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**A COMPARATIVE STUDY OF BIRTH ORDER AND  
CREATIVITY AMONG SIBLINGS**

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**ABSTRACT**

The present research aimed at comparing the creativity and birth order among siblings. The data was collected by using snowball-sampling technique. The sample was collected from Rawalpindi and Islamabad. Total 75 individuals were taken in the sample, 25 individuals were first-borns, 25 were second-born and 25 were last-born children. The age range of sample was from 16 to 23 years, educated individuals (intermediate level, graduate level and masters) were taken and Test of Creativity was individually administered on them. It was hypothesized that first-borns are more creative as compared to later-born children (second-born and third-born children). To explore the gender differences on creativity was one of the objectives of the study. To study creativity with educational level was another objective of the study. Comparison between three siblings was analyzed by applying ANOVA and there was a significant difference between first-borns, second-born and third-born children. Results were calculated by using ANOVA and t-test. Hypothesis of the study was proved that First-borns score high on Test of Creativity as compared to is second-born and third-born children. Thus it proved that first-borns are more creative as compared to second-born and third-born children. The results for gender differences were not significant, whereas, significant mean differences on creativity were found with educational level. So, creativity is independent of gender but dependent on educational level.

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## **Abidi & Aziz**

A comparative study of birth order and creativity among siblings

### **INTRODUCTION**

Creativity is the ability to generate novel and useful ideas and solutions to everyday problems and challenges. Creativity involves the translation of our unique gifts, talents and vision into an external reality that is new and useful. We must keep in mind that creativity takes place unavoidably inside our own personal, social, and cultural boundaries (Bruce & Tina, 2004).

The notion of creativity was largely understudied until Gulliford stated in a 1950 APA presidential address that the topic was not receiving the attention it deserved. Simonton (2000) has attempted to categorize and solidify creativity since that address. He suggests that research on creativity has taken place in four key areas: "the cognitive processes involved in the creative act, the distinctive characteristics of the creative person, the development and manifestation of creativity across the individual life span, and the social environments most strongly associated with creative activity". Simonton (2000) states that there are two dominant theories of creativity. One theory, being an economic model, examines a person's willingness to invest in human capital. The other theory is an evolutionary one. It explains the creative process, person, and product. Shalley's (1991) theory of creativity follows this second model. The article describes the various strides made in the defining of creativity, but goes on to conclude that although there has been considerable progress since the 1950 Gulliford address, there is much more that still needs to be researched if a definitive model of creativity is to be reached.

"Creativity" is not just a collection of intellectual abilities. It is also a personality type, a way of thinking and living. Although creative people tend to be unconventional, they share common traits. For example, creative thinkers are confident, independent, and risk-taking. They are perceptive and have good intuition. They display flexible, original thinking. They dare to differ, make waves, challenge traditions, and bend a few rules. Like all of us, creative people make mistakes, and they subject themselves to embarrassment and humiliation. One particularly common trait of creative people is enthusiasm. The phrases "driving absorption," "high commitment," "passionate interest," and "unwilling to give up" describe most creative people. The high energy also appears in adventurous and thrill-seeking activities (Davis, 1998).

At first intelligence testing was not geared towards testing the general populace, rather finding diamonds of genius in the rough, and weeding out the feeble-minded. Now IQ testing is performed on anyone who wishes to take the test. IQ testing tries to remove all cultural biasness, so that anyone in the world is

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able to take the test and generate a score, close to a score of a person of equal intelligence somewhere else. White (2000) describes in his article the notion of genius. While the term "intelligent" is almost always a positive term, the term "genius" can either have a positive or negative connotation depending on the context. Although White (2000) says in his article that it is unfortunate that geniuses often get stuck with the stigma of being pathological, he admits that one cannot totally discount the correlation between genius and psychopathology.

Sternberg (2001) suggests that creativity, like intelligence, is a trait that is naturally hard to define, but can be linked by the common idea that things that are creative are both novel and high in quality, while things that are intelligent are not novel but merely high in quality. He uses this basis to suggest that creativity in some ways seems to go beyond normal intelligence. It can be seen from the above articles that while intelligence plays an important part in the role of creativity, it is not the all and the end all of what makes a person creative. Creativity has been shown to have most links with genius, yet creativity still seems to exist in ways that go above cognitive thinking skills.

Birth order has its effects on siblings. How can two or three children in the same family be so different? They are brought up in the same broad social environment, under a similar set of rules and an identical family value system. They also come from the same genetic pool yet they can be so different in personality, interests and achievement. While they may be born into the same family they are not born into the same position.

The effects of their birth position have a significant impact on children, their behavior and their personalities. In order to really understand children it is useful to look at how their position in the family impacts on their development. If we look at the big three in birth order first, middle and youngest we will notice that children born in each position share a similar set of characteristics. Note that birth order presents possibilities only for parents. Also only children share similar birth order characteristics to first-born children they are super first-born children this study suggests that the first-born children are more creative and the only-born children share the similar characteristics to first-born children. First-borns are more expressive as compared to children born later (middle born children and last-born children). First-borns with siblings of age difference of less than three years are more creative as compared to siblings with more age difference because when there is less age difference than three years, the relationship between siblings is more healthy and friendly and it helps in enhancing creativity in first-born children while the siblings with age difference of more than three years tend to adopt parental role and they tend to mature before time, the adaptation of parental role and to act like parents decrease the chances of enhancement of creativity (Plomin, 2000).

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The study conducted by (Baer, Oldham, Hollingshead, & Jacobsohn, 2005), examined the possibility that sibling demographic differences (i.e., age and sex differences between the focal individual and his or her siblings) and sibling size (i.e., number of children in the focal individual's family) moderate the relation between an individual's birth order and his or her creativity. A total of 359 undergraduates described their family background and then were assigned to small teams to work on 8 problem-solving tasks. Each individual's contributions to the tasks were evaluated for creativity by his or her teammates. Results showed that firstborns with large sibling groups were more creative when they had relatively more siblings close in age or of the opposite sex. So, in this study it is concluded that first-borns are creative among their siblings. (Baer et al., 2005) has focused on demographic variables in determining creativity among first-borns.

### **Rationale of study**

The present study is very important in Pakistani context, as it would help future researchers to work further on sibling differences and the effects of birth order on an individual, and it will also help in understanding that why siblings living in the same house and with same parents are different from each other. Each birth order has its influences on individual's personality. The importance of present study in Pakistan is that, there is not much work done on birth order and its effects on an individual. Birth order is only studied with academic achievement in first-born children, as creativity is interrelated with intelligence and first-born children score high on academic achievement as compared to children born later, first-born children are more intelligent among siblings.

A study conducted by Zajonc and Markus (2001) and the results show that earlier-born (first-born) children tend to score higher on tests of intelligence and aptitude than those born into the family later. The reason behind differences between siblings is their birth order that is responsible for their personalities and creativity. Usually first-borns are thought to be intelligent among siblings and high achievers among siblings. Creativity and intelligence are interrelated so there is a need to study creativity and birth order. It would help in understanding the importance of birth order and how birth order contributes in developing creativity. There are various studies conducted on birth order and creativity in Western countries but in Pakistan creativity is never studied with birth order. So the present study is conducted in order to find that creativity is dependant on birth order and first-borns are more creative than second-born children and third-born children.

## **METHOD**

### **Objectives**

1. The objective of the present study is to explore creativity along with gender.
2. To explore creativity along with educational level of siblings.

### **Hypothesis**

1. First-borns score high on Creativity as compared to Second-borns, and Third-born children.

### **Operational Definitions of Variables**

Creativity. "Creativity is the ability to produce work that is both novel (i.e. original, unexpected) and appropriate (i.e. useful, adaptive concerning task constraints)" (Sternberg & Lubart, 1999).

"Creativity involves the following structural elements: 1) novelty (originality, unexpectedness of the creative work, 2) its value (relevance, appropriateness, significance, usefulness, and effectiveness)" (Runco & Pritzker, 1999).

**Birth Order.** Birth order is the chronological order of sibling births in a family. Birth order is the position into which a child is born within the framework of a specific family. Birth order influences how one copes with people and society, on an individual and on a group basis (Adler, 1956).

**First-born/only child.** First-Born /Only Child is defined as the oldest child in the family or the only child in the family (Adler, 1956).

**Middle-born.** Is defined as a child who is born after first-born or who is second in number among siblings (Adler, 1956).

**Last-born.** Is defined as a child who is born at the last number among siblings (Adler, 1956).

### **Instrument**

**Test of Creativity.** The test of Creativity was developed by Khan (1999), originally based on Guilford's (1968) model of Intelligence. This test measures four components of creativity namely fluency, flexibility, originality and elaboration. The test consists of seven questions (five verbal and two non-verbal). All questions are open ended and respondents are at their liberty to express their imaginations without any restriction. Items for this test were driven from unusual

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uses, (Guilford, 1968), the creative thinking test (Wallace & Gruber, 1989), Torrence test of Creative Thinking (Torrance, 1988), and symbolic equivalence test (Barron, 1988) and adapted for indigenous population. The reliability of this test is .98, which shows high significant reliability of the test, (Khan, 1999). The more the fluent, unique and original responses of the individual, the more scores will be obtained by the individual and after 50 percent common responses of the individuals further responses are scored as 'zero' on Test of Creativity.

### **Sample**

The sample was collected by using Snowball sampling technique. Total 75 participants were taken. Three siblings were taken from 25 families. 25 participants were first-borns, 25 were second-born and 25 were third-born children. The age range of participants ranged from 16 to 23 years. The sample consisted of educated individuals (under graduates and above graduates). The sample was collected from cities of Rawalpindi and Islamabad.

### **Procedure**

The data was collected from homes and 25 families were contacted. After taking consent of participants, instructions were given to the subjects regarding completion of scale and objective of the study was assured to all the participants. Three siblings from each family were taken. The Test of Creativity was individually administered on participants. Participants were asked to complete the scale in as much time they require. The individuals who completed their Scale faster than their siblings were scored high on creativity. Comparative Research was used, and comparison were made between First-borns; Second-born and Third-born children.

**RESULTS**

**Table 1**

*Alpha coefficient Reliability of Test of Creativity and Components of Test of Creativity (N = 75)*

Components of Test of Creativity Coefficient	No. of items	Alpha Reliability
Test of Creativity	101	.98
Fluency (F)	37	.95
Flexibility (X)	22	.93
Elaboration (E)	5	.82
Originality (O)	37	.91

Table 1 shows the Cronbach's alpha reliability of creativity scale. The reliability is significantly high for Test of Creativity. So the scale is highly reliable for present study and Cronbach's alpha reliability of components of Test of Creativity. Results show that the components of Test of Creativity are highly reliable for the study. Each component of Test of Creativity is highly reliable.

**Table 2**

*Difference between First-borns, Second-born and Third-born children on the Test of Creativity (N =75)*

Scale	First borns (n = 25)		Second borns (n = 25)		Third borns (n = 25)			
	M	SD	M	SD	M	SD	F	P
Test of Creativity	253.6	93.2	204.8	94.9	184.4	66.3	4.303	.017
Fluency	94.9	30.2	76.7	30.7	70.1	24.2	5.05	.009
Originality	57.9	21.5	48.7	19.9	44	16.0	3.36	.04
Elaboration	24.4	12.5	19.2	13.6	16.7	9.8	2.57	.08
Flexibility	45.7	20.3	36.0	20.6	32.1	13.3	3.59	.033

Between group  $df = 2$ ; Within group  $df = 72$ ; Group total  $df = 74$ .

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Table 2 shows significant mean differences (\* $p < .05$ ) between first, second and third-born children on all the four components of creativity. Results show that first-borns are more creative than second and third-born children mean differences show that first-borns are more creative as compared to second-born and third-born children, as they scored high on Test of creativity the results support the hypothesis that first-borns are more creative than second-born and third-born children, except on elaboration. On the total test result is significant at  $p < .01$  level.

**Table 3**

*Gender Differences on Components of Creativity (N = 75)*

Variables	Male Participants (n = 38)		Female Participants (n = 37)			
	M	SD	M	SD	T	P
Test of Creativity	206.2	77.0	222.6	101.1	.79	.43
Fluency	78.0	26.1	83.2	33.8	.74	.46
Originality	49.1	18.2	51.3	21.7	.48	.63
Elaboration	35.8	16.5	40.2	21.2	1.01	.32
Flexibility	19.2	11.0	21.0	13.6	.63	.53

df = 73.

Table 3 shows that there are non significant mean differences of gender on creativity and on the four components of creativity. So, creativity is independent of gender.

**Table 4**  
*Differences along Educational Level on Creativity (N = 75)*

Variables	Below Graduation (n = 42)		Above Graduation (n = 33)		T	P
	M	SD	M	SD		
Test of Creativity	196.4	91.9	237.1	82.1	1.9	.05
Fluency	73.6	30.7	89.5	27.0	2.34	.002
Originality	45.5	20.3	56.2	18.0	2.38	.020
Elaboration	18.9	12.7	21.6	11.9	.92	.35
Flexibility	35.3	19.7	41.4	17.6	1.39	.17

df = 73.

Table 4 shows that on the overall creativity scores there are significant mean differences along educational level ( $p < .05$ ). Individuals having educational level above graduation scored high on fluency and originality ( $p < .01$ ) but non significant difference is present on flexibility and elaboration ( $p > .05$ ). On total Test of Creativity, above graduates scored significantly high as compared to under graduates, this shows educational level plays an important role in creativity. So, creativity is also dependant on educational level.

## DISCUSSION

The aim of the present study was to explore the relationship between birth order and creativity. The purpose of the study was to compare siblings on Creativity. A sample from 25 families with three siblings was taken, 25 were first-borns, 25 were second-born and 25 were third-born children, with age range of 16 to 23 years. Creativity among siblings was measured through the “Test of Creativity” developed by Khan (1999). The sample was taken from cities of Rawalpindi and Islamabad. Cronbach’s Alpha Reliability is .98 of Test of Creativity showed that the test is highly reliable for the sample. Also the Cronbach’s Alpha Reliability of components of Test of Creativity indicated that test is highly reliable.

One of the objectives of study was to explore creativity along with gender and the results were analyzed by applying t-test, and the results were non-significant suggesting that creativity is independent of gender. A study conducted by Comeau and Helen (1980) on the relationship between sex, birth order and creativity, the sample

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consisted of sixty-four high school students (32 sibling sets) were administered the Figural Form A of the Torrance Test of Creative Thinking. Results indicated non-significant difference between creativity and gender on four measures: fluency, flexibility, originality, and elaboration. Gender was not significant. So, this study proved that creativity is independent of gender and the results were non-significant at 0.05 level.

Another objective of the present study was to explore creativity along with educational level and results were analyzed by applying ANOVA and it was found that creativity was higher in above graduates' participants as compared to below graduates' participants, though non-significant differences were found on two components of creativity namely, flexibility and elaboration. So, creativity is dependent on educational levels of participants. A study conducted by (Matud, Rodriguez, & Grande, 2007) of socio-demographic factors on creative thinking. A general population sample of adult women (N = 466) were assessed with the Figural and Verbal Torrance Test of Creative Thinking (TTCT) and the results were statistically significant, educational levels on Figural Fluency, Figural Originality, Resistance to Premature Closure, Figural Creativity Index, and Verbal TTCT scores of Fluency, Originality, and Average Standard Score. The women with a university level education scored higher than those with secondary or primary educational levels on all the measures. So, educational level plays an important role in enhancing creativity and the results of the present study were also significant for above graduates whereas on two components of creativity (flexibility and elaboration) results were non-significant. While on the overall Test of Creativity, results were significant at 0.01 level.

The hypothesis of the study was that first-borns are more creative as compared to second-born, and third-born children. Comparison between first-borns, second-born and third-born children was analyzed by using ANOVA and the results are significant at 0.05 level. First-borns scored high on all components of creativity except elaboration, for which the mean differences were not significant at 0.05 levels, whereas, on overall Test of Creativity, first-borns scored high as compared to later-born and the results were significant at 0.05 levels. Thus the hypothesis of the study was proved. A study conducted by (Joannes, Lichtenwalner & Mawwell, 1969) to explore relationship between middle class and lower class Caucasian children attending kindergarten or nursery school. It was hypothesized that first-borns are more creative as compared to later-born and middle class children are more creative than lower class children. 68 children were administered with an object-identification test and the results were significant showing that first-borns are more creative as compared to later-born and middle class children are more creative as compared to lower class. Thus it is proved that first-borns are more creative as compared to later-born and the results of present study are also significant at 0.05 levels

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One of the reasons for first-borns to be more creative could be the age gap between siblings. The study done by (Joni & Mark, 1992) examined the relationship between age-interval between siblings and children's creative abilities, as well as parental views on the creative abilities of 116 children (ages 9-12 years). The study found that larger age intervals resulted in greater creativity and that age intervals also interacted with birth order, family size, and age. So, more the age difference between First-borns and later-born children, the first-borns will be more creative and the present study also proved the hypothesis that First-borns score high on test of creativity as compared to later-born children and the results are significant for mean differences between first-borns and third-born children.

Adler emphasized that last-born are more creative as compared to elder siblings. In Western countries each individual is given full liberty and there may be various factors that are responsible for creativity in last-born, but the scenario is totally changed in Pakistan. Here first-borns are expected to perform well in every aspect of life, from school to daily life activities, which is the reason their academic achievement is also high as compared to later-born children, they are considered as role model for their siblings. So, it is concluded that cultural differences also contribute in enhancing creativity.

The study done by Westwood and Low (2003) explores the relationship between cultures and creativity and innovation. It critically reviews the literature in which cross cultural differences in approaches to creativity and innovation are discussed. It examines how creativity is conceptualized differentially across cultures and how social structural factors account for differences in creativity and innovation. It addresses directly the relationship between cultural values and creativity/innovation. The article draws the following conclusions: culture can and does impact on creative and innovation processes, but the relationship should not be considered universally, simplistically or unreflexively; there is insufficient evidence to enable definitive statements to be made about systematic differences across cultures in personality or cognitive style with respect to creativity; creativity and innovation are complex psychosocial processes involving numerous salient factors of which culture is but one; the weight of evidence suggests that the relationship should be viewed contingently and in subtle and nuanced ways. A contingent view suggests that there are different processes, mechanisms, and structures through which creativity and innovation emerge. Cultures are creative and innovative within the context of their own systems and the exigencies and contingencies of those particular systems.

So this study can be linked with present study that creativity is also dependant on culture and there is variation from culture to culture. The aim of the present study is to highlight the relationship between birth order and creativity among siblings in Pakistan, cultural differences can also play a vital role in

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enhancing creativity. Usually in Pakistan first child is the most pampered child, he gains undivided attention of parents and relatives and as a result of this care and love the first-born is the child among siblings who is more independent, more autonomous and responsible. Nurturance, care and autonomy are the factors that foster creativity in an individual. First-borns are the center of attention for their parents, parents also feel new experience which is pleasant so they spend all their energies in nurturing oldest child of the family, these are all factors which are helpful in enhancing creativity, because they receive care and attention, their ideas are not denied by their parents, so they do not repress their ideas, they are given a chance to practice new things and as a result their creative ideas become stronger and they seek pleasure in doing innovative things.

Whereas, if we see the later-born children, they do gain their parent's attention and love but now their parents' attention is not much focused on them as compare to first-born child. Later-born children are not given liberty to experience new things; their parents and elder siblings restrict them. So they repress their ideas, as they know that parents and eldest siblings would not let them allow do anything, these restrictions suppress their creativity that is why they score low on Test of Creativity. Lim & smith (2008) studied those parenting styles that reflected higher levels of acceptance were associated with higher levels of creativity in their children.

In the light of earlier literature mentioned, it is proved that first-borns are highly represented among creative people. They are fluent, flexible and have original ideas among siblings and whenever they are given chance they perform creatively on every task, they are appreciated by their parents, teachers and from others in their environment. So, first-borns are advantageous as they get favorable position in the family that is helpful in flourishing creativity, whereas, later-born children are devoid of such favorable circumstances. So environment and culture plays an important role in enhancing and suppressing creativity and creativity also varies from culture to culture. The studies mentioned suggested that creativity is independent of gender, whereas, creativity is dependant on educational level and first-borns are more creative among siblings as compared to later-born children (second-borns and third-born children).

## **CONCLUSION**

It is concluded that first-borns are more creative as compared to later-born children (second-borns and third-born children), results obtained from ANOVA show that there is significant differences between first-borns second-borns and third-born children. Results of t-test show that there are mean differences between first-borns and second-borns but are not significant but there is a significant mean difference between first-borns and third-born children. So the hypotheses of present study are proved.

**LIMITATIONS AND SUGGESTIONS OF STUDY**

- Parenting styles are not focused in present study.
- Effects of parents' literacy are not seen in present study.
- As creativity is believed to be interrelated with intelligence, so creativity should be studied along with intelligence to find that whether creativity is interrelated with intelligence or not by observing consistency of results of intelligence and creativity.
- Age difference should also be studied that what role does age difference play in determining creativity among siblings.
- Impact of environment, parenting and sibling relationship should be studied.
- Creativity should be studied along with cultural differences.

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**PREVALENCE OF PERSONALITY DISORDERS DURING  
THE YEARS 2003-2009 AT THE INSTITUTE OF  
CLINICAL PSYCHOLOGY, UNIVERSITY OF KARACHI**

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**ABSTRACT**

The purpose of the present study was to investigate the prevalence rate of personality disorders reported at the Institute of Clinical Psychology, University of Karachi, Pakistan during the years 2003-2009. Following archival method the total sample consisted of 3917 registered clients out of which 88 were diagnosed on Axis II (Personality Disorders) according to DSM-IV-TR (2000) text revised criteria. The whole sample went through complete psychological assessment by trained clinical psychologists. All registered cases of the years 2003-2009 were selected and their files were reviewed. Demographic variables and their diagnoses were observed. Diagnoses and demographic information were analyzed. Frequency distributions and percentages of descriptive statistics were calculated. Research findings showed that (2.22 %) of cases were diagnosed on Axis II (Personality disorders) including

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Borderline Personality Disorder (18.18%), Histrionic Personality Disorder (14.94 %), and Narcissistic Personality Disorder (12.64%). These have a high prevalence rate as compared to other personality disorders. Furthermore, these personality disorders are mostly prevalent in single males belonging to middle class nuclear family systems. Present prevalence rates show that people coming to psychological clinics are mostly diagnosed with Cluster B personality disorder. Thus the study provides recommendations for the development of Awareness Programs for early identification of these disorders.

Prevalence of personality disorders during the years 2003-2009 at  
Institute of Clinical Psychology, University of Karachi

### **INTRODUCTION**

Personality disorders are characterized by chronic patterns of inner experience and behavior that are inflexible and are present across a broad range of situations. They have a marked impact on patients' interpersonal relationships, and social and occupational functioning, and can lead to problematic interactions in the medical setting (Ward, 2002). By definition, the symptoms of personality disorders cannot be caused by a major psychiatric disorder as diagnosed in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition Text Revised (APA, 2000), Axis I, a medical disorder, or the effects of a substance. These disorders are coded on DSM-IV-TR (2000) Text Revised on Axis II, which is used to record personality disorders, personality traits (without code), mental retardation and defense mechanisms. This separate axis exists to ensure that appropriate attention is paid to these clinically significant disorders when a comprehensive psychological assessment is performed.

Personality disorders are heterogeneous in their clinical features and etiology. Their symptom complexes are caused by combinations of hereditary temperamental traits, and environmental and developmental events. The relative percentages of genetic and environmental factors vary with each specific disorder (Oldham, 1994).

It is suggested that their rigidity prevents people from adjustment to external demands: thus their behaviour ultimately becomes self-defeating. The disordered personality traits are evident by adolescence or early adulthood and continue throughout adult life, becoming so deeply ingrained that they are highly resistant to change. The warning signs of personality disorders may be detected

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during childhood, and even in the troubled behavior of preschoolers. Children with childhood behavior problems such as conduct disorder, depression, anxiety, and immaturity are at greater than average risk of developing personality disorders during adolescents (Bernstein Cohan, Skodol, Beziraggaman & Brook., 1996).

Despite the self-defeating consequences of behavior, people with personality disorders do not generally perceive a need to change. Using psychodynamic terms, the DSM-IV-TR (2000) Text Revised notes that people with personality disorders tend to perceive their traits as ego syntonic, that is, as natural parts of themselves. As a result, persons with personality disorder are much more likely to be brought to the attention of mental health professional by others than to seek services on their own initiative. In contrast persons with anxiety disorders or mood disorders tend to view their disturbed behavior as ego dystonic. They don't see their behavior as parts of their self identities and are more likely to seek help to relieve the distress caused by them (Nevid, Rathus & Greene, 2000).

Some experts believe that events occurring in early childhood exert a powerful influence upon behavior later in life. Others indicate that people are genetically predisposed to personality disorders. In some cases, however, environmental facts may cause a person with a genetically predisposition to develop a personality disorder (Carson, Butcher & Mineka, 2000).

As with most mental disorders, no single factor explains its development. There are multiple factors, that is, biological, psychological and social factors that play a role in the development of personality disorders. The biological factors in personality disorders consist of temperamental (inborn or inheritable) characteristics that are present in adulthood as stable personality traits: patterns of thought, affect and behavior that characterize individuals and are stable over time (Rutter, 1987). The biological studies suggested that infants' constitutional reaction tendencies may predispose them to the development of particular personality disorders. Most personality traits have been found to be moderately heritable (Carey & DiLalla, 1994) these heritable factors account for about half of the variability in virtually all traits that have been studied (Livesley, Jang & Vernon, 1998).

According to psychodynamic approach, a person's interpersonal and intrapsychic aspects have a major contribution in personality disorders (Kohut & Wolff, 1978) Psychosocial factors suggest that people with personality disorders tend to have a dysfunctional and inconsistent parenting (Leaff, 1974). Families typically afforded them little support or security and did not encourage development of self esteem and an appropriate degree of independence (Kaplan & Sadock, 1985). Personality disorders tend to be proportionally overrepresented among lower socioeconomic and disadvantaged groups (Gunderson, 1988). However, it is unclear whether those circumstances predispose people to

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develop personality disorders or whether the dysfunction of those with personality disorder has limited their socioeconomic advancement.

According to DSM-IV-TR (2000) Text Revised, the prevalence of personality disorders are as follows in cluster A the prevalence of Paranoid personality disorder is 0.5%-2.5%, the Schizotypal personality disorder is 3% of the general population and the Schizoid personality disorder is uncommon in clinical setting. In Cluster B the prevalence of Antisocial is 3% in males and 1% in females whereas in Borderline personality disorder it is 2%, in Histrionic personality disorder it is 2% to 3% and the prevalence of Narcissistic personality disorder is less than 1% in the general population. In cluster C the prevalence of Avoidant personality disorder is between 0.5% and 1%, in Dependent personality disorder is among the most frequently reported Personality disorders and prevalence of Obsessive-Compulsive Disorder is 1% in general population.

Lifetime prevalence of personality disorders in the general population is an estimated 10 to 13 percent (Weissman, 1993). Based on structured surveys, the prevalence rates of personality disorders in primary care outpatient settings may be as high as 20 to 30 percent (Moran, Jenkins, Tylee & Mann., 2000; Hueston, Werth & Mainous, 1999; Casey & Tyrer, 1990). The treatment of medical and psychiatric disorders is more complicated in patients with comorbid personality disorders. Many patients with whom physicians experience problematic relationships, and who have been referred to in the literature as patients who are "difficult" have personality disorders (Steinmetz & Tabenkin, 2000; Schafer & Nowlis, 1998).

The diagnosis of a personality disorder is based on the patient's behavior over time in a variety of situations. In the primary care setting, many potential sources of diagnostic data are available (DSM IV, APA, 2000). Mostly clinical psychologist do a detailed Clinical interview, Psychological tests that include intelligence testing, neuropsychological screening tests, and projective analysis, some also use objective personality testing.

The psychosocial functioning of patients with personality disorders can vary widely. These patients' history of interpersonal relationships, educational and work history, psychiatric and substance abuse history, and legal history are important areas to review. Usually, marked impairments exist in significant areas of the patient's life, such as intimate relationships or occupational functioning. Some patients are globally impaired and their overall functioning is marginal.

Patients may meet the criteria for more than one personality disorder. Comorbid mood, anxiety, and substance abuse disorders are common. When symptoms that may indicate a personality disorder, such as increased dependency, social isolation, obsessions, or poor impulse control, are identified, it is important

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to view them within the context of the patient's psychiatric and medical history (Ward, 2004).

The purpose of this study is to analyze the prevalence of personality disorders in Pakistani culture. It has been observed that besides Clinical disorders which are diagnosed on Axis I, diagnosis of personality disorders (Axis II) are also common in Pakistan. Most of the clients seeking treatment at different mental health clinics and hospitals with symptoms of emotional disturbances also have some maladaptive personality traits that hamper their performance in life. They might be suffering from some personality disorder. There is no data available regarding this issue in Pakistan. Thus the present research would be very helpful in developing awareness regarding personality disorders and helping professionals in making accurate diagnosis and developing treatment strategies.

The Institute of Clinical Psychology provides services for different types of psychiatric problems. With the passage of time the awareness about psychiatric disorders has increased. There is a great need to rule out the prevalence rate of different psychological disorders and the pattern of these disorders in order to understand clients better. There are cultural differences that may be a cause of the differences in this phenomena in a cross cultural prospective. There are certain questions that need to be answered through the exploratory nature of the present study.

1. Which personality disorder is more prevalent in Karachi?
2. Is there any difference in the prevalence rate according to different clusters?
3. Whether there is any difference in prevalence regarding demographic variables, like gender, socioeconomic status, and family system?

## **METHOD**

### **Participants**

Using the archival data approach, the sample comprised data collected over seven years (2003-2009). The assessment files of the registered clients of Institute of Clinical Psychology, University of Karachi during this seven year period, were analysed. There were 3910 registered clients out of which, 88 were diagnosed on Axis II, according to the criteria of DSM-IV-TR (2000) Text Revised, by Clinical Psychologists on the basis of detailed history, clinical interview and psychological testing.

### **Procedure**

Initially the researcher took permission from the In-charge/Director Institute of Clinical Psychology, University of Karachi for data collection. Following this; consent was taken from record room In-charge of Institute of Clinical Psychology, University of Karachi. Confidentiality and anonymity of identification was assured. Then the researcher collected data by reviewing all the files from the archives. The diagnoses and the demographics were noted. Demographic information included the client's age, gender, education, socio economic status, marital status and family systems. The total number of registered clients during the year 2003-2009 was also taken from the concerned record keeper.

### **Scoring and Statistical analysis**

Scoring was done by taking number of different personality disorders during the period of 2003-2005. First the demographic information was tabulated and then descriptive statistics and percentages were calculated.

### **Operational Definition of Types of Personality disorders**

According to DSM-IV-TR (2000) Text Revised, there are 10 personality disorders and they are categorized into 3 clusters considering their nature of behavior.

Cluster A personality disorders consist of Paranoid, Schizoid, and Schizotypal personality disorders. Individuals with these disorders often seem odd or eccentric, with unusual behavior ranging from distrust and suspiciousness to social detachment.

Cluster B personality disorders consist of Histrionic, Narcissistic, Antisocial, and Borderline personality disorders. Individuals with these disorders have in common a tendency to be dramatic, emotional and erratic.

Cluster C personality disorders consist of Avoidant, Dependent, and Obsessive-compulsive personality disorders. In contrast to other clusters, anxiety and fearfulness are often part of these disorders.

RESULTS

**Table 1**

*Total number. of registered clients and number of cases diagnosed on Axis II (personality disorder)*

Variables	No. of cases	Percentages
Total No of Registered cases	3910	2.25%
Cases diagnosed on Axis II (2003-2009)	88	

Note: 2.25% means cases diagnosed with personality disorders

**Table 2**

*Frequencies and percentages of personality disorder (Clusters) reported during the period of 2003-2009*

Variables	No. of cases	Percentages
Cluster A	17	19.35%
Cluster B	42	47.72%*
Cluster C	28	31.8%

Note: \*showed the highly prevalent personality disorder, cluster wise.

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**Table 3**

*Frequencies and percentages of different personality disorders reported during the period of 2003-2009*

Variables	PersonalityDisorder	No.of cases	Percentages
Cluster A	Paranoid	10	11.36%*
	Schizoid	03	3.40%
	Schizotypal	04	4.54%
Cluster B	Borderline	15	17.04%
	Narcissistic	11	12.5%*
	Histrionic	13	14.7%*
	Antisocial	03	3.04%
Cluster C	Avoidant	10	11.36*
	Dependent	09	7.95%
	Obsessive	09	7.95%
	Compulsive		

Note:\* showed the highly prevalent personality disorders

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**Table 4**

*Demographic Information of clients with personality Disorders reported during the period of 2003-2009*

Demographic Variables	Categories of Demographic Variable	f	%
1. Gender	Male	64	72.72%*
	Female	24	27%
2. Education	Matriculation	21	23.86%
	Above Matric	67	76.13%*
3. Family System	Joint	23	26.13%
	Nuclear	65	73.86*
4. Marital Status	Single	66	75%*
	Married	22	25%
	Widowed	1	02.96%
5. Socio Economic Status	Upper middle	17	19.95%
	Lower middle	7	7.955
	Middle	64	72.72%*
6 .Age	Early Adult (18-35 years old)	73	82.95%*
	Late adult (36-55 years old)	15	17.04%
Total		88	100%

Note:\* showed the high prevalence regarding demographics of individualpersonality disorder

## **DISCUSSION**

This study was conducted at The Institute of Clinical Psychology during the years 2003 to 2009 and out of the total number of cases registered (3910), 88 cases were diagnosed with a personality disorder (see Table). Overall the diagnosis of personality disorders is 2.25% of total cases reported. The prevalence of cluster B personality disorders are the highly diagnosed cases 48.86% (see Table II). In this category patients have a tendency to be dramatic, emotional and erratic. Whereas in the other two categories, Cluster C was prevalent at 31.8% and its symptoms are anxiety and fearfulness Cluster A is the least diagnosed in overall category of personality disorders at 19.35% where the symptoms are unusual behavior ranging from distrust and suspiciousness to social detachment.

Moreover, the findings show that in the subcategories of these disorders the prevalence of Borderline personality disorder is at 18.18% among the total reported cases and thus becomes the highest prevalent disorder (see Table III). Where as the Histrionic personality disorder is prevalent in 14.7% of the reported cases and is the second highest prevalent disorder amongst the personality disorders. Narcissistic, Paranoid and Avoidant personality are third according to the prevalence rate as the percentages rate are 12.5%, 11.36% and 11.365% respectively. The rest of the subcategories in personality disorder are not diagnosed frequently as the obsessive compulsive personality disorder and the dependent personality disorder have the prevalence rate at 7.95%, while the prevalence rates of schizotypal, schizoid and antisocial cases are at 4.54%, 3.40%, 3.40% respectively. There are certain factors that predispose individuals to develop personality disorders, some of the researches done in western countries indicated that prevalence of personality disorders is closely related to the genetic factors (Oldham, 1994) Whereas the people with genetic factors are more vulnerable to the environmental risk factors (Carson et al., 2000).

Parenting is another major area of interest for clinicians to explore with reference to personality disorders as studies show that parenting styles can result in personality disorders in the offspring. As the development of the personality traits begins in childhood, the parental role becomes extremely significant during this early development (Rutter & Maughan, 1997). It was further specified in the study that the aversive parenting behaviors may increase the risk for the schizotypal, borderline and paranoid personality disorders and on the other hand where parents show less affection towards their children it may increase the risk for the development of avoidant, borderline, schizoid, paranoid, or schizotypal personality disorder. (Johnson, Cohan, Chen, Kesen & Brook, 2006). Demographic variables associated with these disorders were also studied and it was found that people in their early adulthood are more often diagnosed with personality

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disorders. Furthermore it was found that among the genders, the prevalence is high in males as compared to females. It was more reported in people living in nuclear family systems, educationally above matriculation level, belonging to middle class families, with a marital status of single (see Table IV) They were mostly in their early adulthood, awareness may be contributed towards this findings, because in late adulthood most of the individuals have developed their rigid pattern and they don't want to change them, hence they also don't seek treatment for these problems even if they know that they are suffering from problematic behaviors.

These findings are attributed to certain factors that are related to marital discord, as well as interpersonal problems especially with the family. It was found from the case analysis that people diagnosed on Axis II belonged to conflicting families, some had an experience of abuse and some had poor relationships with siblings. Previously Epstein et al (1978) offered a model of the functioning of family system. He proposed some factors that suggested how family environment and stresses in family affects person's behavior. Common stressful family situations are those in which one or more members find themselves playing roles which are difficult for them, and thus anxiety provoking; and those situations which arise when family runs into difficulties.

### **LIMITATIONS AND FUTURE DIRECTIONS**

This research was conducted on a very small data as there was limited data available at the Institute. Mostly people seeking help for their Psychiatric problems at ICP are from middle to upper middle class families as the institution is a government organization and treatment is provided at a very low cost. People from upper socioeconomic class seek treatment in highly facilitated hospitals. The results of this study cannot be generalized to whole population hence it is proposed that thus research should be conducted on a larger sample. Data can be collected from other hospitals of Karachi and Pakistan. In the present study, the researchers selected only registered clients diagnosed with personality disorders as it has been noted that there are people who may not seek treatment themselves until they have other accompanying psychiatric problems, so the research survey can be conducted to rate the prevalence of personality disorders in the general population.

This research can be further extended to find out the causative factors related to the personality disorders as the demographic information reveals that there could be some specific psychosocial and psychodynamic aspects that cause personality disorders. The results of this research give us some knowledge about

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the highly prevalent personality disorder and these findings can be utilized to prevent people from these specific psychiatric disorders by giving awareness about the early development of children, and parenting styles. Specifically what behaviors should be avoided to give the children a healthy environment so that they can grow as healthy human beings. It can also help professionals to make people understand the specific family interactions and systems which can lead to wards such problems.

### **CONCLUSION**

It is concluded from the present research findings that people coming to psychological clinics are mostly diagnosed with Cluster B personality disorder such as Borderline personality disorder (18.18%), Histrionic Personality Disorder (14.94 %), and Narcissistic Personality Disorder (12.64%). These personality disorders are mostly prevalent in single males belonging to middle class nuclear family systems. Further research should be conducted with larger samples to investigate the risk factor that leads to the development of these patterns in Pakistani culture. Moreover mental health professionals should develop awareness programs for early identification of these disorders, so that early interventions can be provided to teach adaptive patterns of personality.

### **Notes**

Note 1. At The Institute of Clinical Psychology University of Karachi all of these clients have gone through psychological testing that includes neuropsychological screening tests, intelligences tests and projective tests. Diagnoses of the clients are mostly based on projective tests i.e. Human Figure Drawing Tests (HFD Koppitz,1968); Thematic Apperception tests (TAT, Murray, 1943); and The Rorschach Inkblot Test (Klofer, Ainsworth, Klofer & Holt,1954), detailed clinical interview, and consultation with senior clinical psychologists.

Note 2. Dr.Shazia Hasan Assistant Professor, was a faculty member at Institute of Clinical Psychology, University of Karachi during this research period.

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**LANGUAGE PROBLEM OF A CHILD WITH DOWN  
SYNDROME: A CASE STUDY**

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**ABSTRACT**

Language difficulties are the significant problem of a child with Down syndrome. It was hypothesized, that the child with Down syndrome has great difficulty in all the areas of language development. The aim of this clinical research was to explore language problems in a child with Down syndrome using the case study method. A 3 year 10 months old boy with Down syndrome was assessed on a set of checklists for Speech, Language and Motor Development in the Institute of Clinical Psychology, University of Karachi, Pakistan from June 2009 to September 2009 (12 weeks). It was found that he has severe problems in both areas of language, receptive and expressive language development. It is recommended that the problems of speech and language in children with Down syndrome should be treated through the speech and language therapy services. In addition, speech and language therapist should empower parents and communities to overcome these problems.

Language problem of a child with Down syndrome: a case study

**INTRODUCTION**

Language is the system of exchanging thoughts into a meaningful and symbolic way of communication through speech, writing, or gestures. Our brain organizes the thoughts in the left hemisphere, and encodes them in sequence according to the rules of grammar. The speech sounds a native speaker uses while speaking and how they are produced, that is, the combination of speech sounds (phonology), the study of language with the meanings of words (semantics), how

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words are formed (morphology), grammatical aspects and deals with word order called syntax, and the use of language in context that determines who says what to whom in which circumstances called (pragmatics) (Silverman, 1984).

A child with language disorder is one whose use of language on a phonological morphonological, syntactic, semantic, or pragmatic level of oral speech is not as highly developed, or mature as that of most other children that age. Such children may be delayed in their acquisition of the ability both to understand and to use language (Vinson, 1999).

Buckley and Bird (2001) found that children with Down syndrome have significant delays in speech and language skills which affect their progress during their primary school years. It has been founded that children with Down's syndrome have great difficulties interacting with peers. Thomas (2007) explained that Infant, toddlers, and children with Down syndrome have anatomical (structural) and physiological (functional) differences in the mouth throat areas that make it more difficult for them to make precise movements. This affects feeding cup drinking, chewing and swallowing solid food, and speech. Some anatomical differences that are seen include a small and narrow upper jaw and a high palatal arch. Physiological difference that are seen include low muscles tone, and weak oral facial muscles a combination of anatomical and physiological difficulties result in open mouth posture and tongue protrusion. Many children with Down syndrome have hypersensitive or hyposensitive reactions to touch around the mouth. Learning to speak requires sensory feedback from the oral area, so difficulty with sensory feedback affects learning to speak. Fowler (1995) stated that children with Down syndrome have consistently been shown to have unexplainable delays in their acquisition of language, especially in the area of syntax. Mash and Wolfe (2002) said that Down syndrome resulting from a chromosomal defect which is a developmental abnormality that is characterized by mental retardation.

According to Stratford (1989) Down syndrome occurs in all parts of the world. It is restricted to any one race, culture, social class, or historical period. Adeyokunnu (1982) said that a chromosome is a package of genetic material found in the center (nucleus) of every cell. Human cells normally contain 23 pairs of chromosomes, half of which are inherited from each parent. Each chromosome pair is designated by a number, except for the sex chromosomes, which are designated by X and Y. Down syndrome is one of commonest causes of mental sub normality. It account to more than 30% of total genetic causes.

If a child with Down syndrome is developmentally at a slower rate than normal, he or she will be slow both in learning to comprehended speech and in speaking. Language development will be delayed on all levels phonological, morphonological, syntactic, semantic, and pragmatic for example, a 6-year-old

child with an I.Q. of 50 probably has language similar to that of a 3-year-old. This is one of the first conditions that speech-language pathologist consider when evaluating a child who is slow in developing speech and language. Children with Down syndrome experience significant impairments in communication across a range of skills including articulation, morphology, syntax, and semantics while both receptive and expressive language are specifically impaired, the expressive language of children with Down syndrome lags further behind their receptive capabilities affecting interactions with family, peers, and community members (Miller, Rosin, Swift, Bless and Vetter, D.1988). Kumin (2002) stated that most children with Down syndrome are able to understand much more than they can express. As a result, test scores for receptive language are higher than for expressive language. This is known as the receptive-expressive gap. Smith and Gammon (1983) have found that out of the hundreds of children with Down syndrome, each have their own strengths and weaknesses, and certainly their own personality.

#### **Case history**

The case is of a 3 year 10 month old boy with Down syndrome, who belongs to Urdu speaking class and is an only-child. He lives with his mother in Karachi. He did not take any special Education due to his mother's working as she dropped her child in the day care centre. His mother brought him at Institute of Clinical Psychology University of Karachi for the treatment of Speech and Language Therapy. This investigation is a case study that involved only observation and assessment by using a set of checklist namely ICP Speech and Language Development Checklist.

#### **Medical history**

His mother reported that he had eye infection which was treated for long time period. He had received influenza vaccine and treatment for skin rashes. In the past, the family had tried mineral oil and lactulose to treat chronic constipation, but was now trying catnip and fennel in a glycerin base. Constipation has been a significant issue since solid food was introduced, and has been associated with rectal bleeding. Cardiogram, vision and Bera test (hearing) had been screened at the age of 3 years and the results were normal. His oral facial examination and use of his voice for verbalization also revealed normal in function for production of sound as well as he chew and sucks the food easily.

## **Khatoon**

### **Method**

#### **Participants**

A 3 year 10 month old boy with Down syndrome was selected on the basis of demographic information which is taken from the textbook of Assessment namely "Assessment in Speech-Language Pathology" A resource manual written by Kenreth G. Shipley, Ph.D. & Julie G. Macfee, M.A. (1992) Singular Publishing Group, Inc. A set of checklists (ICP Speech, Language and Motor Development) is consisted of speech-language and motor skills but the investigator selected only one major areas of language, receptive language and expressive language as the requirement of data. These checklists allow children's skills in each area to be evaluated, activities to be targeted at the right level, and provide a record of progress. The checklists cover development in each skill area which is started from the age of 6 Month to 6 years. 286 items were contain to assess the performance in language development (receptive, expressive, syntax, semantic, morphologic and pragmatic) of children with Down syndrome regarding their child's speech. During the assessment, his mother informed that he began sitting, standing, walking very late while his hearing according to Bera test was normal. Oral Facial Evaluation form was also used for the purpose to assess the structure and function of mouth for speech and feeding, in addition to evaluating their production of speech sounds. His speech comprises significant impairments in communication across a range of skills including articulation, morphology, syntax, and semantics and both receptive and expressive language are specifically impaired, the expressive language lags further behind their receptive capabilities affecting interactions with family, peers, and community members.

He was observed for three hours per week, for 12 weeks. Within the 36 hours (total) of observation, his patterns of communication and social interactions in a variety of activities were recorded by taking field notes. Based on observations of typically developing preschoolers, the investigator generated a list of potential controlling stimuli that were not verbal in nature and corresponding communicative responses. The investigator selected three appropriate targets: saying "give me apple" when organizing three flash cards, "show your eyes" when standing in front of mirror, and "door" when someone closed the door. Different materials, like toys were used for the assessment of generalization.

## **Result**

It has found through observations that many abilities and problems pertain to interpersonal communications and the use of language. Oral motor functioning seems to be normal except for tongue movements as he couldn't maneuver his tongue in right, left, up and down directions. In high functioning subject (according to her mother) he appeared very social as he was friendly with everyone, even with the investigator. When she extended her hand a handshake, he didn't feel any hesitation. During the assessment process of receptive language he was unable to identify pictures of common objects, animals, and characters or respond to questions (e.g., "where is it"?). He was also unable to follow simple verbal direction as he used gestures for his demanding with many people (mother, other group home members if possible, and myself). In addition to the subject's abilities, and appears to have an understanding of social appropriateness of actions by using pattern of communication that was observed the use of hand gestures. He often relies on gestures to facilitate understanding to speech and as observed, her mother often had to use hand signals in asking questions to help him comprehend what was said. For example, in some situations, such as when the investigator arrived at him and said "Hello", by using only verbally (not given any gestures or body language) it is appropriate for him to greet her with a big hug but he couldn't understand unless the investigator put her hand out to shake hand. He had significant problems with comprehend multiple forms of greetings (e.g., wave, and handshake), that they can use in place of an affectionate greeting (e.g., hug). During the assessment of receptive language, Problems were also observed in receptive communications as he couldn't perform one step command as the investigator instructed him to "give the spoon". He often experiences difficulties in understanding questions, thus the mother often had to repeat herself when questions were asked. Her felt he understood communication and had communicative intent, but that he didn't understand the rules to communicating because they were different at home, at school, and in the community. He was assessed with individual tutoring sessions by applying language development checklist that focused primarily on receptive language behaviors which fell between thirteen month in development of receptive language skill While nine month of development of expressive language which indicated less below than normal development. Speech Sounds: He could only produced the following sounds /m/, /p/, /d/, /a/, /o/, /e/

## **Khatoon**

### **SUGGESTION FOR FUTURE RESEARCH**

It is important to be cautious in generalizing the findings of this case study, and one should keep in mind that all findings are based on a single subject, who is the representative of the population of children with Down's syndrome in general. This study was single study, in fact that the patterns of communications were observed in single setting in which the subject wouldn't around people with whom he interacts on a daily basis. Because the observation was limited to a single environment where activities are very limited, there for the researcher was unable to observe communications in a variety of settings for comparison. Other variables, such as intelligence and personality may be related to social abilities and should be examined in future studies.

### **CONCLUSION**

Given that this study is a single participant project with its setting limited to a single subject in clinical setup (and other associated limitations), most findings are inconclusive in that they may or may not apply to most people with Down's syndrome.

As with children, speech and communications by people with Down's syndrome differ from that of their "normal" counterparts in that they have difficulties with speech production, problems with grammar, intelligibility and greater use of signs and short "telegraphic" utterances. For communication a partner is requires, amount of interpersonal communication was appeared to be affected by the social abilities of the other person.

### **RECOMMENDATION**

There are several ways parents and teachers can help children use language appropriately in social situations. Some general suggestions are provided to help children develop skills in receptive and expressive areas of language. Although suggestions are geared primarily for preschool children, they can be modified for use with other children as well

### **TREATMENT**

#### **Oral Motor Exercises**

Practicing non-speech movements (sucking, blowing, chewing, biting, tongue waggles, etc) The child is encouraged to watch, imitate, and gradually

become a little braver. Vocalization is quickly added, and these vocalizations are turned into meaningful vocabulary as soon as possible, and at syllable level if possible, - even if the vocabulary is only "hi", "no", "bye" and "boo!" at first. This means helping the child to hear and say sounds, syllables, words, and longer utterances (Riper, 1978).

## **LANGUAGE THERAPY**

### **1. Teaching Comprehension skills**

In this situation, the student is initially asked to choose from two or more alternatives as a response to a command like "show me the keys". The response is typically pointing to the correct alternative. Generally, a reward is presented, material or verbal praise on correct response.

### **2. Teaching instruction following:**

Rather than just teaching the person to point a specific object students are taught to follow instructions such as 'come here', 'sit down', 'stand up' etc. Rewards again are arbitrary and situation is highly teacher controlled.

This strategy has some value while dealing with individuals who show a complete lack of social interaction. This can also be used while teaching following two term constructions such 'noun + verb' in many combinations.

### **3. Imitation training:**

This strategy is generally used effectively in the initial teaching of expressive speech or signing. Modeling is used by the teacher with the student being physically prompted in the first instance. With practice, the child may learn to imitate novel responses and this makes the strategy very valuable.

### **4. Teaching expressive skills:**

The most frequently used procedure for teaching expressive skills is to show the student an object, picture or event and say "Look here, What's this?" (Naming) or "What's the man doing?" (Describing) etc. If the child responds correctly he is rewarded. If incorrect, prompt is provided and rewarded.

### **Khatoon**

The above four strategies, suggest that children can either imitate, name or describe the objects, events or people. However, it must be remembered that “teaching the individual to imitate, to name or to describe will not necessarily lead to using the vocabulary and syntax, which the child acquired for other purposes”. Moreover, in the strategies mentioned above the child is a passive participant, who reacts only when asked. It may be recalled that communication is the way in which the person acts on his/her environment and changes it in a way he/she requires. Therefore, the child may ask what he/she wants, says no, maintains social interaction, questions and so on. Keeping this perspective, it is not very difficult to notice that the routine teaching situations are not allowing the child to be an active pa and hence require modifications (Kumin et al. 1991)

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