Birth order and its effect on depression in adults

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BIRTH ORDER AND ITS EFFECT ON DEPRESSION IN ADULTS

by
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Abstract

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The purpose of this study was to find the relationship between birth order and depression. It hypothesized that first-borns are more susceptible to depression than later-borns. Subjects were male and female undergraduate students from Rowan University. These students were over the age of 18 and were kept anonymous. The study collected data from fifteen participants by using a Birth Order survey which included questions about personality traits that pertain to a certain birth order position. Each subject was asked to indicate the exact birth order rank and if they have experienced depression or signs of depression. Results showed that differences were not significant due to the small sample size. Not enough subjects were depressed as well. Interestingly, the two subjects who were depressed were not first-borns, yet middle and last-born.
<table>
<thead>
<tr>
<th>Table of Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
</tr>
<tr>
<td>List of Figures</td>
</tr>
<tr>
<td>Chapter 1: Introduction</td>
</tr>
<tr>
<td>1.1 Need for Study</td>
</tr>
<tr>
<td>1.2 Purpose of Study</td>
</tr>
<tr>
<td>1.3 Hypothesis</td>
</tr>
<tr>
<td>1.4 Theory or Background Information</td>
</tr>
<tr>
<td>1.5 Definitions</td>
</tr>
<tr>
<td>1.6 Assumptions</td>
</tr>
<tr>
<td>1.7 Limitations</td>
</tr>
<tr>
<td>1.8 Summary</td>
</tr>
<tr>
<td>Chapter 2: Literature Review</td>
</tr>
<tr>
<td>2.1 Introduction</td>
</tr>
<tr>
<td>2.2 Birth Order, Personality Traits, and Depression</td>
</tr>
<tr>
<td>2.3 Birth Order and Parenting Styles</td>
</tr>
<tr>
<td>2.4 Sibling Relationship and Depression</td>
</tr>
<tr>
<td>2.5 Male vs. Female</td>
</tr>
<tr>
<td>2.6 Children vs. Adults</td>
</tr>
<tr>
<td>Chapter 3: Methodology</td>
</tr>
<tr>
<td>3.1 Introduction</td>
</tr>
<tr>
<td>3.2 Participants/Subjects</td>
</tr>
<tr>
<td>3.3 Design</td>
</tr>
<tr>
<td>3.4 Procedure and types of analysis</td>
</tr>
</tbody>
</table>
# Table of Contents

3.5 Summary ........................................ 21  
Chapter 4: Findings .................................... 22  
4.1 Introduction ................................... 22  
4.2 Results ...................................... 22  
4.3 Summary ...................................... 24  
Chapter 5: Summary and Conclusions .............. 26  
5.1 Discussion .................................... 26  
5.2 Recommendation ................................ 28  
List of References .................................. 30  
Appendix A Consent Form ......................... 37  
Appendix B Birth Order Survey .................... 38
# List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1 Birth Order Survey Results</td>
<td>23</td>
</tr>
</tbody>
</table>
Chapter 1
Introduction

Need for Study

Alfred Adler describes his theory of birth order as a trait that can possibly affect personality. The first born may experience certain emotions differently than the middle and youngest child or visa versa. According to Adler, the first born is more susceptible to depression because of high expectations of parents and suddenly losing the attention due to another sibling being born. The youngest child may have a fear of the world and decision making due to being overprotected by older siblings and not being considered experienced enough. However, Adler states that the middle child has it made. He/she is neither dominated by older siblings nor experiences the sudden loss of attention. When treating people with depression, it is important to also keep in mind what birth order the patient may be. Depression is a mental disorder that affects many and this study is done to distinguish if there is a relation between birth order and depression.

Purpose of Study

This study is basically designed to analyze the role of depression regarding birth order. If there are people who suffer from depression due to being a certain birth order, they can get the proper help they need. Also, others will have a better understanding of their mental health due to being a certain birth order. For instance, the oldest child will be more sympathetic towards the youngest only if the oldest acquires the accurate information about mental health regarding a certain birth order. Researchers say, “…adolescents do sometimes rely on their siblings as a source of advice about life plans and personal problems.” (Tucker, Barber, & Eccles, 63).
Hypothesis

This study hypothesizes that the first born is more susceptible to depression than the middle and youngest child. The oldest child has more expectations to follow compared to his/her counterparts. Most children are nurtured in a positive way when they are young. They don’t have any major responsibilities to complete or worry about becoming a good role model for the younger siblings. Yet, as they get older, things aren’t taken so lightly. This is why a study like this is crucial in order to help those cope with their feelings better by searching for the right information. Firstborns will have anxiety issues due to the pressure of living up to the expectations of parents. Expectations may include being the intelligent, most competent and responsible one among the siblings. Feeling worthless may occur when these expectations are not convened. The first born may inherit depression from the family and feel anxious regardless of any type of pressure. Self-concept may be lost due to lack of attention or appreciation from a parent or significant being. Further research will obtain the information that will support or reject the hypothesis.

Theory or Background Information

Depression can be caused by many environmental, biological, and psychological factors. For example, one may have difficulty making friends, which can cause him/her to isolate oneself from their surroundings. Depression can also be inherited from the family and not by other factors. Also, one may have a certain perspective of him/herself causing oneself to have a high self-concept, or in this case, a more lower self-image. Adler focuses on individual psychology and proposes his theory of birth order because each
child that is born is an individual with personalities different from each other. Each child has diverse emotions apart from each other as well. For generations, families have been considering the oldest child to be more responsible. He/she is the leader among their siblings. He/she is the backbone of the family, especially if the oldest is a son. But parents along with society tend to forget the pressure and anxiety that comes with this label of “first born” or “oldest child”. Some may feel confident enough to take on a challenge as such, but others may feel incompetent and anxious. Still today, in places such as Asia, if the oldest son does not fulfill the expectations of their parents, he is ridiculed and considered a weak link of the family. He may feel hopelessness in becoming a strong confident person and may also have low self-esteem.

Since this study will be using males and females, it just may be that males will be favored more, despite birth order. In some countries, for instance, if the oldest and middle children are daughters and the youngest happens to be a son, the son will have more of an upper hand because of the mentality of men being more superior to women. The oldest may feel depressed not because of the stress of being the oldest, but feeling unloved and worthless.

**Definitions**

**Birth order**: Alfred Adler’s theory which is composed of individual personalities of siblings by order of birth. This includes the first child, middle child, and youngest child. The first child is usually nurtured more than the other siblings. The middle child is considered to have it the easiest because he/she doesn’t have much of accountability as the first born, and isn’t overprotected as the last born. The youngest child is excessively
pampered by his/her parents, along with older siblings because he/she is not considered skilled enough to handle tasks and may have difficulty making decisions in the future.

**Depression:** A mental disorder which may be caused by environmental, biological, and psychological factors. Researchers say, “It manifests as a combination of feelings of sadness, loneliness, irritability, worthlessness, hopelessness, agitation, and guilt, accompanied by an array of physical symptoms” (Sharp, Lisa K., PH.D., & Lipsky, Martin S., M.D., 1001) With relation to birth order, this disorder may be more effective in first and last children rather than middle children.

**Effect:** This term is used to support the hypothesis that depression may have more of an effect on the first child rather than those who are born later.

**Firstborn or First child:** This term is specifically used as a focus of this research and to analyze this certain birth order to distinguish its relationship with depression.

**Assumptions**

To make this study valid, some assumptions have been made. To advocate the hypothesis, the study supposes that all first-borns may show signs of depression due to increase in pressure from their parents and thriving to be a positive role model for their younger siblings. Depression can also occur of certain personality traits come in place, such as, trying to be the best at everything and can’t meet expectations, trying to protect others and not succeed, or trying to be competitive and never winning. These feelings may cause despair and worthlessness.
Limitations

When looking at the big picture, there is a possibility that not all first-borns are depressed. Generally speaking, depression may not have any effect on birth order whatsoever. People have been losing jobs left to right during the economic turmoil, which has caused some to react negatively. A study was conducted which hypothesized that women would be less affected by job loss. Results showed that only the women who were financial upset or who were strongly satisfied with their work were negatively affected, while men showed signs of depression when simply faced with the fact that they were unemployed (Jones, 1989). Regardless of birth order, this study showed that people can be negatively impacted. Birth order may simply represent role identity. Each sibling has his/her own personality traits which make them different, not necessarily in a negative way. Each sibling may have an understanding of each other and not be negatively influenced in any way. Parents may also treat all siblings equally, not depending on a certain birth order. When gathering data, subjects may not participate honestly. They may participate in a way how normally society would. For instance, if society views depression negatively, then subjects will go with what society is saying and ignore their own perception. If previously depressed, feelings of despair may reoccur during data collection and participation may be difficult as well.

Summary

This study focuses on finding the relationship between depression and birth order, and hypothesizes that the first-born will be more susceptible to depression than the later-born. Depression can be caused by increase in parents expectations and responsibilities,
fulfilling the role as the oldest sibling, and interference of personality traits of the first-born. Various cultures view being the oldest as having the upper hand and more at the level of being the third parent, after mother and father, to the siblings. Males would be preferred to be the first child in some cultures, since they are considered to be much more superior and dominating than females.
Chapter 2

Literature Review

Introduction

Being different is something everyone wants to be. Each person wants to have a unique trait that makes him/her diverse. Labeling a person, such as, “the quiet one”, “the rebel”, or “the wise one”, describes the personality traits one may obtain. Research has showed that birth order may possibly have a connection to personality. Alfred Adler believed that people’s birth order was one of the most important factors in their life and that the position they had in the family was one of the best predictors of the kind of person they would become. The only child has a need to be the focal point, the oldest takes on the role of a surrogate parent, and the youngest takes pleasure in being the baby of the family (Tramontana, 2009). Research has demonstrated that due to higher expectations that are placed on the oldest child in a family, first-borns experience more guilt, anxiety, and difficulty in coping with stressful situations (Santrock, 2002). Parents of a culturally diverse background may have different way of parenting and have different expectations compared to the typical western family. Gender differences can also play a role, especially for multicultural backgrounds. Trying to be a good role model for younger siblings may also be pressurizing. The following studies discuss the effect depression has on birth order, emphasizing first-borns, and some reasons why this may be.

Birth Order, Personality Traits, and Depression

Studies done by Ndetei & Vadher (1982), and Hanus Grosz (1968) have shown results of the first-born showing signs of depression than middle and youngest children.
Although Schooler (1961) examines the connection between birth order and schizophrenia, the study discusses that laterborn subjects are more likely to isolate themselves when in anxious situations. Sulloway (2001) discusses that firstborns are more conscientious because their more responsible and organized and laterborns are more agreeable because their more accommodating. Firstborns also get anger quickly and more anxious than laterborns (Sulloway, 2001). McDonald and Carroll (1981) designed a study of 100 undergraduate subjects which investigated the concurrent validity of death anxiety and the effect of birth order on death anxiety. The participants were asked to complete the measure of anxiety by Dickstein (1972), Handal (1969), and Templer (1970). Results showed that firstborns had scored higher on the Templer scale than later borns (McDonald, 1981).

Research studying birth order and its affects on behavior and personality traits are often contradictory. Research done by Schachter has found that when placed in a high anxiety situation, first-born children experience more anxiety than later born children (Tramontana, 2009). Students in the high anxiety situation were told that they would receive shocks that would be painful but would do no harm. Students experiencing low anxiety were told that they would receive mild shocks (Weller, 1962). Weller replicated Schachter’s original study and found conflicting results. In Weller’s study, 234 freshman and sophomore female students were divided into groups of six. Participants were either given painful shocks, with no harm done, or mild shocks. The participants were given an adjective checklist at various times during the experiment. There was a pre-experimental measure of anxiety, a measure of anxiety after the anxiety manipulation was presented, and then a measure of anxiety was taken forty minutes after the experiment. Weller’s
study found that there was no significant difference in the anxiety levels between first-borns and later-borns. Weller did find that first-borns arrived to the experiment with more anxiety than later-borns.

Personality traits can also contribute to how a person perceives him/herself. Society can perceive birth order differences another way which may provoke differences about one’s behavior and ability. Can society really shape a person to be who they are? Herrera, Zajonc, Wieczorkowska, Cichomski (2003) say, people can react to first-born and later-born children in their own way. This can also support and characterize a child’s behavior that fits within stereotypes. This research included 4 separate studies. In Study 1, participants were asked about the personality traits of firstborns, only children, middle-borns, and last-borns. Studies 2 and 3 were asked about their beliefs about the kinds of occupations that would likely be held by firstborns, only children, middle-borns, and last-borns. Given that different personality patterns influence people to look into different which best suits them, Study 4 examined exactly which occupation each birth rank have and what degree level they obtained. Results showed that participants in Study 1 believed that firstborns are the most intelligent, responsible, obedient, and least emotional; only children are disagreeable; middle-borns are the most envious and the least bold and talkative; and the last-borns are the most creative, emotional, extraverted, disobedient, irresponsible. Participant perceived first-borns to have more prestigious occupations than later-borns in Study 2 and 3. Professional status was found to vary significantly with birth order and family size. MacDonald (1971) examined the relationship between birth order and social behavior, which resulted in first-borns being more socially responsible, however, more inflexible than later-borns and only children. First-born and only children
can also be more influenced and willing to conform than later-born (Carrigan, & Julian, 1966). In adults, first-borns are also shown to have less self-confidence and conformed more individually. Yet, they were also efficient problem solvers and official leaders when working in a group (Smith & Goodchilds, 1963).

Tramontana (2009), however, composed a study that opposes the theory of first-borns being more depressed than laterborns. 100 undergraduate college students from Loyola University participated in the study. 21 males and 73 females participated voluntarily and ranged in age from eighteen years to twenty-two years. Participants were given consent forms which described the basics of the study. A Brief Symptom Inventory Survey was given to the participants. It consisted of a list of problems that people sometimes experience and required participants to read each one and indicate the answer that best described how much that problem has distressed or bothered them during the past month. Results showed that the hypothesis of firstborns experience more anxiety than last born and middle born participants was found to be false. Tramontana’s research says that non-significant results showed probably because participants may not have been entirely truthful in the survey. They may have experienced anxiety symptoms and were not comfortable revealing it. Also, because of limited resources, the sample size was a bit small.

**Birth Order and Parenting Styles**

Research has shown that parents may put much more responsibilities on the oldest child and expect the best compared to his/her siblings. And since it’s the first child, parents may also be a bit protective and strict. Philip Putter (2002) did a study which examined the relationship between birth order and depression. He examined how
parenting styles may have something to do with the children being depressed. Putter hypothesized that first-borns would be more depressed and would rate their parents as more protective. Results showed the opposite. Middle children showed higher levels of depression and rated their parents as more protective than first-borns. Lastborns showed less depression levels and rated their parents as less strict. Putter continues to discuss that the reason why middle children showed higher levels of depression was because maybe parents showed more protectiveness because they were more experienced after the first-born. One issue with the study was that specific family member information was not asked of parents. Participants that were twins, had step-siblings, and had non-sibling child relatives in the house were eliminated from the investigation. Price (1969) discusses that parents reported being more strict and tough with the first child but more easy-going with the second and later children. S. Nassir Ghaemi (2008) states that firstborns may be more likely to be depressed due to excessive responsibility placed on him/her by parents and a laterborn may be more likely to be depressed due to being ignored by an occupied parent. Birth order differences can also depend on how willing the parents are and if they have the ability to invest in a child, which tends to decline as the number of siblings amplify (Blake, 1987). Parker (1979) also studied parenting styles and depression and found that parents that are rated high on protectiveness are more likely to have depressed children.

Though some studies propose that disparity in treatment does not always show unconstructiveness on children's adjustment (McHale, Updegraff, Jackson-Newsom, Tucker, & Crouter, 2000), yet the main idea is that low self-esteem, behavioral problems, or inadequate sibling relationships are possible consequences of receiving less parental
affection or more discipline than other siblings (McGuire, Dunn, & Plomin, 1995; Stocker, 1995). In the study examined by Shebloski, Conger, & Widaman (2005), earlier born siblings were assumed to be more accustomed to differences in parenting than their younger brothers or sisters (Feinberg, Neiderhiser, Simmens, Reiss, & Hetherington, 2000). Sibling’s perception of parental treatment is partially or impartially expected to reflect not on their temperament, personality, and self-concept as well as their position in the family. Shebloski, Conger, & Widaman disagreed that “siblings' self-worth is likely to predict their perception of parental treatment because of individuals' tendencies to process emotionally relevant information in a manner congruent with preexisting beliefs they have about themselves (2005).” It also assumes that older adolescents are more likely to pay attention and compare parental behavior than younger adolescents. The study found that later-born adolescent’s perceived their parents as favoring the older brother or sister which expected a decrease in self-worth consistently.

An interesting study conducted by Rothbart(1971) investigated birth order and the past history of adult achievement by observing mother-child interactions in a laboratory setting. It was found that mothers gave more complex explanations to 1st born children. They also pressurized their child for success and displayed greater anxious towards the performance of the 1st born. This can be hard for the child, especially when the parent exhibits anxious behaviors of succeeding, regardless of the child’s hard work and effort.

Parenting styles vary from culture to culture. Compared to the individualistic western culture, culturally diverse cultures have a sense of collectivism, where extended families are motivated to stay involved in each others life. Although, the authoritative style of parenting is most successful to perform, parents from a multicultural background
may use a stricter form of parenting (Martin, Costello, & Simmons, 2008). This may include group decision making and discussions. Park, Kim, Chiang, & Ju (2010) examined the relationship between perceived parenting styles and family conflict of Asian American college students. Ratings for parenting were highest for authoritarian parenting style. Results revealed that authoritarian parenting significantly explained why family conflict increased. Juang and Cookston (2009) conducted a longitudinal study of family obligation and depressive symptoms among Chinese American adolescents. The study concluded that foreign-born adolescents reported higher levels of family obligation behavior than U.S.-born adolescents. Firstborn adolescents experienced higher family obligation attitudes than later-born. However, those who had higher levels of family obligation showed less depressive symptoms. A longitudinal study by Chen, Liu, & Li (2000) examined the parental warmth, control, and pleasure of parents in China. The subjects were their children who were twelve years of age. The study found maternal warmth was significantly preferred for emotional adjustment; paternal warmth significantly was crucial for later social and school achievement. Paternal, but not maternal, indulgence also showed children's adjustment was significantly difficult.

**Sibling Relationship and Depression**

Reinherz, Paradis, Giaconia, Stashwick, & Fitzmaurice (2003) examined indentifying depression in adolescents in transition to adulthood. The goal for this study was to identify predictors of major depression in the transition to adulthood and to find prevention and intervention ways to hinder depression. This study identified childhood and adolescent familial and behavioral-emotional factors predicting depression during this developmental stage. The 354 participants were part of a single-age cohort from a
predominately Caucasian working-class community whose psychosocial development has been suggested prospectively since age 5. In these analyses, data collected during childhood and adolescence was related to diagnoses of major depression at ages 18–26. During the transition to adulthood, 82 participants experienced major depression. Other indicators of later depression included a family history of depression or substance use disorders, family composition, and childhood family environments perceived as violent and lacking cohesiveness. Also significant were self and mother reported internalizing behaviors, as well as self-rated anxiety and depressive symptoms. Multiple analyses showed family violence, internalizing problems during adolescence, and low family unity to be the most important factors. The study states that in the family domain, having a depressed parent or sibling was significantly related to experiencing depression in the transition period. Having a sibling with a substance use disorder by age 15 and having a sibling who attempted suicide were also significantly associated with depression. A limitation which was stated was because using only Caucasian families, the findings may not be generalized to more racially diverse populations.

Because of the large age gap between firstborn and lastborn, the firstborn acts a surrogate parent to the lastborn (Sulloway, 2001). The lastborn may be pushed around and considered to be incompetent. Sullaway studied the birth order and sibling competition and how it affects human behavior. The study hypothesizes that firstborns, who tend to act as surrogate parents, are more conscientious than laterborns, whereas laterborns are more agreeable, extraverted, and nonconforming. The study concluded that when placed in a position that calls for the exercise of authority, these same firstborns might be expected to behave more assertively than younger siblings generally would.
Sulloway also continues to say that as adults, people are much more flexible in their strategies than they were as children, but advantage is still taken of childhood experience whenever it suits the purpose. In the case of sibling relationships, sisters and brothers can promote positive adjustment when they model and reinforce positive social behaviors, but conflict and negativity can increase problems in maturation through learning visually and supporting harmful behavior (Kim, McHale, Crouter, & Osgood, 2007). Furman & Buhrmester (1992) states that sisters are closer to brothers, and bothers have a protective relation with their sisters. When siblings have close and positive relationships, this may associate to positive peer experiences and siblings providing “instrumental (advice, help) and social-emotional (affirmation, affection) support” to each other (Antonucci, 1985). However, a cross-sectional study performed by Widmer & Weiss (2000), showed that support from older siblings had a connection to higher levels of depression in middle and late adolescents. Higher levels of depressive symptoms in the early part of middle childhood may be liked to the tension of school transitioning and regulating to the daily social comparisons and evaluations that are characterized by other peers (Skinner & Wellborn, 1997). The transition to adolescence for a first-born may be stressful to the entire family as well because their development status is dependant on modification patterns of later-born’s. (Whiteman, McHale, & Crouter, 2003). Kim, McHale, Crouter, & Osgood, (2007) found that the associations between changes in sibling relationship and changes in youth adjustment did not vary in accordance to birth order. Specifically, second-borns were not significantly influenced by their sibling experiences than were firstborns, in regards to social competence and depressive symptoms.
Male vs. Female

Ndetei & Vadher (1982) studied people who were being treated for depression in Kenya and found that first-borns, especially the males, showed depressive symptoms. This was found because the male usually would take over financial responsibilities for the family, and provide moral and practical support for the extended family. Zucker, Manosevitz, & Lanyon (1968) studied anxiety levels associated with birth order during power outage in New York City and found that firstborns, mostly women would be more anxious than laterborns during this anxious situation. Kindwell (1982) studied the self-esteem of middle children compared to first and lastborns. Results suggested that middle children showed low levels of self-esteem, however, the self-esteem of middleborn males increased when all other siblings were females rather than males or mixed gender siblings. A study done by Gates, Lineberger, Crockett, & Hubbard (1988) showed results of females showing more traits of anxiety than males, however, Braccili, Montebello, Verdeccia, Crenca, Redondi, Turri, Turaccio, & Lendvai (1999) study showed higher anxiety levels in males. Both studies used children instead of adults.

Lester, Eleftheriou & Peterson (1992) conducted a study of college students which exposed those first-born males and last-born females had higher self-esteem and less irrational thinking than last-born males and first-born females. Sampson (1962) examined need for achievement and concluded that first-borns are higher achievers than later-borns. Additionally, first-born females displayed greater resistance to conform and first-born males. This may be harmful if the influence is negative, such as, drug abuse or struggling with trying to achieve the sense of belongingness.
Children vs. Adults

Many studies were found to have interesting finding comparing children with adults and how they cope with anxiety. Putter (2003) did a study which investigated the effects of depression in children. Subjects included 199 participants, of which 105 were first-born and 94 were later-born children. Participants were 6th to 8th grade children from two suburban Philadelphia school districts. Participants completed a sequence of questionnaires at baseline and then at 6-month intervals thereafter. The Children's Depression Inventory (CDI) was used to measure depressive symptoms. Results did not support the hypothesis that first-borns are more depressed than laterborns. Gates, Lineberger, Crockett, & Hubbard (1988) also did a study which supported this hypothesis. Children, 7 to 12 years olds, were given the Children's Depression Inventory, the State-Trait Anxiety Inventory for Children, and the Piers-Harris Self-Concept Scale to investigate depression and self-esteem levels. Firstborns showed significantly lower levels of depression and higher levels of self-esteem. In contrast, Braccili, Montebello, Verdeccia, Crenca, Redondi, Turri, Turaccio, & Lendvai (1999) studied the presence of emotional disorders in children with migraines. A sample of 73 children was used, which included 39 males and 34 females. Diagnostic interviews were carried out, consisting of one by one submission of the Anxiety Scale Questionnaire for Evaluative Age and the Children Depression Scale Test. This study found higher incidence of anxiety in firstborns than laterborns.
Chapter 3
Methodology

Introduction

Being a certain birth order can have an effect on personality. For instance, due to being the oldest, parents may place more responsibilities on the firstborn, leaving other siblings feeling incompetent. Younger siblings may have the urge to compete with older siblings to prove competence. They may also isolate themselves or feel depressed because they feel that they do not have the ability to fulfill parent’s expectations or be successful in general. In other cases, because of feeling the pressure of being the oldest and being a good role model for the younger siblings, firstborns may feel anxious as well.

The current research was designed to study the relationship between birth order and depression. The goal was to figure out if depression has any effect on birth order in adults. The study hypothesized that firstborns may be more susceptible to depression than middle and later borns. Data was collected, with Rowan University students as subjects, to find this relationship.

Participants/Subjects

Subjects were male and female undergraduate students from Rowan University. These students were above the age of 18 and were kept anonymous. This study collected data from 15 subjects (n=15). These samples were selected because the study is examining adults and finding out the relationship between birth order and depression. If depressed, adults have the life experience of why they feel this way and can give details about it better than children. Children may not have an understanding of their own personality traits accordance to their birth rank as adults do. As an adult, one has a better
knowledge about their personality, life experience, and how his/her life may be shaped by society.

A birth order survey was used to collect data, and the participants only needed to put the number next to which personality trait best describes them. They also provided the exact birth rank, such as, second child out of five children and if they have experienced symptoms of depression or have previously been diagnosed with the disorder. The population included males and females, typically males, and ages 18 and older. Participants were also of various multicultural backgrounds, such as, Asian, African American, etc., but mostly Caucasian.

**Design**

The study had an independent variable which was the birth order of the student. The dependent variable was the existence of depression in each student. Since the study hypothesizes that first-borns will be more depressed than later-borns, the data focuses on which birth order rank showed signs of depression. In other words, the existence of depression depends on what birth order rank the subject may be. A birth order survey will be the basis of the study, which includes questions that describe the personality traits of each birth order to determine which order of birth he/she is. There are ten questions to the survey and each question includes five (a-e; a=first-born, b=second-born…e=fifth-born) different personality traits, such as, “I am very competitive” or “I often feel that life is unfair”. Subjects are asked to write down if each trait is “most like you” (5), “next most like you” (4), “sometimes like you” (3), “least like you” (2), and “rarely/never like you” (1). They add up the numbers for each letter and the letter with the highest number should
indicate their birth order position. At the end of each survey, participants are asked to write down if they had previously showed signs of depression or have been diagnosed with depression. If needed, information for counseling services on campus will be provided for those who feel depressive emotions is occurring during or after the survey. The subjects have the right to withdraw at any time, without penalty. Subjects were also kept anonymous so their information is private and unknown.

The study is trying to figure out the correlation between depression and birth order. If depressed, the data demonstrates which birth order rank presents the disorder. The survey describes different personality traits to a certain birth order which also shows that maybe the first-born contains traits similar to later-borns, or visa versa. The only validity in this study is the fact that the participants will provide their birth order rank, and hopefully state if they have honestly been depressed or not, which if not provided honestly, may not be valid. Information about their parent’s parenting style, their relationship with their siblings, and if views of a different culture play a role in their lives is not provided, so it may be hard to distinguish if depression may be caused by these factors. Also, since the scoring process of the survey includes the birth order rank out of five children, it rules out the ones who are out of six or seven. This is why subjects are asked to write down their rank.

**Procedures and types of analysis**

The procedure of this study is pretty much to get subjects sign-in through the university’s subject pool website for an available room on campus to conduct the birth order survey. The participants come in on the times they signed up for, and take the survey. The researcher will sign up for certain times 1 day a week for 2 weeks, to have
the rooms reversed to conduct the survey. March 31st was reserved for 2 rooms from 2 pm to 4 pm. Also, April 4th was reserved for 2 rooms from 12 pm to 2 pm. Subjects need to provide a writing utensil on their own. The survey does not take more than 15 minutes to complete. The survey will provide the birth order rank and existence of depression for individual data collection.

The analysis used is finding a correlation between birth order and depression. This will provide the information about which birth order rank shows signs of depression.

**Summary**

The current study is designed to see if firstborns are significantly susceptible to depression than middle and later borns. Subjects for the study consist of anonymous undergraduate students, over the age of 18. The students volunteer to fill out a birth order survey through the university’s subject pool website and at the end, they are asked to write down if they have experienced signs of depression or have been diagnosed with depression. The survey would reveal the birth order rank and the existence of depression. A correlation between birth order and depression is analyzed to find the significant scores to advocate or oppose to the hypothesis. Validity was found in the revealing of birth order rank of the subjects and personality traits, yet other factors, such as, the type of parenting styles performed at home, relationship with siblings, and multicultural views, were not revealed.
Chapter 4

Findings

Introduction

The following study demonstrates the finding of a relationship between birth order and depression. To do so, subjects volunteered to participate in a birth order survey at Rowan University. Subjects were male and female over the age of 18. They took the survey which described personality traits pertaining to a certain birth order rank. At the end of the survey, participants were asked to write down if they have experienced signs of depression or have been diagnosed with the disorder. The study assumes that first-borns will be susceptible to depression compared to later-borns. However, the results showed otherwise.

Results

Although the subjects followed through with the survey, it wasn’t enough to show significant results. The differences were not significant and their were not enough depressed subjects to advocate the hypothesis. The study assumed to survey 50 subjects, but ended up with only 15. Twelve subjects showed no signs of depression, two showed signs of depression, and one was unsure. One of the twelve subjects revealed no signs of depression, but didn’t provide the birth order rank. The sample size was too small for significant results. Along with the small sample size, majority of the subjects were not depressed, as seen in Figure 1. A larger sample size would have contained more depressed subjects with a great chance of significant results. Interestingly, six out of fifteen subjects who participated were first-borns and experienced no signs of depression. This would still not be significant because of the small sample size and the majority of the participants were nevertheless not depressed.
Figure 1: Birth Order Survey Results
If to use a small sample size, the results would therefore oppose to the hypothesis of first-borns being more depressed than later-borns. Also, the two subjects who were depressed were middle and last-born and males. Again, if using the small sample size, the results would oppose to the hypothesis and agree with not all first-borns are susceptible to depression.

The study mentions research examining expectations and responsibilities being put on the first child by the parents, trying to be a good role model for other siblings, and interference of personality traits as being factors of first-borns being depressed. In this study, besides personality traits, other factors are unknown. The subjects are surveyed on the traits that best match their personality. Also, the subject’s cultural background is unknown. In reference to gender, those subjects who were depressed were Caucasian males. This is interesting because research has shown that women are known to be prone to depression than men (Kessler, 2003).

**Summary**

With the sample being small ($n=15$), the results showed that the majority (twelve out of fifteen) of the subjects were not depressed, two were depressed, and one was unsure. Amusingly, the two who were depressed were not first-borns, yet middle and last-born. The results didn’t have sufficient depressed people to take the survey, which makes it not significant enough. Although, the results show opposition to the research question of first-borns being more susceptible to depression, on the other hand, results also did show that according to the survey, majority of the subject’s personality traits didn’t match their birth order position traits. For instance, the highest scores indicated their birth order position, yet if one was the first child, he/she also contained personality traits of the
second or last-born. However, due to lack of background information, the answer to the study’s other hypotheses are unknown, such as, parents putting much expectations and responsibilities on their oldest child, or the pressure of trying to be the best role model for his/her siblings. The study surveyed many culturally diverse subjects, yet it is unknown if their culture played a role in their personality. However, the two depressed subjects demonstrate that depression can have an effect on males.
Chapter 5

Summary and Conclusions

The purpose of this study was to figure out if a relationship between birth order and depression exists. The treatment and styles of parenting, sibling relationship, and personality traits were examined to see if they may be factors of one feeling depressed. As research shown in chapter 2, strict, multicultural parenting styles may lead to one feeling negative and pressurized by certain expectations parents may have or the amount of responsibility they may put. Also, a negative relationship one has with his/her siblings can also play a role in negative behaviors. Some may inherit certain personality traits which may be sensitive to negative feelings. This shapes a person to who they are naturally. Studies mentioned in chapter 2 have concluded that females may be more at risk towards depression than men, regardless of birth order position. This study hypothesized that first-born children are more susceptible to depressive symptoms than later-borns. To test this, Rowan University students over the age of 18 volunteered to participate in a birth order survey. Subjects also consisted of males and females. The subjects were asked to indicate what exact birth order rank they are and if they have experienced depressive symptoms. The survey found that first-borns were not depressed and those who were, end up being middle and last-borns. The sample size also was small so results were not significant and their were not enough depressed people to survey.

Discussion

Research done by Sulloway (2001), McDonald and Carroll (1981), and Weller (1962) also examined first-borns and their level of anxiety and concluded that first-borns did experience anxiety than later-borns. In adults, first-borns are also shown to have less self-confidence and conformed more individually. Yet, they were also efficient problem
solvers and official leaders when working in a group (Smith & Goodchilds, 1963). Certain behaviors can be influenced by society depending on how one perceives his/herself. For instance, isolating oneself may be caused by shyness or not being accepted by society. This can lead to depressive symptoms as well. MacDonald (1971) examined the relationship between birth order and social behavior, which resulted in first-borns being more inflexible than later-borns and only children and first-born females displayed greater resistance to conform in another study conducted by Sampson (1962).

Although, for the current study, parenting styles and sibling relationships are unknown, personality traits were clear. Out of the fifteen subjects, two claimed to be depressed. What is interesting is that they are not first-borns, yet middle and last-born. According to the survey, the middle-born subject showed the highest points for having traits of a first-born and the last-born had the highest points for the second-born, although his rank was last of two children. The middle-born subject gave the highest scores to personality traits of, “never had parents undivided attention”, “have to work are to retain parents attention”, and “I am the ‘rebel’ because the other one is the ‘good one’”. This shows that the subject may have not have the desired concentration from parents and may often feel unimportant and left out. This also shows a sign of parent’s possibly decreasing involvement as the number of children increase (Blake, 1987). The last-born subject gave the highest scores to the traits of, “not taken seriously”, “often feel others make decisions for me and take responsibilities for me”, and “often feel left out”. This shows similar results as the other, but pays more attention to how others are treating him, not much attention on parents. Research has shown females being more depressed than males, nevertheless, in this study, the subjects who were depressed were males.
As factors of depressed people associated with birth order position were discussed, including parenting styles, sibling relations, and personality traits, only the personality traits were known and possibly, from the scoring of the survey, how the subjects feel about how much importance their parents give them. Yet, parenting styles still do not show significance in the results. Also, because of not enough depressed subjects, the differences were not significant. The study was hoping to investigate 50 subjects, but only had 15 participants. The study showed two male subjects, who are middle and last-born, to be depressed. Some strengths of the study were that its main point was to examine the depressed population and its relationship to birth order. The survey provided both the existence of depression and birth order position. The survey also included culturally diverse people. Subjects were kept anonymous, in case those who are depressed want to keep their identity private. On the other side, since the questions in the survey also mentioned how the subject feels about their parents, the information was not enough to associate with the study. Also, acquiring information from subjects about their parent’s parenting styles and sibling relationship would have been valuable to support the study.

**Recommendation**

For further study, focuses on parenting styles and what kind of relationships the subject has with his/her siblings may be helpful in finding an association with depression. Encourage those who are depressed to volunteer. A larger sample size can be a good component for significant results. Also, this will be beneficial as more information will be provided to find a way to better understand the idea so people can be treated
accordingly. For instance, if the cause of depression is a negative sibling relationship, then that could be focused on as a treatment.
List of References


33


Appendix A

Consent Form

The purpose of this survey is to get a better understanding of the relation between birth order and depression. The research, entitled "The Effect of Depression on Birth Order in Adults," is being carried out by Sumbul Zaidi of the School Psychology Program at Rowan University, in partial completion of her M.A. degree in School Psychology. You will attempt the Birth Order Survey which will describe the personality traits in regards to your birth order. On the same survey, please write down if you have experienced any signs of or have been diagnosed with depression. Your participation in the study should not exceed 15 minutes. There are no physical risks, however, since you are asked to write down depression existence, and you feel that psychological disturbances may occur, this may not be recommended for you and you should withdraw from the study. On the other hand, if disturbances occur after the survey, information for counseling will be given to you in written form when survey is turned in, or you can withdraw anytime. You are free to withdraw your participation at any time without penalty.

The data collected in this study will be combined with data from previous studies and will be submitted for publication. Your responses will be anonymous and all the data gathered will be kept confidential.

By taking this survey you agree that any information obtained from this study may be used in any way thought best for publication or knowledge provided that you are in no way identified and your name is not used.

Participation does not imply employment with the state of New Jersey, Rowan University, the primary investigator, or any other project facilitator.

If you have any questions or problems concerning your participation in this study, please contact Sumbul Zaidi, sumbul110@gmail.com, or her faculty advisor, Dr. Roberta Dihoff, dihoff@rowan.edu.
Appendix B

Birth Order Survey

BIRTH ORDER SURVEY

Instructions: Below are 10 statements that describe certain observable traits about people. Each section contains a statement that corresponds to a particular Birth Order position. Give five (5) points to the statement that is "most like you;" four (4) points to the statement that is "next most like you;" three (3) points to the statement that is "sometimes like you;" two (2) points to the statement that is the "least like you;" and one (1) point to the statement that is "rarely/never like you." After taking the survey, follow the scoring instructions at end. Also at the bottom of the survey, write down if you have previously been diagnosed with or had signs of depression.

1. I . . .
   ___ a. may feel squeezed out of a position of privilege and significance
   ___ b. may have huge plans that never work out
   ___ c. am often given large amounts of responsibility
   ___ d. prefer adult company and often use adult language
   ___ e. have a "pace setter;" someone is always ahead of me

2. I . . .
   ___ a. may have a "take it or leave it" attitude.
   ___ b. want to be better/bigger/stronger than others
   ___ c. like being right
   ___ d. have difficulty sharing with others
   ___ e. never have had my parents' undivided attention

3. I . . .
   ___ a. have learned to deal with both older and younger people
   ___ b. may not be taken seriously.
   ___ c. sometimes feel I need to protect and help others
   ___ d. am often over-protected
   ___ e. have abilities others don't

4. I . . .
   ___ a. am often a fighter against injustice
   ___ b. will always have this position in the "pecking order"; I can never be dethroned
   ___ c. have to work hard to keep or regain my parents' attention
   ___ d. rely on others' service instead of my own efforts
   ___ e. am extremely competitive

5. I . . .
___ a. may have trouble finding a place in my family structure
___ b. often behave like an only child
___ c. am closer to my father since the next child came along
___ d. was a "miracle" baby
___ e. am the "rebel" because the other one is the "good one"

6. I . . .
___ a. am adaptable
___ b. often fell others do things for me, make decisions for me, and take responsibility for me
___ c. being in control of others is my right and is important
___ d. often feel unimportant or inferior to others in my family
___ e. am in a race trying to catch up and overtake the first child

7. I . . .
___ a. am "sandwiched" in
___ b. feel everyone is more capable
___ c. have earned some privileges because of my position in the family structure
___ d. am sometimes a rival to one of my parents
___ e. am sometimes so competitive, it border on rivalry

8. I . . .
___ a. often feel left out
___ b. could be considered the "boss" of the family
___ c. am expected to set an example for others in my family
___ d. feel unfairly treated when I don't get my way
___ e. always try to outdo everyone to get attention

9. I . . .
___ a. could be described as "even-tempered"
___ b. sometimes feel I have multiple mothers and fathers
___ c. can be helpful if I am encouraged
___ d. had inexperienced parents
___ e. often feel uncertain about my abilities

10. I . . .
___ a. often feel that life is unfair
___ b. am often spoiled, or people see me that way
___ c. often feel discouraged or like I am letting my parents and younger siblings down
___ d. am often considered extremely spoiled by others; and am maybe envied a bit by others for my position
___ e. often feel insecure or uncertain
**Scoring directions:** Add up the numbers for each letter and place the sum into the corresponding letter:

A _____  B _____  C _____  D _____  E _____

Your highest score should indicate your birth order position. The other totals indicate traits that you may have learned or adopted from other birth order positions.

I am: ____________________________________________________________
Depression existence: _____________________________________________