

Effect of Birth Order and Gender on Emotional Intelligence of Adolescents

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The present study was conducted to investigate the effect of birth order and gender on the emotional intelligence of adolescents. The sample comprised of 200 students from 4th, 5th, 6th and 7th grade, selected through convenient sampling. To examine the difference among different birth order groups univariate analysis was carried out through SPSS 15.00. The results showed interaction of birth order and gender on emotional intelligence but no main effect was found. No difference was observed among all the groups.

Keywords: Birth order, emotional intelligence, gender differences

Adolescence is the phase characterized by numerous changes in biological, cognitive, emotional and social aspects of life. This requires the adolescent to cope on multiple levels (Tung & Sandhu, 2005). A century back the concept of intelligence dictated that adjustment at all these levels requires cognitive intelligence, which includes reasoning, memory, information etc, but 21st century literature dictates the use of emotional intelligence in adaptive functioning. This requires the adolescent to recognize their own feelings and others feelings as well in a given situation to handle the transaction between two and more than two individuals (Mayers & Salovey, 1997). This ability is highly influenced by the socialization process going on in the family. Socialization is the blend of family size and birth order which adolescents have in their family (Barbera, Christensen, & Barchard, 2004).

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Children have different social interactions in the family depending on their birth order. The first born has little interaction with other children during his early years particularly if he lives in nuclear family system whereas, later born has siblings around him when he joins the family, which allows him numerous interactions with children (Morand, 1999).

The concept of birth order has been widely researched upon in relation to different variables such as personality dimensions and academic achievement. The current paper will attempt to explore the interaction of birth order and gender with emotional intelligence.

Birth order means the ordinal position of birth the child holds in the family. Adler (1927) was the first who explored the concept of birth order in his theory of personality in order to assess the lifestyle of the individual. Birth order has been defined by Shulman and Mosak (1977) as ordinal position which refers to the actual birth order of the siblings; as well as the psychological positions, which refers to the role child adopts in his or her interaction with other members of the family. From the viewpoint of cognitive development, two siblings may have different physical and mental abilities during early childhood and the perception of these differences can also affect their psychological roles (Carlson, Watts, & Maniaci, 2006).

Sulloway (1996), in his book "Born to Rebel" stated this concept within the framework of evolutionary theory. According to him, siblings rival for physical, emotional and intellectual resources from parents and it causes long lasting differences among siblings which is true across the cultures and throughout history. While siblings use different strategies for getting parental favours; parental responses can also affect the influence of birth order on personality.

Parents and siblings constitute the immediate family-the first social unit that a child encounters when he enters the family at his birth, which plays a vital role in forming personality and influencing interactions within the family (Gould, 1997), and across the life

span. Differences in socialization due to birth order may result in personality and behavioral differences (Claxton, 1994).

First born groups have received the most attention in birth order research. The first born is defined as first child born in a family with subsequent siblings. Wilson (2009) reported older children as more mature, independent and good leaders. Moreover Stewart (1992) discovered that leaders are most likely to be first born, particularly in times of war and crisis. However, no significant relationship has been reported by Somit, Arwin, and Peterson (1996). Whereas, Sulloway (1996) maintained that these results are subject to particular times in history.

Robins and Singh (2006) has reported that leader's emergence is associated with extraversion. Whereas, Barbera, Christensen, and Barchard (2004) reported the reverse of the above results i.e.; the first born have low emotional intelligence due to small family size and fewer interactions as compared to later born. Falbo and Pilot (1986) concluded that second born as more dominant in their peer group, which is a measure of interpersonal skill. Snow, Jacklin, and Maccoby (1981) reported that assertiveness and sociability as second highest in first born.

Perlin and Grater (1984), Philips, Bedeian, Mossholder, and Touliator (1998) reported that the oldest born to be the dominant. First born are also known to have high anxiety and fearfulness (Kushnir, 1978; Sulloway, 1996). However, Schachter (1959) reported more anxiety among first born and only children only in anxiety inducing situations and when anxious they tend to socialize and affiliate, which are mediated by their interpersonal skills. Hall, Church and Stone (1980) reported more internal locus of control and responsibility for first born which means they consider themselves responsible for the outcomes and put effort to change them, when needed, which are core skills to implement adaptability. Hanssen, Chernovetz, and Stortz, 1978; and Howarth (1980) verified the same.

Bass (1990) reported high confidence among first born and

proved that they are likely to succeed as leaders. This confidence and self-assurance are measures of intrapersonal skills i.e.; self-regard and assertiveness. Sulloway (1996) also reported first born as more inflexible, conservative and defensive. Eckstein et al. (2010) supported existing literature as first born are reported to be high achievers, highly motivated, as parents invest most in first born's education and conformist to parental values.

Birth order literature describes second born as unconventional, creative, flexible and more liberal (Sulloway,1996), less academically inclined and socially intelligent. Blair (2011) described middle born children as diplomatic because they have to make compromise between elder and younger siblings, independent and secretive about feelings. However, Nelson and Sibilski (2012) described middle born as more independent and laid back. This is further supported by Sulloway (1996) as more rebellious and open to experience. Zwiegenhaft (2002) reported that middle born children are more likely to use marijuana and participate in protest. This might be due to the fact that the first born conforms to parental aspiration by being highly motivated and high achievers, the middle born tend to be the reverse (Carlson, Watts & Maniaci, 2006). At the same time, Sulloway (1996) reported the middle born as good at negotiation and peacemaking, closer to friends than to family. Herrera, Zajonc, Weiczowska, and Chichomski (2003) discovered the middle born as most envious and least bold and talkative. In their subsequent studies, later born were found in such professions as fire fighters, high school teachers, musicians, photographers, social workers and stunt men.

Eckstein et al. (2010) reported the middle born as high in interpersonal skills such as sociability success in team sports, relates well to younger and older people. They are also reported to be more adaptable and flexible by exploring different areas than oldest siblings. This is further supported by Walter and Ziegler (1980), who reported the middle born as having more internal locus of control, than the first born which means they take responsibility for the outcome and change their means when they do not fit reality which shows their proactive problem solving. Whereas, Pilkington,

White, and Matheny (1997) proved the reverse of the oldest children have family support, peer acceptance and social confidence whereas, the low self-esteem, higher frustration of middle children limit the coping resources of middle born child and poor stress management.

Intrapersonal skills which are mediated by emotional stability is also reported to be higher among middle born as compared to first born (Kaur & Dheer, 1982). Whereas, Shanghnessy, Neely, Manz, and Nystul (1990) found no birth order effect on intrapersonal skills or emotional stability. Whereas, Toman (1976) reported that middle ones feel neglected and less important. Kidwell (1982) stated that middle born feel cheated of parental attention and support, low self-esteem. But Adkins (2003) proved reverse. These differences might be due to different treatment, as reported by Zervas and Sherman (1994), children receive from parents and significant others. It is actually the perception of treatment, which influences their self-esteem; if the child perceives himself to be non-favored, he may develop feelings of inferiority, anger, depression and incompetence.

Ostroff (1993) Dagenais(1979) and Greeners (1987) support Eckstein's notion that themiddle born emerge as relationship oriented leaders emphasizing the trait of sociability and interpersonal skills, and older born as high achievers focus on task rules and structure oriented leadership. Parents have high expectations of first born as a result of their focused input in the development of their children, as the number of children increases in the family, their attention gets divided and they become less demanding towards younger ones. Buckley (1998) reported that youngest children are good at social skills due to constant peer interaction that is why they feel secure but at the same time dependent due to many caretakers, and also experience feelings of inferiority(Richardson & Richardson, 1990) due to stronger and competent presence of older ones (Ernst & Angst,1983).

Whereas, Snow, Jacklin and Maccoby (1981) observed lowest sociability and assertiveness among last borns as compared to first and middle borns. Moreover, last borns are also reported as highest

on need for exhibition by Begum, Bano, Jahan, and Begum (1985). Their need for exhibition requires them to be in social situations. This is further supported by Eckstein et al. (2010)'s review of 200 studies on birth order showing that youngest children are seen as popular, empathic, highest social interest; all these traits show the youngest child's interpersonal skills. However, Nelson and Sibilski (2012) found in their study that younger borns were outgoing, rebellious, charming and spoiled. Similar results have been reported by Blair (2011).

Whereas, the youngest ones have also been reported as staging protests and participating in strikes. At another place Dattner (2013) reported that the later born due to their rebelliousness are likely to do better in global economy, they travel far and wide and are open to different cultures. They are also likely to do well in diverse workplaces. Kaplan (1970) reported high self-esteem among the last born males with high socioeconomic status among the white sample. Kaur and Dheer (1982) reported lesser emotional stability for younger ones.

According to Sulloway (1996) only children are often similar to first born children such as high achievers, good academic records, they tend to conform to parental expectations. Moreover, Blair (2011) stated that only children are more likely to be perfectionistic and more responsible since parents delegate their responsibilities to them. They are also good at planning and organizing. Nelson and Sibilski (2012) discovered only children as more perfectionist. However, they are also reported as more controlling because they fear mistakes and high standards placed upon them. They are reported as maturing earlier because they spend more time with adults (Pickhardt, 2009).

With regard to intrapersonal skills Falbo and Pilot (1986) stated that only children have low anxiety and high self-esteem in Jewish male sample. This might be due to the fact reported by Coopersmith (1967) that the only children and the first born are over represented in the high self-esteem group.

Eckstein et al. (2010) reported only children as more or less similar to first born as high achievers, with low intrapersonal skills and having most behavior problems. Falbo (1984) reported that during childhood these children are referred more often for therapeutic intervention. Falbo attributed this to close monitoring and parental overprotectiveness. With regard to interpersonal skills Eckstein et al. (2010) reported them as having low need for affiliation except under stressful situation. At the same time they are reported as being more trustworthy and cooperative. With regard to the wellbeing of adolescents, emotional intelligence is known to contribute to success in one's own life and guarantee mental health (Bar-On, 1997).

Their perception of interaction with others, their self-esteem, their self-concept, their own emotions towards themselves, as well as ability to empathize with others, ability to manage stress and resist impulses in front of temptation and ability to mould oneself according to the demands of the situation. All these develop as a result of early socialization which each sibling receive differently. If all these dimensions of emotional intelligence develop more or less smoothly. The child will develop a well-integrated sense of self that leads to healthy psychosocial outcomes.

Emotional intelligence refers to the description of emotional qualities that appear to be important to success. These qualities include empathy, expressing and understanding feelings, controlling one's temper, independence, adaptability, being well liked, interpersonal problem solving, persistence, friendliness, kindness and respect (Salovey & Mayer, 1990).

Erikson (1968) reported that adolescents who have successfully understood the dynamics of their own identity is likely to experience a sense of wellbeing. Moreover, it has been supported by Tung and Sandhu (2005) that adolescents who have resolved their identity issues after exploration, experience wellbeing whereas, lack of knowledge about one's identity make them vulnerable to maladaptive life.

Oldest literature since 1945, states that the family functioning of the only child puts him at the risk of lifelong unhappiness whereas, recent literature offers a more optimistic outlook (Ernst & Angst, 1983). Literature on well-being and positive mood is sufficient for the adolescent framework but seems scanty for the birth order framework. With regard to gender wise differences in emotional intelligence, Hopkins and Bilimoria (2008) indicated in their study that there were no significant differences between male and female leaders. This is further supported by Berenson, Boyles, and Weaver (2008) that there were no differences in the emotional intelligence of male and female online learners.

However, Mandell and Pherwani (2003) found significant differences in the emotional intelligence of male and female managers, where females scored higher than males. Rieff, Halzes, Bramet, & Gibbon (2001) stated that females have higher emotional intelligence as compared to males. The same is reported by Braggart, Sutarso, and Tapia (1996), where men and women differed significantly on scores of emotional intelligence. Sutarso, Braggart, Sutarso, and Tapia (1996) reported more empathy, self-awareness and self-control between male and female respondents.

Intrapersonal skills are reported to be low among boys between the ages of 11 and 13 years, but girls reported more negative attributional styles after puberty (Nolen-Hoeksema & Girgus, 1995), these differences continue in old age. Yates (2000) reported boys as more pessimistic than girls.

Begum, Bano, Jahan, and Begum (1985) reported a high need for exhibition among first born and middle born males, whereas, last born females showed high needs for exhibition. Affiliation is reported to be high among females of first birth order rather than the later born females (Kushnir, 1978). Kaneez's study (2006) revealed significant differences between male and female respondents, whereas, where males show more assertiveness, recognition, more independence and management about situation than females. This might be attributable to cultural factors which facilitate power and independence in males.

The present study attempts to find the interaction of birth order and gender on emotional intelligence. It is hypothesized that there will be differences in emotional intelligence of adolescents of different birth order and there will be no difference in the emotional intelligence of girls and boys.

Method

Participants

Sample comprised of 200 girls and boys of 4th to 8th grades were approached. All the students belong to upper middle socioeconomic group. A method of convenient sampling was employed.

Measures

Demographic Information Form was administered to gather information regarding age, gender, birth order, number of siblings, grade in which they study, and income.

Bar-On Emotional Quotient Inventory-Youth Version. Emotional intelligence was measured through Bar-On Emotional Quotient Inventory-Youth version, 4 point likert type scale, response categories range from very seldom true of me, seldom true of me, often true of me, and very often true of me. Age range was 7-18. The scores are expressed in the form of standard scores with a mean of 100 and standard deviation of 15. The Cronbach's alpha range from .87 to .90 for males and .86 to .90 for females. The test retest reliability was .89. To assess the construct validity Bar-On EQ.i (1997). YV was correlated with scores on adult version, the correlation ranged from .56 to .88 for all the subscales and total scales. For convergent and divergent validity scores on Bar-On EQ.i (1997) were correlated with scores on NEO-FFI; Costa and McCrae (1992), scores on all the subscales converge with extraversion and conscientiousness but diverge with neuroticism. For discriminant validity scores on Bar-On EQ.i-YV (1997) were correlated with Conner's Well's Adolescent Self report Scale

(CASS' Connors,1997) correlation was found to be from -.01 to -.59.

Procedure

A form stating the purpose of research was provided to concerned authorities of different schools for data collection. Schools located in PECHS, Clifton and Defence were approached.

The researcher approached the schools on the given date, personal identity was not required, and respondents as well as school authorities were assured of confidentiality. Student's from 4th to 8th grades were approached for this purpose. The data collection was started from 8th grade moving in downward direction to lower grades. The data was mainly collected from 8th to 6th grade. The data was collected in group as well as in individual situation. Students were told that there are no right or wrong answers and there is no time limit as well. Individual queries were entertained at the end in group situation. Initially 213 forms were filled but 13 were discarded as they were incomplete.

Operational Definitions of Key Terms

Birth Order: Birth order has been defined as the ordinal position which refers to the actual order of birth of siblings: as well as the psychological positions which refers to role, the child adopts in his or her interaction with other members of the family (Shulman & Mosak, 1977).

Emotional Intelligence: Emotional intelligence is the ability to recognize and express one's emotions, ability to possess positive self-regard, and ability to actualize one's potential capacities and lead fairly happy lives. Ability to understand others' feelings, and maintain mutually satisfying relationship without becoming dependent. Ability to maintain optimistic, flexible, realistic and successful approach in problem solving and coping with stress without losing control (Bar-On, 1997).

The Bar-On model comprises five major dimensions:

1. *Intrapersonal Dimension*: Consists of five related abilities.

a. *Emotional self-awareness*: is the ability to recognize and understand one's feelings.

b. *Assertiveness*: is the ability to express feelings, beliefs and thoughts.

c. *Self-regard*: is the ability to accurately appraise oneself.

d. *Self-actualization*: is the ability to realize one's potential capacities.

e. *Independence*: is the ability to be self-directed and self-controlled in one's thinking and actions and to be free of emotional dependency.

2. *Interpersonal Dimension*: Consists of three related abilities.

a. *Empathy*: is the ability to be aware of, to understand, and to appreciate the feelings of others.

b. *Social responsibility*: is the ability to demonstrate oneself as a co-operative, contributing and constructive member of one's social group.

c. *Interpersonal relationship*: is the ability to establish and maintain, mutually satisfying relationships, that are characterized by emotional closeness.

3. *Adaptability Dimension*: Consists of three related abilities.

a. *Reality testing*: is the ability to validate one's emotions.

b. *Flexibility*: is the ability to adjust one's emotions, thoughts and behavior to changing situations and conditions.

c. Problem solving: is the ability to identify and define problems as well as to generate and implement potentially effective solutions.

4. *Stress Management Dimension:* Consists of two related abilities

a. Stress management: is the ability to withstand adverse events and stressful situations without falling apart by actively and positively coping with stress.

b. Impulse control: is the ability to resist or delay an impulse and to control one's emotions.

5. *General Mood Dimension:* Consists of two related abilities

a. Optimism: is the ability to look on the brighter side of life and to maintain a positive attitude even in the face of adversity.

b. Happiness: is the ability to feel satisfied with one's life, to enjoy oneself and others and to have fun.

6. *A Positive Impression Scale:* is used for identifying individuals who may be attempting to create an exaggerated positive impression of them.

7. *An Inconsistency Index:* is designed to detect inconsistent response style.

Results

In order to find the interaction and main effect of gender and birth order on emotional intelligence, two way analysis of variance was calculated. Analysis of male and female was conducted separately to avoid problem of unequal cell sizes in two way ANOVA. Post hoc multiple comparisons were calculated to find out differences in emotional intelligence among different birth order. The gender wise differences in emotional intelligence were calculated through t-test for independent sample through SPSS 15.0.

Table 1
Summary of Two-Way ANOVA

Source	SS	df	MS	F	p
Intercept	189352.459	1	189352.459	2501.119	.000***
Gender	1292.622	17.074	75.707 ^a		
Birth Order	49.624	1	49.624	.813	.373
Gender * Birth Order	2231.250	36.548	61.050 ^b		
Error	222.622	3	74.207	1.884	.308
Total	118.195	3	39.398 ^c		
Corrected Total	118.195	3	39.398	.513	.674
			76.798 ^d		

***P<.001

Note: a. .421 MS (Birth Order) + .579 MS(Error); b . . . 421 MS (Gender * Birth Order) + .579 MS (Error); c. MS (Gender * Birth Order); d. MS(Error)

Table 2
Summary of One-Way ANOVA

	SS	df	MS	F	P
Between Groups	218.458	3	72.819	.960	.413
Within Groups	14944.457	197	75.860		
Total	15162.915	200			

Table 3

Tukey HSD Comparison among Birth Orders

(I) BO	(J) BO	M (I-J)	SE	p	95% CI	
					LL	UL
First	Middle	.131	1.398	.996	-3.31	3.93
	Last	1.088	1.691	.918	-3.29	5.47
	Only	-5.333	3.682	.471	-14.87	4.21
Middle	First	-.313	1.398	.996	-3.93	3.31
	Last	.776	1.728	.970	-3.70	5.25
	Only	-5.646	3.699	.424	-15.23	3.94
Last	First	-1.088	1.691	.918	-5.47	3.29
	Middle	-.776	1.728	.970	-5.25	3.70
	Only	-6.421	3.819	.336	-16.32	3.48
Only	First	5.333	3.682	.471	-4.21	14.87
	Middle	5.646	3.699	.424	-3.94	15.23
	Last	6.421	3.819	.336	-3.48	16.32

Note: BO = Birth Order

Table 4

Tukey HSD, Means for Groups in Homogenous Subsets

Birth Order	n	Subset for alpha = .05
		1
Last	39	48.85
Middle	73	49.63
First	83	49.94
Only	6	55.28
Sig.		.118

Table 5
Showing Descriptive Statistics of Different Birth Order Groups

Birth Order	M	n	SD
First	49.94	83	7.733
Middle	49.63	73	9.137
Last	48.85	39	10.165
Only	55.27	6	4.562
Total	49.78	201	8.707

Table 6
Showing Difference in the Emotional Intelligence between Male and Female (two tailed)

Male		Female		95% CI				
M	SD	M	SD	t	p	SE	LL	UL
49.62	9.628	49.97	7.409	-.280	.78	1.241	-2.794	2.100

df = 199

Discussion

The results of the present study dictate that gender, birth order and emotional intelligence do not interact with each other nor they do show main effect. The birth order literature shows blended trends i.e.; conflicting and ambiguous results (Herrera, Zajonc, Weiczowska, & Chichomski, 2003). Ernst and Angst (1983) stated that birth order differences are over rated. Whereas, Sulloway (1996) stated that same data manifest consistent trends (p. 242). This might be the result of using Adlerian concept of psychological birth order whereas; non Adlerians use the concept of ordinal birth order positions. Measures tapping psychological birth order are few that is why most research focus on ordinal birth position. Handling of emotion is directly the result of socialization which takes place at home. Children of different birth order receive different kind of socialization.

In present study, family size and family type i.e.; nuclear and joint system were not controlled, these factors might have contributed to insignificant mean differences among different birth order groups. It is imperative that future research should include these factors to make results meaningful. Hardy, Hunt, and Lehr (1978) showed no significant results for girls, first born were reported as task oriented and later born were reported as relationship oriented. A third born male child is likely to show first born trends when followed by females (Eckstein et al., 2010). It is the only child group which shows highest mean. Numerous researches support that mothers respond immediately and anxiously to the needs of first and only born child, they automatically learn that during distress, attention from others, affiliation is the common response (Falbo, 1984; Schachter, 1959; Ernst & Angst, 1983). However, in earlier research, Falbo(1981) reported that only children have lower need for sociability. Moreover, this result is supported by Schneider (1981). In earlier research Falbo (1977) showed that the only child showed amore trusting interaction style.

In addition to interpersonal skills. Hanssen, Chernovetz, and Stortz (1978); Howarth (1980) proved that only children shows more responsibility towards their families. This also shows their adaptability skills that being only and pampered, they adjust themselves to the needs of their families, in other words, they manage the stress or demands made on them by their families. The only child group also scored highest mean on general mood scale, which itself is a predictor of high emotional intelligence.

The genderwise analysis of emotional intelligence through birth order again showed insignificant differences between the two groups. These results do not support the existing literature, where need for exhibition is reported stronger among first born males rather than females whereas, the same appeared stronger for the last born females than males (Begum, Bano, Jahan, & Begum, 1981). Moreover, Kushnir (1978) reported higher affiliation among first born females.

Bloom, Anderson and Hazaleus (1984) reported no gender differences in intrapersonal skills such as anxiety and locus of control in two children families. Whereas, Katyal and Awasthi (2005) reported higher emotional intelligence among girls than boys. Wing and Love (2001), Singh (2002) reported high emotional intelligence among girls than boys.

These differences are attributed to different socialization of two genders. (Duckelt & Raffali, 1989). Girls' superior scores on interpersonal skills and empathy have been reported by Tapia (1999) and Dunn (2002). According to Eckstein (2010) gender differences are influential when parents model strong sex roles. Hopkins and Bilimoria (2008) also reported no significant differences between male and female leaders in emotional and social competencies. However, Ahmad, Bangash, and Khan (2009) reported higher emotional intelligence in their male sample as compared to female sample.

Conclusion

Birth order and emotional intelligence are observed as variables functioning independently of each other in this study. The present study shows no differences with regard to birth order and gender and insignificant differences except for only child group whose results are close to significant. The insignificant differences shown in the groups might be due to the family size, economic status and the age at which birth order changes which were not controlled in this study.

Limitations and Recommendations for Future Research

Birth order related personalities are formed early in life but according to Ernst & Angst (1983) these effects may diminish overtime since birth order is found to be a predictor of future life style, so it is imperative to conduct longitudinal studies to assess lifetime importance of personality traits and developmental effects, conflicting results in the field force researches like Travis and Kohli (1995) to control differences in economic environment.

According to Elliot (1992) the birth order variable does not exert influence but only when it is combined with other factors such as economic, family size and family type, these may lead to differences in results.

White, Campbell, and Stewart (1995) state that psychological birth order is gaining more attention in future as it is in line with Adlerian life style concept. This lack of theoretical orientation is to be rectified in future (Ernst & Angst, 1983). According to Zajonc, Markus and Markus (1979) reported that ages at which birth order changes is important, this should also be taken into account in future research.

As the research was conducted on the participants age ranging from 8- 18, Goleman (1998) and Bar-On (2006) reported a fine correlation between emotional intelligence and age, i.e.; older participants' exhibit more emotional intelligence. Halsne and Gatta (2002) support the same results. Keeping in view different variables pointed out by different researchers plus the distribution of sample size for every birth order and gender if controlled in future research, conclusive results about birth order and gender might be found.

References

- Adkins, K. L. (2003). *Predicting self-esteem based on perceived parental favoritism and birth order*. (Unpublished Master's Dissertation). East Tennessee State University.
- Adler, A. (1927). *Understanding human nature*. New York, NY: Greenburg.
- Ahmad, S., Bangash, H., & Khan, S.A. (2009). *Emotional intelligence and gender differences*. *Sarhad Journal of Agriculture*, 25(1), 127-130. Retrieved from http://www.aup.edu.pk/sj_pdf/EMOTIONAL%2520INTELLIGENCE%2520AND%2520GENDER%2520DIFFERENCES
- Barbera, K. L., Christensen, M., & Barchard, K. A. (2004). *Reliving family size and birth to emotional intelligence*. Poster presented at the annual convention of Western Psychological Association, Phoenix Arizona.

- Bar-On, R. (1997). *A measure of emotional and social intelligence*. Paper presented at the 105th Annual Convention of American Psychological Association, Chicago.
- Bar-On, R. (2006). The Bar-On model of emotional and social intelligence (ESI). *Psicothema*, 18, suppl, 13-25. Retrieved from the consortium for research on emotional intelligence in organization. <http://www.eiconsortium.org/measures/eqi-html>
- Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership: Theory and research and managerial applications* (3rded.). New York, NY: The Free Press.
- Begum, H. A., Bano, S., Jahan, R., & Begum, R. (1981). Birth order, sex and personality traits. *Indian Psychological Review*, 20, 21-28.
- Berenson, R., Boyles, G., & Weaver, A. (2008). Emotional intelligence as a predictor for success in online learning. *International Review of Research in Open and Distance learning*, 9(2), 1-16.
- Blair, L. (2011). *First born? Piggy in the Middle? Or always the baby? How your place in the family rules your life?* Retrieved from <http://www.dailymail.co.uk/femail/article-1351567/First-born-Piggy-middle-Orbaby-How-place-family-rules-life.html>.
- Bloom, L. J., Anderson, S., & Hazaleus, S. (1984). Personality correlates of age, spacing in first born. *Child Study Journal*, 13, 247- 257.
- Braggart, I. K., Sutarso, P., & Tapia, M. (1996). *Emotional intelligence test*. Paper presented at the annual meeting of Mid-South Educational Research Association, Tuscaloosa, AL.
- Buckley, G. J. (1998). *Adler's Birth order traits*. Retrieved from <http://www.student.richmond.edu/~gbuckley/mostlyadler.html>
- Carlson, J., Watts, R. E., & Maniacci, M. (2006). *Adlerian therapy: Theory and practice*. Washington, DC: American Psychological Association.

- Claxton, R. P. (1994). Empirical relationship between birth order and two types of feedback. *The Psychological Record, 44*, 475-487.
- Conners, C. K. (1997). *Conners' Rating Scales-Revised: Technical Manual*. Toronto, ON: Multi-Health Systems Inc.
- Coopersmith, S. (1967). *The antecedents of self-esteem*. Freeman: San Francisco.
- Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (Neo-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Dagenais, F. (1979). Birth order and leadership style. *Journal of Social Psychology, 31*, 63-66.
- Dattner, B. (2013). *Birth order and leadership*. Retrieved from <http://www.dattnerconsulting.com/birth.html>
- Duckelt, E., & Raffali, M. (1989). Taking care, maintaining the self and home in adolescence. *Journal of Youth and Adolescence, 18* (6), 549.
- Dunn, S. (2002). *Emotional intelligence: Quotations from around the world*. Retrieved from http://www.susandunn.cc/emotional_intelligence_quotations.htm
- Eckstein, D., Aycock, K. J., Sperber, M. A., McDonald, J., Van Wiesner III, V., Watts, R. E., & Ginsburg, P. (2010). A Review of 200 Birth-Order Studies: Lifestyle Characteristics. *Journal of Individual Psychology, 66*(4), 408-434.
- Elliot, B. A. (1992). Birth order and health: Major issues. *Social Science & Medicine, 35*, 443-452. Abstract retrieved from <http://www.littletree.com.au/birthorder.htm>
- Erikson, E. (1968). *Identity: Youth and crisis*. New York, NY: Norton.
- Ernst, C., & Angst, J. (1983). *Birth order: It's influence on personality*. Berlin: Springer-Verlag.
- Falbo, T. (1977). The only child: A review. *Journal of Individual Psychology, 33*, 47-61.
- Falbo, T. (1984). *The single-child family*. New York, NY: The Guilford Press.

- Falbo, T., & Pilot, D. (1986). Quantitative review of only child literature. Research evidence and theory development. *Psychological Bulletin, 100*, 176-189.
- Goleman, D. (1998). *Working with emotional intelligence*. New York, NY: Bantam Books.
- Gould, S. J. (1997). Dolly's Fashion and Louis's Passion. *Natural History, 106*, 18- 24.
- Greeners, R. D. (1987). *An investigation of the possible relation of birth order and leadership style of southern Baptist pastors in Louisiana as a test of an Adlerian theory of birth order* (Unpublished doctoral dissertation). New Orleans Baptist Theological Seminary.
- Hall, E.G., Church, G. E., & Stone, M. (1980). Relationship of birth order to selected personality characteristics of nationally ranked Olympia weight lifters. *Perceptual and Motor Skills, 51*, 970-976.
- Halsne, A. M., & Gatta, L. A.(2002). Online versus traditionally delivered instructions: A descriptive study of learner characteristics in a community college setting. *Online Journal of Distance Learning Administration, 5*(1), 1-14.
- Hanssen, R. D., Chernovetz, M. E., & Stortz, W. H. (1978). Birth order and responsibility in natural settings. *Journal of Social Psychology, 105*, 307-308.
- Hardy, R. C., Hunt, J., & Lehr, E. (1978). Relationship between birth order and leadership style for nursery school children. *Perceptual and Motor Skills, 46*, 184-186.
- Herrera, N. C., Zajonc, R. B., Weiczowska, G., & Chichomski, B. (2003). Beliefs about birth order and their reflection in reality. *Journal of Personality and Social Psychology, 85*, 142-150.
- Hopkins, M, M., & Bilimoria, D. (2008). Social and emotional competencies. Predicting male and female executives. *Journal of Management Development, 27*, 13-35. doi:10.1108/02621710810840749
- Howarth, E. (1980). Birth order, family structure and personality variables. *Journal of Personality Assessment, 44*, 299-301.

- Kaneez, U. (2006). *Emotional Intelligence among the individuals with depression and without depression: A comparative study*. (Unpublished MSc Dissertation). National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- Kaplan, H. B. (1970). Self-derogation and childhood family structure. *Journal of Nervous and Mental Diseases*, 151, 13-23.
- Katyal, S. & Awasthi, E. (2005). Gender differences in emotional intelligence among adolescents of Chandigarh. *Journal of Human Ecology*, 17(2) 153-155. Retrieved from <http://www.krepublishers.com/02-Journals/JHE/JHE-17-0-000-000-2005-Web/JHE-17-2-085-160-200>
- Kaur, H., & Dheer, V. (1982). Birth order, academic achievement and personality structure. *Indian Journal of Clinical Psychology*, 9, 189-192.
- Kidwell, J. (1982). The neglected birth order: Middleborns. *The Journal of Marriage & Family*, 16, 225-235.
- Kushnir, T. (1978). A review of the evidence for birth order differences in anxiety and affiliation in stressful situations. *Social Behavior and Personality*, 6, 179-186.
- Mandell, B., & Pherwani, S. (2003). Relationship between emotional intelligence and TL style: a gender comparisons. *Journal of Business and Psychology*, 17(3), 387-404.
- Mayers, T. D. & Salovey, P. S. (1997). What is Emotional Intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence*. New York, NY: Basic Books.
- Morand, D. A. (1999). Family size and intelligence revisited. The role of intelligence. *Psychological Reports*, 84, 643-649.
- Nelson, E., & Sibilski, E. (2012). Birth order and personality. Retrieved from <http://www.basd.k12.wi.us/faculty/jdow/Birt>
- Nolen-Hoeksema, S., & Girgus, J. S. (1995). Explanatory style and Achievement, depression and gender differences in childhood and early adolescence. In G. McC Buchanan & M.E.P. Seligman (Eds.), *Explanatory styles* (pp. 57-70). Hill dale, NJ: Lawrence Erlbaum associates.

- Ostroff, M. I. M. (1993). *Birth order effects on leadership style in school administrators. The relationship between two dimensional educational leadership theory and Adlerian theory.* (Unpublished Doctoral Dissertation). University of Arizona.
- Perlin, M., & Grater, H. (1984). The relationship between birth order and reported interpersonal behavior. *Individual Psychology, Journal of Adlerian Therapy, Research & Practice, 40* (1), 22-28.
- Philips, A. S., Bedeian, A. G., Mossholder, K. W., & Touliator, J. (1998). Birth order and selected work related personality variables. *Individual Psychology, Journal of Adlerian Therapy, Research & Practice, 44*, 492-499.
- Pickhardt, C. (2009). *Surviving (your child's) adolescence.* Retrieved from <http://www.psychologytoday.com/200907/theadolescent-only-child>
- Pilkington, I. R., White, J., & Matheny, K. B. (1997). Perceived coping resources and psychological birth order in school aged children. *Individual Psychology, Journal of Adlerian Therapy, Research & Practice, 53*, 42-57.
- Richardson, R. W., & Richardson, L. A. (1990). *Birth order and you.* North Vancouver, British Columbia: Self-Counsel Press.
- Rieff, H. B., Halzes, N. M., Bramet, M. H., & Gibbon, T. (2001). The relation of learning disabilities and gender with emotional intelligence in college. *Students-Journal of Learning Disabilities, 34*, 66-78.
- Robins, S. P., & Singh, S. (2006). *Organizational behaviour.* Delhi: Dorling Kindersley Pvt, Ltd.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185-211.
- Schachter, S. (1959). Ordinal position, anxiety and affiliation. In I. R. R. Sears, L. Festinger, & D. H. Lawrence, (Eds.), *Stanford Studies in Psychology (Vol. 1), The psychology of affiliation: Experimental studies of the sources of gregariousness*, (pp. 42-61). Stanford, C.A: Stanford University Press.

- Schneider, L. J. (1981). The impact of birth order on social interest. *Journal of Psychology, 37*, 102-106.
- Shanghnessy, M. F., Neely, R., Manz, A., & Nystul, M. (1990). Effect of birth order, sex and astrological sign on personality. *Psychological Reports, 66*, 272-274.
- Shulman, B. H., & Mosak, H. H. (1977). Birth order and ordinal position. Two Adlerian views. *Journal of Individual Psychology, 33*, 114-121.
- Singh, O. (2002). *Emotional intelligence at work: A professional guide*. New Delhi: Sage Publication.
- Snow, M. E., Jacklin, C. N., & Maccoby, E. E. (1981). Birth order differences in peer sociability at thirty three months. *Child Development, 5*, 589-595.
- Somit, A., Arwin, W. A., & Peterson, S. A. (1996). Birth order and British prime minister: A second look. *Political Studies, 17*, 120-127.
- Stewart, L. H. (1992). *Change makers: A Jungian perspective on sibling position and the family atmosphere*. New York, NY: Routledge.
- Sullo way, F. J. (1996). *Born to rebel: Family dynamics and creative lives*. New York, NY: Pantheon.
- Sutarso, I., Braggart, L. K., Sutarso, P. & Tapia, M. (1996). *Effect of gender and GPA on emotional intelligence*. Paper presented at the annual meeting of the Mid-South Educational Research Association. Tuscaloosa, AL.
- Tapia, M. I. (1999). *A study of the relationship of the emotional intelligence inventory (intelligence tests)*. Dissertation Abstracts International.
- Toman, W. (1976). *Family constellation*. New York, NY: Springer.
- Travis, R., & Kohli, V. (1995). The birth order factor: Ordinal position. Social strata and educational achievement. *The Journal of Social Psychology, 135*, 499-507.
- Tung, S., & Sandhu, D. (2005). Well-being, Indian adolescents. Role of autonomy and identity formation. *Pakistan Journal of Psychological Research, 2*(3-4), 81-91.
- Walter, D. A., & Ziegler, C. A. (1980). The effect of birth order on locus of control. *Bulletin of Psychonomic Society, 15*, 293-294.

- White, J., Campbell, L., & Stewart, A. (1995). Association on the white campbell psychological birth order inventory and kern lifestyle scale. *Psychological Reports, 77*, 1187-1196.
- Wilson, J. B. (2009). *Birth order and personality characteristics*. Retrieved from <http://clearinghouse.missouriwestern.edu/manuscripts/442.ph>
- Wing, E. & Love, G.D. (2001). *Elective affinities and uninvited agonies: Mapping emotions with significant others onto health emotions, social relationship and health series in Affective Sci*. New York, NY: Oxford University Press.
- Yates, S. M. (2000). *Optimism, pessimism and depression in school aged students: A Longitudinal study*. Paper presented at the Australian Association for Research in Education Conference, Adelaide.
- Zajonc, R. B, Markus, H., & Markus, G. B. (1979). The birth order puzzle. *The Journal of Personality and Social Psychology, 37*, 1325-1341
- Zervas, L. J., & Sherman, M. F. (1994). The relationship between perceived parental favoritism and self-esteem. *Journal of Genetic Psychology, 155*, 25-33.
- Zweigenhaft, R. L. (2002). Birth order effects and rebelliousness: Political activism and involvement with marijuana. *Political Psychology, 23*, 219-233.