

## EXAMINING BIRTH ORDER AND GENDER DIFFERENCES IN THE PREVALENCE OF ANXIETY DISORDERS IN ADOLESCENTS

Tehmina Jabeen<sup>1</sup>

Khalida Rauf<sup>2</sup>

<sup>1</sup>Institute of Clinical Psychology, University of Karachi, Pakistan

<sup>2</sup>Federal Urdu University of Arts Sciences and Technology, Karachi, Pakistan

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**ABSTRACT:** *This endeavour was to examine the role of birth order associated with the prevalence of anxiety related emotional disorders in adolescents and to investigate the gender difference for levels of anxiety in adolescents. The sample comprised of 65 individuals aged between 12 to 18 years. The participants were divided into two groups; both groups consisted of 50 males and 15 females selected conveniently. Among them 28 were first born and 37 were later born. Univariate analysis was conducted via SPSS 20.00. An insignificant relationship between birth order and gender was observed. In terms of each variable, there is significant main effect for birth order and the main effect for gender indicated a statistically insignificant difference in the prevalence of anxiety disorders between the males and females.*

**KEY WORDS:** anxiety, birth order, gender, adolescence

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## INTRODUCTION

Anxiety is a normal part of human development and reacting to challenging or threatening situations is a human instinct (Connolly, Petty, & Simpson, 2006). It compels a person to neutralize the perceived threat and react accordingly. In other case the misinterpretation of the situation triggers physiological responses and if this feeling exceeds the threshold, it often has negative impact on one's mental health (Chansky, 2004).

Nelson & Harwood, (2011) further add to this and suggests that this uncontrolled anxiety inhibits or drops down ones potential cognitive functioning hence reducing the capacity to process the incoming information from the surroundings adequately.

### Effects of anxiety on children and adolescents

Anxiety is said to result from the misalignment of the biopsychosocial factors with in and around individual. If these factors remain uncured, they hamper one's ability to function to the optimal. In case of children and adolescents it become even more problematic as it often lead to academic difficulties which further causes emotional or behavioural disorders (Smith, 2009).

Excessive and uncontrolled anxiety may lead to difficulties particularly in children and younger population. Individuals exhibiting anxious traits often appear to have difficulty in performing social and academic tasks. Learned helplessness also appears to be working under the same mechanism (Seligman, 1975). Personality theorist such as Julian Rotter has extensively studied this and highlighted the fact that people having excessive anxiety often manifest an externalized locus of control. This signifies that individuals who belief environmental factors to be more in

charge for success often perceive themselves as less competent and helpless and so they lose control over their own potentials (Rotter, 1966).

It is observed that the more the task is difficult the greater the efforts required. Easterbrook (1959), cited in Highland, (1981) studied the effects of anxiety over learning and concluded that excessive anxiety reduces individual's ability to work effectively. As a result individuals fail to build connections between the cues in order to perform tasks successfully without getting disorganized. The case becomes complicated when it comes to young population. Children having excessive anxiety often fail to remain organized and perform tasks effectively, this results in failure and disappointment (Easterbrook, 1959) .

Gaudry and Spielberger (1971) suggest anxiety to be the consequences of an individual's inability to remain composed and organized in face of challenges. Psychological and emotional problems in children often hamper their academic success and may cause learning difficulties. Furthermore, the status of children's psychological and emotional health also significantly impacts the treatment efficacy (Deshler, Schumaker, & Lenz, 1984; Licht, 1983).

### **Birth order and anxiety, a co relational background**

According to Kottman and Johnson (1993); Nims (1998), birth order has an important position in the development of one's personality. Parent's expectations from their children vary according to their positioning in the family, this influences child's self image to a greater extent.

Claxton (1994); & Steelman and Powell (1985) states that genetic and environmental findings have highlighted the significance of one's order of birth and sibling's individual differences. Family is considered as the initial form of society, the ways children interact with parents and siblings define their pattern on social interactions in the future. Individual's positioning in the family of origin shape their personality and the nature of social interaction and relationship patterns in the long run (Gould, 1997; Buckley, 1998).

Claxton (1994) described different styles of interaction, overt personality characteristics and behavioural attributes in relation to the birth order. In his study, he examined as to how siblings react with each other according to their position in family. Along with that how children having different positions in family get along with adults. According to the study it was observed that the first born siblings appeared to be closer in terms of socializing with the adults as compared to the younger ones. The later born siblings are noted to be influenced by the socialization patterns of their elder siblings. Claxton (1994) speculates that first born children being influenced by adults appear to be more achievement oriented and less independent of authority as compared to the younger siblings. The younger siblings experience greater enjoyment in social situations and feel more independent of authority. This also shape their personality traits, high expectations of adults and authority figures sometimes develop a sense of being overburdened and failure of meeting expectations may lead to feeling of insecurity, fearfulness and emotional problems such as anxiety (Claxton, 1994).

There are multiple researches on birth order and its effects on the personality and psychological maturity. Alfred Adler, the influential theorists in the 1920's work has been greatly followed by other theorists. The relationship between birth order and human development has been

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studies by a number of other researchers. These studies include the interaction of birth order with multiple factors such as intelligence, scholastic achievement (Claxton, 1994), (Bohmer&Sitton, 1993; Morjoribanks, 1997), financial status (Travis & Kohli, 1995) and familial sophistication (Travis & Kohli, 1995).

Baydar (1997) explains in a study that the age difference between siblings influences a lot on the emotional health of mothers and the siblings themselves. The shorter the age difference the more there is chance of emotional disturbances. It also impacts significantly on the family environment. Shorter span between children's birth affects mother child relationship and may develop emotional disturbances in children particularly the older ones. Due to the early arrival of the new child in family, the older one does not get enough attention from mother and hence weakens their bond. This at times develops insecurity, anxiety, and intolerance in children particularly in the elder ones.

Feiring, Lewis and Jaskir (1983) suggest that after the arrival of the second sibling, parental attention to the older sibling reduces. Parents become more vigilant and less playful with the elder child which strains their relationship and leads to emotional disturbances in the elder children.

Bischoff and Tingstrom (1991) also seconds suggesting that if the birth interval is short then there appears to be a high probability of negative and unhealthy mother-child interaction. This further aggravates the problem if the mother has an authoritarian style of parenting. In such situations due to the weak or absence of healthy bonding between mother and children, there are chances of behavioural and emotional disturbances such as anxiety, aggression, intolerance etc.

Neuropsychological studies have indicated immune dysfunction in the elder children following the birth of the new sibling (Rosaschino, Oleari, Carlevaris, Torre, Garlashi, M. L., & Nosedo, F. (1991-92). The birth of the younger sibling is taken as a traumatic experience by the older sibling aged two to three years. According to the study, The birth of the younger sibling develops a sense of being over thrown and the elder child may become overwhelmed with the feeling of being defeated which leads to emotional deflation leading to anxiety and other psychological disturbances (Lederman, 1996).

Although apart from birth order, environmental influences and genetics also determine the type of relationships (Crispell, 1996); individual's ordinal position in family is also an associated feature. Multiple researches in this domain have provided indications of some common patterns with regard to the child's order of birth in the family of origin. First born children are taken as more determined and strong-minded so adults usually have high expectations from them, due to this reason, they are given more responsibilities which make them feel under pressure to perform their best. (Richardson & Richardson, 1990). The older children if not able to perform according to the adult expectations feel insecure and are more vulnerable of having psychological disturbances such as developing anxiety symptoms (Ernst & Angst, 1983). Research has also provided evidences that the middle born children often perceive themselves as the followers and starve for recognition (Richardson & Richardson, 1990). Youngest ones often crave for adult's attention, the absence of which may lead to misbehaviour (Nims, 1998).

Byrd, DeRosa, and Craig (1993) in Buckley (1998) suggests that the only child occupying a dual position of being the first and the last born child within the family has to face a unique form of challenge. Children placed in this category often have to fulfil high parental expectations as well as the consequences of parental over indulgence. Research in this domain has provided evidences that the only children being the centre of parental expectations and attention often feel overburdened and sometimes fails to develop the sense of autonomy and independence. These at times lead to emotional disturbances in the form of anxiety and low frustration tolerance. The case is more common in the female population particularly in the eastern cultures as they are expected to be more obedient and involved with the parents throughout life (Byrd, DeRosa, and Craig, 1993).

Sears, Maccoby, and Levin (1957); Lasko (1954), Ernst and Angst (1983) conclude that lack of parenting experience and incompetence inculcate anxiety in first born children. Inconsistent parenting pattern hampers children's self concept and cause great distress, sense of insecurity and fearfulness in older children (Hilton, 1967 in Ernst & Angst, 1983). The only born children also share the similar personality patterns (Ernst & Angst, 1983).

Rothbart (1972) researched on the possible effects of birth order, parental expectations and children's success and achievement indicated that parents of children performing satisfactorily in academics often set high standards particularly for the first born. Due to the high parental expectation children develop high standards for achievement, failure of which leads them to develop internalizing disorders such as chronic anxiety, stress and low self esteem (Ernst & Angst, 1983).

Sampson (1965); De Avila (1971) coated in Ernst and Angst (1983) suggest that the first born or the only children appear to be less open in terms of expressing their feelings and they crave for support and affiliation when stressed out. They are not much sociable and often face conflicts between their need of dependence and independence. The later born siblings are more open to change and adopt innovative strategies to cope with stressors than their elder siblings so their self esteem is not conditional to the older sibling's performance. Furthermore, the later born often have to do more than their older sibling in order to seek parental attention and acceptance, (Gould, 1997).

### **Gender wise pervasiveness of anxiety disorders**

Anxiety related disturbances are the most widespread throughout the life span with 28.8% and approximately 18.1% within 12 months within masses. (Kessler, Berglund, Demler, Jin, Merikangas and Walters. 2005). The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) categorize, anxiety disorders as generalized anxiety disorder (GAD), panic disorder, agoraphobia, social anxiety disorder (SAD), obsessive-compulsive disorder (OCD), specific phobias, and post-traumatic stress disorder (PTSD).

While discussing the international scenario, diagnosed cases of anxiety disorders are widely found in the western world, affecting nearly 1 of 5 adults in the U.S. (Kessler, Demler, Merikangas and Walters, 2005). Within this population females are more prone as compared to males of having symptoms related to excessive anxiety leading to the diagnosis (Angst & Dobler-Mikola, 1985; Bruce, Yonkers, Otto, Eisen, Weisberg, Pagano, Shea and Keller

2005). One of a survey conducted in the U.S in years 1990 to 1992, 30.5% of females were vulnerable of having diagnosis of anxiety disorders with the percentage of 19.2% in males (Kessler, Mc Gonagle, Zhao, Nelson, Hughes & Eshleman, 1994). Similar findings with reference to the prevalence of anxiety disorders in women have been obtained in recent studies in the U.S and Australia (Andrews, Henderson & Hall., 2001).

Furthermore, Bledsoe (1973); Pringle and Cox (1963) also suggest girls to score high on manifest anxiety than boys. Female twin studies have acknowledged the role of hereditary and environment in this context (Kendler, Neale, Kessler, Heath & Eaves, 1992, 1993).

Pierce and Kirkpatrick, (1992) adds sex-roles to be one of the factor leading to anxiety in males and females. Moreover, there is also a difference in the reporting of anxiety disorders in men and women. Men due to high social expectation and social desirability mostly do not address their difficulties, particularly those related to their mental and emotional health (Bekker, & van Mens-Verhulst, 2007, Pierce, & Kirkpatrick, 1992). Studies have reported that males often under report fear and anxiety as compared to females (Pierce, & Kirkpatrick, 1992). Some other studies on the other hand have also rejected the social desirability factor to be the only reason of underreporting anxiety symptoms (Lewinsohn, Gotlib, Lewinsohn, Seeley, & Allen, 1998; Ben-Zur, & Zeidner, 1988).

McLean, and Anderson, (2009) explain the level of socialization in male and females is also one of the reason for reduced level of reported anxiety disorder cases in males. They suggest that the more individual socializes the less there are chances of exhibiting fearfulness and anxiety problems. In some cultures, males since young age are expected to be bold and confident enough to deal with challenges. Due to social pressures males are more exposed to face fearful objects and situations resulting in extinction of fear attached to the objects or situations. This is also a well proven fact and an actively practiced technique in the treatment of anxiety disorders. According to this mechanism, continuous exposure to fearful situations leads to reduction in anxiety symptoms and avoidance of which augments fearful behaviour.

McLean, and Anderson, (2009) indicate women to ruminate past experiences more than men causing females to recall and over report their fears and anxieties related to past. Similar findings have been reported in case of depression where males often forget previously reported episodes than females (Parker, & Brotchie, 2004).

Bekker, and van Mens-Verhulst, (2007) suggest that the differences among socio economic status, gender roles and environmental stressors determines people's coping strategies. They suggest that females to be more vulnerable of developing anxiety and other emotional disorders as compared to males. Females are more exposed to environmental stressors and traumatic situations such as sexual harassment, physical abuse and disturbed relationships which may lead to emotional and psychological disorders (McLean, & Anderson, 2009).

The Australian Bureau of Statistics (ABS) carried out a survey in 1997 to analyze the mental wellbeing in the local population. According to Rodebaugh, Holaway, and Heimberg (2008), women were twice as more predisposed to having Generalized Anxiety Disorder that is 4.3%; 10.3% as compared to men with the percentage of 2.0% to 3.6%. Similar findings were gathered in another study where females had double (5.0%) the risk of having anxiety disorders

in a year than males (2.4%). (Blazer, Hughes, George, Swartz, & Boyer, 1991). One of a study conducted in Australia, highlighted women (3.7%) to have 1.5 times more chances of having GAD than men (2.4%) (Australian Board Statistics, 1997). A number of other psychometric analyses have confirmed females' superiority on anxiety scores as compared to males. (Spitzer, Kroenke, Williams, & Lowe, 2006), and the Penn State Worry Questionnaire (Meyer, Miller, Metzger, & Borkovec, 1990).

Researches on the prevalence of general anxiety symptoms in children also explained girls to report fearfulness and tension more than boys (Mackinaw-Koons & Vasey, 2000). The general anxiety symptoms in children is termed as 'overanxious disorder' (OD) (APA, 1994; Mackinaw-Koons & Vasey, 2000). Studies conducted by Costello, and Angold, (1995) and Simonoff, Pickles, Meyer, Silberg, Maes, Loeber, Rutter, Hewitt and Eaves (1997) also reported raised level of OD in girls compared to boys. More studies in this domain have provided evidences of higher diagnosed cases of anxiety disorder such as GAD in adolescent girls than boys with the ratio of 3:1 (Cohen, Kasen, 1993; Simonoff et al., 1997; Whitaker, Johnson, Shaffer, 1990).

Barsky, Peekna, and Borus, (2001) propose females to report somatic symptoms, like as headaches, back pain, dizziness and joint or limb pain, comparable to males. The National Comorbidity Survey data, also seconds the previous study (Breslau, Chilcoat, Peterson, & Schultz, 2000). Other anxiety disorder such as panic disorder was also reported to be common in females than males (Joyce, Bushnell, Oakley-Browne, Wells, & Hornblow, 1989; Katerndahl and Realini, 1993; Reed and Witchen, 1998). Eaton, Kessler, Wittchen, and Magee, (1994) reported panic disorder to be 2.5 times more prevalent in females than males and the level increase by growing age. Youngers, Ellison, Shera, Pratt, Langford, Cole, White, Lavori, & Keller (1992) in one of their longitudinal study reported twice the chances of remission of panic disorder symptoms in females compared to males. Similar findings were obtained by Maya, Asnaani and Idan (2017) with higher levels of social anxiety disorder symptoms in females than males.

## **Hypotheses**

The following hypotheses had been formulated for this study:

1. The first born males will score high on the measure of anxiety disorders than their later born counter parts.
2. The first born females will have low level of anxiety as compared to the first born males.
3. The first born females will score high on the measure of anxiety disorders than their later born counterparts.
4. Females will have high level of anxiety as compared to males.

## **METHOD**

### **Participants**

65 individuals aged between twelve to eighteen years participated in the study. The participants were divided into two groups. The proportion of males to females was 50 males (n=50) to 15 females (n=15). The sample was also broken into 28 first born, which include 22 males and 6 females and 37 later born including 28 males and 9 females.

### **Measures**

An interview sheet was developed which included items related to socio-demographic characteristics of the adolescents which include age, gender, birth order, number of siblings etc. Screen for Child Anxiety Related Disorders (SCARED, 1999) developed by Boris Birmaher, was used. This is a child and parent self-report instrument used to screen anxiety disorders in children and adolescents age between 8 -18 years. This scale screens out anxiety disorders including general anxiety disorder, separation anxiety disorder, panic disorder and social phobia. In addition, it assesses symptoms related to school phobias. The SCARED consists of 41 items and 5 factors that parallel the DSM-IV classification of anxiety disorders.

### **Procedure**

Following the permission from the school authorities' researcher approached the participants. Participants were asked to fill the Demographic information form. Following this Screen for anxiety related emotional disorders (SCARED) was administered in group settings to measure the level of anxiety.

### **Ethical Consideration:**

This research project has been conducted considering the ethical norms proposed by the APA manual 6<sup>th</sup> edition. Before the administration of the scales, a detail letter of consent describing the objective of the study was sent to the authorities of the selected schools and colleges as well as to the parents. The research participants were approached following the permission from the authorities. Participant's demographic information was collected and the demographic information as well as the test results was kept confidential. The participants were free to ask queries and their willingness to participate or withdraw from the study was highly ascertained. Once the participants agreed the terms and conditions the researcher developed rapport in order to exclude chances of reporting false information. The participants were also given choice to withdraw from the research at any time after informing the researcher.

### **Study Design:**

A comparative research design was carried out in the present research. This research study included two sets of variables. The first considered birth order as the independent variable and the overall level of anxiety as the dependent variable. The second set of variables considered gender as the independent variable and overall level of anxiety as the dependent variable.

### **Scoring:**

After completion of data collection, all the test protocols were scored according to the instructions given. The response inventory was scored in such a direction that high scores are indicative of higher level of anxiety.

### **Statistics:**

A two way analysis of variance was carried out to analyse the interaction and main effect of gender and birth order (Ferguson & Takane, 1989).

**RESULTS****Table 1***Between Subject Factors of Gender and Birth Order.*

		Value Label	N
gender	F	F	15
	M	M	50
b ord.	FB	FB	28
	LB	LB	37

**Table 2***Descriptive Statistics of Different Genders and Birth Order Groups.*

Dependent Variable: Anxiety

gender	b ord.	Mean	Std. Deviation	N
F	FB	37.3333	10.65207	6
	LB	32.2222	10.46157	9
	Total	34.2667	10.47764	15
M	FB	33.7727	11.57144	22
	LB	24.7500	9.62491	28
	Total	28.7200	11.35340	50
Total	FB	34.5357	11.28579	28
	LB	26.5676	10.21584	37
	Total	30.0000	11.32475	65

**Table 3***TwoWay ANOVA of Different Birth Orders and Genders on the Level of Anxiety.*

Dependent Variable: Anxiety

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1451.997 <sup>a</sup>	3	483.999	4.370	.007
Intercept	45700.520	1	45700.520	412.630	.000
Gender	339.113	1	339.113	3.062	.085
b ord.	556.532	1	556.532	5.025	.029
gender * b ord.	42.627	1	42.627	.385	.537
Error	6756.003	61	110.754		
Total	66708.000	65			
Corrected Total	8208.000	64			

a. R Squared = .177 (Adjusted R Squared = .136)



**Table 4***Estimated Marginal Means of Gender Groups.*1. *Gender*

Dependent Variable: Anxiety

gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
F	34.778	2.773	29.232	40.323
M	29.261	1.499	26.264	32.259

**Table 5***Estimated Marginal Means of Birth Order Groups.*2. *birth order*

Dependent Variable: Anxiety

b ord.	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
FB	35.553	2.423	30.707	40.399
LB	28.486	2.016	24.454	32.518

**Table 6***Estimated Marginal Means of Gender and Birth Order Groups.*3. *gender \* b ord.*

Dependent Variable: Anxiety

Gender	b ord.	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
F	FB	37.333	4.296	28.742	45.925
	LB	32.222	3.508	25.208	39.237
M	FB	33.773	2.244	29.286	38.259
	LB	24.750	1.989	20.773	28.727

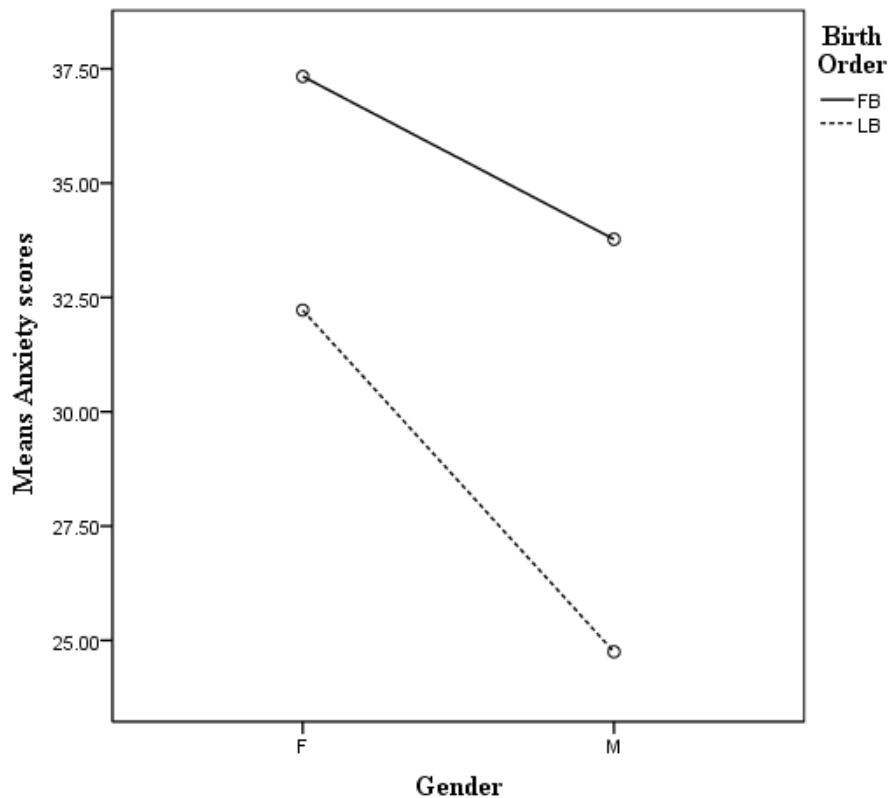


Figure 1. Interaction between gender and birth order on the variable of Anxiety

## RESULT

A two way analysis of variance was conducted on the influence of two independent variables (gender and birth order) on the prevalence of anxiety disorders in adolescents. Both gender and birth order consists of two groups i.e. gender consists of male and female and birth order consists of first and later born. At the 0.05 significance level all effects were statistically non significant except for the birth order factor. The main effect for gender yielded an F ratio of  $F = 3.062$ ,  $p > 0.05$ , (Table 3) indicating an insignificant difference between females ( $M = 34.26$ ,  $SD = 10.47$ ) and males ( $M = 28.72$ ,  $SD = 11.35$ ) (Table 2). The main effect for birth order yielded an F ratio of  $F = 5.02$ ,  $p < 0.05$ , (Table 3) indicating a significant difference between first born ( $M = 34.53$ ,  $SD = 11.28$ ) and later born ( $M = 26.56$ ,  $SD = 10.21$ ) (Table 2). Moreover, the interaction effect was insignificant,  $F = 0.38$ ,  $p > 0.05$  (Table 3). Furthermore, the interaction between gender and birth order on anxiety disorder is explained in Figure 1.

## DISCUSSION

The purpose of the study was firstly to examine the differences between the prevalence of anxiety disorders between the first and later born individuals. It was assumed that the level of anxiety would be raised in the first born individuals in comparison to the later born

counterparts. The result of the study proved the assumption indicating a significant difference between the presences of anxiety disorders in the first than the later born individuals. The main effect for birth order yielded an F ratio of  $F = 5.02$ ,  $p = 0.02$ , indicating a significant difference between first born ( $M = 34.53$ ,  $SD=11.28$ ), later born ( $M=26.56$ ,  $SD= 10.21$ ). The interaction effect was insignificant,  $F = 0.38$ ,  $p = 0.53$ . This signifies that birth order play a significant part in determining individual's mental health. Another research problem, the study aimed to analyze was the relationship of the gender difference and anxiety disorders in adolescents. It was assumed that females would report more anxiety symptoms than males. The assumption was not proved. The main effect for gender yielded an F ratio of  $F = 3.06$ ,  $p = 0.08$ , indicating an insignificant difference between females ( $M= 34.26$ ,  $SD = 10.47$ ), males ( $M= 28.72$ ,  $SD= 11.35$ ). Furthermore, the present study indicates that gender and birth order do not interact with each other i.e.  $F = 0.38$ ,  $p = 0.53$

Research on the relationship between birth order and the prevalence of anxiety disorders has provided indication that birth order has an impact on ones personality development (Elalky, Othman, Eita, & Eldemerdash, 2015). Alfred Adler was of the view that child's birth order significantly defines his or her personality traits and presumes his role in the family (Adler, 1928). The elder ones are expected to be more responsible on the other hand the youngest enjoys the position of being the baby of the family and they do not have the same level of responsibility and parental expectation. Similarly the only child also seems to be the centre of attention so a lot of times seem to face high parental expectations (Zaidi, 2010). These differences in the birth positioning also impacts their mental health which is what this study aimed to analyze. Number of researches in this domain have indicated a strong association between birth order and psychological illnesses such as anxiety, depression, obsessive-compulsive disorder, schizophrenia etc. (Ansari, & Rehman, 2008; Risal, & Tharoor, 2012).

Studies have proved that adolescents are often most vulnerable of having mental health concerns including substance use, academic difficulties, relationship issues, depression, anxiety and other physical and psychological problems (Lochridge, 2012). The findings of this study is also consistent with Risal and Tharoor (2012) who in their study declared significant association between birth order and various forms of psychopathologies such as anxiety and depression. The current study signified that the first born individuals display higher level of anxiety than the later born counterparts. This finding is consistent with another study by Puri (2011) and Tramontana (2009 ), they concluded that first born individuals had high level of anxiety as compared to the later born ones.

This study also aimed to analyze the significant relationship between gender and anxiety disorders. The results of the study did show some difference between the level of anxiety in male and female adolescents. Females were observed to have high level of anxiety than males although the difference was statistically insignificant. This is consistent with the work of Nasser and Takahashi (1996); Rasor and Rasor (1998); Zinbarg, Mohlman, & Hong, (1999) who reported high anxiety and tension in females than males. Similar results were obtained by Faleye (2010) and Oludipe (2009) though the differences were not statistically significant.

The findings of the current study provides indications of the discrepant levels of anxiety in both genders and birth orders however, it is vital to expand the research on a large sample in order to enhance the clinical efficacy in terms of exploring the treatment strategies and implications.

**Limitations & Future implications:**

Anxiety is reported to be most commonly occurring concern in young population both males and females. Adolescence is said to be the most vulnerable age of having psychological problems (Roberts, Roberts, & Chan, 2009). The state of anxiety exhibits psychological as well as physiological symptoms involving all domains of human development including cognition, emotions, feelings, behaviour etc. (Davison & Gerald, 2008 & Dreardorff, 2007). Early life experiences have a vast impact over ones personality, individual's mental health and emotional development is an important predictor of the way he deals with future life circumstances. There are multiple factors which determine individual's personality patterns and birth order is one of them (Ernest & Angst, 1983). To study the effects of birth order on human development longitudinal studies are vital to be conducted. It would also be effective to study birth order in coordination with factors like parenting styles, socioeconomic and other demographic variables (Travis & Kohli, 1995). As stated by Elliot (1992) the impact of birth order variable can be better understood when it is studied along with factor such as financial status, family size and family type, these may guide us to several other dimensions and may lead to differences in findings.

Considering the recommendations by different researchers, the interaction of birth order and gender could be studied in coordination with other important variable. This would help in highlighting other dimensions and expanding the scope of study in future.

**CONCLUSION**

The present study was conducted on 65 adolescents, 50 male and 15 female participants. The result was statistically significant with reference to the relationship between birth order and the prevalence of anxiety disorders. It was analyzed that the first born individuals showed high level of anxiety than the later born individuals. Furthermore, an insignificant correlation between gender and symptoms of anxiety disorders were obtained.

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The authors hereby affirm that no conflict of interest exists.

#### **Informed Consent:**

Informed consent was obtained from all individual adult participants included in the study; assent was obtained from children and their parents.

### **List of abbreviations**

ABS.....American Bureau of Statistics  
APA.....American Psychiatric Association  
APA Manual -6th ed.....American Psychological Association Manual-Sixth Edition  
DSM-IV.....Diagnostic and Statistical Association of Mental Disorder-IV, Edition  
F.....Females  
FB.....First Born  
GAD.....Generalized Anxiety Disorder  
LB.....Later Born  
M.....Males  
OCD.....Obsessive Compulsive Disorder  
OD.....Overanxious Disorder  
PTSD.....Post Traumatic Stress Disorder  
SAD.....Separation Anxiety Disorder  
SCARED.....Screen for Children Anxiety Related Emotional Disorder