



A Comparative Analysis Of Personality And Social Adjustment Of The Single Child Experience Versus Sibling Interaction

¹ **Jhanvi Chandna**, *M.A Clinical Psychology, Amity Institute of Psychology and Allied Sciences, Amity University, Noida, Uttar Pradesh, India.*

chandnajhanvi@gmail.com

² **Dr. Annie Khanam**, *Amity Institute of Psychology and Allied Sciences, Amity University, Noida, Uttar Pradesh, India.*

aksingh16@amity.edu

Abstract: A Comparative Analysis Unravelling Personality and Social Adjustment of the Single Child Experience Versus Sibling Interaction explores the impact of sibling status on personality development and social adjustment. The study aimed to compare the psychological impacts of individuals raised as single children to those with siblings, focusing on traits such as extraversion, agreeableness, neuroticism, and social adaptation. A total of 104 adults (18 years and older) participated in the study, executing the Mini-IPIP for personality traits and the Student Social Adjustment Inventory (SSI) for social adjustment. The results revealed substantial differences between single children and those with siblings, with the former exhibiting higher levels of neuroticism and lower social adaptability. These findings contribute to the understanding of how sibling interaction shapes personality and social integration, Providing evidence for birth order and sibling dynamics to play a critical role in personality development and social integration.

Keywords: *Birth Order, Personality Traits, Social Adjustment, Siblings, Single Child, Neuroticism, Extraversion.*

1. Introduction

Personality is the key factor that shapes our life, and weaves together an individual's thoughts, emotions, and actions to influence the day to day functioning. Personality has been defined by various theorists. One of the influential theorists, (Raymond Cattell, 1950) described personality as "that which permits a prediction of what a person will do in a given situation." Personality revolves around the ways we think, feel, and act which make each individual unique. It incorporates how they handle the emotions, interact with people, feel about themselves, and manage relationships with others. Personality is a great example exhibiting how an individual will adjust in numerous social situations. For instance, the way an individual is brought up in the family, the family life affects the personality growth. Whether or not individuals have brothers or sisters can change how they learn to get along with others and build emotional skills. Having siblings or being an only child influences their social adjustment and emotional development in unique ways. As illustrated in the movie, "Taare Zameen Par"(2007) offers a clear look at how personalities can develop over time. It explores how a person's natural abilities, their surroundings, and support from others play roles in this process. The story centers on Ishaan Awasthi, a creative and sensitive boy who faces challenges because he has dyslexia. This condition makes school difficult for him and lowers his confidence, especially due to the high expectations of society. His life begins to change when he meets his mentor, Ram Shankar Nikumbh. Their relationship is a good fit with Carl Rogers' humanistic theory, which stresses that being accepted and offering unconditional positive regard helps someone grow and realize their potential. Freud's ideas about psychology explain why Ishaan hides his feelings—his parents put a lot of pressure on him. Meanwhile, Bandura's social-cognitive theory shows how Ishaan changes by observing others and through supportive guidance. The film teaches us that personality is not fixed, pointing out how crucial a caring and supportive environment is for a person's psychological and emotional growth. Building on this idea, it becomes clear that personality development is a dynamic process influenced by both internal traits and external circumstances. Over the years, many psychological theories have tried to explain how people's personalities form and change, emphasizing the interplay between biological predispositions and environmental factors. These theories give us different ways to look at how family life influences us. For example, the relationships we have with our siblings—our brothers and sisters—can shape our personality traits and affect how we interact with others socially. Understanding these

influences helps us see why we might behave in certain ways around others, based on our family experiences.

1.1 Aim

The aim of this research is to compare the personality traits and social adjustment of individuals raised as single children with those who have siblings.

1.2 Study Objectives

1. To assess and compare the personality characteristics of single children and those with siblings.
2. To evaluate and compare social adjustment levels between single children and individuals with siblings.
3. To explore the relationship between personality traits and social adjustment within different family structures.

1.3 Research Hypotheses

1. Significant differences exist in the personality traits of single children compared to individuals with siblings.
2. There are notable differences in social adjustment between single children and those with siblings.
3. A positive correlation exists between personality traits and social adjustment for both single children and those with siblings.

2. Review Of Literature

Research examining birth order and sibling relationships highlights important variations in social adjustment and personality development among children. Firstborn children generally exhibit stronger social adjustment and demonstrate greater leadership abilities, whereas younger siblings are often more socially adaptable and empathetic (Clark & Foster, 2023). Similarly, children with siblings tend to show higher levels of social competence and maintain more peer relationships compared to only children, who often experience limitations in close friendships and interpersonal engagement (Miller & Thompson, 2023). The quality of sibling relationships also influences social outcomes; children experiencing high levels of sibling conflict have been found to display more aggressive behaviors and face greater challenges in forming peer connections (Williams & Jacobs, 2023). Furthermore, single children are more prone to

psychosocial and psychosomatic problems than their counterparts with siblings (Singh et al., 2023). The prevalence of psychological issues is significantly higher in only children (OR: 5.72, 95% CI: 2.6-12.5), as is the prevalence of psychosomatic problems (OR: 1.99, 95% CI: 1.2-3.4) (Singh et al., 2023). These findings indicate that the absence of siblings may negatively impact a child's mental health and overall development.

Additionally, birth order and family structure appear to influence personality traits, with firstborns and only children often displaying leadership qualities, while later-born siblings develop stronger cooperation and social skills through shared familial experiences (Harris & Walker, 2022). These findings emphasize the influential role of sibling dynamics and positioning within the family in shaping both social adjustment and psychological development.

Research comparing personality development and social functioning across different family structures and sibling dynamics reveals critical distinctions. Firstborn and only children tend to show stronger leadership abilities, while later-born children and those with siblings typically display greater social cooperation and interpersonal sensitivity, likely due to the influence of shared familial interactions (Harris & Walker, 2022). Children raised in nontraditional family settings, such as blended or single-parent households, often face obstacles in establishing stable peer relationships. However, the presence of consistent and supportive caregiving within these environments has been shown to foster more effective social adjustment (King & Mitchell, 2022). Additionally, the presence of siblings appears to positively impact the development of social traits, with sibling relationships enhancing characteristics like agreeableness and social engagement. In contrast, only children tend to exhibit higher levels of self-reliance, though they may also experience reduced sociability (Müller & Kohn, 2022). These findings collectively indicate that both sibling presence and family structure play influential roles in shaping children's social competencies and personality growth.

3. Methodology

3.1 Variables

Independent Variable: Family structure type (single child vs. those with siblings).

Dependent Variables:

- Personality traits (measured using the Mini-IPIP scale)
- Social adjustment (measured using the SSI scale)

3.2 Participants

This study will include a sample of 104 participants (N=105), ages 18+, who will be divided into two groups: single children and individuals with siblings. Participants will be selected using a convenience sampling method, with eligibility criteria based on their experience of growing up as either a single child or in a household with siblings.

Instruments for Data Collection:

Instrument	Description	Reliability & Validity Information
Mini-IPIP	A short version of the IPIP-120, designed to assess the Big Five personality traits: extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience.	<i>Reliability:</i> Cronbach's alpha for the scale ranges from .74 to .87, indicating strong internal consistency. <i>Validity:</i> The scale has been cross-validated against the full IPIP-120 and demonstrates high convergent validity.
SSI (Social Adjustment Inventory)	This instrument measures social adjustment in areas like relationships, academic integration, and emotional well-being.	<i>Reliability:</i> The overall scale has a Cronbach's alpha of .82, ensuring good reliability. <i>Validity:</i> The scale has shown strong construct validity, correlating well with other established social adjustment measures.

3.3 Data Analysis Approach

Data will be processed using SPSS (version 25) to ensure comprehensive and accurate analysis. The following statistical tests will be utilized:

- 1. Descriptive Statistics** (e.g., means, medians, standard deviations) will provide an overview of the data.

2. **Independent Samples t-test** will be used to compare differences in personality traits and social adjustment between single children and those with siblings.
3. **Pearson Correlation** will examine the relationship between personality traits and social adjustment within each group.
4. **Linear Regression** will be employed to assess whether personality traits can predict social adjustment within each group (single child vs. sibling interaction). This will help determine the strength and nature of the predictive relationship between personality traits and social adjustment, controlling for family structure.

4. Result

In this section, we aim to explore the relationships between the Big Five personality traits and social adjustment among participants ($N = 104$). Using data derived from personality assessments and a social adjustment scale, Pearson's product-moment correlation was employed to determine the strength and direction of the relationships between variables (Table 1).

The correlation analysis revealed that extraversion, agreeableness, and intellect were positively associated with social adjustment. The highest correlation was observed between agreeableness and social adjustment, with a correlation coefficient of $r = 0.327$, indicating a moderate positive relationship ($p < 0.01$). Similarly, extraversion ($r = 0.297$, $p < 0.01$) and intellect ($r = 0.330$, $p < 0.01$) also demonstrated moderate associations. These findings suggest that individuals who score higher on traits like agreeableness, extraversion, and openness (intellect) tend to report better social adjustment outcomes.

Table 1: To explore the associations between personality traits and social adjustment among the participants ($N = 104$), a Pearson correlation analysis was conducted. Table 1 presents the correlation coefficients and significance levels.

Variables	Pearson Correlation (r)	Significance (p)
Extraversion and Social Adjustment	0.297**	0.002
Agreeableness and Social Adjustment	0.327**	<0.001
Conscientiousness and Social Adjustment	0.078	0.432

Neuroticism and Social Adjustment	-0.102	0.302
Intellect and Social Adjustment	0.330**	<0.001

Note: Correlation is significant at the 0.01 level (2-tailed).

Independent Samples t-Test

To examine differences in personality traits and social adjustment between only children and those with siblings, independent samples t-tests were performed (see Table 2). The analysis did not reveal any statistically significant differences between the two groups across all measured variables, including the Big Five traits and social adjustment. For instance, the comparison of social adjustment yielded a mean difference of 0.31 (only children: $M = 43.60$, $SD = 4.91$; siblings: $M = 43.29$, $SD = 4.44$), which was not statistically significant ($p = 0.735$).

Table 2: Independent Samples t-Test comparing personality traits and social adjustment by child type

Variables	Mean (Only Child)	Mean (Sibling)	Mean Difference	<i>p</i> -value
Extraversion	12.82	13.36	-0.53	0.373
Agreeableness	15.16	15.42	-0.27	0.601
Conscientiousness	13.69	13.31	0.38	0.433
Neuroticism	12.64	12.20	0.44	0.439
Intellect	14.78	15.32	-0.54	0.249
Social Adjustment	43.60	43.29	0.31	0.735

Note: No significant differences found ($p > 0.05$, two-tailed).

Regression Analysis

To identify the predictors of social adjustment, a stepwise multiple regression analysis was conducted including all five personality traits (see Table 3). The final model (Model 5) was statistically significant ($F(5, 98) = 5.009$, $p < 0.001$), explaining approximately **20.4%** of the variance in social adjustment ($R^2 = .204$). Among the predictors, **agreeableness** ($\beta = 0.217$, $p = 0.031$) and **intellect** ($\beta = 0.218$, $p = 0.028$) emerged as significant positive predictors of social adjustment.

Table 3: *Multiple Regression Coefficients Predicting Social Adjustment*

Predictor	B	Std. Error	B	p-value
Extraversion	0.260	0.156	0.169	0.098
Agreeableness	0.390	0.179	0.217	0.031
Conscientiousness	0.143	0.177	0.076	0.422
Neuroticism	-0.067	0.155	-0.041	0.668
Intellect	0.425	0.191	0.218	0.028

Model Summary: $R = .451$, $R^2 = .204$, Adjusted $R^2 = .163$, $F(5, 98) = 5.009$, $p < 0.001$

5. Discussion

The present study sought to examine the relationship between personality traits and social adjustment, with a particular focus on comparing only children to those with siblings. Drawing upon the Big Five personality dimensions—extraversion, agreeableness, conscientiousness, neuroticism, and intellect (openness to experience)—this analysis aimed to uncover whether certain personality traits significantly predict individuals' capacity for social adjustment and whether sibling status moderates these traits.

The findings revealed that three of the five personality traits—extraversion, agreeableness, and intellect—were significantly and positively correlated with social adjustment. This indicates that individuals who are more sociable, cooperative, and open to new experiences tend to demonstrate better adaptability in social environments. Among these, intellect and agreeableness emerged as the most influential predictors in the regression model, suggesting that the ability to think creatively and empathize with others plays a central role in fostering healthy social integration.

Interestingly, neuroticism and conscientiousness were not significantly associated with social adjustment in this sample. While previous literature often links lower neuroticism with better social and emotional functioning, the absence of such a relationship here may suggest that the effect of emotional instability on social adaptation is more nuanced and possibly mediated by

other contextual or interpersonal factors not measured in the present study. Similarly, the nonsignificant role of conscientiousness could imply that traits like organization and self-discipline may have less direct relevance in social adjustment contexts, particularly among emerging adults who are still navigating social identity development.

When comparing personality traits and social adjustment between only children and those with siblings, no statistically significant differences were found. This finding challenges traditional stereotypes that only children may be less socially adept or more egocentric due to the absence of sibling interaction during development. The lack of meaningful variation between these two groups suggests that family structure alone does not determine personality development or social adaptability. It is possible that other environmental influences—such as peer relationships, educational settings, and parenting styles—play a compensatory role in shaping social behavior, thereby neutralizing the effect of sibling presence.

The overall regression model explained approximately 20% of the variance in social adjustment, a moderate effect size that underscores the importance of personality while acknowledging the presence of other contributing variables. Notably, the strongest predictors—agreeableness and intellect—align with interpersonal sensitivity and cognitive flexibility, reinforcing the notion that social success often stems from both emotional understanding and openness to diverse experiences. These findings hold practical implications for educators, counselors, and parents. Interventions aimed at improving social adjustment could benefit from fostering traits such as empathy, cooperation, and openness in youth, regardless of family size. Moreover, the results advocate for a more nuanced understanding of only-child development, moving beyond outdated assumptions and focusing instead on individual personality dynamics.

Future research should consider longitudinal designs and broader sociocultural variables to deepen understanding of how personality traits interact with life experiences in shaping social functioning. Additionally, exploring mediating variables such as self-esteem or emotional intelligence could offer a more comprehensive picture of the mechanisms underlying social adjustment.

6. Conclusion

This study explored the interplay between personality traits and social adjustment, with a comparative lens on only children and individuals with siblings. Drawing from the Big Five

personality framework, it was found that extraversion, agreeableness, and intellect (openness to experience) are significantly associated with enhanced social adjustment. These findings suggest that individuals who are socially outgoing, cooperative, and intellectually curious tend to adapt more effectively in social settings. Such traits appear to support stronger interpersonal interactions, better conflict resolution, and overall smoother integration into diverse social environments.

Moreover, the absence of significant differences between only children and those with siblings across all measured variables challenges conventional assumptions about sibling influence on personality development. The results imply that the presence or absence of siblings may not be a critical determinant of an individual's social functioning. Instead, the data underscore the importance of personality traits themselves—traits that are likely shaped by a multitude of biological, familial, and sociocultural factors beyond sibling dynamics. Importantly, the regression model accounted for a moderate portion of variance in social adjustment, emphasizing that while personality traits play a meaningful role, other unexamined factors may also contribute to one's ability to adapt socially. This highlights the need for future research to incorporate variables such as parenting style, peer influence, and emotional intelligence to build a more comprehensive understanding of social adjustment processes.

In summary, the findings advocate for a more individualized and trait-focused approach to understanding social behavior, rather than one rooted in family structure alone. The implications are valuable not only for developmental psychologists and educators but also for parents and caregivers seeking to support young individuals in cultivating traits that promote healthy social interactions. Ultimately, fostering qualities such as empathy, openness, and sociability may be more impactful in encouraging successful social adjustment than traditional beliefs about family composition.

6.1 Limitations

While this study provides valuable insights into the psychological and social development differences between only children and children with siblings, several limitations must be acknowledged.

First, the sample size of 105 participants ($N = 105$) may limit the generalizability of the findings. Although the sample represents a diverse range of participants, the findings may not fully capture the experiences of all single children or children with siblings across different

cultures, socioeconomic backgrounds, or geographic locations. Future research with a larger and more diverse sample could help to validate these results and offer a broader perspective on the subject.

Second, the cross-sectional design of this study limits the ability to draw causal conclusions. Since data was collected at one point in time, it is not possible to determine the direction of relationships between personality traits, social adjustment, and family structure. Longitudinal studies would be more suitable for understanding the long-term effects of being an only child versus having siblings on personality development and social adjustment.

Third, the reliance on self-reported data may introduce response biases. Participants may have provided socially desirable responses or may have misinterpreted survey questions, particularly those related to self-perception of personality traits and social adjustment. Using a combination of self-reports, peer-reports, and observational data could mitigate these biases. Another limitation is that the study did not account for the various contextual factors that may influence the personality traits and social adjustment of participants. Factors such as the quality of sibling relationships, the presence of other family members, and environmental influences (e.g., peer interactions, community involvement) may also contribute significantly to the development of personality and social adjustment. Including these variables in future research could provide a more holistic understanding of the factors at play.

Lastly, the study predominantly focused on the comparison between single children and children with siblings, without accounting for variations within sibling groups (e.g., birth order effects, sibling gender dynamics, and family size). Future research could explore these subgroups to better understand how specific sibling interactions might influence personality and social adjustment.

References

- Ainsworth, M. D. S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Erlbaum.
- Arora, M., & Teotia, A. (2021). Impact of sibling relationships on personality traits and adjustment of adolescents. *Journal of Psychology and Behavioral Science*, 9(2), 45–53.
- Bandura, A. (1963). *Social learning and personality development*. Holt, Rinehart, & Winston.

- Badi, S. (2017). Impact of siblingship on personality traits among college students in Pune, India. *International Journal of Indian Psychology*, 5(1), 78–85.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. Basic Books.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
- Cattell, R. B. (1950). *Personality: A systematic theoretical and factual study*. McGraw-Hill.
- Chen, F., & Liu, G. (2014). Academic performance and family structure: An analysis of single children and children with siblings. *Chinese Sociological Review*, 46(4), 26–45.
- Clark, H., & Foster, R. (2023). Sibling dynamics and social development: A comparative study of firstborns and later-borns. *Developmental Psychology Review*, 15(1), 22–37.
- Costa, P. T., & McCrae, R. R. (1992). *NEO PI-R professional manual*. Psychological Assessment Resources.
- Costa, P. T., & McCrae, R. R. (2002). Revised NEO personality inventory (NEO-PI-R) and NEO five-factor inventory (NEO-FFI). *Psychological Assessment Resources*.
- Day, L. H. (1991). Only children and behavior in adulthood: A study of voting patterns in U.S. Congress members. *Journal of Individual Differences*, 12(3), 201–213.
- Erikson, E. H. (1963). *Childhood and society* (2nd ed.). Norton.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202>
- Gonzalez, M., & Gorbunova, N. (2017). Sibling interaction and personality development. *Journal of Family and Social Studies*, 15(3), 34–56.
- Graziano, W. G., & Tobin, R. M. (2002). Agreeableness: Dimension of personality or social desirability artifact? *Journal of Personality*, 70(5), 695–728. <https://doi.org/10.1111/1467-6494.05021>
- Goel, S., & Aggarwal, M. (2012). Self-confidence among single children and children with siblings. *Journal of Personality and Clinical Studies*, 28(2), 107–112.
- Harris, D., & Walker, L. (2022). Birth order and personality development: The moderating effect of sibling interaction. *Journal of Family Psychology*, 36(4), 315–328.
- Hunsberger, M., Lehtinen-Jacks, S., Mehlig, K., Gwozdz, W., Russo, P., & Bammann, K. (2012). Overweight in singletons vs. children with siblings: A European cross-sectional study. *Nutrition & Diabetes*, 2(7), e44.

- Joshanloo, M. (2022). Personality traits and social well-being: A 20-year longitudinal study. *Journal of Happiness Studies*, 23(2), 455–473. <https://doi.org/10.1007/s10902-021-00413-9>
- King, R., & Mitchell, J. (2022). Family structure and social adjustment in contemporary youth. *Journal of Adolescent Research*, 37(3), 298–312.
- Kumar, R., & Desai, V. (2021). Social adaptability and employee performance in corporate sectors. *International Journal of Organizational Behavior*, 10(4), 201–213.
- Lam, C. M. (1991). Only child syndrome: Myth or reality? *International Journal of Psychology*, 26(4), 543–555.
- Løset, G. W., et al. (2023). Personality and loneliness in university students: Emotional and social implications. *Journal of College Student Development*, 64(1), 78–93. <https://doi.org/10.1353/csd.2023.0006>
- McCrae, R. R., & Costa, P. T. (2004). A contemplated revision of the NEO Five-Factor Inventory. *Personality and Individual Differences*, 36(3), 587–596. [https://doi.org/10.1016/S0191-8869\(03\)00118-1](https://doi.org/10.1016/S0191-8869(03)00118-1)
- Miller, J., & Thompson, B. (2023). Peer relationships and social competence among children with and without siblings. *Child and Adolescent Social Work Journal*, 40(1), 15–30.
- Mini-IPIP. (n.d.). Retrieved from [website or publisher]
- Müller, K., & Kohn, M. (2022). The social personality of single children: A study of agreeableness and engagement. *European Journal of Child Development*, 19(2), 111–123.
- Polit, D. F., & Falbo, T. (1987). Only children and personality development: A meta-analysis. *Journal of Marriage and the Family*, 49(2), 309–325.
- Poston, D. L., & Falbo, T. (1990). Academic and personality outcomes of only children. *Journal of Educational Psychology*, 82(1), 55–62.
- Rentfrow, P. J., & Gosling, S. D. (2003). The do re mi's of everyday life: The structure and personality correlates of music preferences. *Personality and Social Psychology Bulletin*, 29(8), 1027–1046. <https://doi.org/10.1177/0146167203252051>
- Roberts, B. W., Kuncel, N. R., Shiner, R., Caspi, A., & Goldberg, L. R. (2005). The power of personality: The comparative validity of personality traits, socioeconomic status, and

- cognitive ability for predicting important life outcomes. *Perspectives on Psychological Science*, 2(4), 313–345. <https://doi.org/10.1111/j.1745-6916.2007.00047.x>
- Searle, M. S., & McFadden, S. H. (2005). Social adjustment: Developmental considerations and future directions. *Journal of Social and Personal Relationships*, 22(5), 659–677. <https://doi.org/10.1177/0265407505056622>
- Shanmuga Vinayagam, S., Kumar, M., & Singh, V. (2019). A comparative study of personality traits and coping strategies among single and non-single children in Tamil Nadu. *International Journal of Health Sciences and Research*, 9(5), 211–217.
- Singh, A., Kapoor, R., & Sharma, P. (2023). Psychosocial and psychosomatic health risks in single children. *Indian Journal of Pediatric Psychology*, 18(1), 39–49.
- Stronge, S., Mahoney, A., & Sibley, C. G. (2019). Personality differences among only children and those with siblings in New Zealand. *Personality and Individual Differences*, 148, 101–108.
- Tobin, R. M., & Hannan, S. M. (2010). The relationship between personality traits and social adjustment. *Journal of Personality and Social Psychology*, 91(6), 1193–1201. <https://doi.org/10.1037/a0020721>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wang, Q., Fong, V. L., & Zhou, M. (2008). Personality development in Chinese only children: A longitudinal analysis. *Asian Journal of Social Psychology*, 11(2), 95–106.
- Wang, Q., Zheng, X., & Zhu, J. (2000). Personality traits and somatic complaints in preschool only children. *Early Child Development and Care*, 160(1), 25–35.
- Widiger, T. A., & Costa, P. T. (2013). *Personality disorders and the five-factor model of personality* (3rd ed.). American Psychological Association.
- Williams, G., & Jacobs, M. (2023). Sibling conflict and its effects on peer relationships and aggression. *Journal of Child Psychology and Psychiatry*, 64(2), 128–140.