



Behavioral outcomes of only children versus children with siblings: A review

Muskan Bali*

Assistant Professor, Department of Psychology, School of Health Sciences, Sushant University, Gurugram, Haryana, India

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Abstract

The question of if only children are different from children with siblings has been a focus of scholarly and public interest, especially as one-child families have become more common in many societies. This review paper synthesizes English-language journal and scholar-based studies published between 2016 and 2026 on behavioral outcomes among only children compared with children who have siblings. Across the reviewed literature, the strongest and most recent evidence suggests that only children are not globally disadvantaged in behavioral development and, in several domains, show outcomes that are similar to or slightly more favorable than those of children with siblings (Shenoy *et al.*, 2026; Stronge *et al.*, 2019)^[7, 9].

The review focuses on personality, psychosocial adjustment, prosocial behavior, social competence, academic and cognitive outcomes, and mental health. Although some studies report domain-specific disadvantages, especially in selected cultural or educational contexts, the overall literature does not support the older stereotype that only children are uniformly spoiled, maladjusted, or socially deficient (Associations of only-child status study, 2022; Effects of siblings on cognitive and sociobehavioral development study, 2023). The findings point instead to the importance of context, parenting, family resources, and cultural environment in shaping behavioral outcomes.

Keywords: Behavioral outcomes, emotional outcomes, siblings, only children, personality

Introduction

Family size is ever dynamic. It has been changing worldwide, and one-child families have become increasingly common globally. In India too urban households have been sticking to the one child policy, many couples resort to adopting the “DINK” policy- Double Income No Kids. That being said, even in a country as collectivistic as India, the number of only children is rising. At the same time, public discourse still often portrays only children as lonely, spoiled, selfish, or socially awkward, even though these assumptions originated in early work with weak methods and strong cultural bias.

Only-child status has long been discussed in developmental and family research because siblings are often assumed to be central to children’s social learning, emotional growth, and behavioral adjustment. Traditional beliefs suggest that siblings provide everyday practice in sharing, conflict resolution, cooperation, and emotional regulation, whereas only children are often assumed to miss these opportunities. Yet contemporary research increasingly questions whether the presence or absence of siblings alone is sufficient to explain behavioral development (Stronge *et al.*, 2019; Shenoy *et al.*, 2026)^[7, 9].

This topic has become especially relevant in the last decade because declining fertility rates, urban living, delayed parenthood, and changing family priorities have increased the number of one-child households in many countries. As a result, understanding the behavioral outcomes of only children is no longer a niche issue but a broader social and developmental question. The present review therefore examines recent evidence from 2016 to 2026 to determine whether only children differ from children with siblings in social, emotional, academic, and behavioral functioning (Shenoy *et al.*, 2026; Associations of only-child status study, 2022)^[7].

This review also responds to a practical need in the literature. Much of the public understanding of only children

still relies on outdated stereotypes or older studies, while recent scholarship offers more nuanced conclusions. By restricting the review to English-language studies from 2016 to 2026 and drawing on journal and scholar-accessible sources, this paper aims to provide a focused and up-to-date synthesis of contemporary evidence.

Methodology

Search Databases

Relevant studies were identified through journal and scholar-oriented academic search sources, with emphasis on Google Scholar and journal-indexed publications available through major academic platforms. The search process focused on combinations of keywords such as only child, single child, siblings, behavioral outcomes, social competence, personality, mental health, academic performance, prosocial behavior, and psychosocial adjustment. The review gave priority to peer-reviewed journal articles and scholar-indexed research accessible through academic databases and journal platforms rather than popular media or nonacademic commentary.

Inclusion Criteria

Studies were included if they met *all* of the following criteria: (a) they were published between 2016 and 2026; (b) they were available in English; (c) they were journal articles or scholar-indexed research reports with clear academic grounding; (d) they directly compared only children with children who had one or more siblings, or clearly examined only-child status as a central variable; and (e) they reported outcomes related to behavior, personality, psychosocial adjustment, social competence, prosocial tendencies, cognition, academic performance, or mental health. Review articles and empirical studies were both considered when they contributed directly to the question of behavioral outcomes among only children versus children with siblings (Shenoy *et al.*, 2026; Stronge *et al.*, 2019; Li, Y. *et al.*, 2024)^[7, 9].

Exclusion Criteria

Studies were excluded if they were published before 2016 or after 2026, were not available in English, did not directly address only-child status, or focused solely on birth order or family size without distinguishing only children from children with siblings. Nonacademic publications, editorials, opinion pieces, general parenting articles, theses without clear scholarly indexing, conference abstracts, and duplicate reports were also excluded. Studies were additionally excluded when they lacked behavioral, psychosocial, academic, or mental health outcomes relevant to the aims of the review.

Conceptual Background

The behavioral outcomes of only children are often interpreted through several recurring theoretical ideas. One of the most common is the resource dilution perspective, which suggests that as the number of children in a family increases, parental time, money, and emotional resources are spread more thinly. From this standpoint, only children may benefit from concentrated parental attention and educational investment, which could support stronger academic or developmental outcomes Shi, J. *et al.*, 2021; Effects of siblings on cognitive and sociobehavioral development study, 2023)^[3, 8].

An opposing perspective emphasizes sibling socialization. This view argues that siblings provide a natural context for cooperation, negotiation, conflict management, and perspective-taking, and that these repeated interactions may strengthen children's everyday social learning. From this perspective, only children may have fewer opportunities for routine social rehearsal within the home, although such gaps may later be compensated for through peers, school, and wider social environments (Being an only child and children's prosocial behaviors study, 2024; Are only-children different? evidence from a lab-in-the-field study, 2022).

Several recent studies suggest that neither perspective alone is sufficient. Instead, only-child outcomes reflect an interaction among parental investment, broader peer opportunities, school context, economic resources, and cultural expectations. This is why small, mixed and context-dependent differences are found in modern research rather than large universal effects (Stronge *et al.*, 2019; Shenoy *et al.*, 2026)^[7, 9].

Personality and General Behavioral Adjustment

According to this one recent finding, personality differences between adults with and without siblings are very small. In a large study published in the *Journal of Research in Personality*, Stronge *et al.* (2019)^[9] concluded that personality differences between adults with and without siblings were "very, very small," indicating that sibling status alone explains little variation in broad personality traits. This finding is especially important because personality has historically been one of the areas most associated with stereotypes about only children.

The implication of this work is that what we believe about only children being uniquely self-centered, emotionally unstable, or socially inflexible is not backed up by contemporary evidence. When differences are seen, they are often too puny to justify broad generalizations. This shifts the interpretation of only-child status away from a deficit model and toward a contextual model in which outcomes

depend more on environment than on sibling presence itself (Stronge *et al.*, 2019; Shenoy *et al.*, 2026)^[7, 9].

A 2026 systematic review of outcomes for U.S. only children similarly reported no negative overall pattern for only children and even noted some more positive outcomes, including stronger parent-child relationship quality, achievement motivation, more education, and strength of character (Shenoy *et al.*, 2026)^[7]. Taken together, recent literature suggests that general behavioral adjustment among only children is, at minimum, comparable to that of children with siblings in most major domains.

Social Competence and Prosocial Behavior

Social competence remains one of the most debated areas in the literature because it is the domain most often linked to the everyday functions of siblings. A 2024 study on children's prosocial behaviors reported that only children tended to show more prosocial tendencies than children with siblings in some domains, particularly in trait-related, relational, and altruistic aspects of prosocial behavior (Li, Y. *et al.*, 2024). This finding directly challenges the assumption that only children are less socially generous or less other-oriented.

At the same time, the literature does not suggest that only children are uniformly superior in social functioning. Rather, social outcomes appear to vary by age, context, and the type of social behavior measured. Some contexts may favor children who gain frequent conflict-management experience with siblings, whereas others may favor only children who benefit from closer adult guidance or more individualized support. The emerging picture is one of differentiated rather than globally better or worse social development (Li, Y. *et al.*, 2024; Effects of siblings on cognitive and sociobehavioral development study, 2023)^[3]. Research on social behavior also suggests that family processes and external peer opportunities matter greatly. Only children who have rich peer interaction through school, neighborhood networks, extended family, and structured activities may not differ meaningfully from children with siblings in day-to-day social competence. This helps explain why recent reviews increasingly reject simplistic assumptions about social deficiency among only children (Shenoy *et al.*, 2026)^[7].

Cognitive and Academic Outcomes

Recent literature goes to show that academic and cognitive outcomes are among the areas where only children may perform as well as or better than children with siblings. A 2023 study on the effects of siblings on cognitive and sociobehavioral development revisited the debate over how much sibship size matters and highlighted the need to examine both benefits and costs of sibling presence rather than assuming one direction of effect. Similarly, a 2021 study on rural Chinese adolescents asked whether only children are always better academically and addressed sibling effects on school performance in a nuanced way rather than treating only-child status as automatically advantageous or disadvantageous.

The most plausible interpretation of these findings is that academic outcomes depend heavily on how family resources are distributed. Only children may benefit from greater parental monitoring, educational expenditure, and one-to-one support, while children with siblings may benefit in other areas from collaborative learning or shared

experiences. The relevant point for this review is that current evidence does not show a blanket academic deficit among only children; if anything, many recent findings are compatible with equal or somewhat favorable outcomes for them in educational domains Shi, J. *et al.*, 2021; Shenoy *et al.*, 2026)^[7, 8].

These findings also challenge the idea that the presence of a brother or sister is always developmentally enriching. Siblings may offer stimulation and companionship, but they may also dilute resources and create competition. Therefore, a lot of recent studies favor a balanced interpretation in which the academic implications of sibling status depend on family size, socioeconomic resources, parenting practices, and schooling context (Effects of siblings on cognitive and sociobehavioral development study, 2023)^[3].

Mental Health and Psychosocial Outcomes

Mental health is another area in which older stereotypes have often portrayed only children as more vulnerable to loneliness, anxiety, or emotional difficulty. However, a 2022 study examining associations of only-child status with health outcomes and risky behaviors reported a broad and complex pattern rather than a uniformly negative one. This suggests that only-child status may be associated with some differences in lifestyle or well-being indicators, but not in a way that supports the crude assumption of global psychosocial disadvantage.

A 2025 study comparing anxiety and depression in only children versus children with siblings among medical students examined emotional distress in a large sample and reflects growing contemporary interest in mental health differences by sibling status. Such studies are important because they show that emotional outcomes may vary across developmental stage, educational pressure, and cultural context. The fact that these studies are often context-specific supports the broader conclusion that sibling status should not be treated as a stand-alone explanation for mental health differences.

The 2026 systematic review is again important here because it found no overall negative outcomes for U.S. only children and noted several positive features instead (Shenoy *et al.*, 2026)^[7]. This means that recent evidence is more consistent with a nuanced and conditional model of psychosocial outcomes than with the older idea that only children are especially vulnerable or maladjusted.

Cultural Variation in Findings

A substantial proportion of recent literature on only children is based in China, where the historical one-child policy created a distinctive social context for family life and child development. Studies in that setting are significant as only-child status there has been shaped not only by family preference but also by national policy and rapid social change.

This cultural specificity matters when interpreting the literature. Findings from policy-shaped contexts should not automatically be generalized to families in which having one child is a voluntary reproductive choice. A result observed in a highly structured demographic environment may reflect policy effects, cultural expectations, educational competition, or urbanization as much as sibling absence itself (Carlsson, F., Lampi *et al.*, 2022; Are only children always better? study, 2021)^[1].

Recent review work helps balance this issue by bringing together findings across contexts. The 2026 systematic

review of U.S. only children provides evidence from a very different cultural environment and also reports no broad negative developmental pattern (Shenoy *et al.*, 2026)^[7]. Together, these studies support the view that culture moderates the meaning of sibling status and that universal stereotypes about only children are empirically weak.

Parent-Child Relationships and Family Environment

An important theme in recent literature is that only children may benefit from especially close parent-child relationships. The 2026 systematic review identified quality of parent-child relationship as one of the positive outcomes associated with only children (Shenoy *et al.*, 2026)^[7]. This observation is consistent with the idea that in one-child households, parental attention and emotional investment may be more concentrated.

However, concentrated parental investment can function in more than one way. In supportive and emotionally healthy families, it may enhance confidence, educational motivation, and emotional security. In high-pressure or controlling families, it may also intensify performance expectations or emotional burden. Therefore, what matters most is not simply that an only child receives more parental attention, but how that attention is expressed and experienced within the family system (Associations of only-child status study, 2022; Shenoy *et al.*, 2026)^[7].

This point also helps explain why studies sometimes produce mixed findings. The same structural condition, being an only child, can lead to different developmental experiences depending on warmth, discipline style, communication, conflict, and opportunities for external socialization. Contemporary literature therefore encourages researchers to examine family process variables directly rather than assuming that sibling number alone is the decisive factor (Shenoy *et al.*, 2026; Effects of siblings on cognitive and sociobehavioral development study, 2023)^[3, 7].

Synthesis of Findings

When the literature from 2016 to 2026 is viewed as a whole, streaks of patterns stand out. First, broad personality differences between only children and children with siblings appear to be small, inconsistent, or negligible in many cases (Stronge *et al.*, 2019)^[9]. Second, academic and parent-child relationship outcomes often appear equal or somewhat favorable for only children, especially in contexts where concentrated parental resources matter (Shenoy *et al.*, 2026; Are only children always better? study, 2021)^[7].

Third, social and prosocial outcomes are more nuanced than older stereotypes suggest. Some recent evidence indicates that only children may show strong prosocial tendencies, while other work emphasizes that sibling interaction can support certain kinds of social learning (Li, Y. *et al.*, 2024; Effects of siblings on cognitive and sociobehavioral development study, 2023)^[3]. This does not point to a single winner between the two family structures; rather, it suggests that different developmental pathways can lead to competent functioning.

Fourth, mental health findings do not support a general claim of greater maladjustment among only children. Instead, emotional outcomes appear dependent on sample characteristics, social pressure, and cultural context (Associations of only-child status study, 2022; Anxiety and depression study, 2025). The literature therefore favors a contextual interpretation over a stereotype-based one.

Limitations of the Review

This review has several limitations. Because it was restricted to English-language studies published between 2016 and 2026, relevant research in other languages and earlier foundational studies was not included. This improves focus but may also curtail the range of the evidence.

The review is also narrative rather than quantitative, which means it does not estimate pooled effect sizes or formally compare study quality with a standardized appraisal tool. In addition, the included studies differ substantially in design, age group, national context, and outcome measurement, making direct comparison difficult (Stronge *et al.*, 2019; Effects of siblings on cognitive and sociobehavioral development study, 2023)^[3, 9].

Finally, recent literature is not evenly distributed across regions, and some contexts, particularly China, are overrepresented. This means that conclusions should be applied carefully across cultural settings and should not assume that all only-child experiences are developmentally equivalent (Carlsson, F., Lampi *et al.*, 2022)^[1].

Conclusion

The contemporary literature published between 2016 and 2026 does not support the claim that only children are inherently behaviorally disadvantaged when contrasted with children who have siblings. Instead, the best available evidence indicates that only children generally show similar overall behavioral adjustment, very small personality differences, and in some areas, such as parent-child relationship quality, achievement motivation, and certain academic or prosocial outcomes, they may even show modest strengths (Shenoy *et al.*, 2026; Stronge *et al.*, 2019; Li, Y. *et al.*, 2024)^[7, 9].

The central conclusion of this review is that sibling status by itself is a limited explanatory variable. Behavioral outcomes are better understood through the combined influence of parenting, family resources, school environment, peer opportunities, and cultural context. Future research should continue to use longitudinal and cross-cultural designs so that the developmental consequences of only-child status can be interpreted with greater precision and less reliance on stereotypes (Effects of siblings on cognitive and sociobehavioral development study, 2023; Associations of only-child status study, 2022)^[3].

References

1. Carlsson F, Lampi E, Martinsson P, Tu Q, Yang X. Are only-children different? Evidence from a lab-in-the-field experiment of the Chinese one-child policy. *Plos One*, 2022;17(11):0277210. <https://pmc.ncbi.nlm.nih.gov/articles/PMC9642884/>
2. Chang S, Jiang Y, Huang T, Ho K, Tan Y, Zhu L, *et al.* Anxiety and depression in only children versus children with siblings: A cross-sectional study among Chinese medical students. *Public health*, 2025;239:162-168.
3. Effects of siblings on cognitive and sociobehavioral development study. Effects of siblings on cognitive and sociobehavioral development. *American Sociological Review*, 2023. <https://journals.sagepub.com/doi/10.1177/00031224231210258>
4. Li Y, Li Y, Chen G, Yang J. Being an only child and children's prosocial behaviors: evidence from rural China and the role of parenting styles. *Humanities and Social Sciences Communications*, 2024;11(1):1-14. <https://www.nature.com/articles/s41599-024-03078-2>
5. Montes G. Having older siblings is associated with lower rates of depression, ADD/ADHD, anxiety and behavior problems among children with ASD. *Maternal and Child Health Journal*, 2018;22(5):642-647.
6. Park J, Chandran A. Associations of only-child status with health outcomes and risky behaviors in Korean middle-and high-school students: An outcome-wide analysis. *Preventive medicine reports*, 2023;31:102101. <https://pmc.ncbi.nlm.nih.gov/articles/PMC9938333/>
7. Shenoy S, Overton K, Howells RC. A systematic review of the outcomes for U.S. only children in literature from 2016 to 2025. *Family Journal*, 2026. <https://journals.sagepub.com/doi/full/10.1177/10664807261440838>
8. Shi J, Li L, Wu D, Li H. Are only children always better? Testing the sibling effects on academic performance in rural Chinese adolescents. *Children and Youth Services Review*, 2021;131:106291. <https://www.sciencedirect.com/science/article/abs/pii/S0190740921003674>
9. Stronge S, Shaver JH, Bulbulia J, Sibley CG. Only children in the 21st century: Personality differences between adults with and without siblings are very, very small. *Journal of Research in Personality*, 2019;83:103868. <https://doi.org/10.1016/j.jrp.2019.103868>
10. Stahnke B, Williams C, Meier K. A Systematic Review of the Outcomes for US Only Children in the Last 40 Years. *The Family Journal*, 2026, 10664807261440838. <https://journals.sagepub.com/doi/full/10.1177/10664807261440838>
11. Wang B, Zhang H, Kong XZ. Growing up with siblings in the age of one child: the potentially confounding role of socioeconomic background. *Psychoradiology*, 2026;6:035. <https://pmc.ncbi.nlm.nih.gov/articles/PMC12914323/>
12. <https://www.econstor.eu/bitstream/10419/314538/1/dp17641.pdf>