



BIRTH ORDER AND PERSONALITY TRAITS AMONG EARLY ADOLESCENTS OF KHYBER PAKHTUNKHWA

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Abstract

The present study examined the effect of birth order on the Big Five Personality Traits: namely, Openness to Experience, Conscientiousness, Extra-version Agreeableness and Neuroticism in early adolescents. The sample consisted of N=484 students belonging to different universities of Khyber Pakhtunkhwa. Age range of the sample was 19 to 24 years, (M = 20.09, SD = 2.03). Urdu version of the Big-Five Inventory (John & Srivastava, 1999) was used to measure the personality traits of the participants. The hypotheses assumed that adolescents of different birth order (oldest, middle & youngsters) will score differently on the Big Five Personality Inventory. Results showed no-significant difference among participants of different ordinal position in terms of personality characteristic. Findings conclude that birth order has no significant effect on the big five personality traits of the participants. The findings have important implication in overcoming feeling of inferiority in adolescents if they have. As earlier research revealed presence of some desirable traits such as conscientiousness, and achievement orientation among older and undesirable traits such as neuroticism in middle born and rebelliousness and lower need of uniqueness in youngsters.

Keywords: Birth Order, Personality, Big Five Personality Traits,

Birth order is known as the ranking of an individual within the constellation of siblings (Dean, 2022). It refers to order in which a child is born or a specific position of an individual within a family such as the oldest, middle and youngest born (Brennan, 2021). Interest in ordinal position of an individual has mainly been aroused by the fact that each child acts, behaves and interacts differently than others sibling in the family tree. The way an individual interacts with others is likely to be influenced by his/her birth order (Leman, 2015). Having a significant effect on the life style of an individual birth order has been considered an important variable in different cultures of the world and is considered having critical impact on their entire life (Leman, 2009).

According to Voo (2022), each birth order has its own unique challenges and individuals with different birth order differ in terms of their personality traits. In view of Peres (2022), birth order has a significant effect on one's personality. Psychologists believe that the birth order of an individual within a family has a major impact on the development of their personality and behavior (Brennan, 2021). Each individual or child in a family has different personality traits as compared to their siblings. These can be influenced by various factors such as family structure, nuclear or joint, size of family, total number of siblings in a family, different parental styles such as permissive, or authoritarian used by parents rearing their children. Besides, variations in the parental attention and

love and affection on the part of the parents are critical in development of personality of the children. All these factors are likely to influence each child in a unique way (Al-Khayyat & Al-Adwan, 2016; Ha & Tam, 2011, Ejekwu, 2017) which in turn, can predict future characteristics and behavior of a child (Debase, 2022).

Personality refers to the unique characteristics of an individual that distinguish individuals from each other. One's distinctive patterns of thought, emotion and behavior not only defines his/her personal style but they also influence his/her interaction with others. Personality traits are the aspects or dimensions with which one individual differs from another and which are unique to each individual (Diener, Lucus & Cummings, 2019). Personality traits are thus qualities and characteristics of individuals that helps to define their uniqueness (Birt, 2022).

Personality traits reflect the basic dimension in which one individual differs from another also termed as individual differences which can be molded through experiences across situations. The development of personality traits can be influenced by different factors including both genetic and environmental. Among others birth order is also a factor that influence personality traits of an individual (Dean, 2022) The most important traits of these are the big five personality traits which include conscientiousness, openness to experience, extra version, agreeableness and neuroticism (Dean, 2022).

Adler (1964) first studied the effect of birth order on the development of an individual's personality traits. According to him birth order of a child within a family helps to shape its personality development (Brennan, 2021). In his view each child has a particular view about it selves based on its birth order. The oldest child is always responsible, conforming, ambitious and a perfectionist by nature. The middle child tends to experience difficulty in holding and maintaining a position of significance and benefit within the family. He/she constantly tries to stay ahead of the younger siblings and thus, is very competitive by nature. The youngest child, on the other hand, tend to be lazy and spoiled. These traits however can be affected by certain standards set of parental up holdings and relationship of siblings with each other. Older child the privileged born to the family receives the most attention of the parents and is deemed as the responsible ones. However, with birth of the next child this attention is divided and older child now experiences relief in burden of the responsibility bestowed upon him/her as the older sibling. The youngest child as the pampered seeks parental attention most often than the others (Lorenz 2016; Ha & Tam, 2011).

A similar concept that helps to further elaborate the concept of parental attention is the dethronement which highlight the effect of birth order on the development of personality. According to this concept, attention a child receives from his/her parents tends to play a massive role in the development of his personality. The oldest born child before the birth of younger siblings is the focus of all his parental attention. Parents are excited and anxious about the first born and thus give him/her undue attention. However, with the birth of new sibling, the first born is dethroned from this attention. The second child is then showered all attention of the parents. The first born child thus struggles to regain parental attention. As a result of which he/she develops characteristics such as conscientiousness, agreeableness and independence. Similarly, with birth of third born second child feels lack of parental attention too and thus tend to be competitive by nature in order to seek it. Sometimes, they become neurotic when fail to keep up with competition for parental attention and approval. The youngest child, however, is showered with all attention resulting him spoiled (Ejekwu, 2017; Ha & Tam, 2011, Paulhus, 2008).

In view of Frank Sulloway (1996) due to birth order each child cultivates different interests, abilities, and skills than his/her siblings. Sibling competition arises when parental attention is divided due to arrival of new baby. In general, parents are more excited for their first child and tend to pay more attention and overly protect him/her. However, with the birth of the second child parental attention declines which results dethronement in first born. Same is experienced by second born with the arrival of third born and so on. Thus, each child undergoes through different amount of parental attention which in turn develop different personality traits in him/her. These differences are unique to each birth order and help to shape the developmental course of life (Ha & Tam, 2011; Franciskovich & McAndrew, 2006).

Moving along these line Sulloway (1996), further says that oldest born are physically superior to the younger siblings and thus are more inclined to show a dominant behavior. The oldest also try to gratify their parents by acting as part parents to their siblings and are basically rule bound. This behavior in turn increases their conscientiousness more than their middle and younger born sibling. The youngest born getting social support of their parents are more sociable, open to new experiences, extraverted and are more exploratory in nature than their siblings.

In a meta-analyses Sulloway (2001) found that oldest born were more achieving, agreeable and conscientious than the others, while the youngest were more found rebellious and open to new experiences. Furthermore, his results also revealed that oldest born were more conscientious which reflected the attitudes, beliefs, and personality characteristics of their parents. The middle and youngest born children, however, were found to had attitudes, beliefs and personality characteristics different from their parents and other siblings.

Numerous research has been conducted to find out the effect of ordinal position on big five personality traits: conscientiousness, extroversion, agreeableness, openness to experience and neuroticism which revealed contradictory findings. For example, Chauhan and Joshi, (2021) studied the effect of birth order and big five personality traits. Their results showed significant difference in terms of different dimension of personality traits. Such as oldest born scored high on conscientiousness and agreeableness than the youngest and that youngest born scored high on extra-version and openness to experience. The middle born however were found to have high level of neuroticism as compared to the other siblings. Similar findings were reported by others (Healey & Ellis, 2007., Sultan & Malik, 2020; Sulloway 2011). Some studies did not find association between birth order and any of the five factor personality traits (e.g Reчек, & Kelley, 2014., Marini, & Kurtz, 2011., Parker, 1998., Wang, Du., Liu, P., Liu, J., & Wang, 2002).

But there are certain other research which report no significant difference among adolescents with different birth order in terms of big five personality traits (Marini, & Kurtz, 2011., Rohrer., Egloff., & Schmukle, 2015). Keeping in view this controversy in the concept of birth order effect on personality traits the present study was designed to examine the effect of birth order on of big five personality traits in early adolescents.

Hypotheses

Following hypotheses were formulated.

1. The oldest born child will obtain high score on the Conscientiousness and Agreeableness, sub-scales of the Big-five Inventory (BFI) than the middle and youngest born.
2. There will be a significant difference among the middle, oldest and youngest born in terms of the Neuroticism sub-scales of the BFI.
3. The youngest born child will score high on the Openness to experience and Extra-version, sub-scales of the BFI than the oldest and middle born.

Method

Sample

The sample of the study consisted of N= 484 adolescents in the age rang of 19 to 24 years, (M = 20.09, SD = 2.03), and was selected from different universities of Khyber Pakhtunkhwa by using the Convenient Sampling technique. The sample belonged to middle socioeconomic status, residing in different areas of Peshawar city and Hayat Abad, and were enrolled in BS 1st , 2nd , 3rd , and 4th semesters. Out of them oldest were (n=151), middle born were (n=187) and youngest born were (n=146).

Instruments

Demographic Sheet

Demographic sheet was used to collect certain demographic information, such as age, education, socioeconomic status, residential area and ordinal position of the participants.

The Big-five Inventory (BFI)

The Big-Five Inventory (BFI) originally developed by John and Srivastava (1999) measures an individual on the Big Five Factors (dimensions) of personality known as OCEAN-Openness to experience, Conscientiousness, Extroversion, Agreeableness and Neuroticism . It is a 44-item scale consisting of 10 items with two reverse coded of Openness to experience, 9 items with four of them being reverse coded of Conscientiousness, 8 items with two of them being reverse coded of Extroversion, 9 items with four of them being reverse coded of Agreeableness and 8 items with three of them being reverse coded of Neuroticism. The items are rated on 5-point Likert type scale ranging from ‘strongly disagree (1) to strongly agree (5). The Cronbach’s alpha of the whole scale is 0 .79 while of its sub-scales namely openness to experience is 0.42, of conscientiousness it is 0.41, of extroversion is 0.43, of neuroticism is 0 .49 and of agreeableness it is 0.58 respectively.

Procedure

Each participant was individually approached, instructed, briefed about purpose of the study and instructions were given for how to fill the questionnaire. The right to withdraw from the study if wished was also declared. The participants were also assured of the confidentiality of their responses. At the end, they were thanked for their consent, time and cooperation.

Results

Descriptive statistics and Alpha reliability coefficients were computed for all the variables of the present study. One-way ANOVA analysis was run on the data to find differences in the personality traits which included openness to experience, extroversion, agreeableness, conscientiousness, and neuroticism for the three birth orders namely oldest, middle and youngest born.

Table 1 *Alpha Reliability Coefficients and Descriptive Statistics Of Study Variables (N=484)*

<i>Study variables</i>	<i>N of items</i>	<i>M</i>	<i>SD</i>	<i>α</i>
BFI	44	149.89	18.50	.79
Openness to experience	10	33.65	5.03	.62
Conscientiousness	9	30.07	4.89	.56
Extroversion	8	24.64	4.36	.67
Agreeableness	9	32.91	4.95	.68
Neuroticism	8	23.83	5.74	.59

Note: BFI (Big-Five Personality Inventory).

Table 1 shows coefficients Alpha of scale along with sub-scales used in the study which are in acceptable range.

Table 2 *Demographic Characteristics of the Sample (N=484)*

<i>Variables</i>	<i>Frequency</i>	<i>Percentage</i>
Age in years	19-20	162
	21-22	162
	23-24	161
Education BS	1 ST Semester	121
	2 nd Semester	121
	3 rd Semester	121
	4 th Semester	121
Socioeconomic Status (Middle)	484	100
Residential Area	Peshawar City	241
	Hayat Abad	243
		50.20

Table 2 shows demographic characteristics of the participants.

Table 3 *One- way ANOVA Analysis for Comparing Personality Traits Among the Birth Order (N=484)*
 Oldest (n=151) Middle (n=188) Youngest (n=145)

<i>Variables</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>P</i>
CSC	30.53	5.60	30.34	4.74	29.25	4.18	3.02	.06

ABL	32.86	5.11	33.49	5.15	32.23	4.43	2.66	.07
EXTR	24.33	4.36	24.58	4.43	25.05	4.26	1.03	.35
NEUR	23.58	6.76	23.51	5.50	24.49	4.81	1.39	.24
OPNS	33.29	4.49	33.54	4.24	34.15	6.00	1.14	.31

Note: *M=Mean; SD=Standard Deviation; CSC=Conscientiousness, ABL=Agreeableness, EXTR=Extroversion, NEUR=Neuroticism and OPNS=Openness to experience.*

Results in the above table reveal no significant differences in terms of personality traits among the adolescents having different birth order that is oldest, middle and youngest or last born. These results refute all three hypotheses of the study, which assumed significant difference among adolescents of different birth order in the big five personality traits.

Table 4 *Post Hoc Analysis for Comparing Mean Differences for Personality Scores on the Big Five Personality Inventory Among Participants Having Different Birth Order ((N=484)*

Variables	I	J	difference 1-J	SE	P	95% CI	
						LB	UP
1.EXTR	oldest	middle	-.24	.47	.86	-.1.36	.87
		youngest	-.71	.50	.33	-1.91	.47
	middle	oldest	.24	.47	.86	-.87	1.36
		youngest	-.47	.48	.59	-1.60	.66
	youngest	oldest	.71	.50	.33	-.47	1.91
		middle	.47	.48	.59	-.66	1.60
2.AGBL	oldest	middle	-.63	.54	.47	-1.9	.63
		youngest	.62	.57	.52	-.7	1.97
	middle	oldest	.63	.53	.93	-1.44	1.06
		youngest	1.25	.54	.05	-.02	2.54
	youngest	oldest	-.62	.57	.52	-1.9	.72
		middle	-1.25	.54	.05	-2.5	.02
3. CSN	oldest	middle	.19	.53	.93	-1.06	1.44
		youngest	1.28	.56	.06	-.04	2.62
	middle	oldest	-.19	.53	.93	-1.44	1.06
		youngest	1.09	.54	.10	-.17	2.36
	youngest	oldest	-1.28	.56	.06	-2.62	.04
		middle	-1.09	.54	.10	-2.36	.17
4. NEUR	oldest	middle	.06	.62	.99	-1.41	1.54
		youngest	-.91	.66	.35	-2.48	.65
	middle	oldest	-.06	.62	.99	-1.54	1.41
		youngest	-.97	.63	.27	-2.47	.51
	youngest	oldest	.91	.66	.35	-.65	2.48
		middle	.97	.63	.27	-.51	2.47
5. OPNS	oldest	middle	-.24	.55	.89	-1.15	1.04
		youngest	-.86	.58	.30	-2.23	.59
	middle	oldest	.24	.55	.89	-1.04	1.54
		youngest	-.61	.55	.51	-1.91	.69
	youngest	oldest	.86	.58	.30	-.51	2.23
		middle	.61	.55	.51	-.69	1.91

Note: ***p<.01, CSC=Conscientiousness, ABL=Agreeableness, EXTR=Extroversion, NEUR=Neuroticism and OPNS=Openness to experience.*

Table 4 reveals results of the Post Hoc analyses of three groups of participants. According to these there are no significant difference among three groups of participants, i-e, oldest born, middle born and youngest born on the Big Five Personality Inventory.

Discussion

The present study investigated the effects of birth order on the big five personality traits namely, Agreeableness, Conscientiousness, Neuroticism, Openness to Experience and Extroversion among early adolescents. The findings reveal no significant difference in birth order and personality characteristics of the adolescents having different ordinal position in family, that is, first born, second born and last born. These results clearly refute all three hypotheses of the study which assumed that birth order has significant effect on big five personality traits of the adolescents. Data (table 3, & 4) show that all three groups of participants obtained approximately equal mean scores on the BFI and thus demonstrate no significant difference among them. These results are in line with the findings of some previous research which reported no significant difference in birth order and big five personality traits in their sample. For example, Rohrer, Egloff and Schmukle (2015) in a large scale data from three national panels found that firstborns scored higher on objectively measured intelligence and self-reported intellect, but no birth-order effect was found on extra-version, emotional stability, agreeableness, conscientiousness and imagination. Similar findings were reported by others (Reчек and Kelley, (2014) Marin and Kurtz, (2011) Parker, (1998) Wang, et al.,(2002) and Rohrer, Egloff., and Schmukle, (2015).

Some research tested other personality traits and behavioral measures. For example, Michalski and Shackelford (2002) did not find any differences between first born and later born on sociosexuality. However, later born reported a desire for more sexual partners in future, while firstborns wanted children at an earlier age.

Research in this area have produced contradictory findings, such as those conducted by Chauhan and Joshi, (2021) Healey and Ellis, (2007) Sulloway, (2010, 2011) Sultan and Malik, (2020) and Plomin, DeFries, Knopik and Neiderhiser (2013) are contrary to our findings which found significant difference in birth order and big five personality characteristics in different populations.

The concept of birth order is credited to an Austrian psychoanalyst Alfred Adler in the early 1900s. He was one of the first who explored the idea that a person's position in their family tree could predict personality traits. Adler believed that firstborn children usually have higher expectations placed upon them by their parents and as a result they develop a greater sense of responsibility and are more ambitious. The later-born siblings, on the other hand, are often treated more leniently by their parents compared to firstborns, leading them to become more rebellious and independent. However, it is important to note that Adler's theories are not universally accepted, and individuals' birth order in his/her family tree does not always dictate their personality traits. Ultimately, each person is unique and should be treated as such and each person has strengths and weaknesses independent of their birth order.

Numerous researchers in this area conducted research and revealed results consistent with the findings of present study. For example, in a study on birth order and personality traits namely, agreeableness, neuroticism, extra-version, openness to experience and conscientiousness, a non-linear relationship was observed by researchers (Botzet., Rohrer., & Arslan, 2021). Brandt et al., (2022), in a recent study by using multilevel models of personality found small differences in personality traits in participants with different birth order in their family which they attributed to their emotional maturity along with socioeconomic differences over time.

Keat, Mardina, and Mazlin (2019), in their study also examined the relationship between personality traits and birth order. Findings demonstrated that participants of different birth orders did not differ significantly in the big five personality traits. In similar line Johnson (2014) also found no statistically significant differences between birth orders and personality traits.

One possible reason of the findings of current study may be that these differences in personality traits usually develop later in life while our sample of the study consisted of early adolescents, therefore, these could not be identified in the participants.

The findings of present study can also be explained in terms of certain other factors including, biological, social, cultural, physical environment, and situational. Variation in many traits such as intelligence, courage, and physical characteristics children inherit from parents. In interaction with others in social situation like school, mosque and play ground, children learn different behavior and thought patterns. Similarly in a

culture the growing children consciously and some time unconsciously learn traits consistent with the norms, beliefs and ideas of that culture. As there are cultural differences, even in a culture there are sub-cultures, for example, in Pa-than culture, there are numerous sub-cultures. Due to these cultural variations children learn personality traits common to their culture. Besides the surroundings can also affect the development of his personality, such as those live in rural areas may differ from those living in urban environment. Same is with the situational factor as when a children grow their social circle increase, they meets new friends, or experience trauma all these help them to adopt with and shape their personality.

In the current study effort was made by the author to control certain demographic variables such as all the participants belonged to middle socioeconomic status and were residing in the different areas of Peshawar. Besides there was less difference in their age range (19-24) and level of education but still there is possibility that some of the potentially observed variables could not be controlled such as home environment perceived by the respondents whether strict, lenient, or same. In addition the instrument used was self report inventory which could not control the factor of desirability. But in any area of research whether pure science or social sciences it is not always possible to conduct a study with hundred percent control of variables. Nor it is possible to obtain results consistent with earlier research. Results which do not support existing hypotheses some time are more fruitful than the findings which support research hypotheses and that is why research continues and will continue in future which is the symbol of progress of a nation. In the light of obtained results it is concluded that birth order has no significant effect on personality traits at least in the participants of current study.

Implications

The findings of the present study may have practical implications in providing information regarding the birth order effect on personality traits among adolescents and to overcome their problems of inferiority feelings if they have due to findings of earlier research which support the presence of some undesirable traits such as neuroticism in middle born and rebelliousness and lower need of uniqueness in last or youngster.

Limitations and Suggestions

As is true with every research the present study is not without limitations. The main limitation of the study was that data was obtained from early adolescents. Including sample from diverse population could provide more information on the issue. Future researchers need to conduct research on diverse population such as adults, and female of different ages. In present study self report inventory was used as a data tool which could not control the factor of desirability. It is suggested that future researcher should include data from other sources for example, peer and parental report. The present study did not measure the effect of certain demographic variables. It is suggested that future researchers should take into account these. Further the current study did not included the only child in sample, also the study did not took record of the level of parental education of the sample. These issues should be addressed by future researchers.

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