



Sibling Relationships and Subjective Well-Being in Adolescents: A Gender-Based Study

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ABSTRACT

Sibling relationships represent one of the longest-lasting interpersonal relationships in an individual's life. Subjective well-being refers to an individual's overall evaluation of life, including feelings of happiness, satisfaction, and fulfillment. In this context, the present study aimed to examine the relationship between sibling relationships and subjective well-being among adolescents across gender in the state of Karnataka, specifically in Chikkamagaluru district. A quantitative research approach was adopted, using a correlational research design. Purposive sampling was employed to collect data from 120 participants, comprising 60 males and 60 females, aged between 17 and 21 years. Standardized psychometric tools were used for data collection, including the Brother-Sister Questionnaire developed by Graham Berman and Cutler, which assesses four dimensions—empathy, boundary maintenance, similarity, and coercion—and the Subjective Well-Being Inventory developed by Ed Diener et al. The collected data were analysed using SPSS software. As the data were not normally distributed, non-parametric tests such as Spearman's rank correlation coefficient and the Mann-Whitney U test was applied. The results indicated a negative correlation between sibling relationships and subjective well-being among adolescents. Additionally, significant gender differences were observed in sibling relationships and subjective well-being. The findings highlight the complex nature of sibling interactions and their influence on adolescents' psychological well-being, emphasizing the importance of considering gender differences in family and mental health research.

Original Research Article

Keywords: Sibling relationship, Subjective well-being, Adolescents, Gender.

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Introduction

Sibling relationships are characterized by both positive and negative interactions, including warmth, support, rivalry, and conflict. The quality of these relationships varies across families and individuals. Sibling interactions are influenced by personal perceptions, family dynamics, and external factors such as parental behavior and social circumstances (Stocker, Lanthier, & Furman, 1997; Furman & Lanthier, 1996). Even within the same family, siblings may experience relationships differently, with some bonds being warm and supportive while others are marked by conflict and coercion. High levels of sibling warmth and low levels of conflict, with sister-sister dyads reporting the warmest relationships

(Stocker, C. M et al., 2023). Maternal death increased sibling tension among daughters but not sons. The findings highlighted the role of gender in shaping sibling dynamics during major family transitions (Sujor et al., 2023).

Sibling Relationships During Adolescence

Adolescence is a critical developmental stage marked by physical, emotional, cognitive, and social changes. During this period, sibling relationships undergo significant transformations influenced by increasing autonomy, identity exploration, and changing family roles. Siblings may act as companions, confidants, and sometimes rivals as they navigate adolescence together. While closeness and support

often increase, adolescence can also bring heightened rivalry and conflict as individuals seek independence and self-definition. Although sibling bonds may become ambivalent during transitions such as leaving home or starting new roles, these relationships often continue to be perceived as meaningful and emotionally significant (Goetting, 1986; White, 2001). Even when communication frequency decreases, siblings frequently remain an important source of psychological security and support (Hamwey et al., 2019). Late adolescence, typically ranging from 16 to 21 years, is a period of increasing independence and changing family dynamics. During this stage, siblings may rely more on each other for emotional support as parental relationships evolve. Late adolescence provides opportunities for strengthening sibling bonds, developing conflict resolution skills, and offering mutual support during significant life transitions.

Dimensions of Sibling Relationships

Sibling relationships can be understood through several key dimensions, including empathy, boundary maintenance, similarity, and coercion.

Empathy in sibling relationships refers to the ability to understand and share each other's emotions. Empathy supports effective communication, emotional support, and conflict resolution, contributing to healthier sibling bonds. Parental modelling and guidance also play an important role in fostering empathy between siblings.

Boundary maintenance involves respecting personal space, individuality, privacy, and emotional limits within sibling relationships. Healthy boundaries promote mutual respect, autonomy, and balanced interactions.

Similarity among siblings arises from shared genetics, upbringing, and environment. Siblings often display similarities in physical traits, interests, values, and behaviors. Shared family experiences and social contexts further contribute to these similarities, which may influence closeness and mutual understanding.

Coercion refers to the use of force, manipulation, or pressure within sibling relationships. This may include verbal threats, emotional manipulation, or physical intimidation. Coercive behaviours can negatively affect self-esteem, emotional well-being, and the overall quality of sibling relationships. Addressing coercion early and promoting positive communication can help foster healthier sibling interactions.

Sibling Relationships and Subjective Well-Being

Subjective well-being refers to an individual's overall evaluation of life, including happiness, life satisfaction, and emotional experiences. The relationship between sibling interactions and subjective well-being is complex. Positive sibling relationships characterized by warmth, support, and

empathy can enhance well-being by providing emotional security, social support, and resilience. Conversely, negative sibling interactions such as conflict, coercion, and emotional abuse can contribute to stress, low self-esteem, and reduced well-being.

Children with siblings reported higher positive affect and life satisfaction, suggesting the beneficial role of sibling presence in emotional development (Maheshwari and Jamal, 2015). Perceived closeness and relationship quality, rather than frequency of contact, are key predictors of well-being (Cicirelli, 1989; Wilson et al., 1994; Bank and Kahn, 1982). However, poor sibling relationships and unresolved rivalries can negatively impact psychological well-being (Antonucci, 1994; Allan, 1977).

Research Gap

Although previous research has examined sibling relationships and psychosocial well-being separately, limited studies have explored specific dimensions of sibling relationships in relation to subjective well-being across gender, particularly among adolescents in the Indian context. Demographic variables such as age and gender play an important role in shaping sibling dynamics. The present study seeks to address this gap by examining the relationship between sibling relationships and subjective well-being among adolescents across gender, thereby contributing to a deeper understanding of family relationships and adolescent well-being.

Rationale of the Study

The present study aims to examine the relationship between sibling relationships and subjective well-being among adolescents across gender. Although previous research has explored sibling relationships and well-being separately, there is a lack of focused research examining specific dimensions of sibling relationships and their association with subjective well-being among adolescents. Gender differences in sibling interactions and their psychological outcomes further justify the need for this study. Understanding these relationships can aid in developing family-based interventions to enhance adolescents' psychological well-being and promote healthy sibling interactions.

Method

Aim: To assess the relationship between sibling relationships and subjective well-being among adolescents across gender.

Research Questions

- Is there a significant difference in sibling relationships among adolescents across gender?
- Is there a significant difference in subjective well-being among adolescents across gender?

- Is there a significant relationship between sibling relationships and subjective well-being among adolescents across gender?

Objectives of the Study

- To examine gender differences in sibling relationships among adolescents.
- To examine gender differences in subjective well-being among adolescents.
- To determine the relationship between sibling relationships and subjective well-being among adolescents.

Hypotheses

- H_01 : There is no significant difference in sibling relationships among adolescents across gender.
- H_02 : There is no significant difference in subjective well-being among adolescents across gender.
- H_03 : There is no significant relationship between sibling relationships and subjective well-being among adolescents.

Research Design

An exploratory survey research design. This design allows the assessment of the strength and direction of the relationship without manipulating variables.

Sample Description

Purposive sampling was employed to select 120 adolescents (60 males, 60 females) aged 17–21 years from Karnataka (Chikkamagaluru district).

Inclusion Criteria

- Indian adolescents aged 17–21 years.
- Siblings (brother-sister) living together with 1–5 years age gap.
- Birth order: 1st or 2nd born.

Exclusion Criteria

- Twins
- Same-gender siblings (brother-brother, sister-sister)
- Siblings with physical disability

Variables

- **Independent variable:** Gender
- **Dependent variables:** Sibling relationships, Subjective well-being

Assessment Tools

1. Brother–Sister Questionnaire (BSQ; Graham-Bermann & Cutler, 1994)

- 35 items, self-report, measures empathy, boundary maintenance, similarity, coercion.
- Likert scale: 1 (Not at all true) to 5 (Very much true).
- Higher scores indicate stronger sibling relationship.
- Reliability (Cronbach's α): Empathy = .84, Boundary = .81, Similarity = .72, Coercion = .58.

2. Subjective Well-Being Inventory (SWBI; Nagpal & Sell, 1985)

- 40 items, self-report, measures overall well-being.
- Scoring: 3–1 for positive items, 1–3 for negative items; total score 40–120.
- Cut-off: 81 for adults; lower scores indicate lower well-being.
- High test-retest reliability and validated for Indian population.

Procedure

- Participants after informed consent.
- Confidentiality and anonymity were ensured.
- Data were collected manually and analyzed using SPSS.
- Mann–Whitney U test assessed gender differences, and Spearman's rank correlation evaluated relationships between variables.

Statistical Analysis

- **Descriptive statistics:** Mean, standard deviation, Shapiro-Wilk test for normality.
- **Inferential statistics:** Mann–Whitney U test for gender differences, Spearman's rank correlation for relationships.

Ethical Considerations

- Informed consent obtained from all participants.
- Confidentiality and anonymity maintained.
- Participation was voluntary with the right to withdraw anytime.
- Research conducted by qualified personnel.

Result and Discussion

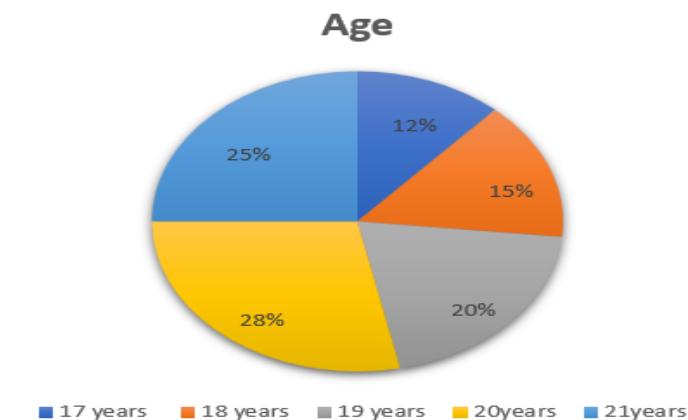


Figure 1: Demographic distribution of the chosen sample, across age.

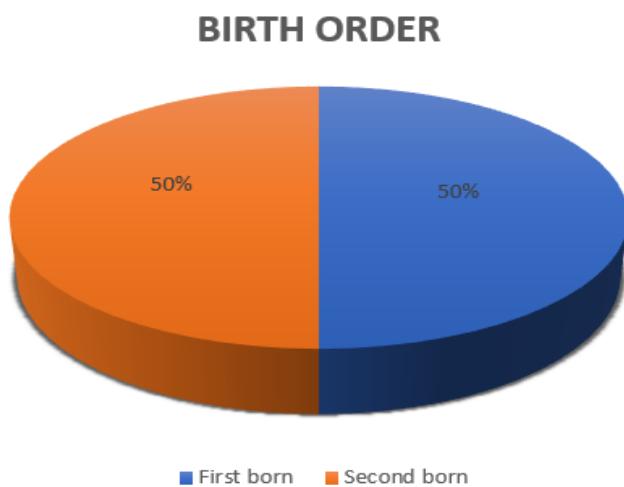


Figure 2: Distribution of participants with respect to Order of birth.

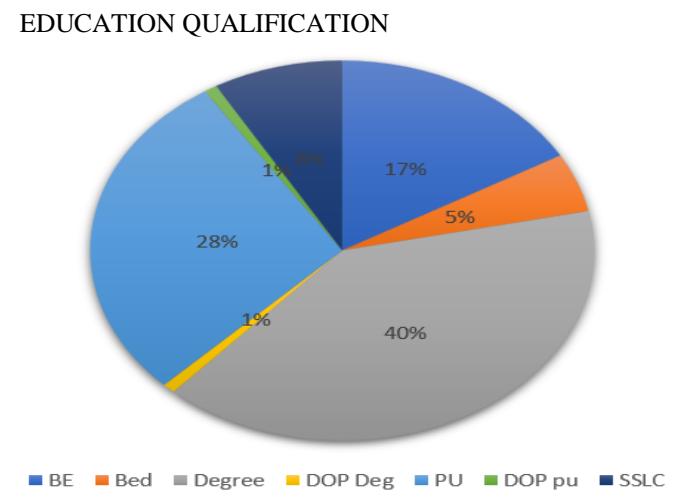


Figure 3: Distribution of participants with respect to education qualification.

Table 1. Mean rank, Mann Whitney scores and significant value of Siblings' relationship across gender.

Variable	Gender	N	Mean Rank	Mann-Whitney U	Sig. Value
Empathy	Male	60	60.41		
	Female	60	60.59	1794.50	.977
Boundary Maintenance	Male	60	59.79		
	Female	60	61.21	1757.50	.823
Similarity	Male	60	59.20		
	Female	60	61.80	1722.00	.682
Coercion	Male	60	63.94		
	Female	60	57.06	1593.500	.277
Total	Male	60	60.48		
	Female	60	60.53	1798.50	.994

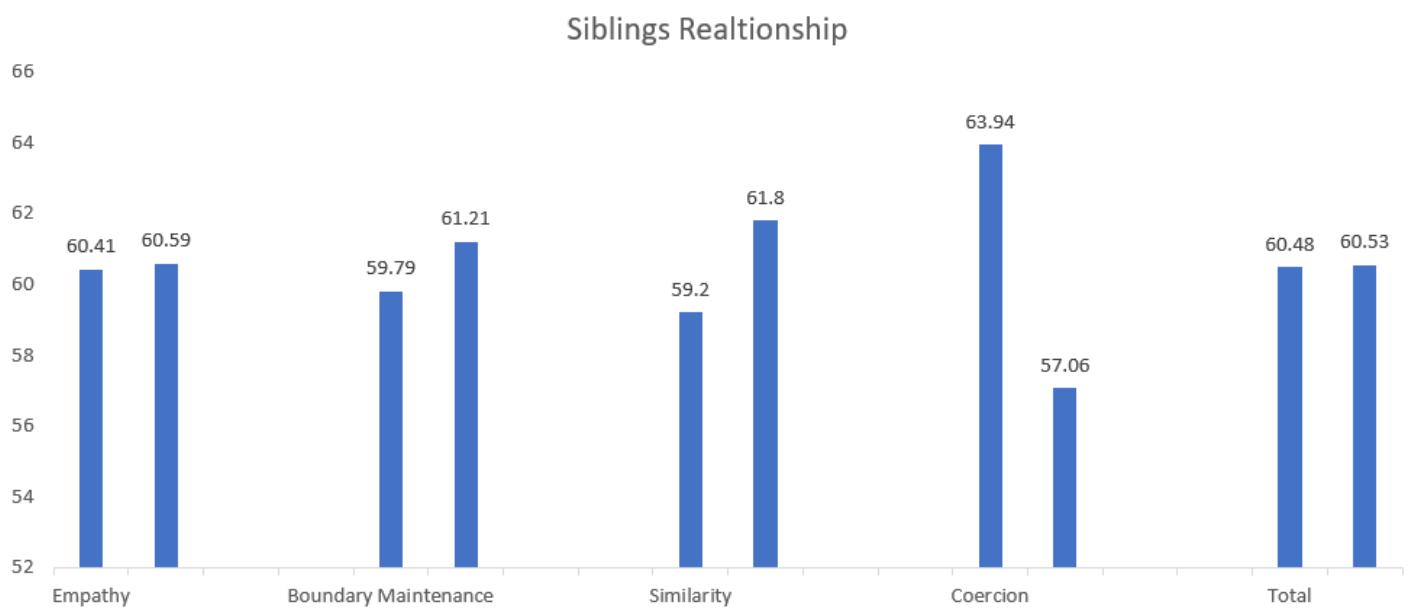


Figure 4: Mean ranks of adolescents in Siblings' relationship across gender.

Hypothesis 1 which states that, there is no significant difference in siblings' relationship among adolescents across gender was tested using Mann Whitney U test.

Table 1 Showing the Significance value, mean rank, Mann Whitney U test scores in Siblings relationship depict the difference of scores obtained under the dimensions of Siblings relationship across gender.

In the area of Empathy, the mean rank calculated was 60.41 and 60.59 for brother and sister respectively. The Significance value obtained in the Empathy domain was 0.977 ($p > 0.05$) can be concluded stating that, In the Domain of Empathy there is no significant difference between siblings' relationship in Adolescents across gender. This shows the extent to which the siblings care about one another, would feel bad if the other felt bad, would share secrets, feel close, spend time together, and care for one another

In the area of Boundary Maintenance, the mean rank calculated was 59.79 and 61.21 for brother and sister respectively. The Significance value obtained in the Boundary Maintenance domain was .823 ($p > 0.05$) can be concluded stating that, there is no significant difference between siblings' relationship in Adolescents across gender.

The shows the degree to which siblings are able to maintain interpersonal boundaries

In the area of Similarity, the mean rank calculated was 59.20 and 61.80 for brother and sister respectively. The Significance value obtained in the Similarity domain was .682 ($p > 0.05$) can be concluded stating that, there is no significant difference between siblings' relationship in Adolescents across gender. This shows the ways in which the two siblings have common interests and experiences.

In the area of Coercion, the mean rank calculated was 63.94 and 57.06 for brother and sister respectively. The Significance value obtained in the Coercion domain was .227 ($p > 0.05$) can be concluded stating that, In the Domain of Coercion there is no significant difference between siblings' relationship among Adolescents across gender. This shows that elements of power and control of one sibling over the other.

The total scores of Siblings relationship is mean rank calculated was 60.28 and 60.53 for brother and sister respectively. The Significance value obtained in total was .994 ($p > 0.05$) can be concluded that the hypothesis stating that, there is no significant difference between siblings' relationship among adolescents across gender is Accepted.

Table 2. Mean Rank & Mann-Whitney scores of Subjective well-being among adolescents across gender.

Variable	Gender r	N	Mean Rank	Mann-Whitney U	Sig. Value
SWB	Male	60	60.82	1781.00	.920
	Female	60	60.18		

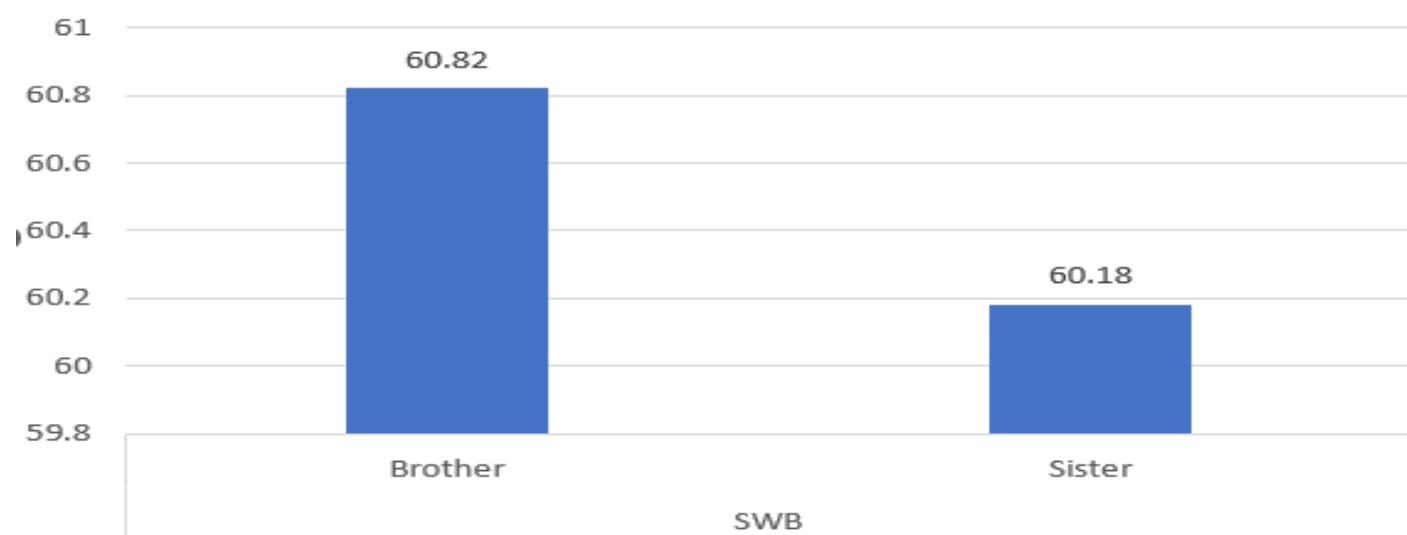


Figure 5: Mean ranks of adolescents in Subjective well-being across gender.

Hypothesis 2 which states that, there is no significant difference in Subjective well-being among Adolescents across gender was tested using Mann Whitney U test. Table 2 showing the Significance value, Mean rank, Mann Whitney U test scores in Subjective well-being depict the difference of scores obtained across gender.

In the area of Subjective well-being, the mean rank calculated was 60.82 and 60.18 for brother and sister respectively. The significance value is .920 ($p > 0.05$) through which it can be concluded that the hypothesis 2 is Accepted.

Table 3. Correlation between Subjective well-being and siblings' relationship among adolescents across gender.

VARIABLE	GROUP	SWB	
		r- value	p-value
Empathy	Male	-.043	.742*
	Female	-.049	.712*
Boundary maintenance	Male	-.169	.196
	Female	.196	.281
Similarity	Male	-.066	.619
	Female	-.018	.889*
Coercion	Male	-.057	.668
	Female	.031	.815*
Total	Male	-.124	.344
	Female	-.099	.451

Correlation is significant at the 0.05 level (2-tailed).

Hypothesis 3 which states that, there is no significant difference between Siblings relationship and Subjective well-being among Adolescents across gender was tested using Charles Spearman's correlation test.

In table 3, the result shows that the p-value obtained between Siblings relationship and subjective well-being is (p=.344) and (p=.451) for brother and sister respectively which is not significant. Therefore, there is no significant relationship between siblings' relationship and Subjective well-being in adolescents across gender. This indicate that as siblings' relationship increase Subjective well-being will not increase and vice versa. Hence the null hypothesis is accepted which states that, there is no significant difference between Siblings relationship and Subjective well-being among Adolescents across gender.

Major Findings

1. No significant difference in sibling relationships among adolescents across gender.
2. No significant difference in subjective well-being among adolescents across gender.
3. No significant relationship between sibling relationships and subjective well-being across gender.

These results align with Edel Wallace's findings, which reported a negative correlation between the number of siblings and well-being.

Conclusion

The research findings indicate that gender does not play a significant role in shaping sibling relationships and subjective well-being among adolescents. This suggests that, male and female both experience similar patterns of interaction with their siblings and comparable levels of subjective well-being.

Also, this shows that quality of sibling relationships does not differentially influence adolescents' well-being across gender. Therefore, gender may not be a determining factor in understanding sibling dynamics and subjective well-being during adolescence, which emphasizes the need to consider other factors such as family, environment and other psychological variables that will have stronger influence on adolescent well-being.

Limitations

- The sample did not include twins or siblings of the same gender; only brother-sister pairs were considered.
- The study was geographically limited to Chikkamagaluru district, reducing generalizability.
- Only first- and second-born siblings were included.
- The study used solely quantitative methods, without exploring qualitative insights.

Implications

- Educators and counsellors can better understand sibling dynamics and guide positive interactions.
- The study provides insights into conflict resolution among siblings.
- Findings can inform the development of effective parenting strategies.

Scope for Future Research

1. Investigate the influence of sibling relationships across different cultural or social contexts.
2. Explore diverse populations, including clinical samples, siblings with disabilities, or those in non-traditional family structures (e.g., adoption, LGBTQ+ parents).
3. Employ mixed-method approaches to capture both quantitative data and qualitative insights.

4. Examine specific dimensions of subjective well-being, such as self-esteem, social anxiety, or academic performance, in relation to sibling relationships.

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