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SELF PERCEPTIONS OF SIBLING RELATIONSHIPS

by
Cory R. Mueller

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts in School Psychology
of
The Graduate School
at
Rowan University
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Approved by

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ABSTRACT

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SELF PERCEPTION OF SIBLING RELATIONSHIPS
2006/07
Dr. Roberta Dihoff
Masters of Arts in School Psychology

The purpose of this study was to associate birth orders effect on an individual's perception of their sibling, family, and social roles. Research has asserted that children learn by observing the actions of their siblings, which transcend into other aspects of their own lives. One hundred and one undergraduate college students were separated into three categories: younger sibling subjects ($n=47$), older sibling subjects ($n=49$), and only children subjects ($n=5$). The participants were asked to fill out a questionnaire comprised of 25 statements about their sibling, family, and social relationships based on a 5 point likert scale. A Kruskal-Wallis nonparametric K independent samples test was used to find any significant differences in the mean scores of the three groups. The data revealed that younger siblings' means scores were significantly higher than scores of older sibling subjects in areas of personal attributes, interest, and sibling influence of social relationships. Older sibling subjects' mean scores were significantly higher than younger sibling subjects' mean scores regarding intellectual superiority.

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CHAPTER I: INTRODUCTION

Need

The importance of sibling interaction has only recently been studied as it pertains to healthy individual development. The sibling relationship is not an affiliation that an individual is part of during their childhood alone, but rather the sibling relationship is a life long process that develops and evolves throughout the life cycle. Sibling interaction is a relationship that is far more complex and unique than any other connection an individual will experience, because it is both reciprocal and complementary (Howe & Recchia, 2005). There is a need to understand what biological factors will produce a higher percentage of yielding a positive sibling relationship, because research has also shown that the quality of a sibling relationship during childhood has an effect on the child's adjustment (Pike et al., 2005).

The relationship that siblings experience not only affects the pair, but also has an effect on the overall well-being of their immediate family (Kramer & Bank, 2005). The sibling relationship is also an important emotional support line for family issues (Tucker et al., 2001). This study has the ability to distinguish what biological factors make sibling communication more easily compatible. It will help parents better understand sibling dynamics to increase their ability to have a family with a healthy relationship, and the knowledge to better counteract negative aspects of sibling interactions attributed to birth order. Research of sibling relationships can also assist parents, therapists, and future researchers with association qualities of sibling pairs

consisting of certain biological factors.

Purpose

The purpose of this study was to examine the current relationships individuals report having with their siblings, and to analyze birth order's effect on positive self reports. Also examined were an individual's perception of their sibling, family, and social relationships based on his or her birth order.

Hypothesis

It was predicted that younger sibling subjects would more likely report having positive relationships with their siblings than older sibling subjects. It is also predicted that younger sibling subjects would report sharing similar attributes with their older siblings, and would also report being socially influenced by their older siblings. Older sibling subjects would rate their family and sibling roles to be more important than younger sibling subjects, but only children subjects would rate their family role as being more important than both younger and older sibling subjects. It was also hypothesized that female siblings would report giving and receiving more emotional support than male siblings.

Theory/Background

Children with siblings have been found to better manage conflict and be less aggressive in peer groups than only children (Kitzmann et al., 2002). The reason that sibling relationships yield children who are able to manage conflict and remain calm in groups can be explained by the social learning theory made famous by Albert Bandura. Bandura created an experiment that was able to show that when an aggressive behavior is modeled for a child, then that child will most likely imitate that

behavior (Zimmerman & Schunk, 2002). More recent studies have also shown that a child will have a higher rate of social learning when a positive result for a modeled behavior occurs (Nielsen, 2006). Social learning that takes place from a positive sibling relationship will result with the siblings having positive social relationships with other individuals.

Definition of Terms

1. Birth order- The order in which a child was birthed into a family.
2. Only children subjects- Participants in the current study whom reported having no siblings.
3. Older sibling subjects- Participants in the current study whom after filling out their demographic information it was determined were the older sibling compared to the sibling closest to their own age.
4. Younger sibling subject- Participants in the current study whom after filling out their demographic information it was determined were the younger sibling compared to the sibling closest to their own age.
5. Sibling relationship- The amount of time siblings share with another and the quality of that time as it pertains to their communication and social interaction.
6. Positive relationship- An emotional bond between two people that results in wholesome and constructive interactions, and that allows for healthy psychological growth.

Assumptions

In this experiment, it was assumed that all students who participated in the

study answered all questions honestly and accurately. It was also assumed that there were no biases from the participants towards the individuals who distributed the questionnaire, or towards the class and manner in which they completed the questionnaire. It is assumed that the appropriate amount of time was allotted for the individuals who participated in the study to answer all of the questions given, and to answer all of the questions fully.

Limitations

This experiment had several limitations that should be noted. The population that was used in this experiment was limited to Rowan University undergraduate students. The Rowan University student population is mostly white caucasian, which means that ethnic diversity was also a limitation in this experiment. The experiment was not funded hence the students were not compensated for their participation, which could have lead to a possible lack of interest in answering the given questions properly.

Summary

Chapter II includes a review of the research and ideas that relate to sibling relationships. This research consist of studies that show the importance of healthy sibling relationships, and the effect that birth order and gender have on sibling relationships. Chapter III contains details about the design of the experiment. Chapter IV includes a review of the results of the experiment. Chapter V makes known any conclusions that could be drawn from the experiment. The final chapter also includes a discussion on research suggestions for the future. This comprises how experiments on this topic could be expanded and elaborated on pertaining to other areas of the

family dyad.

CHAPTER II: REVIEW OF LITERATURE

Introduction

The research discussed below is listed from the most general to the most specific as related to the current study. General research includes studies that involve the impact that sibling relationships have on a child's social, emotional, and psychological growth. General research also includes the effects sibling relationships have on the family structure and how peer relationships relate to sibling relationships. More specific research includes studies that involve how birth order and gender differences affect a child's self worth. Specific research also includes studies that involve social learning as a cue for appropriate behavior.

General Research on the Impact of Sibling Relationships

A substantial amount of research demonstrates the impact that an individual has on his or her siblings' psychological growth during the lifespan. Throughout the lifespan, first-born and later-born siblings each fulfill a complementary roll that helps them develop an identity within their sibling relationship. Research by Moser, Jones, Zaorski, Mirsalimi and Luchner (2005) notes that the first-born child becomes the caretaker to their later-born counterparts, and this allows the younger sibling to benefit from their older sibling's protection. The roles children assume in their sibling relationships develop into their individual identity, and if a sibling relationship is hostile then this will transcend into their identity.

Additional research shows that siblings view each other as a source of

support, and that the older sibling is used as the main source of support by the younger sibling. Tucker, McHale, and Crouter (2001) conducted home interviews of 185 first-born (*M* age = 16 years) and second-born (*M* age = 13 years) children. Tucker, McHale, and Crouter (2001) found that both first and second-born siblings viewed each other as a source of support for family issues, but that the older sibling was viewed by the younger sibling as the main source of support for non-family issues. Positive support was associated with older siblings, and close sibling relationships were linked to increased emotional support.

Research also supports that cooperative sibling relationships can lead to increased learning. Research conducted by Howe and Recchia (2005) studied the play (playing with toys) and teaching (toy construction) of 70 first-born (*M* age = 81.6 months) and second-born (*M* age = 56.1 months) sibling dyads. Siblings were observed playing together with toys, then half of the first and second-born children were taught how to construct a toy. The child who was taught how to construct the toy was then observed attempting to teach their siblings how to construct the same toy. Howe and Recchia (2005) found that greater learning occurred between siblings who were more cooperative and collaborative with each other during play. The study also found that second-born children's teaching ability was affected by their perceptions of sibling relationship quality.

Further research has been focused on how positive sibling relationships are formed. Pike, Coldwell, and Dunn (2005) studied 101 families who had two children between the ages of 4-8 years. Using parental reports, researchers found that the healthy adjustment of the older sibling, and not the younger sibling, was associated

with positive sibling relationships. Pike et al's., (2005) study indicates that younger siblings are influenced more by their older siblings than older siblings are by their younger siblings. Graham-Bermann and Cutler's (1994) research found that children who perceive themselves as being very similar to their siblings report less conflict and increased sibling cooperation, while children who perceived themselves as being different from their siblings reported high levels of conflict in their sibling relationship. Graham-Bermann and Cutler (1994) also found that children involved with conflict in their relationships reported less empathy towards their siblings.

Positive relationships during adolescence are important for the stability of the sibling's long term relationship. Positive sibling relationships in adolescence will transcend into adulthood, and negative relationships in adolescence will prohibit adult siblings from having a close relationship later in life. Stocker, Lanthier, and Furman's (1997) study measured the sibling relationships of 148 undergraduate students (40 male and 108 female) by 3 independent dimensions (warmth, conflict, and rivalry) that are associated with the amount of sibling contact. In the study, individuals who reported having positive relationships with their siblings during adolescence remained in close contact with them in early adulthood, while participants who were in conflict with their siblings maintained little contact through adulthood. Geographical distance in adulthood was not a factor when adults reported sibling closeness. Adults who lived a far distance from their sibling during the study still reported having a close and positive relationship with them.

A healthy relationship during adulthood provides support which benefits each sibling during important life decisions. Schulthesis, Palma, Perdragovich, and

Glasscock (2002) found that adults with positive sibling relationships are more likely to use their siblings as a source of information when planning and dealing with career decisions. The researchers found that adults who reported having positive relationships were more likely to perceive their sibling as a source of support when planning and making important career decisions.

Richmond, Stocker, and Rienks (2005) discovered links between sibling relationships and children's adjustment over a 3 wave, 6 year longitudinal study of 136 older born siblings who were 10, 12, and 16 years of age during the study, and their younger siblings who were 8, 10, and 14 years of age, respectively. Information was collected from interviews and questionnaires on levels of sibling relationship quality, depressive symptoms, and perceived parent differential treatment among siblings. The study indicated that as sibling relationships improved over the 6 year period, depressive symptoms expressed by the individual child decreased. Improved sibling relationships also resulted in less perceived parental favoritism of one child, and that perceived parental favoritism was associated more with the depressed mood of the younger sibling.

Studies also indicate that behavioral patterns of the first-born child predict the behavioral patterns of the second-born child, and that later-born children are more influenced by their siblings than first-born children. McHale, Updegraff, Helms-Erikson, and Crouter (2001) conducted a 3 year longitudinal study of gender role qualities (attitude, personality, leisure activities) of 198 first-born children (M age = 10.87 years) and second-born children (M age = 8.25 years) collected by home and phone interviews. McHale et al., (2001) discovered that first-born qualities in year 1

of their study predicted second-born qualities in year 3. The study also found that first-born gender role qualities were influenced more by their parents, while second-born children's gender role qualities were more influenced by their older siblings rather than their parents.

Research has also shown that antisocial and deviant behavior of an older sibling increases the risk of deviant behavior in younger siblings, especially when the siblings are closer in age. Snyder, Bank, and Burraston (2005) gathered data from 155 lower income families with two children to assess the consequences deviant behavior (antisocial behavior, sexual behavior, drug use) of the older child will have on his or her younger sibling. Snyder et al's., (2005) study found that younger siblings who are exposed to deviant behaviors and conflict with an older sibling will have an increased risk of serious behavior problems.

Sibling conflict has also been associated with individual antisocial behavior. Criss and Shaw (2005) studied the behavior of 208 male siblings from low-income families to measure if sibling conflict would be related to individual delinquency assessed by home visits and families interviews. Criss and Shaw (2005) found high levels of delinquency when sibling conflict was reported. Accordingly, sibling conflict was able to significantly predict antisocial behavior.

Research has also shown that behavioral problems of one child can negatively impact the sibling relationship. Bullock, Bank, and Burraston (2002) conducted a multi-method approach assessing the relationships of 206 sibling pairs. The sibling pairs in Bullock et al., (2002) study consisted of an older sibling (M age = 25 years) and a younger male sibling (M age = 21 years). In this study, the younger siblings

had either a history of arrest, antisocial behavior, deviant peer association, or substance abuse. Bullock et al's., (2002) study found that older siblings, more so than younger siblings, report negative relationships with their sibling when the individual had social problems.

Recent studies have also shown how a low conflict sibling relationship can reduce a younger sibling's risk of substance abuse and risky sexual behaviors, especially when the siblings are the same gender. East and Khoo (2005) performed a 3-wave, 5-year longitudinal study of 220 families with a younger sibling (133 females and 89 males; *M* age = 13.6 years at first assessment) and an older female sibling (*M* age = 17 years at first assessment). East and Khoo (2005) conducted home interviews of the siblings at three points during a five year period to assess levels of behavior and relationship quality. The study showed that younger children who reported having a close relationship with their sibling, and described their older sibling as being a mediator during times of conflict, had a decreased risk of substance use and dangerous sexual behavior. East and Khoo's (2005) results were stronger for sister-sister pairs than for mixed gender pairs.

Sibling relationships have also gathered attention in the area of child therapy. Since a child's emotional manner of dealing with peers can stem from his or her experience in sibling relationships, then behavioral interventions involving siblings will be more affective (Gnualati, 2002). Gnualati (2002) also notes the importance of sibling therapy during times of family conflict such as parental divorce.

Effect of Siblings on the Family

The family environment has been shown to have an effect on sibling

relationships. Krammer and Bank's (2005) research has also shown that sibling relationships will affect the family environment. Krammer and Bank (2005) review longitudinal studies whose findings suggest sibling relationships contribute to the family's well-being. Studies discussed by Krammer and Bank (2005) suggest that a healthy sibling relationship will contribute to the overall family relationship in a positive manner.

Research on parental negativity has shown that negativity in one family relationship leads to increase negativity of other family relationships. A study by Feinberg, Reiss, Neiderhiser, and Hetherington (2005) consisted of 720 families with same-sex sibling pairs no more than 4 years apart in age. Parental negativity towards one child will lead to negativity in the sibling relationship, and that negative sibling relationship leads to increased parental negativity towards the siblings.

Family cohesion has also been linked to positive sibling relationships. Brody, Stoneman, and McCoy (1994) conducted a longitudinal study of 71 families and found that siblings in families where parental treatment of both children was viewed as positive, displayed little negative treatment toward their sibling. Brody, Stoneman, and McCoy (1994) also found that children who viewed the family relationship as close were more likely to have a less conflicted and more positive sibling relationship.

A child's belief in parental favoritism toward a sibling can affect the child's perceived self-worth. Shebloski, Conger, and Widaman (2005) examined children's perceived self-worth of 384 sibling dyads across a 3 year period. The study discovered that self worth was closely tied to birth-order. The study also found that

first-born siblings had higher levels of self worth than later-born siblings. Later-born siblings cited perceived parental favoritism of the first-born sibling as reason for their decrease in personal self-worth.

Family structures have also been linked to sibling relationship quality. Research has demonstrated that lone parent families can increase the stress of a sibling relationship (Jenkins et al., 2005). A section of the investigation of family influences on sibling negativity was focused on the differences between sibling relationships of two parent and lone parent families. The longitudinal study of sibling dyads in 171 families was measured by family interviews and negativity scales. The study showed that stressors were high in lone parent family structures and levels of stress were higher in sibling dyads of lone parents.

Parental expectations also play a role in the development of the sibling relationship. Mendelson, de Villa, Fitch, and Goodman's (1997) research of parental expectations found that the older sibling's role is perceived to have more positive associations than the younger sibling's. Mendelson et al's., (1997) survey of 12 parents of 2 children families also noted that parents perceive the younger sibling's role as having an equal amount of negative and positive qualities. Parents reported the older sibling's role as having more positive qualities because they perceived the older sibling's role as being better defined than the younger sibling's. Parents associated the older sibling's role with teaching and caretaking, while learning was associated with the younger sibling.

Research on Siblings and Peer Relationships

A substantial amount of research has been conducted to examine how sibling

relationships affect a child's relationship with peers. For example, Kramer and Kowal (2005) investigated peer relationships as a predictor of sibling relationship quality. Kramer and Kowal (2005) found that levels of positive social behavior demonstrated with friends in early relationships predicted sibling quality in adolescence. The study found that first-born siblings who had proactive interactions with peers prior to their sibling's birth showed more positive sibling interactions in adolescence. The study also found that adolescents who demonstrated having positive sibling and peer relationships exhibited fewer behavioral problems.

Research has also shown that sibling relationships benefit young children when interacting with classmates, as compared to children with no siblings. Kitzmann, Cohen, and Lockwood (2002) compared 48 only children to 91 children with siblings, and studied their interactions with classmates in elementary school. Kitzmann et al., (2002) found no significant difference in the amount of close friends the children had, but that only children were more likely to be aggressive among groups of peers. The study noted that having a sibling can better help a child understand how to properly manage conflict.

Studies focused on sibling relationships have also noted that having positive relationships with peers will help prepare the first-born child for interactions with a newborn sibling. Krammer and Gottman (1992) conducted a longitudinal study of 30 first-born children (*M* age = 4 years) of families who were expecting a 2nd child and assessed their relationships with peers. Children who were reported as engaging in positive play and conflict management with peers were shown to have a higher level of positive interactions with their younger siblings when they were at the age of 6.

Research of Biological Factors of Sibling Relationships

Todd, Friedman, and Steele's (1993) research suggests that birth order has an effect on a person's self-perception of a sibling's interpersonal power within the family dyad. Interpersonal power is referred to as the ability for a sibling to get his or her own way or to influence another in a close relationship. The study conducted on 400 undergraduate students, who were either first or later-born in their families found a significant difference in interpersonal power self ratings. Todd et al., (1993) found that men rated themselves near the mean regardless of birth order, and women rated themselves above the mean if they had a younger brother and below the mean if they had an older brother.

Research shows gender has an influence on parental allowance of sibling autonomy, which is the sibling's freedom to make their own decisions (Bumpus et al., 2001). Bumpus et al., (2001) collected data from 194 families with first-born ($M = 15.0$ years), and second-born children ($M = 12.5$ years) by in-home interviews, and follow up phone interviews. Bumpus found that parents allowed the first-born child more opportunities for autonomy than later-born children, especially when the family's first-born child was female and second-born was male.

Studies have also shown that the amount of support a child receives in the area of social life from siblings is gender related. Tucker, McHale, and Crouter (2001) found that both older and younger female adolescents gave more emotional support to their siblings than did male adolescents. The researchers noted that the reason females give more social support than males could be because female adolescents are more socially inclined than males.

Research of Social Learning of Sibling Behavior

Social learning is a process of learning that has the ability to benefit siblings when learning proper behavior. Bandura and Huston (1961) study the process in which children learn proper behavior repertoires. Bandura and Huston (1961) comment that children learn from cues provided by their parents (punishment, verbal reprimands, rewards, verbal praise) for what is appropriate behavior. Bandura and Huston (1961) note that children's social learning takes place through observation of behavior displayed in models.

Social learning then is a benefit provided to children with siblings, because it allows them to learn through the actions and results of actions of their siblings. Moser, Jones, Zaorski, Mirsalmimi, and Luchner (2005) note that siblings who witness other siblings being reprimanded for a specific behavior are than less likely to reenact that behavior. Mark Nielsen (2006) observed social learning outcomes of children at the ages of 12, 18 and 24 months who watched models perform specific tasks such as opening boxes. Nielsen (2006) noted that, as the child grew older social learning abilities became more defined, but at each stage children copied actions that had positive results. In Nielsen's (2006) study, children at the age of 24 months were less likely to copy the demonstrated actions if the model acted nonsocial.

Research has also shown that children will not reproduce modeled tasks that were failed when observed. Huang, Heyes, and Charman (2002) studied a reenactment of 2 year old children in a failing modeled attempt to perform a task. Huang et al., (2002) found that children will reenact an action that has been fully demonstrated, but will not reenact a modeled behavior that was not successful.

Summary

In summary, most current research suggests that siblings assume complementary roles in their relationships, and view each other as a source of support. Healthy sibling relationships result in close bonds between the siblings and within the family. Healthy sibling relationships also prepare children for proper socialization with peers. According to the present research, females give more support to their siblings than males do. Also, the older sibling role is viewed as the more positive role in the sibling relationship by both child and parent. Finally, the first-born children's behavior will predict the future behavior of their younger sibling.

CHAPTER III: DESIGN

Participants

The participants in this experiment consisted of 101 undergraduate students from Rowan University, which is located in Southern New Jersey. The researcher divided the participants completed questionnaires into three groups: younger sibling subjects, older sibling subjects, and only children subjects. The younger sibling group had 47 students, the older sibling subject group had 49 students, and the only children subject group had 5 students. The subject pool was also divided by gender and had 62 female subjects and 39 male subjects.

Materials

The experimenter developed a sibling questionnaire (see Appendix), based on a 5 point likert scale and contained 25 short statements. The 25 statements dealt with the individual's perception of sibling, family, and social relationships. Instructions for the questionnaire were included on the front page. The participants were also asked to fill in their age, gender, and list the total number of members in their immediate family including relationship with and age of those members. Individuals with no siblings were told to only answer questions 12-18, which were statements that did not address family roles.

Reliability/Validity of Scales

No pilot studies were conducted to determine the reliability or validity of the survey. However, it was assumed that the survey was answered honestly, therefore

reflecting an accurate assessment of the constructs being assessed.

Method

Participants for this study were recruited in three different manners: 42 questionnaires were filled out before two undergraduate psychology classes with the permission of their professor, 36 questionnaires were filled out by volunteer students approached by the researcher in the Rowan University Student Center, and 21 questionnaires were filled out by students who signed up from a student pool to gain credit hours in an undergraduate psychology class. Before the questionnaires were distributed, the participants were informed that their answers would remain confidential and that their participation in the study was completely voluntary. Participants were asked to complete the questionnaire in full and were allotted up to 20 minutes. The questionnaires were collected upon completion.

Independent and Dependent Variables

The independent variables in this experiment were birth order and gender. The dependent variables were the questionnaire scores. It was expected that there would be a significant statistical difference between younger and older sibling subjects, a significant statistical difference between only children and sibling subjects, as well as a significant statistical difference between male and female subjects.

Analysis of Data

After 101 questionnaires were completed and collected the data was scored by a Kruskal-Wallis nonparametric K independent samples test at a .05 level to determine if there was a statically significant difference between the groups.

Summary

In this study, 101 undergraduate students were instructed to complete a questionnaire about sibling relationships. The questionnaires were collected and a Kruskal-Wallis nonparametric K independent samples test was used to determine whether a significant difference existed between subject groups.

CHAPTER IV: RESULTS

Introduction

The purpose of this study was to discover the effects that an individual's birth order has on his or her perceptions of sibling, family, and social roles. It was hypothesized that younger siblings would report more positive relationships than older siblings. It was also hypothesized that older siblings would find their family role and sibling role to be more important than younger siblings.

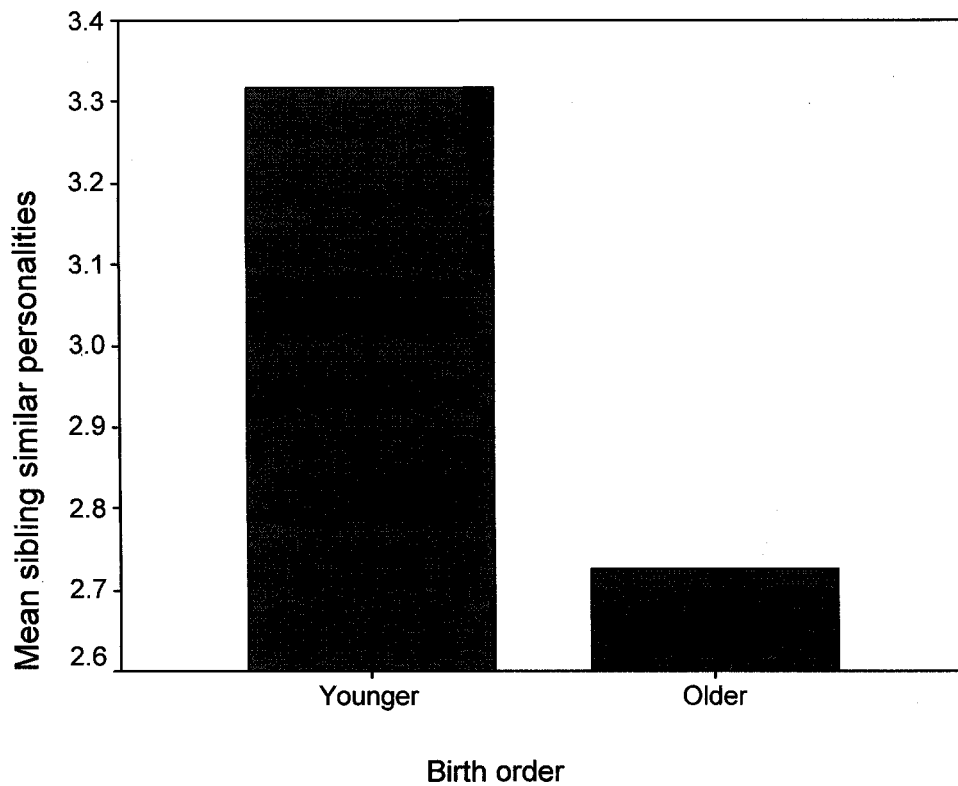
Results

For this study, 101 undergraduate college students filled out a 25 statement questionnaire based on their relationship with the sibling closest to their own age (see Appendix). The statement responses were based on a 5 point likert scale; 1 being not true, 5 being very true. The statements reflected their attitudes towards sibling, family, and social roles. Completed questionnaires were divided by younger siblings ($n = 47$ subjects), older born siblings ($n = 49$ subjects), and only child ($n = 5$ subjects). The questionnaires were also divided in male ($n = 39$) and female ($n = 62$) groups.

It was hypothesized that younger sibling subjects would be more likely to report being influenced by the behavior and actions of their older siblings in social and family situations. Younger sibling subjects were predicted to be more likely to report sharing similar interests with their older siblings, and be more likely to be influenced by their actions. A Kruskal-Wallis nonparametric K independent samples

test showed that indeed younger siblings reported being more influenced by their older siblings. The test indicated that younger sibling subjects reported sharing similar personalities with their older siblings ($\chi^2=4.594, p \leq .03$) (see figure 4.1). The test also showed that younger sibling subjects reported sharing similar interest with their older siblings ($\chi^2= 4.622, p \leq .03$).

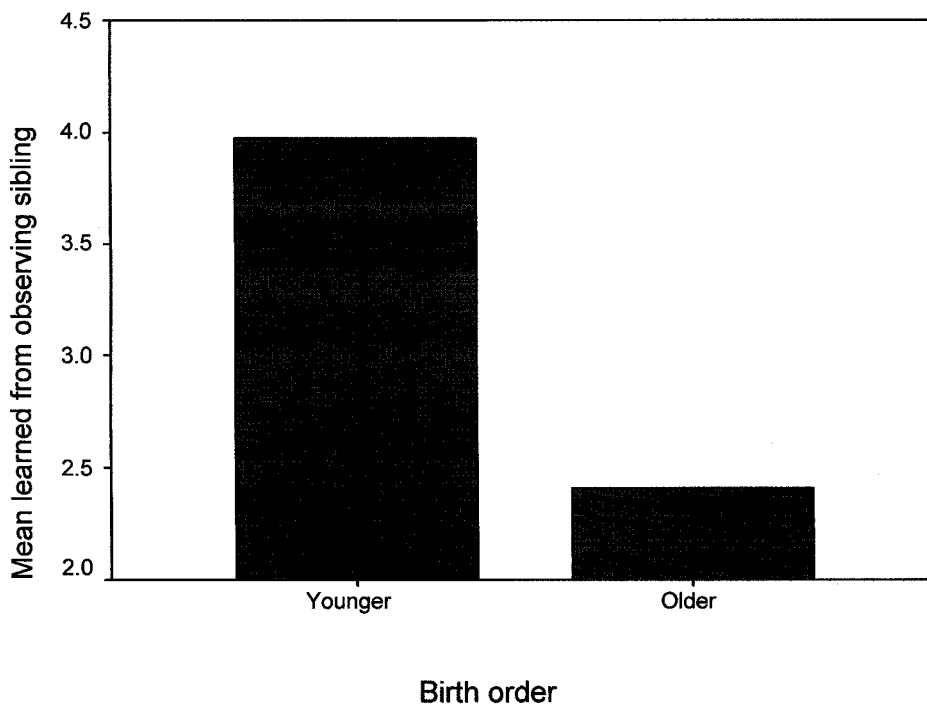
Figure 4.1 Mean scores “similar personalities.”



The Kruskal-Wallis nonparametric K independent samples test also showed that younger sibling subjects reported being influenced by their older siblings when it came to decision making ($\chi^2= 4.428, p \leq .03$). The influence of older siblings proved to carry over to social relationships as shown by younger sibling subjects reporting

that their sibling relationship affected their friendships ($\chi^2_2= 4.049, p \leq .044$). It was also hypothesized that younger sibling subjects are more likely to learn from observing the actions of their older siblings. The Kruskal-Wallis test showed that younger sibling subjects did report learning by observing the action of their older siblings ($\chi^2_2=31.997, p \leq .0$) (see figure 4.2). Conversely, older sibling subjects reported that they believe their younger siblings have learned observing them by ($\chi^2_2=8.810, p \leq .03$) (see figure 4.3).

Figure 4.2 Mean scores “Learned from observing sibling.”

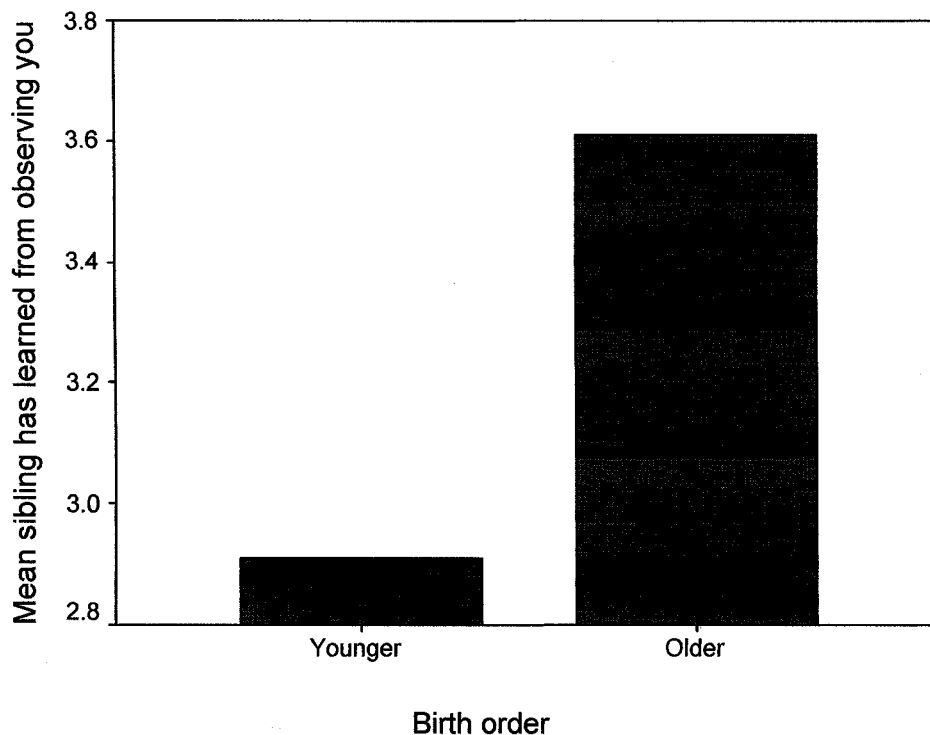


It was also hypothesized that the role of the older sibling would be viewed as being more important by both younger and older sibling subjects. The Kruskal-Wallis test showed no significant difference in the sibling scores regarding family roles. No difference was found between male and female subjects regarding the

importance of their roles within the family. The Kruskal-Wallis test did show however that older sibling subjects were more likely to report being intellectually superior to their younger siblings ($\chi^2_2 = 17.512, p \leq .0$), which supports the hypothesis that older sibling subjects would see themselves as having more positive qualities than younger sibling subjects.

It was hypothesized that there would be a significant difference between the scores of only children and younger/older sibling subjects regarding family roles. It was also hypothesized that female sibling subjects would report giving and receiving more emotional support than male siblings, but no significant difference was found.

Figure 4.3 Mean scores “Sibling has learned from observing you.”



It was also hypothesized that only children subject scores would be significantly higher than multiple sibling subjects siblings concerning the importance

of their roles. Only 5 participants reported being an only child, due to this small sample making any comparison of scores between the groups is invalid.

Summary

In summary, a Kruskal-Wallis nonparametric K independent samples test was conducted on the sibling questionnaire completed by the subjects. A significant difference was found between the mean scores of the younger group and the older sibling subject groups regarding questions of influence of individual traits. The younger sibling group's mean questionnaire scores were significantly higher than the scores of the older sibling groups regarding similar personalities and similar interests. A significant difference was also found between the mean scores of the younger sibling group and older sibling group pertaining to statements regarding learning through sibling observation. The younger sibling group's mean scores were significantly higher regarding learning from observing his or her older sibling. Consistently, the older sibling group's mean scores were significantly higher regarding their perceptions of whether younger sibling had learned from observing them.

The Kruskal-Wallis test found no significant difference between the younger and older sibling groups' scores regarding statements about family roles, although there was a significant difference regarding believed intellectual superiority. The mean scores of the older sibling group were significantly higher than the younger sibling group on a statement regarding intellectual superiority. Hypothesis's comparing only children subjects to subjects with siblings were not proven in this experiment, due to an insufficient amount of participants.

CHAPTER V: DISCUSSION

Review of Results

After reviewing the data, it was found that the mean scores of the younger sibling subjects were significantly higher than the older sibling subjects regarding areas of personalities and interests. The results support the hypothesis that younger sibling subjects would be more likely to report sharing similar interests and personality types than older sibling subjects. The results also support McHale, Updegraff, Helms- Erickson, and Crouter's (2001) findings that the personality of the older siblings can accurately predict the younger siblings' personalities, as well as the findings of Snyder, Bank, and Burraston (2005) that found antisocial behavior of an older sibling would influence the antisocial behavior of the younger sibling. The data also supports Moser, Jones, Zaorski, Mirsalmimi, and Luchner's (2005) study on sibling social learning which proved that younger siblings were more likely to copy positive behaviors of their older siblings. The Mark Nielsen (2006) study on sibling social learning also showed that younger siblings copy the actions of their older siblings from as early as 12 months of age.

Results also supported the hypothesis that younger sibling subjects were more likely to have their social relationships affected by their sibling relationships. The mean scores for younger siblings were significantly higher than older siblings concerning questions on the effect of their siblings on their social relationships. The data also supports research by Kramer and Kowal (2005) which showed that the

quality of the first-born siblings' peer relationships predicted the quality of later-born siblings' relationships with peers.

The data also showed that the mean scores of older sibling subjects were significantly higher than younger sibling subjects regarding intellectual superiority. These findings support research that has shown first-born sibling as having more positive qualities than later-born siblings (Mendelson et al., 1997). However, the data did not support the hypothesis that older sibling subjects would view their family role as being more important than younger sibling subjects.

The results could not support the hypothesis that a significant difference would be found between male and female subjects regarding the importance of their family role parental influence and sibling support. The data also does not support studies which claimed that female siblings rate their interpersonal power above male siblings (Todd et al., 1993). There was no significant difference between the mean scores of male and female sibling subjects. There was insufficient data to show any difference between the scores of single child subjects and younger/older sibling subjects. There was not enough conclusive data to support the hypothesis that single children subjects perceive their family role as being more important than do subjects with siblings.

Limitations

One limitation of the current study was the size and demographic information of the participants. The current study's participants were solely undergraduate college students who volunteered their services. The study asked participants about sibling and family relationships in a situation where, traditionally, college individuals

are away from their families. Having subjects who are removed from their sibling and family situations could have caused the participants to look more favorably upon those relationships, than at other times during their lifespan.

Another limitation of the subject pool concerns the number of participants who were volunteers. The study was only able to recruit 101 undergraduate students, which led to a small number of only child subjects. Since there was an insufficient amount of only child subjects, the results regarding the difference between only children subjects and sibling subjects could not be considered valid. If the study was able to recruit a higher number of only child undergraduate students then comparisons between the scores of only child subjects and sibling subjects could have been made. Having subjects volunteer their time to complete the questionnaire may also have influenced them to put less effort into completing the questionnaire than if they were compensated for their time.

The results of the study could be considered more valid if younger and older sibling pairs were recruited instead of individuals with older and younger siblings. Having sibling pairs complete the questionnaire would yield perceptions of the same relationships, allowing the researcher to examine similarities and differences of siblings' perceptions. Since the study only used undergraduate students from the same university, recruiting a sufficient amount of sibling pairs would have been extremely difficult, and therefore was not attempted.

A study about siblings' perceptions of their relationships might be better assessed by interviews rather than questionnaires. Questionnaires do not allow in-depth information into the subjects' thought processes while answering the questions.

Having questions concerning sibling, family, and social relationships answered orally during an interview with a researcher would allow for further insight and analysis of responses.

Conclusions

In conclusion, the results of the current study revealed a significant difference between the questionnaire scores of younger sibling subjects and older sibling subjects concerning perceptions of influence due to birth order. Specifically, younger siblings answered questions concerning the influence their older siblings have on their personality, interests, and decision making related to social relationships. Younger sibling subjects reported receiving more emotional support from their siblings than did the older subject group. The results showed a significant difference between the mean scores of younger and older sibling subjects regarding learning by sibling observation. Younger siblings reported learning more from their older siblings, coinciding with older sibling subjects who believe that their younger siblings learned more from observing them. No significant difference was found concerning the perceptions of sibling subjects' family roles. A significant difference was found between the scores of younger and older sibling subjects regarding perceived intellectual superiority. Significant differences were found between the scores of female and male sibling subjects, but there were not enough only children subject participants to compare difference in the scores between the groups.

Implications for Further Research

There is a need for more research on gender and sibling relationships concerning their perceptions of the effects of their sibling, family, and social roles. It

would be interesting to compare the results of mixed and same gender sibling pairs to see if having a sibling of the opposite sex would affect an individual's perceptions. Further in-depth research on self rated personal qualities between sibling subjects would be interesting considering there was a significant difference in the mean scores of the participant groups in a statement regarding intellectual superiority. There is also a need for a valid comparison between only children and younger/older siblings in order to assess if being an only child affects individuals' perceptions of their family roles. It is important to conduct further research on the effect of birth order on children's development to better their caretakers' ability to compensate and prepare for any negative effects, and to gain more of an understanding into human development.

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APPENDIX

Sibling Questionnaire

Sibling Questionnaire

Age _____

Gender _____

Estimated GPA _____

Use the blank below to list all the members of your immediate family. Do not include names of your family members.

Relationship (Mom/Dad/Brother/Sister etc.)

Age

The following section of the questionnaire will be statements related to your relationship with the sibling (closest to your own age) in your family. Read all statements carefully and please answer all statements that apply. If you do not have any siblings only answer questions 12-18.

Circle the number the best relates your opinion of the statement.

1 - not true, 2 - not entirely true, 3- somewhat true, 4- true, 5 - very true

1. You have a conflicted relationship with your sibling.

1-----2-----3----- 4-----5
not true somewhat true very true

2. You have a positive relationship with your sibling.

1-----2-----3----- 4-----5
not true somewhat true very true

3. You and your sibling have similar personalities.

1-----2-----3----- 4-----5
not true somewhat true very true

4. You and your sibling have similar interest.

1-----2-----3----- 4-----5
not true somewhat true very true

5. You are intellectually superior to your sibling.

1-----2-----3----- 4-----5
not true somewhat true very true

6. Your sibling is emotionally supportive of you.

1-----2-----3----- 4-----5
not true somewhat true very true

7. You are emotionally supportive of your sibling.

1-----2-----3----- 4-----5
not true somewhat true very true

8. You receive more emotional support from your sibling now than during childhood.

1-----2-----3----- 4-----5
not true somewhat true very true

9. Your sibling influences your decision making.

1-----2-----3----- 4-----5
not true somewhat true very true

10. Your sibling influences your social decisions.

1-----2-----3----- 4-----5
not true somewhat true very true

11. Your relationship with your sibling has an effect on your family's relationship.

1-----2-----3----- 4-----5
not true somewhat true very true

12. You have an important role in your family.

1-----2-----3----- 4-----5
not true somewhat true very true

13. You are content with your role in your family structure.

1-----2-----3----- 4-----5
not true somewhat true very true

14. You perceive your role in your family to be important.

1-----2-----3----- 4-----5
not true somewhat true very true

15. Your parents influence your decision making.

1-----2-----3----- 4-----5
not true somewhat true very true

16. You have a positive relationship with your parents.

1-----2-----3----- 4-----5
not true somewhat true very true

17. You have a positive relationship with your friends.

1-----2-----3-----4-----5
not true somewhat true very true

18. Your friends influence your decision making.

1-----2-----3-----4-----5
not true somewhat true very true

19. Your sibling has a positive relationship with his/her friends.

1-----2-----3-----4-----5
not true somewhat true very true

20. Your relationship with your sibling has an effect on your friendships.

1-----2-----3-----4-----5
not true somewhat true very true

21. Throughout your life you have learned from observing your sibling's actions and behaviors.

1-----2-----3-----4-----5
not true somewhat true very true

22. Throughout your sibling's life he/she has learned from observing your actions and behaviors.

1-----2-----3-----4-----5
not true somewhat true very true

23. If you did not have a sibling, you would have made different choices in your life.

1-----2-----3-----4-----5
not true somewhat true very true

24. Overall, your sibling has had a positive effect on your life.

1-----2-----3-----4-----5
not true somewhat true very true

25. Overall, you have had a positive effect on your sibling's life.

1-----2-----3-----4-----5
not true somewhat true very true