

Influence of Birth Order on Aggression among Young Adults – A Comparative Study

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Abstract: *This study examined comparatively the effects of childbearing on youth violence. Nurture is an important part of a strong family and has long been needed to ensure that people behave well, including without violence. Although many studies have examined this relationship, findings are still incomplete and more research is needed, especially among youth making the transition to independence and development. The study used a comparative research design in which samples of young people from different births were examined. Using a combination of methods, quantitative measures such as stress testing and qualitative data from interviews were used to provide a better understanding of the integration of childbirth and violence.*

This study aims to address several important goals: First, to determine whether birth rate is associated with the level of violence in youth. Second, identify potential mediators that may moderate the relationship between childbearing and violence, such as parental involvement, conflict, and environmental household members. Third, investigate differences in nonviolence across births, including first, middle, last, and only children.

The results of this study have Implications for theoretical understanding and practical application. This research contributes to broader knowledge about developmental psychology and family dynamics by elucidating the effects of child rearing on violence. Additionally, the insights gained may guide interventions to reduce aggressive behavior in youth, thus supporting healthy relationships and brain health.

In summary, this study provides a nuanced examination of the impact of childbearing on young people. Youth violence reflects a complex but important aspect of human behavior. Through a broad methodology and rigorous analysis, this research focuses academic debates and offers recommendations for addressing aggressive behavior in social contexts such as family and personal development.

Keywords: Birth Order

I. INTRODUCTION

The Relationship Between Birth order and Aggression in Human Behavior has attracted research attention from workers and psychologists for many years. Parenting refers to one's position in the family's sibling hierarchy and the theoretical ability to develop good behavior, cognitive development, and leadership.

Among the many behaviors that can be affected from birth, aggression is of particular problem, specially in early stages. Aggression is characterized by behavior that harms or hurts others and covers a wide range of behaviors, from verbal attacks to bodily abuse.

Understanding the relationship between parenting and adolescent delinquency has important implications for educational research and outcomes in fields such as psychology, thought, and family counseling. Numerous theories had been put forward to explain the possible connection between childbearing and violence.

For example, Alfred Adler's theory of birth suggests that birth-related roles and family experiences contribute to the development of good character and behavioral traits. Adler believes that older sons can take on leadership roles and responsibilities because their parents love and want them. Conversely, children born late may develop behaviors such as rebellion or social isolation that pose a threat to their place in the family. Although Adler's theory provides great insights, research on the relationship between childbearing and youth violence remains limited and inconclusive.

Aggression is the umbrella term for a variety of actions and behaviours intended to harm or upset other people. It can manifest in a variety of ways, such as verbal and physical abuse and also the psychological manipulation. Aggression can be attributed to a number of factors:

Biological Factors: Some people may have a hereditary tendency to violence. Hormonal imbalances, brain abnormalities, and neurotransmitter malfunction are all possible causes of aggressive behaviour.

Environmental Factors: The environment in which a person grows up has a huge impact on their aggression levels. Exposure to violence, abuse, neglect, poverty, or a dysfunctional home environment can all raise the risk of aggressive behaviour.

Social Learning: Aggression can be acquired by observing and imitating. If people are constantly exposed to aggressive behaviour from role models (such as parents, peers, or the media), they may develop aggressive tendencies themselves.

Frustration and Provocation: Experiencing frustration or being provoked might result in violent behaviour. When people face barriers, sense injustices, or feel threatened, they may use violence to restore control or retaliate.

Cognitive Factors: Abnormal thought patterns, such as hostile attribution bias (interpreting neutral or ambiguous situations as hostile), might contribute to violent behaviour. Limited problem-solving abilities and poor impulse control can also contribute to violence.

Personality Traits: Certain personality traits, such as high trait aggression or low empathy, might contribute to aggressive behaviour. Furthermore, people with externalising problems (such as conduct disorder) may be more aggressive.

It is crucial to highlight that, while these variables can lead to violence, not everyone who encounters them will become aggressive. It is a complicated and multidimensional behaviour impacted by a variety of interrelated circumstances.

Previous studies have produced conflicting results; Some studies found a positive relationship between fertility and violence, while others found no significant relationship. Additionally, most research in this area has focused on children or adolescents, leading to a gap in understanding of how childbearing affects early behavior. The current study aims to contribute to the existing literature by examining the effects of childbearing on youth violence and understanding differences between births. Using a comparative approach, the study aims to investigate whether specific births are associated with early aggressive behavior and together explore the underlying mechanisms that contribute to this association.

Smith, J., & Jones, A. (2018) conducted a meta-analysis of 30 studies examining the relationship between birth order and aggression across different age groups. Their findings suggest a significant but modest effect of birth order on aggression, with firstborns tending to exhibit higher levels of aggression compared to later-born siblings. However, the authors note substantial heterogeneity among the studies, highlighting the need for further research to explore potential moderators and mechanisms underlying this relationship.

This research will use a mixed methods design combining quantitative surveys and qualitative interviews to measure levels of violence to gain insight into participants' experiences, understanding and knowledge of childbearing in their families. The study aims to better understand the interaction between childbearing and youth violence by combining quantitative and qualitative data. In summary, this research addresses an important but elusive aspect of humanity.

Behavioral analysis of the effects of parenting on youth violence. By filling this gap in research, the findings may inform psychology, family culture, and interventions designed to improve community health, energy, and interpersonal relationships in youth. In expanding this study, it is important to recognize potential moderators that may affect the relationship between birth and violence. Environmental factors such as parenting, family size, socioeconomic, and culture can influence a person's development and behavior.

Therefore, this research will also investigate the interaction between birth and these different elements to provide a better understanding of these changes. In addition, given the changing family structure and changes in modern society, this study will examine how atypical families (e.g., blended families or single parenthood) moderate the relationship between childbearing and youth violence.

II. REVIEW OF LITERATURE

Campbell (1995). "Birth Order and Aggression: A Longitudinal Study." Campbell conducted a longitudinal study spanning over a decade, following 500 participants from childhood into young adulthood. The research aimed to

investigate the relationship between birth order and aggression over time. Results showed that there was a significant association between birth order and aggression, with firstborns displaying slightly higher levels of aggression compared to later-born siblings. However, the effect size was small, suggesting that other factors may also contribute to aggressive behavior in young adulthood.

Wilson, J., & Johnson, P. (2000). "Birth Order and Aggression: A Cross-Cultural Comparison." This cross-cultural study examined the relationship between birth order and aggression among young adults from different cultural backgrounds. The sample included 400 participants from various countries. Results displayed 'cultural variations' in the association between birth order and aggression, with some cultures showing stronger effects compared to others.

Johnson & Smith (2001). "Family Dynamics and Aggressive Behavior: A Cross-Sectional Study." This cross-sectional study surveyed 300 young adults from diverse family backgrounds to explore the role of family dynamics, including birth order, in shaping aggressive behavior. Results indicated that birth order was not a significant predictor of aggression in the young adults. Instead, family communication patterns and parental discipline styles emerged as more influential factors in determining levels of aggression among participants.

Gonzalez, R., & Rodriguez, M. (2003). "Birth Order and Aggression in Hispanic Families: (A Longitudinal Research.)" Gonzalez and Rodriguez conducted a longitudinal study to investigate the relationship between birth order and aggression among young adults from Hispanic families. The sample comprised 200 participants from diverse Hispanic backgrounds. Results revealed a significant association between birth order and aggression, with firstborns exhibiting higher levels of aggression compared to later-born siblings.

Brown & Jones (2005). "Birth Order and Aggression Revisited: A Meta-Analytic Review." Brown and Jones conducted a meta-analysis synthesizing findings from 50 studies examining the relationship between birth order and aggression among young adults. The sample size encompassed over 10,000 participants. Results revealed a small but statistically significant effect of birth order on aggression, with firstborns exhibiting slightly higher levels of aggression compared to later-born siblings. However, the effect size varied depending on factors such as study design and sample characteristics.

Thompson, S., & Williams, L. (2007). "Parental Expectations and Birth Order Effects on Aggression: (amediation analysis)." This study explored the mediating role of parental expectations in the relationship between birth order and aggression among young adults. The sample included 300 participants, and structural equation modeling was used for data analysis. Results indicated that parental expectations partially mediated the association between birth order and aggression, suggesting that parental influences play a crucial role in shaping aggressive behavior.

Garcia & Martinez (2012). "Cultural Influences on Birth Order and Aggression: A Cross-Cultural Study." Garcia and Martinez conducted a cross-cultural study comparing the relationship between birth order and aggression among young adults from different cultural backgrounds. The sample included 500 participants from various cultural groups. Results revealed cultural variations in the association between birth order and aggression, with some cultures showing a stronger link compared to others. These findings underscored the importance of considering cultural context in understanding birth order effects on aggression.

Chen & Wang (2014). "Parenting Styles and Aggression: A Mediation Analysis." Chen and Wang examined the mediating role of parenting styles in the relationship between birth order and aggression among young adults. The study included 400 participants and utilized structural equation modeling to analyze the data. The results showed that the parenting styles partially mediated the relationship between birth order and aggression, suggesting that family dynamics play a crucial role in shaping aggressive behavior in young adulthood.

Nguyen, H., & Tran, T. (2015). "Birth Order and Aggression: A Longitudinal Study in Vietnam." This longitudinal study investigated the relationship between birth order and aggression among young adults in Vietnam. The sample included 500 participants taken up from the urban and the rural areas. Results represented a significant association between birth order and aggression, with firstborns demonstrating higher levels of aggression compared to later-born siblings, consistent with findings from Western studies.

Lee et al. (2016). "Birth Order and Aggression in Sibling Dyads: A Within-Family Analysis." Lee and colleagues conducted a within-family analysis to explore the relationship between birth order and aggression among sibling dyads. The sample consisted of 200 families with two or more children. Results revealed that birth order was not a significant

predictor of aggression within sibling dyads, suggesting that factors other than birth order may account for variations in aggression among siblings.

Wong & Li (2018). "Gender Differences in Birth Order Effects on Aggression: A Longitudinal Study." Wong and Li conducted a longitudinal study spanning five years to examine gender differences in the relationship between birth order and aggression among young adults. The sample included 300 participants evenly distributed across gender. Results indicated that birth order effects on aggression varied by gender, with firstborn males exhibiting higher levels of aggression compared to firstborn females. However, the effect diminished over time, highlighting the dynamic nature of birth order effects on aggression.

Huang, Y., & Chang, C. (2019). "Birth Order and Aggressive Behavior: The Moderating Role of Parental Attachment." Huang and Chang examined the moderating role of parental attachment in the relationship between birth order and aggressive behavior among young adults. The study included 350 participants, and a hierarchical regression analysis had been used to analyse the data. Results concluded that the 'parental attachment' moderated the association between the birth order and aggression, with stronger effects observed among individuals with lower levels of parental attachment.

Martinez & Garcia (2020). "Birth Order and Aggressive Behavior: A Cross-Sequential Study." Martinez and Garcia conducted a cross-sequential study examining the relationship between birth order and aggressive behavior across different age cohorts of young adults. The sample comprised 600 participants divided into three age groups. Results revealed a significant but diminishing effect of birth order on aggression across age cohorts, suggesting that birth order effects may vary depending on developmental stage and life experiences.

Park, S., & Kim, J. (2020). "Birth Order and Aggression: A Cross-Sectional Study among College Students in South Korea." Park and Kim conducted a cross-sectional study to explore the relationship between birth order and aggression among college students in South Korea. The sample comprised 600 participants recruited from multiple universities. Results indicated a significant but small effect of birth order on aggression, with firstborns displaying slightly higher levels of aggression compared to later-born siblings.

Yang et al. (2022). "Neurobiological Correlates of Birth Order and Aggression: An fMRI Study." Yang and colleagues utilized functional magnetic resonance imaging (fMRI) to investigate the neurobiological correlates of birth order effects on aggression among young adults. The study included 50 participants who underwent fMRI scans while performing tasks related to aggression regulation. Results indicated differences in brain activation patterns between firstborn and later-born individuals, suggesting potential neurobiological mechanisms underlying birth order effects on aggression.

Ahmed, M., & Rahman, S. (2022). "Birth Order and Aggressive Behavior: The Role of Sibling Relationships." Ahmed and Rahman examined the role of sibling relationships in the association between birth order and aggressive behavior among young adults. The study included 300 participants, and structural equation modeling was used to analyze the data. Results indicated that positive sibling relationships attenuated the relationship between birth order and aggression, highlighting the importance of sibling dynamics in shaping behavior.

Li, X., & Wang, Y. (2023). "Birth Order and Aggression: A Cross-Cultural Meta-Analysis." Li and Wang conducted a cross-cultural meta-analysis synthesizing findings from studies examining the relationship between birth order and aggression across different cultural contexts. The meta-analysis included data from over 50 studies involving diverse cultural groups. Results revealed consistent albeit modest effects of birth order on aggression across cultures, underscoring the universality of birth order effects on behavior.

Zhang, L., & Liu, H. (2023). "Birth Order and Aggression in Urban and Rural Settings: A Comparative Study in China." Zhang and Liu compared the relationship between birth order and aggression among young adults in urban and rural settings in China. The study included 500 participants from both urban and rural areas. Results indicated no significant differences in the association between birth order and aggression based on residential setting, suggesting that birth order effects on aggression are robust across different environmental contexts.

Kim, S., & Park, H. (2024). "Birth Order and Aggression in Multicultural Families: A Longitudinal Study." Kim and Park conducted a longitudinal study examining the relationship between birth order and aggression among young adults from multicultural families in South Korea. The sample comprised 400 participants representing diverse cultural

backgrounds. Results indicated cultural variations in the association between birth order and aggression, with effects influenced by acculturation processes and family dynamics.

Gupta, A., & Sharma, R. (2024). "Birth Order and Aggression: A Comparative Analysis across Socioeconomic Strata." Gupta and Sharma conducted a comparative analysis examining the relationship between birth order and aggression across different socioeconomic strata in India. The study included 600 participants from varying socioeconomic backgrounds. Results revealed that birth order effects on aggression varied across socioeconomic strata, with stronger effects observed in lower socioeconomic groups compared to higher socioeconomic groups.

Wu, J., & Li, Q. (2024). "Birth Order and Aggressive Behavior: The Role of Parental Expectations and Family Environment." Wu and Li investigated the role of parental expectations and family environment in shaping the relationship between birth order and aggressive behavior among young adults. The study included 350 participants, and multiple regression analysis was used to analyze the data. Results indicated that parental expectations and family environment mediated the association between birth order and aggressive behavior, highlighting the complex interplay of familial factors in influencing behavior.

Chen, L., & Zhang, H. (2024). "Birth Order and Aggression: A Cross-Sectional Study among College Students in China." Chen and Zhang conducted a cross-sectional study to examine the relationship between birth order and aggression among college students in China. The sample comprised 500 participants from multiple universities. Results indicated a small but significant effect of birth order on aggression, with firstborns demonstrating slightly higher levels of aggression compared to later-born siblings.

III. METHOD

Aim

To investigate the relationship between birth order and aggression levels among young adults.

Objective

Investigate if there's a significant difference in aggression levels based on birth order.

Analyze any potential patterns or trends in aggression levels among different birth order groups.

Consider the influence of other factors like age, gender, family structure, and socio-economic status on the relationship between birth order and aggression.

Hypothesis

Hypothesis 1: Young adults who are firstborns will exhibit higher levels of aggression compared to middle children and youngest children.

Hypothesis 2: Young adults who are youngest children will exhibit higher levels of aggression compared to firstborns and middle children.

Design

The study uses the Aggression scale as a psychological tool to measure degrees of aggression using a quantitative research approach. Using Microsoft Excel, statistical analysis is carried out using the T-test. The distribution of questionnaires, with a total sample size of 118 individuals, facilitates data gathering. There were 59 younger siblings and 59 older siblings in the sample. Convenience sampling was the sampling strategy used for this study since it was practical and effective in assembling a varied yet approachable group of participants from the intended birth order. This strategy made it easier to find people based on their availability and willingness to take part, which made it possible to include a wide range of young adults.

Variables

Independent Variable: Birth Order.

This variable relates to an individual's place within the family hierarchy. It may include categories such as firstborn, middle child, and youngest child. Your research would look into how birth order influences aggression in young adulthood.

Dependent variable: Aggression levels among young adults.

The dependent variable is the outcome or behavior you want to investigate, in this case hostility. You would be measuring and analyzing aggressive behavior among young people based on their birth order.

Controlled variables: Age, gender, family structure, and socioeconomic level.

In order to ensure that any observed differences in levels of aggression are indeed caused by birth order, you need maintain some variables fixed or account for them in your research. These are known as controlled variables. To ensure that all participants in this study are young adults, you would control for factors like age, gender, family structure (e.g., single child, blended family), and socioeconomic status (to lessen the potential influence on aggression levels).

Sample

118 young adults (mean age = 21) ranging in age from 14 to 28 were included in the sample. Half of the participants were older siblings and the other half were younger siblings. Because it is practical and effective in producing a varied but accessible sample of participants from the specified birth order, convenience sampling was employed in this investigation.

Description of tool

The doctors GP Mathur and RK Bhatnagar created the Aggression Scale with the intention of measuring aggressive behaviour, especially in students. This particular scale intends to measure many aspects of aggression, such as physical aggression, verbal aggression, wrath, and hostility. It consists of 55 items and is available in both Hindi and English versions. It has a 5-point Likert scale with statements in both positive and negative forms, and is meant to be used with schoolchildren older than 14. Researchers and educators can use the scale to better understand students' levels of aggression and how it affects 1) behaviour and 2) academic performance, among the other things. Furthermore, the scale makes it possible to assess the correlation between aggression and aspects of teenage and college student life such as academic achievement, family environment, and self-efficacy.

Reliability

The "Test Retest Reliability" method was used to calculate the Aggression Scale's reliability coefficient. The scale has been re-administered to 300 male and 300 female urban residents in order to evaluate the statements' dependability. In men, reliability was.88, while in women it was.81.

Validity

The aggression scale was compared to "statements in questionnaire of aggression" that were taken from Murray in order to determine the concurrent validity coefficient of the scale. For men, validity is.80, and for women, it is.78.

Procedure

The consent form was made and given to participants as soon as the study proposal was approved. The study was limited to participants who gave their consent. Every participant was made aware that participation was entirely optional and that they could end it at any time if it made them uncomfortable. They also received guarantees that the privacy of their personal data would be maintained. Subsequently, the Aggression Scale manual was utilized for scoring. Following this, Microsoft Excel was utilized for data analysis, and the outcomes were then subsequently analysed.

Participants were tasked with filling out standardized questionnaires, which included 55 set of questions from Aggression Scale by Dr. GP Mathur and Dr. RK Bhatnagar. To ensure clarity, each question was carefully explained in simplified terms to facilitate understanding. Any misunderstandings were promptly addressed and clarified.

The instructions that followed were as follows: "This scale has a few statements. These claims are associated with the ways in which you behave in various contexts. Please carefully read each statement, considering the context in which it is presented, and consider the extent to which you fit the description of that circumstance (in that category). Make a decision first, then provide your responses. This scale consists of 55 items; the words Strongly Agree, Agree,

Undecided, Disagree, and Strongly Disagree are printed sequentially in front of each statement. You put a symbol in the designated block based on your desire that aligns with your behavioural characteristic.

Statistical analysis

The two doctors GP Mathur and RK Bhatnagar's Aggression Scale was used in the study to evaluate participants. The scores of the younger and older siblings were then statistically compared using a t-test in an effort to find any significant variations in the mean of their degrees of aggression. Microsoft Excel was the computer programme used for this.

Result Table

Table 1 : Showing t-test on the data of younger and elder siblings

| | Variable 1 | Variable 2 |
|------------------------------|--------------|-------------|
| Mean | 134.3898305 | 146.8135593 |
| Variance | 72.82817066 | 25.63705435 |
| Observations | 59 | 59 |
| Hypothesized Mean Difference | 0 | |
| df | 94 | |
| T Stat | -9.616931662 | |
| P(T<=t) one-tail | 0 | |
| T Critical one-tail | 1.661225795 | |
| P(T<=t) two-tail | 0 | |
| T Critical two-tail | 1.985523395 | |

In the given table, Variable 1 represents the mean age of elder siblings involved in the study on the influence of birth order on aggression among young adults. The mean age of the elder siblings is calculated to be approximately 134.39. Variable 2, on the other hand, represents the mean age of younger siblings in the same study. The mean age of the younger siblings is observed to be around 146.81.

Now for variance: Variable 1 has a variance of roughly 72.83, which suggests that the older siblings' ages were distributed more widely. Variable 2, on the other hand, shows a smaller range of about 25.64, indicating a more uniform distribution of the younger siblings' ages. There are 59 people in the research each sample overall, which is the same number of observations for both Variable 1 and Variable 2. Finally, it is assumed that there is zero mean age difference between the elder and younger siblings. This indicates that there shouldn't be a noticeable age difference between the two groups.

This comparative study aims to investigate if young adults' violence may be influenced by their birth order. Researchers look for trends or connections between aggressiveness levels and birth order by comparing the ages of younger and older siblings. This study may provide important new information on how young individuals' development of aggression may be influenced by their birth order.

IV. DISCUSSION

The primary objective of this study is to investigate the relationship between birth order and aggression levels among young adults. The study utilizes the Aggression scale as a psychological instrument to quantify aggression levels in young adults. Microsoft Excel was used for the statistical analysis of the acquired raw scores, and the t-test was employed as the hypothesis testing procedure. 118 young individuals (mean age = 21) with ages ranging from 14 to 28 were enrolled in the study. Half of the participants were older siblings and the other half were younger siblings.

Based on their birth order, the data compares the mean degree of hostility between the older and younger siblings. The younger sibling's mean score is 146.81, whereas the elder sibling's mean score is 134.3. This indicates that, on average, the younger sibling is older than the older sibling. Several aspects need to be taken into account in order to draw conclusions on how aggressiveness in young people is influenced by their birth order.

First, although the mean scores show the same pattern as the main character, there little difference in attack stats inside. Checking the distribution is important. Group The variability in the data, called variance, affects the interpretation of differences in means. For example, if the parent group variance is greater than the sibling variance, this may indicate differences in levels of aggression between siblings, possibly masking birth order effects..

V. SUMMARY AND CONCLUSION

The study delves into the investigation of relationship between birth order and aggression levels among young adults. Utilizing the Aggression Scale by Dr. GP Mathur and Dr. RK Bhatnagar, participants provided self-reports on both their order of birth and aggressive behaviors and tendencies in daily life. Statistical analysis, facilitated by Microsoft Excel, employed the t- test method to scrutinize the hypotheses. The research cohort comprised 118 individuals, with birth order distribution skewing towards 50% younger siblings and 50% elder siblings.

The Key findings utilising the Microsoft Excel t-test revealed the link or impact of birth order on aggression. The older siblings' mean age is estimated to be at 134.39. The younger siblings' average age is found to be around 146.81. Now for variance: Variable 1 has a variance of around 72.83, which suggests that the older siblings' ages were distributed more widely. Variable 2, on the other hand, shows a lower range of about 25.64, indicating a more uniform distribution of the younger siblings' ages.

Limitations

- It's possible that the study's sample size was quite limited, which would restrict how broadly the results may be applied.
- The cross-sectional methodology of the study limits the capacity to demonstrate causation or look at changes over time by only offering a glimpse of the association between aggressiveness and birth order at one particular point in time.
- Because the study uses self-report methods to gauge aggressiveness and birth order, bias and inaccuracy might be introduced by participants' subjective interpretations or recollection problems.
- It is possible that the study did not sufficiently consider demographic factors that might impact aggressiveness and birth order, such as age, gender, financial level, or cultural background.

Future recommendations

In the future, researchers might compare and do longitudinal studies to monitor changes in aggressiveness and birth order over time. This would offer a more thorough comprehension of the causal connection between these factors. Incorporating a range of age, gender, socioeconomic position, and cultural backgrounds into the sample would improve the generalizability of the results and provide a more intricate examination of the connection between aggressiveness and birth order. Incorporating qualitative research techniques, such focus groups or interviews, with quantitative studies may yield more insightful information on people's experiences related to aggressiveness and birth order.

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