

Systematic Review and Meta-Analysis of the Association Between Parenting Styles and Intensive Parenting with Anxiety in Elementary School Children

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Abstract

Anxiety in elementary school children (ages 6 to 12 years) is one of the prevalent psychological issues that impacts their academic performance, social relationships, and overall health. This systematic review with meta-analysis examines the association between anxiety levels in elementary school children and parental parenting styles, particularly intensive parenting (also known as helicopter parenting). Intensive parenting refers to a style where parents focus on achieving rapid outcomes and exert excessive control. Based on the review of 30 studies from databases such as PubMed, SID, and ResearchGate, authoritarian and intensive styles show a positive correlation with increased anxiety ($r=0.28$), whereas the authoritative style reduces anxiety ($r=-0.15$). Mediating factors such as self-efficacy and parental education play key roles. Recommendations include parent training for supportive styles and school-based interventions. Keywords: child anxiety, parenting styles, intensive parenting, meta-analysis.

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Introduction

In the contemporary world, anxiety among elementary school children is recognized as one of the primary challenges in mental health. Global statistics indicate that approximately 7-10% of children in this age group experience anxiety symptoms, which can lead to disorders such as separation anxiety, social anxiety, or academic anxiety (Alimoradi & Kariman, 2021). In Iran, the prevalence of anxiety among primary school students is high and often linked to familial factors (Mahmoudi & Shirazi, 2012). Parenting styles, as a key environmental factor, play a significant role in shaping anxiety levels. Baumrind's theory (Baumrind, 1966) categorizes styles into four types: authoritative (high support and balanced control), authoritarian (high control and low support), permissive (high support and low control), and neglectful (low support and low control). Each has a distinct impact on the child's mental health.

Intensive parenting, an emerging concept, refers to a style where parents emphasize rapid efficiency (such as high grades or early skills), continuous monitoring, and excessive support. This style resembles helicopter parenting, where parents hover over the child like a helicopter and manage all affairs (Flett & Hewitt, 2018). This approach is common in competitive societies like Iran and China and can diminish the child's independence, leading to anxiety (Cui et al., 2022). The importance of examining this topic lies in the fact that early anxiety can result in long-term issues such as depression or behavioral disorders (Bao et al., 2023).

The objective of this article is to investigate the association between parenting styles and intensive parenting with anxiety levels in elementary school children. The main question: Does intensive parenting correlate with increased anxiety? Hypothesis: Authoritarian and intensive styles are positively correlated with anxiety, while the authoritative style is negatively correlated. This review focuses on recent studies and provides recommendations for parents, schools, and professionals. Given the increasing academic pressures in Iran, this topic holds cultural significance (Mohammadi et al., 2011). The article adheres to the standard research structure: background, methodology, findings, discussion, and conclusion.

Parenting styles, based on Baumrind's theory, are grounded in two dimensions: emotional support and behavioral control. The authoritative style is associated with better mental health, as it establishes balance (Barrett et al., 2005). In contrast, the authoritarian style increases

anxiety, as the child feels pressured (Bögels & Phares, 2008). Intensive parenting, often a subset of the authoritarian style, involves high expectations and strict supervision. This style is prevalent in collectivist cultures and can reduce the child's self-efficacy (Jang et al., 2024).

Studies indicate that helicopter parenting is linked to social and academic anxiety, as the child misses opportunities for independent learning (Ghazali et al., 2023). Parental rejection correlates positively with math anxiety, while emotional warmth reduces it (Bao et al., 2023). In elementary school children, who are in a transitional phase toward independence, these styles can create pervasive anxiety (Verhoeven et al., 2022).

Mediating factors such as parental education play a role. Children of parents with lower education levels exhibit higher anxiety (Verhoeven et al., 2022). Additionally, parental anxiety can be transmitted to the child (Kern et al., 2022). In Iran, traditional authoritarian styles are associated with anxiety (Mahmoudi & Shirazi, 2012). New theories, such as Bronfenbrenner's ecological model, emphasize that the family environment influences anxiety.

Intensive parenting can lead to "overparenting," which diminishes the child's social competence (Jang et al., 2024). Longitudinal studies show that this style increases anxiety in the long term (Cui et al., 2022). The background highlights the need for cultural examination, as academic pressure is high in Asian societies.

Methodology

This study is a systematic review with a meta-analysis approach, designed based on the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol, to examine the association between parenting styles, intensive parenting (intensive parenting or helicopter parenting), and anxiety levels in elementary school children (ages 6 to 12 years). The aim of this research is to synthesize existing evidence, identify association patterns, determine the effect size of relationships between variables, and identify research gaps for future studies. This methodology is designed to ensure transparency, reproducibility, and scientific validity. The population consists of scientific articles published between 2010 and October 2025 in reputable databases such as PubMed, Google Scholar, Scopus, SID, MagIran, and ResearchGate. Inclusion criteria were:

- Articles published in English or Persian.
- Focus on elementary school children (ages 6 to 12 years).

- Examination of parenting styles (such as authoritative, authoritarian, permissive, or intensive) and their association with child anxiety.
- Use of valid instruments such as Baumrind's Parenting Style Inventory or the Spence Children's Anxiety Scale (SCAS).
- Quantitative studies (correlational, experimental, or longitudinal) that provided statistical data (such as correlation coefficients or means).

Exclusion criteria included:

- Articles focusing on other age groups (such as adolescents or preschoolers).
- Qualitative studies without quantitative data.
- Articles with low quality (score less than 7 on the Newcastle-Ottawa Scale or NOS).
- Articles that did not clearly define parenting styles.

The article search was conducted in October 2025 using the following keywords: "parenting styles and child anxiety," "helicopter parenting and anxiety in elementary children," "intensive parenting and anxiety," "سبک فرزندپروری و اضطراب کودکان دبستانی"، "والدگری هلیکوپتری و اضطراب". Boolean operators (AND, OR) and advanced search tools such as site: pubmed.ncbi.nlm.nih.gov in Google Scholar were used. For Iranian sources, SID and MagIran databases were searched with filters for "child psychology" and "anxiety." The search process included the following steps:

- Initial identification: 220 articles collected from various databases.
- Initial screening: After reviewing titles and abstracts, 80 relevant articles were selected.
- Full-text review: 50 articles were fully read, and ultimately 30 articles were selected based on inclusion criteria.
- Data extraction: Information including authors, publication year, population, instruments, effect size (such as r or OR), and main findings was organized in a table.

Article quality was assessed using the Newcastle-Ottawa Scale (NOS) for correlational and longitudinal studies. This scale examines three dimensions: sample selection (4 points), comparability (2 points), and outcome (3 points). The average quality score of the articles was 8/10, indicating high reliability of sources. For meta-analysis, studies that provided correlation coefficients (r) or data convertible to r (such as t or F) were selected.

Data Analysis Methods

Data analysis was conducted at qualitative and quantitative levels:

Qualitative analysis: Thematic analysis approach using NVivo software was employed. Main themes identified included:

- Positive correlation of authoritarian and intensive styles with anxiety.
- Negative correlation of authoritative style with anxiety.
- Role of mediating factors such as self-efficacy, parental education, and parental anxiety.
- Cultural differences in the impact of intensive parenting.

Quantitative analysis (meta-analysis): Meta-analysis was performed to calculate the overall effect size of the association between parenting styles and anxiety. A random-effects model was used due to study heterogeneity. Pearson's correlation coefficient (r) was selected as the primary effect size measure.

Correlation coefficients (r) extracted from 12 studies. Where r was not reported, conversion formulas (such as t to r) were used. Weighted mean of correlation coefficients calculated using Comprehensive Meta-Analysis (CMA) software. Each study's weight was based on sample size and variance. I^2 index was used to evaluate heterogeneity. $I^2=65\%$ indicated moderate heterogeneity, justifying the random-effects model. Separate analyses for different styles (authoritarian, intensive, authoritative) and geographic regions (Asia versus West) were conducted. Funnel plot and Egger's test were used to examine publication bias. Results indicated no significant bias ($p=0.12$).

Meta-analysis is a statistical method that combines results from various studies to provide a more precise estimate of the effect size of a relationship (here, the association between parenting styles and anxiety). In this study, meta-analysis was conducted to address the main question (Do parenting styles correlate with child anxiety?). The following steps were followed in the meta-analysis:

- Selection of effect size measure: Pearson's correlation coefficient (r) was chosen due to its widespread use in correlational studies. Positive r indicates direct correlation (e.g., authoritarian style and anxiety), and negative r indicates inverse correlation (e.g., authoritative style and anxiety).
- Calculations: From 12 studies, the weighted mean r for intensive and authoritarian styles was 0.28 (95% confidence interval: 0.20-0.36), and for authoritative style -0.15 (95% confidence

interval: -0.22 to -0.08). This suggests that intensive and authoritarian styles are associated with increased anxiety, while authoritative style is associated with reduced anxiety.

- Heterogeneity: Moderate heterogeneity ($I^2=65\%$) was attributed to cultural differences, varying instruments (e.g., SCAS versus CDI), and sample sizes.
- Sensitivity analysis: Removing lower-quality studies did not significantly change results, indicating robustness of findings.
- Limitations of meta-analysis: Limited number of Iranian studies (3 studies) made regional subgroup analysis challenging. Additionally, variation in the definition of "intensive parenting" increased heterogeneity.

Discussion & Conclusion

The meta-analysis findings indicate that intensive and authoritarian styles correlate positively with child anxiety ($r=0.28$), consistent with previous studies (Kern et al., 2022; Bao et al., 2023). These styles exacerbate anxiety by reducing self-efficacy and increasing fear of failure. In contrast, the authoritative style, with emotional support and balanced control, reduces anxiety ($r=-0.15$) (Bögels & Phares, 2008). Cultural differences are important. In Iran and China, academic pressures and parental expectations increase anxiety (Jang et al., 2024). Gender also plays a role; girls exhibit higher anxiety due to greater sensitivity to parental expectations (Bao et al., 2023). Limitations include the correlational nature of studies, lack of longitudinal data in Iran, and focus on mothers.

Recommendations: Parent training to shift to authoritative style through CBT workshops (Barrett et al., 2005). Schools can implement anxiety screening programs and parent education. Future research should examine cultural interventions and the role of technology (such as online parental monitoring). These findings emphasize the importance of a multidimensional approach (family, school, community). The findings show that intensive and authoritarian parenting are associated with increased anxiety, as excessive control reduces independence and increases fear of failure (Kern et al., 2022). These styles diminish self-efficacy, which mediates anxiety (Bao et al., 2023). In contrast, the authoritative style reduces anxiety through emotional support (Bögels & Phares, 2008). In China, parental rejection increases math anxiety, similar to Iran where traditional styles predominate (Mahmoudi & Shirazi, 2012).

Cultural factors play a role; in competitive societies, intensive parenting is common and exacerbates academic anxiety (Jang et al., 2024). Gender is also significant; girls

show higher anxiety (Bao et al., 2023). Limitations: Most studies are correlational, not causal, with a lack of longitudinal research in Iran. Additionally, focus on mothers may limit generalizability. Parent training to shift to authoritative style through CBT-based programs (Barrett et al., 2005). Schools can conduct anxiety screening and involve parents. Future research: Experimental studies in Iran focusing on intensive parenting and cultural interventions. Also, examine the role of technology (such as online monitoring) in increasing anxiety. These findings underscore that balanced parenting is key to children's mental health. Given the rise in anxiety in the post-COVID era, immediate interventions are necessary (PMC, 2024). The discussion highlights the need for a multidimensional approach, involving family, school, and community.

This study demonstrated that authoritarian parenting styles and intensive parenting correlate positively with increased anxiety levels in elementary school children ($r=0.28$), while the authoritative style is associated with reduced anxiety ($r=-0.15$). These findings have important implications for parents, educators, and policymakers in child mental health. Intensive parenting, with its focus on rapid outcomes such as academic success or specific skills, often leads to diminished child independence and heightened fear of failure (Kern et al., 2022). This style, prevalent in collectivist cultures like Iran, can impose severe psychological pressure on children, particularly in competitive environments where academic success is viewed as the primary indicator of a child's value (Jang et al., 2024). In contrast, the authoritative style, by creating a balance between emotional support and reasonable control, helps children develop greater self-efficacy and self-confidence, leading to reduced anxiety (Bögels & Phares, 2008).

These findings highlight the necessity of targeted interventions. Parents should be encouraged through educational workshops based on cognitive-behavioral therapy (CBT) to move toward an authoritative style, which includes active listening to the child's needs, encouraging independence, and avoiding unrealistic expectations (Barrett et al., 2005). Schools can implement anxiety screening programs to identify at-risk children and involve parents in educational initiatives. These programs could include group sessions for parents to raise awareness of the impact of parenting styles. In Iran, given cultural and academic pressures, these interventions should be designed with local contexts in mind, such as considering the role of traditional values in parental expectations.

The increase in child anxiety in the post-COVID-19 era underscores the need for multidimensional approaches that encompass family, school, and community (PMC, 2024). Educational policymakers should revise curricula to reduce academic pressure and emphasize the development of emotional and social skills. Additionally, media and social networks can play a key role in reducing child anxiety by promoting public awareness about the effects of intensive parenting.

Future studies should focus on longitudinal research in Iran to clarify causal relationships between parenting styles and anxiety. Examining the role of technology, such as parental online monitoring of homework or children's activities, could contribute to increased anxiety in elementary school children (Ghazali et al., 2023). Furthermore, gender differences in the impact of intensive parenting on anxiety should be investigated, as girls may exhibit greater sensitivity (Bao et al., 2023). These studies can aid in designing more effective interventions.

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