

BIRTH ORDER AND PSYCHIATRIC MORBIDITY

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ABSTRACT

OBJECTIVES:

1. To determine the frequency of sociodemographic factors (birth order) among subjects attending a psychiatric clinic.
2. To establish psychiatric diagnosis of subjects.
3. To bring out dominating frequencies of birth orders of the patient in relation with related diagnosis.

METHODOLOGY: This cross sectional study was conducted at out-patient clinic of Liqueate University Hospital Hyderabad during 1st January 2012 to 31st January 2012. One hundred consecutive subjects attending a psychiatric OPD with psychiatric symptoms, were assessed for the total siblings, birth order among siblings and their psychiatric diagnosis. The socio-demographic data was recorded through a designed semi-structured proforma, and diagnosis was established by Diagnostic and Statistical Manual-IV Text Revised Criteria (DSM-IV TR).

RESULTS: The age range remained 9-60 years and numbers of siblings were in the range of 1-12 siblings and fourth birth order was found to be dominant in this study to have psychiatric morbidity (38%). While, frequency of first order birth was 18%. Generalized anxiety disorder and depressive (GAD) disorders were dominant diagnosis (55%), while GAD was more in the male gender.

CONCLUSION: This study shows that psychiatric morbidity was more common in the lower birth order. This study may be carried out at different centers of psychiatry for the better assessment of psychiatric morbidity.

KEY WORDS: Sociodemographic, Psychiatric Disorders, Birth Order.

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are very much extensive and family system and other social perspective have been discussed by various authors like Jalibi and Ahmed.^{5,6}

The lower and middle social class understands that more children means more helping hands and more are available to meet with agro-based requirement.⁷ In 1930s, Alfred Adler proposed the effects of birth order on human personality characteristics.⁸ This led to an increased motivation of scientists towards birth order studies. Different modalities of personality and human behaviors became the focus of research. This included intelligence⁹, achievements¹⁰, mental ability¹¹, sexual orientation¹², etc. This debate on birth order characteristics later on involved psychiatric illnesses such as obsessive-compulsive disorder¹³, schizophrenia¹⁴, gender identity disorder¹⁵ and somatization disorder.¹⁶

Bogaert AF et al (2004) study¹² pointed out an interaction between birth order and parental age was observed in men, such that there was positive association between number of older siblings and the likelihood of homosexuality, but this association weakened with increasing parental age. No significant effects were observed for women. However number of siblings in relation with age and parental age is less focused in the clinical research in Pakistan. The birth order

INTRODUCTION

Pakistan, with unique socio-cultural diversity and special geo-political situation is situated at the crossroads of South Asia. Pakistan is the world's 6th most populous country, captures a population of about 185 million people with a rich religio-cultural inheritance, divisible into 68% rural while 32% urban. Islam, being the main religion of this country is based on ideology rather

than ethnicity.^{1,2} Keeping in view the social perspectives, birth order is very important in any community. In most of the cultures of the world, male gender has more importance as compared to females and in psychiatry, this issue has been discussed in relation with so many psychiatric illnesses.³ Population related problems lie at the hearth of Pakistan's social economic and political problems.⁴ In Pakistani society, the cultural variations

of the patients in Pakistani scenario is important and this paper describes the preliminarily perspective of order of the patients developing psychiatric illness. This study was aimed to

- To determine the frequency of sociodemographic factors (birth order) among subjects attending a psychiatric clinic.
- To establish psychiatric diagnosis of subjects.
- To bring out dominating frequencies of birth orders of the patient in relation with related diagnosis.

METHODOLOGY

Place & Duration: Psychiatric outpatient clinic located at the mid-town area of Hyderabad from 1st January 2012 to 31st January 2012

Research Design: Cross sectional Study

Sampling Technique: Non probability convenience sampling

Statistical Analysis: Frequencies of birth orders were tested against significance and Student T-Test were applied for the assessment.

Inclusion Criteria: Since the study was planned to see frequency of birth order with relation to related diagnosis hence inclusion of all the subjects in the case collection time was considered necessary with no exclusion criteria.

Exclusion Criteria: None

The research was based on 100 consecutive subjects who attended psychiatric outpatient clinic during the study period. These patients were diagnosed to be suffering from various psychiatric disorders using Diagnostic & Statistical Manual of Mental Disorders. The sociodemographic variables were recorded on semi structure pro forma and diag-

nosis established by using Diagnostic and Statistical Manual-IV Text Revised Criteria (DSM-IV TR).¹⁷ For the purpose of convenient assessment age variable is broken up into two groups i.e.

Group 1: 9-30 years

Group 2: 31-60 years.

For the purpose of convenient assessment, subjects were broken up into four categories i.e.

Birth order 1: First born child.

Birth order 2: Second born child.

Birth order 3: Third born child.

Birth order 4: Fourth born and below.

RESULTS

One hundred cases analyzed for gender differences. Percentage of male and female was 53% and 47% respectively (Table I). The minimum age was 9 years maximum age was 60 years. Mean age for male cases was 29.90±10.69 and for female cases was 34.08 ±14.94. The number of siblings ranged from 1-12. The percentage of subjects in the 4th birth order was found to be most frequent (Table II). Anxiety disorders were 38% while depression was found to be 22%. Psychotic disorders were found to be 13% (Table III). The analysis was done on SPSS-15 and student t-test was applied on qualitative variables to determine significance.

TABLE I: AGE & GENDER DISTRIBUTION

Age Group	Gender (n = 100)		
	Male (n=53)	Female (n=47)	Total (n= 100)
09 years to 30 years	32	25	57
31 years to 60 years	21	22	43

TABLE II: BIRTH ORDER IN MALE AND FEMALE PSYCHIATRIC PATIENTS

Group	Birth Order (n= 100)			
	Male (Mean ±S.D)	Female (Mean ±S.D)	Total	P-value
Birth Order No-1	10 (31.3 ±12.3)	08 (37.83 ±17.41)	18%	>0.353
Birth Order No-2	10 (24.00 ±4.83)	12 (29.416 ±11.58)	22%	
Birth Order No-3	10 (32.3 ±6.39)	05 (45.4 ±15.09)	15%	
Birth Order No-4 and down	23 (30.17 ±10.20)	22 (32.72 ±16.35)	45%	

TABLE III: DIAGNOSTIC BREAKDOWN IN MALE AND FEMALE PSYCHIATRIC PATIENTS

Variable	Male (n=53)	Female (n=47)	Total (n= 100)
Anxiety Disorder	23	15	38 (38%)
Depression	10	12	22 (22%)
Psychosis	06	07	13 (13%)
Personality Disorder	04	0	04 (4%)
Temporal Lobe Epilepsy	02	01	03 (3%)
Conversion Disorder	00	06	06 (6%)
Mental Retardation	05	06	11 (11%)
Otherwise Unspecified	03	00	03 (3%)

DISCUSSION

A gender differences age, birth order and psychiatric diagnosis have been focused in this clinical research. The consequent hundred cases have been analyzed for these variables. The sex difference in hundred cases is important as male subjects are 53% and female 47% in the range of 9-60 years.

Treatment resources need to target the young adult sector of the population because of their prevalence rate and significant impairment are highly associated with a diagnosis of mental disorder.¹⁷ It is revealed that female population are more predisposed to depression and hysteria, whereas literature enlightens that hysteria (conversion disorder) affects in the 2nd, 3rd and early 4th decade of life. With regard to this, assessment and relation of birth order was given least attention.¹⁸ However, results of this study show that frequency of male cases has outnumbered (53%) as compared to the female cases subjects who remained 47% (P-value 0.1151). This change in the pattern of gender difference is psychosocially interesting knocking the doors of the society.

In the male cases the mean age 29.90 ± 10.69 years and in female the mean age is 34.08 ± 14.94 years. Table I refers the group of patients into 9-30 years with the total patients 57 and in second group ranges from 31-60 years. An Australian study about the age of onset of mental disorders briefs that 75% of all severe mental illness starts before the age of 24. By age 21, just over half of young people will have experienced a diagnosable psychiatric disorder.¹⁸ This reflects that dominant patients are in the young age group and males subjects are more as compared to female (32 subjects; 56.140%).

While in the second group, the female cases are more. It is detected a

younger age group have shown more psychiatric morbidity and males have shown more concern. Older participants were less likely than younger adults, to receive taking therapy and to have seen their general physician in the last one year for their mental health. Moreover, misuse of benzodiazepine has been observed in this group. Adults aged 35-74 were the most likely to take antidepressants.¹⁹

Official record of mental health of western Australia describes that suicide accounts for 17.8 per cent of deaths in the 15-19 year age group and nearly a quarter of all deaths in the 20-24 year age group. Good mental health is fundamental to quality of life and physical health. Yet there is evidence that young people do not readily access services to support their mental health needs.¹⁸

Table II is the main core of this paper referring the birth order of the psychiatric patients. The range of sibling was 1-12 numbers. Birth order 1 includes 18 cases out of which there were 10 males and 08 females. (31.3 ± 12.3 and 37.83 ± 17.41).

First child usually expected within the one year of marital life and the whole family keeps the couple in surveillance for the pregnancy and date of delivery with the high hopes of male child. Therefore, first born child tend to fulfill imposed responsibility and struggles to fulfill the expectations in the Pakistani society.

In this study, 18% subjects holds elder order, while second birth order cases are 22% and it includes 10 male with mean age 24.00 ± 4.83 years and 12 female with mean age is 29.416 ± 11.58 years. In this birth-order category, females patients are more and comparatively total cases (22%) are more than the birth order No-1, which is 18%.

The third group is birth order No-3 and in Pakistan usually 2 sons and 1 daughter complete the children quota dominantly in the upper and middle social classes. While lower social classes believes in more and more children and never considers quality of life. This group carries 15% cases includes 10 males with mean age 32.3 ± 6.39 years and 05 female with mean age is 45.5 ± 15.09 years. That means 55% patients are from upper 03 birth orders, while 45% patients are from the birth order 4 and down hierarchy from 1-12 siblings. The quiet dominant number of patients falls in this category making 60% of the patients. It reflects as if social and emotional loading and stresses are more over the lower birth order, probably looking for more love, support and care from the parents and others. John Bradshaw stated that the behavioral patterns of fourth-born children tend to lean towards them feeling more responsible about issues that might be going on around them, but to also feel powerless to do anything about them.^{20, 21}

Lower birth order children never see their parents young and smart. The consistent association between parental age and their offspring risk of schizophrenia and other illnesses has been observed in the western society where number of children is less as compared to Pakistani community.²¹ Usually, lower order children see their parents in forties and fifties. Therefore, late children have the peer group of playmates of sibling's children. Peer victimization in childhood is associated with psychotic symptoms in early adolescence have been detected by Schreier et al (2009) and these results lend further support to the relevance of psychosocial factors in the etiology

of psychotic symptoms in nonclinical population.²⁵

Clifford Isaacson describes lower order born as being more prone to opposing criticism and able to dissociate from themselves, as well as having analytical thinking. Youngest order tends to see things sensitively and may easily misunderstand by blaming themselves for the distressing environment of the family. However, at the same time they see themselves helpless to sort things out.²⁶ Number of children and their age limit was assessed by Brown and Harris in England as a vulnerability factor in working women but this study did not focus the total number of children and parental age or hierarchy of children developing psychiatric symptoms.²⁷

Table III describes the diagnostic breakdown of the subjects. Anxiety disorders subjects are 38% and dominantly the males (23 cases, 60.526%) patients are more as compared to females (15 cases). Depression is present in 22% of case and here female cases are more (12 cases, 54.545%). The diagnosis of psychosis has operationally been made to include all patients with psychosis (schizophrenia, manic depressive psychosis, paranoid psychosis, drug psychosis and acute psychotic episode) where patient had disturbed degree of insight and 13% cases falls in this category. Personality disorder was diagnosed in 4% cases and all were male patients and Hysteria (Conversion Disorder 6%) was exclusively in female patients. Mental Retardation is present in 11% of cases i.e. arrested mental growth leading to failure to learn and adapt was the major symptoms putting the parents disturbed and anxious. Epilepsy is also detected in 3% of cases and again miscellaneous cases are 3%. Therefore, psychiatrically disturbed patients have shown important diagnostic breakdown in relation with

birth order. Therefore, objective of this study was achieved with certain limitation in the areas of research.

CONCLUSION

This study has focused the relation of birth order in psychiatrically diagnosed patients with age and gender relations. Patients of young age (9-30 years) and male gender were relatively predominant in this study. Birth order of 3 and down siblings were more common (60%) as compared to birth order of 1 & 2. This shows that psychiatric morbidity was more common in the lower birth order and younger people. Anxiety disorder and depressive illness are the predominant psychiatric disorders in our study. This study highlights a very important aspect of psychiatric morbidity in Pakistan, as Pakistan is currently the sixth most populous country of the world with a population of 185 million and more than half of the population is below the 30 years of age. However, a large scale, multicenter study in all provinces is needed for the better assessment of psychiatric morbidity in relation to age, gender and birth order in Pakistan.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

FUZ: Concept & study design, acquisition of data, drafting the manuscript, final approval of the version to be published

SJH & FS: Drafting the manuscript, critical revision, final approval of the version to be published

AQ & JJ: Acquisition and analysis of data, final approval of the version to be published

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

CONFLICT OF INTEREST

Authors declare no conflict of interest

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