritarian and neglectful homes, and sons with indulgent parents reported higher satisfaction than sons from authoritative, authoritarian, and neglectful families. Males scored lower than females across all parenting groups except in indulgent households, where males and females reported equally high school satisfaction.

(v) In academic self-concept, results showed differences by parenting style: both warm parenting styles (i.e., authoritative and indulgent) were associated with the highest academic self-concept, whereas, authoritarian, and neglectful parenting were associated with the lowest scores. (vi) For academic achievement, the indulgent parenting style was the only parenting style associated with optimal scores: indulgent parenting was

related to higher academic achievement than authoritative, authoritarian, and neglectful parenting.

DISCUSSION

The findings from the present study show significant variations between middle school and high school in terms of academic adjustment. In almost all the adjustment components examined, high school students report worse outcomes than their middle school peers. High school students show lower behavioral and emotional engagement, although they do not differ in cognitive engagement. In line with lower emotional engagement, which represents not identifying with school, high school students reported lower school satisfaction than their middle school peers. Academic self-concept and achievement were also lower in high school students than in middle school students. As in previous research, this profile seems to suggest that higher education students present more difficulties, in a critical moment that will mark not only the academic/professional trajectory, but also the personal one (Garcia-Ros et al., 2018; Wigfield et al., 2015). Additionally, the present study showed that males and females differ in the school adjustment. Females scored more positively than males in behavioral engagement, school satisfaction, and academic achievement. The results of the present study are crucial because they show greater vulnerability in high school, as well as more difficulties for men. However, family seems to be a crucial factor, also in high school, both positive and negative.

Overall, according to the present findings, the use of strictness is especially negative for academic adjustment, not only without the warmth component (i.e., the authoritarian style) but even when parents are warm and involved (i.e., the authoritative style). In this sense, the use of strictness appeared to be related to impairment in almost all components of adolescent academic adjustment similar to that resulted by the neglectful style. In contrast, the findings from the present study revealed that warmth without strictness (i.e., indulgent parenting) was beneficial for academic adjustment. In engagement, indulgent parenting was related to more positive results in the behavioural and affective dimensions than the authoritative style, which was associated with scores as negative as the authoritarian and neglectful styles. In the cognitive dimension, the differences according to parenting style were small, and only the authoritative style was found to be more positive than the neglectful style. In school satisfaction, the highest scores were associated with the indulgent style while the most negative scores were related to the authoritative, authoritarian and neglectful styles. In academic self-concept, the authoritative and indulgent styles were associated with higher scores than the authoritarian and neglectful styles. In academic achievement, the indulgent style was associated with higher scores than the authoritative style, which showed scores as low as those of the authoritarian and neglectful styles. This pattern of relationship between parenting styles and adjustment was slightly different by educational level and sex in both behavioral and cognitive engagement, and in school satisfaction.

Profiles by educational level indicate that middle school students score lower than high school students, and that differences between parenting styles are smaller in high school, although a common pattern related to parenting style appears. The same is true

for sex-related differences; in general, females tend to score more positively than males, but these variations appear to be more marked among males than females. Increasing demands as we move through the educational system place serious demands on students for self-regulation. No one can learn for them, not even their parents. Even so, despite increased demands in high school, parenting characterized by warmth seems to be the most positive style for promoting good academic adjustment.

Classical research identified the broad benefits associated with parental strictness in achieving obedience and conformity, also at the school context. Mainly in previous studies with European-American families, the most successful adolescents in school were those of strict and warm parents, although their peers from authoritarian families also benefited from the component of strictness shared with their peers from authoritative families (Lamborn et al., 1991; Steinberg et al., 1994). It is argued that parental strictness could prevent deviation from the norm through negative peer influence, whereas children from indulgent families, despite the warmth component shared with their authoritative peers, seemed to have serious maturity and self-regulation problems probably because of the cost associated with the lack of parental strictness (Lamborn et al., 1991; Steinberg et al., 1994). Other previous studies even pointed to large benefits particularly among ethnic minorities associated with parental strictness even without warmth (i.e., authoritarian parenting), especially in academic performance (Chao, 2001; Ho, 1986).

However, the findings of the present study seriously question the benefits associated with parental strictness in combination with warmth (i.e., authoritative parenting). Neither parents nor teachers can learn for the students. Socialization requires children to be able to act autonomously and responsibly for themselves, especially since permanent surveillance is not possible; adolescence is a stage of vulnerability in which the success or failure of parenting becomes more evident (Darling & Steinberg, 1993; Lamborn et al., 1991). Other recent previous studies, mainly conducted in Europe and Latin America, identify broad benefits associated with warmth even without the component of parental strictness (Calafat et al., 2014; Villarejo et al., 2024). The indulgent style is associated with equal or even better developmental outcomes than the authoritative style (Garcia et al., 2018; Garcia, Fuentes et al., 2020). The findings of the present study extend the evidence on the benefits of warmth without strictness (i.e., indulgent parenting) to different components of academic adjustment.

The present study represents an important advance in identifying the effects associated with informal family education on learning in school, in terms of academic adjustment. Children's development, and particularly school adjustment, depends on multiple influences both inside and outside the instructional context such as socioeconomic status, parental education, parenting competence and self-care, peer relationships, teacher support, and children's mental health (Gomez-Ortiz et al., 2025; Siacor et al., 2024; Sujarwo & Herwin, 2023; Zakaria et al., 2025; Zaman et al., 2025). However, for decades a coherent and consistent relationship has been identified between parenting (authoritative, authoritarian, indulgent, and neglectful) and the differences observed in academic adjustment across various indicators such as school engagement and academic performance (Chao, 2001; Harma et al., 2025; Lamborn et al., 1991; Pinquart & Kauser,

2018; Steinberg et al., 1992). In general, classic research with European-American families have identified high school as more difficult for students and teachers. Although parenting based on strictness (i.e., the authoritarian and authoritative styles) can offer a protective effect on academic outcomes—especially by counteracting the potential negative influence of peers who often do not value academic success—, the authoritative style has been consistently associated with the most positive outcomes (Lamborn et al., 1991; Steinberg et al., 1992). The results of the present study, nonetheless, seriously call into question the benefits of strictness for adequate school adjustment.

Although causal relationships cannot be established nor the influence of third variables cannot be excluded, the results of the present study offer a coherent pattern across six indicators of academic adjustment —behavioral, emotional, and cognitive engagement; school satisfaction; academic self-concept; and academic performance obtained from official school records— and their relationship with educational level, sex, and parenting styles. The present study generally highlights the benefits associated with indulgent parenting for fostering students' strong engagement; school satisfaction; academic self-concept, and performance, whereas the authoritative style is related to negative outcomes similar to those of the authoritarian and neglectful styles (i.e., both defined by low warmth). The study identifies some interactions between parenting style by educational level that nuance this general relationship. Future research should continue comparing middle- and high-school students in studies of parenting (authoritative, authoritarian, indulgent, and neglectful), and educational outcomes.

The relationship between parenting and academic success should continue to consider the cultural context of the families. For example, comparisons between Western families (e.g., the United States and Europe) and Asian families (e.g., Chinese families) have been studied for years; current findings from Chinese families in the People's Republic of China question the idea that the authoritarian style is beneficial for adjustment and academic outcomes (Chao, 2001; Ho, 1986), while suggesting benefits for self-esteem and self-concept (including the academic dimension) associated with parenting characterized by warmth, both authoritative and indulgent (Alcaide, Garcia, Chen et al., 2025; Chen et al., 2024). The findings are preliminary and future studies should include a longitudinal follow-up of sons and daughters from the four families (authoritative, indulgent, authoritarian and neglectful). The findings come from the children rather than the parents, but children are more reliable and accurate reporters than parents (Barry et al., 2008), and academic adjustment also includes an external indicator based on school records. The non-experimental methodology also does not allow us to establish causal relationships between variables.

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REFERENCES

Alcaide, M., Garcia, O. F., Queiroz, P., & Garcia, F. (2023). Adjustment and maladjustment to later life: Evidence about early experiences in the family. *Frontiers in Psychology, 14*, 1059458. https://doi.org/10.3389/fpsyg.2023.1059458

Alcaide, M., Garcia, O. F., Chen, F., & Garcia, F. (2025). Raising generation Z children in China: Parenting styles and psychosocial adjustment. *Psychosocial Intervention, 34*(2), 103–115. https://doi.org/10.5093/pi2025a9

Alcaide, M., Garcia, O. F., Gomez-Ortiz, O., & Garcia, F. (2025). Raising to conformity without strictness: Is it achievable? *Frontiers in Psychology, 16*, 1568132. https://doi.org/10.3389/fpsyg.2025.1568132

Ang, R. P., & Goh, D. H. (2006). Authoritarian parenting style in Asian societies: A cluster- analytic investigation. *Contemporary Family Therapy, 28*, 131–151.

Ari, A. (2025). Training Teachers Who Shape the Future: Teacher Education in Switzerland. *International Journal of Instruction, 18*(1)https://doi.org/10.29333/iji.2025.1810a

Aunola, K., & Nurmi, J. E. (2005). The role of parenting styles in children's problem behavior. *Child Development, 76*, 1144–1159.

Axpe, I., Fernandez-Zabala, A., Goni, E., & Ramos-Diaz, E. (2023). Paternal and maternal socialization perception on adolescent resilience. *Anales De Psicologia, 39*(3), 425–434. https://doi.org/10.6018/analesps.477231

Barry, C. T., Frick, P. J., & Grafeman, S. J. (2008). Child versus parent reports of parenting practices: Implications for the conceptualization of child behavioral and emotional problems. *Assessment, 15*(3), 294–303. https://doi.org/10.1177/1073191107312212

Bartolo, M. G., Palermiti, A. L., Servidio, R., Musso, P., Tenuta, F., Amendola, M. F., Costabile, A., & Inguglia, C. (2023). The relationship between parental monitoring, peer pressure, and motivations for responsible drinking among Italian adolescents: The mediating role of positive alcohol expectancies. *The Journal of Genetic Psychology, 184*(1), 23–41. https://doi.org/10.1080/00221325.2022.2113026

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology, 4*, 1–103. https://doi.org/10.1037/h0030372

Baumrind, D. (1972). An exploratory study of socialization effects on black children: Some black-white comparisons. *Child Development, 43*(1), 261–267. https://doi.org/10.1111/j.1467-8624.1972.tb01099.x

Benner, A. D. (2011). The Transition to high school: Current knowledge, future directions. *Educational Psychology Review, 23*(3), 299–328. https://doi.org/10.1007/s10648-011-9152-0

Cairns, R. B., & Cairns, B. D. (1994). *Lifelines and risks: Pathways of youth in our time*. Cambridge University Press.

Calafat, A., Garcia, F., Juan, M., Becoña, E., & Fernández-Hermida, J. R. (2014). Which parenting style is more protective against adolescent substance use? Evidence within the European context. *Drug and Alcohol Dependence, 138*, 185–192. https://doi.org/10.1016/j.drugalcdep.2014.02.705

Chao, R. K. (2001). Extending research on the consequences of parenting style for Chinese Americans and European Americans. *Child Development, 72*, 1832–1843. https://doi.org/10.1111/1467-8624.00381

Chen, F., Garcia, O. F., Alcaide, M., Garcia-Ros, R., & Garcia, F. (2024). Do we know enough about negative parenting? Recent evidence on parenting styles and child maladjustment. *The European Journal of Psychology Applied to Legal Context, 16*, 37–48. https://doi.org/10.5093/ejpalc2024a4

Clark, T. T., Yang, C., McClernon, F. J., & Fuemmeler, B. F. (2015). Racial differences in parenting style typologies and heavy episodic drinking trajectories. *Health Psychology, 34*(7), 697–708. https://doi.org/10.1037/hea0000150

Climent-Galarza, S., Alcaide, M., Garcia, O. F., Chen, F., & Garcia, F. (2022). Parental socialization, delinquency during adolescence and adjustment in adolescents and adult children. *Behavioral Sciences, 12*(11), 448. https://doi.org/10.3390/bs12110448

Cupar, T., Klanjšek, R., Košir, K., Lavrič, M., & Vazsonyi, A. T. (2025). Effects of parenting styles on academic achievement: The moderating role of a country's economic development. *Children and Youth Services Review, 176*, 108429. https://doi.org/10.1016/j.childyouth.2025.108429

Daily, S. M., Smith, M. L., Lilly, C. L., Davidov, D. M., Mann, M. J., & Kristjansson, A. L. (2020). Using school climate to improve attendance and grades: Understanding the importance of school satisfaction among middle and high school students. *Journal of School Health, 90*(9), 683–693. https://doi.org/10.1111/josh.12929

Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113*(3), 487–496. https://doi.org/10.1037/0033-2909.113.3.487

Durbin, D. L., Darling, N., Steinberg, L., & Brown, B. B. (1993). Parenting style and peer group membership among European-American adolescents. *Journal of Research on Adolescence, 3*(1), 87–100. https://doi.org/10.1207/s15327795jra0301_5

Dwairy, M., & Achoui, M. (2006). Introduction to three cross-regional research studies on parenting styles, individuation, and mental health in Arab societies. *Journal of Cross-Cultural Psychology, 37*, 221–229. https://doi.org/10.1177/0022022106286921

Eccles, J. S., Midgley, C., Wigfield, A., Buchanan, C. M., Reuman, D., Flanagan, C., & Maciver, D. (1993). Development during adolescence - the impact of stage-environment fit on young adolescents experiences in schools and in families. *American Psychologist, 48*(2), 90–101. https://doi.org/10.1037//0003-066X.48.2.90

Ertema, M., Sánchez-Sosa, J. C., Garcia, O. F., Villarreal-González, M. E., & Garcia, F. (2025). The dark side of the self: When family is highly related to mental health

deterioration. *Spanish Journal of Psychology*, *28*(e4), 1-15. https://doi.org/10.1017/SJP.2025.3

Escamilla, I., Juan, N., Benito, A., Castellano-Garcia, F., Rodriguez-Ruiz, F., & Haro, G. (2024). Substance addiction in adolescents: Influence of parenting and personality traits. *Brain Sciences, 14*(5), 449. https://doi.org/10.3390/brainsci14050449

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59–109. https://doi.org/10.3102/00346543074001059

Fuentes, M. C., Alarcon, A., Gracia, E., & Garcia, F. (2015). School adjustment among Spanish adolescents: Influence of parental socialization. *Cultura Y Educacion, 27*(1), 1–32. https://doi.org/10.1080/11356405.2015.1006847

Fuentes, M. C., Garcia, O. F., Alcaide, M., Garcia-Ros, R., & Garcia, F. (2022). Analyzing when parental warmth but without parental strictness leads to more adolescent empathy and self-concept: Evidence from Spanish homes. *Frontiers in Psychology, 13*, 1060821. https://doi.org/10.3389/fpsyg.2022.1060821

Fuentes, M. C., Garcia, O. F., & Garcia, F. (2020). Protective and risk factors for adolescent substance use in Spain: Self-esteem and other indicators of personal well-being and ill-being. *Sustainability, 12*(15), 5967. https://doi.org/10.3390/su12155962

Fuentes, M. C., Garcia-Ros, R., Perez-Gonzalez, F., & Sancerni, D. (2019). Effects of parenting styles on self-regulated learning and academic stress in Spanish adolescents. *International Journal of Environmental Research and Public Health, 16*(15), 2778. https://doi.org/10.3390/ijerph16152778

Garcia, F., & Gracia, E. (2009). Is always authoritative the optimum parenting style? Evidence from Spanish families. *Adolescence, 44(173)*, 101–131. https://search.proquest.com/docview/621909838

Garcia, F., Serra, E., Garcia, O. F., Martinez, I., & Cruise, E. (2019). A third emerging stage for the current digital society? Optimal parenting styles in Spain, the United States, Germany, and Brazil. *International Journal of Environmental Research and Public Health, 16*(13), 2333. https://doi.org/10.3390/ijerph16132333

Garcia, O. F., Fuentes, M. C., Gracia, E., Serra, E., & Garcia, F. (2020). Parenting warmth and strictness across three generations: Parenting styles and psychosocial adjustment. *International Journal of Environmental Research and Public Health, 17*(20), 7487. https://doi.org/10.3390/ijerph17207487

Garcia, O. F., & Serra, E. (2019). Raising children with poor school performance: Parenting styles and short- and long-term consequences for adolescent and adult development. *International Journal of Environmental Research and Public Health, 16*(7), 1089. https://doi.org/10.3390/ijerph16071089

Garcia, O. F., Serra, E., Zacares, J. J., Calafat, A., & Garcia, F. (2020). Alcohol use and abuse and motivations for drinking and non-drinking among Spanish adolescents: Do

we know enough when we know parenting style? *Psychology & Health, 35*(6), 645–654. https://doi.org/10.1080/08870446.2019.1675660

Garcia, O. F., Serra, E., Zacares, J. J., & Garcia, F. (2018). Parenting styles and short- and long-term socialization outcomes: A study among Spanish adolescents and older adults. *Psychosocial Intervention, 27*(3), 153–161. https://doi.org/10.5093/pi2018a21

Garcia, O. F., Alcaide, M., Musitu-Ferrer, D., Pons-Benavent, L., & Garcia, F. (2024). Parental Socialization based on warmth and strictness among adolescents and young adults: Which parenting dimension is related to greater adjustment? *Sage Open, 14*(4), 1–17. https://doi.org/10.1177/21582440241289684

Garcia-Ros, R., Perez-Gonzalez, F., Tomas, J. M., & Fernandez, I. (2018). The Schoolwork Engagement Inventory: Factorial structure, measurement invariance by gender and educational level, and convergent validity in Secondary Education (12-18 Years). *Journal of Psychoeducational Assessment, 36*(6), 588–603. https://doi.org/10.1177/0734282916689235

Glasgow, K. L., Dornbusch, S. M., Troyer, L., Steinberg, L., & Ritter, P. L. (1997). Parenting styles, adolescents' attributions, and educational outcomes in nine heterogeneous high schools. *Child Development, 68*(3), 507–529. https://doi.org/10.2307/1131675

Gomez-Ortiz, O., Sanchez-Sanchez, C., & Garcia, O. F. (2025). New Self-Care Scale for Adults (SCS-A): Development and validation in Spanish parents and its relationship with psychological and family adjustment. *BMC Psychology, 13*(1), 195. https://doi.org/10.1186/s40359-025-02502-9

Gonzalez, A. R., Holbein, M. F. D., & Quilter, S. (2002). High school students' goal orientations and their relationship to perceived parenting styles. *Contemporary Educational Psychology, 27*, 450–470.

Harma, M., Aktaş, B., & Sümer, N. (2025). Behavioral but not psychological control predicts self-regulation, adjustment problems and academic self-efficacy among early adolescents. *The Journal of Psychology,* , 1–26. https://doi.org/10.1080/00223980.2025.2465478

Ho, D. Y. F. (1986). Chinese patterns of socialization: A critical review. In M. H. Bond (Ed.), *The psychology of the Chinese people* (pp. 1–37). Oxford University Press.

Huebner, E. S. (1994). Preliminary development and validation of a multidimensional life satisfaction scale for children. *Psychological Assessment, 6*(2), 149.

Jacome-Mora, A., Garcia, O. F., Ertema, M., & Garcia, F. (2025). Effects of parenting styles on adolescent and adult adjustment: which parenting style is more beneficial in Spanish families? *Anales De Psicología/Annals of Psychology, 41*(2), 172–185. https://doi.org/10.6018/analesps.612671

Koutra, K., Paschalidou, A., Roumeliotaki, T., & Triliva, S. (2022). Main and interactive retrospective associations between parental rearing behavior and

psychological adjustment in young adulthood. *Current Psychology,* https://doi.org/10.1007/s12144-022-03011-3

Krauss, S., & Orth, U. (2024). Family environment and self-esteem development in adolescence: A replication and extension. *Journal of Research in Personality, 111*, 104511. https://doi.org/10.1016/j.jrp.2024.104511

Krejčova, K., Chýlová, H., & Rymešová, P. (2023). Analysis of siblings' relationship and parenting style using structure modelling approach. *PLoS ONE, 18*(2)

Lam, S., Jimerson, S., Wong, B. P. H., Kikas, E., Shin, H., Veiga, F. H., Hatzichristou, C., Polychroni, F., Cefai, C., Negovan, V., Stanculescu, E., Yang, H., Liu, Y., Basnett, J., Duck, R., Farrell, P., Nelson, B., & Zollneritsch, J. (2014). Understanding and Measuring Student Engagement in School: The Results of an International Study From 12 Countries. *School Psychology Quarterly, 29*(2), 213–232. https://doi.org/10.1037/spq0000057

Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 62*(5), 1049–1065. https://doi.org/10.1111/j.1467-8624.1991.tb01588.x

Mañez, I., Skrobiszewska, N., Descals, A., Cantero, M. J., Cerdan, R., Garcia, O. F., & Garcia-Ros, R. (2024). Channelling feedback through audiovisual presentations: Do higher education students perceive, use and benefit from video feedback compared to written feedback? *Journal of Computer Assisted Learning,* https://doi.org/10.1111/jcal.12993

Marsh, H. W. (1989). Age and sex effects in multiple dimensions of self-concept - preadolescence to early adulthood. *Journal of Educational Psychology, 81*(3), 417–430. https://doi.org/10.1037/0022-0663.81.3.417

Martin-Blesa, E., Garcia, O. F., Alcaide, M., & Garcia, F. (2024). Parental socialization and its relationship to child adjustment and maladjustment in socialization and beyond. *Ansiedad Y Estrés, 30*(3), 147–156. https://doi.org/10.5093/anyes2024a19

Martinez, I., Garcia, F., Veiga, F., Garcia, O. F., Rodrigues, Y., & Serra, E. (2020). Parenting styles, internalization of values and self-esteem: A cross-cultural study in Spain, Portugal and Brazil. *International Journal of Environmental Research and Public Health, 17*(7), 2370. https://doi.org/10.3390/ijerph17072370

Martinez, I., Murgui, S., Garcia, O. F., & Garcia, F. (2019). Parenting in the digital era: Protective and risk parenting styles for traditional bullying and cyberbullying victimization. *Computers in Human Behavior, 90*, 84–92. https://doi.org/10.1016/j.chb.2018.08.036

Martinez-Escudero, J. A., Garcia, O. F., Alcaide, M., Bochons, I., & Garcia, F. (2023). Parental socialization and adjustment components in adolescents and middle-aged adults: How are they related? *Psychology Research and Behavior Management, 16*, 1127–1139. https://doi.org/10.2147/PRBM.S394557

Melero, S., & Sánchez-Sandoval, Y. (2026). Mother–Child Relationship During Childhood in Adoptive Families and Psychological Well-Being in Early Adulthood. *Child & Family Social Work, 31*(1), 469–478. https://doi.org/10.1111/cfs.13292

Morris, A. S., Ratliff, E. L., Cosgrove, K. T., & Steinberg, L. (2021). We know even more things: A decade review of parenting research. *Journal of Research on Adolescence, 31*(4), 870–888. https://doi.org/10.1111/jora.12641

Palacios, I., Garcia, O. F., Alcaide, M., & Garcia, F. (2022). Positive parenting style and positive health beyond the authoritative: Self, universalism values, and protection against emotional vulnerability from Spanish adolescents and adult children. *Frontiers in Psychology, 13*, 1066282. https://doi.org/10.3389/fpsyg.2022.1066282

Perez-Gramaje, A. F., Garcia, O. F., Reyes, M., Serra, E., & Garcia, F. (2020). Parenting styles and aggressive adolescents: Relationships with self-esteem and personal maladjustment. *European Journal of Psychology Applied to Legal Context, 12*(1), 1–10. https://doi.org/10.5093/ejpalc2020a1

Pinquart, M., & Kauser, R. (2018). Do the associations of parenting styles with behavior problems and academic achievement vary by culture? Results from a meta-analysis. *Cultural Diversity & Ethnic Minority Psychology, 24*(1), 75–100. https://doi.org/10.1037/cdp0000149

Pinquart, M., & Lauk, J. (2024). Associations of parenting styles with substance use in the offspring-A systematic review and meta-analysis. *Drug and Alcohol Review,* https://doi.org/10.1111/dar.13961

Pratt, M. W., Green, D., MacVicar, J., & Bountrogianni, M. (1992). The mathematical parent: Parental scaffolding, parent style, and learning outcomes in long-division mathematics homework. *Journal of Applied Developmental Psychology, 13*(1), 17–34. https://doi.org/10.1016/0193-3973(92)90003-Z

Queiroz, P., Garcia, O. F., Garcia, F., Zacares, J. J., & Camino, C. (2020). Self and nature: Parental socialization, self-esteem, and environmental values in Spanish adolescents. *International Journal of Environmental Research and Public Health, 17*(10), 3732. https://doi.org/10.3390/ijerph17103732

Reyes, M., Garcia, O. F., Perez-Gramaje, A., Serra, E., Melendez, J., Alcaide, M., & Garcia, F. (2023). Which is the optimum parenting for adolescents with low vs. high self-efficacy? Self- concept, psychological maladjustment and academic performance of adolescents in the Spanish context. *Anales De Psicologia, 39*, 446–457. https://doi.org/10.6018/analesps.517741

Rinallo, E., Barni, D., & Scopelliti, M. (2025). From Parents to Planet: Understanding the Link Between Parenting Styles and Pro-Environmental Behaviors of a Sample of Italian Young Adults. *Environment and Behavior, 57*(9-10), 753–793. https://doi.org/10.1177/00139165251369272

Rodriguez-Menendez, C., Garcia-Perez, O., & Martinez-Garcia, M. L. (2026). The influence of parenting dimensions on children's adjustment: the role of parent gender. *Anales De Psicologia, 42*(1), e05. https://doi.org/10.6018/analesps.642351

Rohner, R. P., Saavedra, J., & Granum, E. O. (1978). Development and validation of the Parental Acceptance Rejection Questionnaire: Test manual. *Catalogue of Selected Documents in Psychology, 8*, 17–48.

Salmela-Aro, K., Tang, X., Symonds, J., & Upadyaya, K. (2021). Student engagement in adolescence: A scoping review of longitudinal studies 2010-2020. *Journal of Research on Adolescence, 31*(2), 256–272. https://doi.org/10.1111/jora.12619

Siacor, K. H., Ng, B., & Liu, W. C. (2024). Fostering student motivation and engagement through teacher autonomy support: A self-determination theory perspective. *International Journal of Instruction, 17*(2), 583–598. https://doi.org/10.29333/iji.2024.17232a

Spera, C. (2005). A review of the relationship among parenting practices, parenting styles, and adolescent school achievement. *Educational Psychology Review, 17*, 120–146.

Steinberg, L., Elmen, J. D., & Mounts, N. S. (1989). Authoritative parenting, psychosocial maturity, and academic-success among adolescents. *Child Development, 60*(6), 1424–1436. https://doi.org/10.1111/j.1467-8624.1989.tb04014.x

Steinberg, L., Lamborn, S. D., Darling, N., Mounts, N. S., & Dornbusch, S. M. (1994). Over-Time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 65*(3), 754–770. https://doi.org/10.1111/j.1467-8624.1994.tb00781.x

Steinberg, L., Lamborn, S. D., Dornbusch, S. M., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement, and encouragement to succeed. *Child Development, 63*, 1266–1281.

Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Annual Review of Psychology, 52*, 83–110. https://doi.org/10.1146/annurev.psych.52.1.83

Sujarwo, S., & Herwin, H. (2023). Parental involvement and student achievement: a meta-analysis of publications in the Scopus database. *International Journal of Instruction, 16*(2), 107–124. https://doi.org/10.29333/iji.2023.1627a

Vazquez-Valencia, C. Y., & Campos-Uscanga, Y. (2024). Emotional intelligence in young adults: Relationships with perceived parental rearing and personality. *Universitas Psychologica, 23*, 1-12. https://doi.org/10.11144/Javeriana.upsy23.ieaj

Veiga, F. H., Festas, I., Garcia, O. F., Oliveira, Í M., Veiga, C. M., Martins, C., Covas, F., & Carvalho, N. A. (2023). Do students with immigrant and native parents perceive themselves as equally engaged in school during adolescence? *Current Psychology, 42*, 11902–11916. https://doi.org/10.1007/s12144-021-02480-2

Villarejo, S., Garcia, O. F., Alcaide, M., Gonzalez, M. E., & Garcia, F. (2024). Early family experiences, drug use, and psychosocial adjustment across the life span: Is

parental strictness always a protective factor? *Psychosocial Intervention, 33*(1), 15–27. https://doi.org/10.5093/pi2023a16

Villarejo, S., Martinez-Escudero, J. A., & Garcia, O. F. (2020). Parenting styles and their contribution to children personal and social adjustment. *Ansiedad Y Estrés, 26*(1), 1–8. https://doi.org/10.1016/j.anyes.2019.12.001

Voyer, D., & Voyer, S. D. (2014). Gender differences in scholastic achievement: A meta-analysis. *Psychological Bulletin, 140*(4), 1174–1204. https://doi.org/10.1037/a0036620

Wang, C. H. C., & Phinney, J. S. (1998). Differences in child rearing attitudes between immigrant Chinese mothers and Anglo-American mothers. *Early Development and Parenting, 7*(4), 181–189. https://doi.org/10.1002/(SICI)1099-0917(199812)7:4

Wang, D., Shen, M., & Wu, X. (2026). Socioeconomic status and inequalities in early development of non-cognitive skills: Evidence from China. *China Economic Review, 95*, 102586. https://doi.org/10.1016/j.chieco.2025.102586

Wang, M., & Eccles, J. S. (2012). Social support matters: longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development, 83*(3), 877–895. https://doi.org/10.1111/j.1467-8624.2012.01745.x

Wang, M., & Fredricks, J. A. (2014). The reciprocal links between school engagement, youth problem behaviors, and school dropout during adolescence. *Child Development, 85*(2), 722–737. https://doi.org/10.1111/cdev.12138

Wang, S., & Zheng, L. (2024). Parenting style and the non-cognitive development of high school student: evidence from rural China. *Frontiers in Psychology, 15*, 1393445. https://doi.org/10.3389/fpsyg.2024.1393445

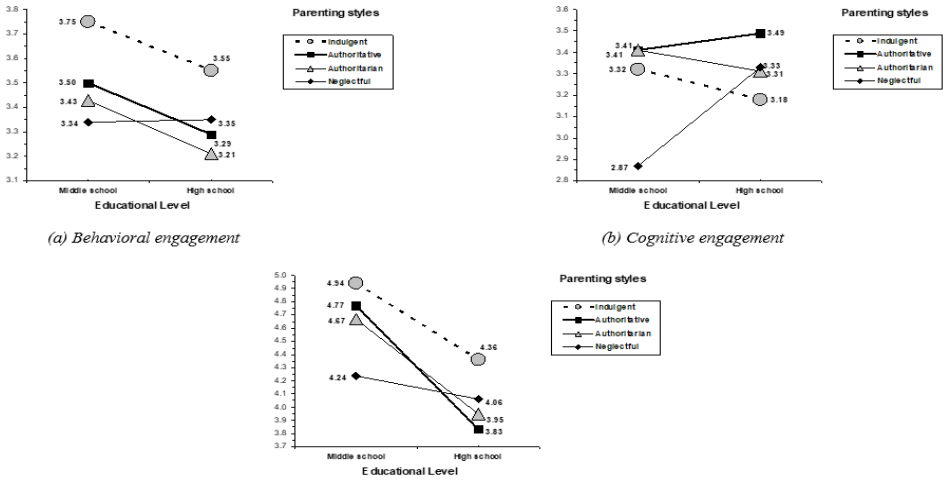
Wentzel, K. R., Tomback, R., Williams, A., & McNeish, D. (2019). Perceptions of competence, control, and belongingness over the transition to high school: A mixed-method study. *Contemporary Educational Psychology, 56*, 55–66. https://doi.org/10.1016/j.cedpsych.2018.11.005

Wigfield, A., Eccles, J. S., Fredricks, J., Roeser, R., Schiefele, U., Simpkins, S., & Simpkins-Chaput, S. (2015). Development of achievement motivation and engagement. *Handbook of child psychology and developmental science: Socioemotional processes* (pp. 657–700). John Wiley & Sons Inc. https://doi.org/10.1002/9781118963418.childpsy316

Zakaria, M. I., Abdullah, A. H., Alhassora, N. S. A., Osman, S., & Ismail, N. (2025). The impact of m-learning and problem-based learning teaching method on students motivation and academic performance. *International Journal of Instruction, 18*(1), 503–518. https://doi.org/10.29333/iji.2025.18127a

Zaman, S. B., Sadr, A. J., & Khan, S. (2025). Family dynamics and self-esteem: The impact of perceived parental rejection on adolescents and their adult siblings. *Child & Family Social Work*. https://doi.org/10.1111/cfs.70117

APPENDICES

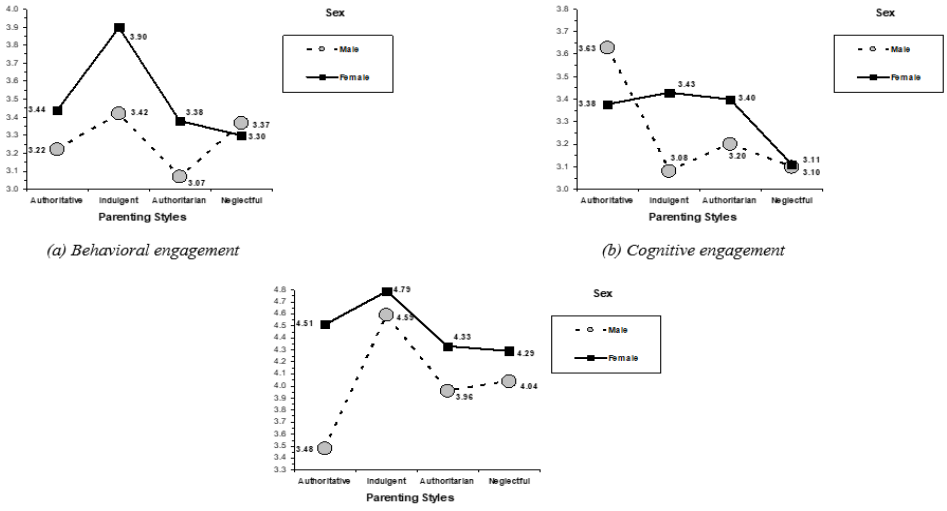


(a) Behavioral engagement

(b) Cognitive engagement

(c) Satisfaction with school

Figure 1
Interaction of parenting styles by educational level. (a) behavioral engagement, (b) cognitive engagement, and (c) satisfaction with school



(a) Behavioral engagement

(b) Cognitive engagement

(c) Satisfaction with school

Figure 2
Interaction of parenting styles by sex. (a) behavioral engagement, (b) cognitive engagement, and (c) school satisfaction.