

**The Impact of Birth Order on Social Connectedness Among
Secondary School Students**

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Abstract

Social connectedness is a fundamental aspect of adolescent development, shaping how young individuals experience belongingness, support, and interpersonal trust. Birth order, a key element of family structure, influences the nature of children's relationships both within and beyond the household. The present study explores differences in social connectedness across birth-order categories among secondary school students in Kerala. Employing survey method, data were gathered from 300 Class IX students using a standardized Social Connectedness Inventory. Descriptive statistics and one-way ANOVA were used to analyze variations among first-born, middle-born, last-born, and single children. Findings reveal significant birth-order differences, with last-born and single children demonstrating comparatively higher social connectedness. These results support theoretical expectations regarding sibling position and social relational patterns. The study underscores the relevance of birth-order dynamics in school-based guidance and suggests the importance of incorporating family contexts while designing interventions aimed at strengthening adolescents' social bonds.

Keywords: social connectedness, birth order, secondary school students

Introduction

Adolescence is a period marked by rapid physical, emotional, and social transitions. During this stage, young people develop an increased need for acceptance, companionship, and supportive relationships. Social connectedness, defined as an individual's subjective sense of closeness and meaningful affiliation with others, plays a vital role in helping adolescents gain confidence, cope with challenges, and construct healthy identities.

Family dynamics, particularly birth order, influence how children interact with their immediate environment. Classical and contemporary theories argue that sibling

position affects personality characteristics, communication patterns, and social tendencies. For example, first-born children often assume responsibility within the family, middle-born children may negotiate their position among siblings, while last-born and single children frequently receive more emotional attention and support.

Despite increasing research on social connectedness internationally, fewer studies in the Indian context have examined how sibling position shapes adolescents' relational experiences. As schools remain central environments for socio-emotional development, understanding birth-order differences in connectedness is valuable for tailoring support systems and educational practices. This study investigates whether birth order contributes to measurable variations in social connectedness among secondary school students.

Materials and Methods

Research Method

A survey method was employed, allowing the systematic assessment of behavioural tendencies and perceptions across a large student group.

Participants

The study sample consisted of 300 Class IX students enrolled in aided secondary schools in Ernakulam district, Kerala. Students represented four birth-order categories:

- First-born
- Middle-born
- Last-born
- Single children

Tool

The Social Connectedness Inventory, developed and standardised by the investigator, was used to measure students' perceived relational quality across multiple domains, including family bonds, peer interactions, school engagement, community involvement, and digital social exchanges. The tool demonstrated adequate reliability and content validity.

Procedure

Data were collected with institutional consent and student assent. The tool was administered during regular school hours, ensuring confidentiality and voluntary participation.

Data Analysis

Data were analyzed using:

- Means and standard deviations
- Percentage distribution
- One-way ANOVA to evaluate birth-order differences

Results

Overall Social Connectedness Levels

The Level of Social Connectedness among Secondary School Students Based on Total Sample

Table 1

Nature of the Scores of Social Connectedness among Secondary School Students Based on Total Sample

Mean	Median	Mode	SD	Skewness	Kurtosis
91.78	93	86	11.75	-0.27	0.14

The Social Connectedness scores of secondary school students have a mean of 91.78, a median of 93, and a mode of 86, indicating a slightly left-skewed distribution, as the mean is marginally lower than the median. The standard deviation of 11.75 suggests moderate variability in the scores. The skewness value of -0.27 confirms a slight negative skew, meaning the distribution has a longer left tail but is nearly symmetric. Additionally, the kurtosis value of 0.14 indicates that the distribution closely resembles a normal curve with no extreme peaks or heavy tails. Overall, the data is fairly symmetrical and well-distributed around the mean.

Table 2

Dependability of Scores of Social Connectedness among Secondary School Students Based on Total Sample

Sample	Mean	SE _M	Confidence Level (95%)	SD	SE _{SD}	Confidence Level (95%)
300	91.78	0.678	(90.45, 93.11)	11.75	0.48	(10.99, 12.59)

The Social Connectedness scores of secondary school students show a mean of 91.78 with a standard error of 0.678, resulting in a 95% confidence interval for the mean of (90.45, 93.11), indicating that the true average score is highly likely to fall within this range. The standard deviation of the scores is 11.75 with a standard error of 0.48, and the 95% confidence interval for the standard deviation is (10.99, 12.59), reflecting moderate variability in the scores. These results demonstrate that the scores are both consistent and reliable, with limited variability and a well-defined range for the mean and spread of Social Connectedness among the students.

Table 3

Percentage Analysis of Scores of Social Connectedness among Secondary School Students Based on Total Sample

Sl. No	Level of Scores	Frequency	Percentage
1	Above average	47	15.67 %
2	Average	201	67 %
3	Below average	52	17.33 %
	Total	300	100 %

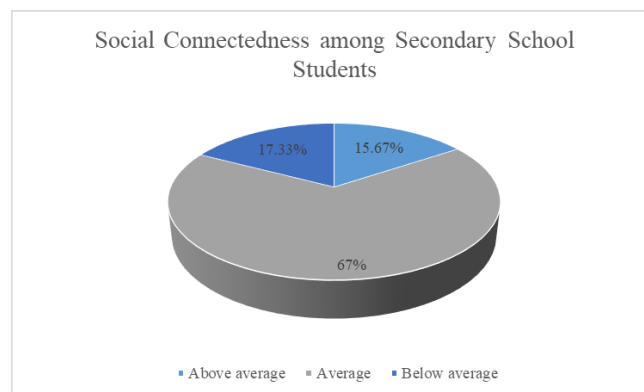
For analyzing the scores of Social Connectedness among Secondary School Students based on total sample the investigator used the percentage analysis method. The students in the Secondary School were categorized into three groups: Above average, Average, and below Average levels according to their scores of Social Connectedness. For this Mean score and Standard Deviation of Secondary School

Students were found. Those who have equal to the value of $M+\sigma$ and above are categorized as above average group and with scores equal to the value of $M-\sigma$ and below are categorised as below average group and the rest under the average group.

The percentage analysis of Social Connectedness scores among secondary school students reveals that the majority, 67% (201 students), fall within the average range, indicating that most students exhibit a typical level of Social Connectedness. Additionally, 15.67% (47 students) scored above average, reflecting a smaller proportion of students with higher Social Connectedness levels. Meanwhile, 17.33% (52 students) scored below average, suggesting a minority of students with lower levels of Social Connectedness. This distribution highlights that while most students have average levels of Social Connectedness, nearly one-third of the students are either significantly higher or lower, suggesting some diversity in social connectivity among the group. The comparison is graphically represented in figure 1

Figure 1

Pie Diagram Showing Scores of Social Connectedness among Secondary School Students Based on Total Sample



The distribution of social connectedness revealed:

- 67% of students displayed average connectedness,
- 15.67% showed above-average levels, and
- 17.33% scored below average.

This indicates that most students maintain a moderate level of relational engagement.

Birth Order and Social Connectedness

Table 4

Mean Scores of Social Connectedness by Birth Order

Birth Order	Mean Score	Interpretation
First-born	90.23	Average
Middle-born	88.50	Average–Low
Last-born	93.54	High
Single child	95.06	High

Table 5

Comparison of Means Scores of Social Connectedness between First Born, Middle Born, Last Born and Single Children at Secondary School using ANOVA

Variable	Sum of Squares	df	Mean Square	f value	p value
Social Connectedness	Between the group	1466.04	3	488.68	3.82 0.01
	Within the group	37902.62	296	128.05	
	Total	39368.67	299		

The ANOVA conducted to compare the mean scores of Social Connectedness among secondary school students based on birth order (First Born, Middle Born, Last Born, and Single Children) revealed a statistically significant difference, with an F-value of 3.82 and a p-value of 0.01 ($p < 0.05$). This indicates that birth order has a significant impact on the social connectedness of students.

The results indicate that last-born and single children exhibit higher social connectedness compared to first-born and middle-born peers.

Discussion

The study demonstrates that social connectedness varies significantly across birth-order categories. These findings complement classical birth order theories that emphasize differential patterns of attention, responsibility, and relational experiences within families.

Higher connectedness among last-born children may stem from their tendency to be more socially expressive and to receive greater familial affection. Being accustomed to older siblings' support may also enhance their ability to form meaningful peer relationships.

Single children often receive exclusive parental attention, which can strengthen their communication skills and emotional security. These factors collectively contribute to stronger perceptions of connectedness across family and peer contexts.

On the other hand, first-born children, who frequently adopt caregiving or leadership roles at home, might face higher expectations, potentially limiting their social exploration. Middle-born children, who often negotiate their identity between older and younger siblings, may experience reduced attention, contributing to lower connectedness scores.

Understanding these patterns is essential for educators and counsellors. Birth-order information serves as a valuable lens to interpret student behaviour, relational tendencies, and socio-emotional needs. Schools can utilize this awareness to design targeted activities—such as peer mentoring, structured group work, and social skill-building programs—to support students with comparatively lower connectedness.

Conclusion

The study establishes that birth order significantly influences social connectedness among secondary school students. Last-born and single children reported stronger relational ties, whereas first-born and middle-born students displayed moderately lower levels. These findings emphasise the role of family structure in shaping adolescents' social development.

Schools and counsellors are encouraged to integrate awareness of birth-order dynamics into student support systems. Enhancing social connectedness through structured peer interactions, collaborative learning, and community engagement can strengthen adolescents' interpersonal capacities. Future studies may explore the influence of parenting styles, cultural norms, and digital interactions to provide a more comprehensive understanding of adolescents' social connectedness.

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