Original Article

Birth Order and Depressive Disorder

Moin A. Ansari, Raza-ur-Rahman, Aftab Ahmed Siddiqui and Rakhshinda Jabeen

ABSTRACT

OBJECTIVE: To determine any relationship of birth order with depressive disorder.

METHOD: This is a retrospective study from record of twelve hundred and eight patients who attended psychiatric department in OPD and wards of Isra University Hospital Hyderabad between January 2002 and February 2004 out of which 626 were diagnosed as cases of Depressive Disorder who were compared with the rest of the population. These were also studied with reference to gender, catchment area, and family type. Data were analyzed on 13th version of SPSS.

RESULTS: Cases with depressive disorder were clustered in birth order-two; 36.42% of depression patients were found out to be birth order-two. The pattern remains almost the same irrespective of gender, catchment area, and family type.

CONCLUSION: Birth-order two is found to be more vulnerable to depressive disorder in our sample.

KEY WORDS: Depression, Birth-order, Psychiatric illnesses.

INTRODUCTION

Adler focused on the effect of different family constellations including birth order on personality characteristics of the child[1]. Adler stressed on the advantages and disadvantages of each ordinal positions. First borns, although occupy a superior position, but are prone to more stress, as they have to face the lasting trauma of being "dethroned" on the birth of younger sibling. Second borns, although has advantage of a role model ahead has to put more efforts to gain attention. Similarly, middle borns, last born and only ones have advantages and disadvantages. Adler was of the opinion that these characteristics increase the vulnerability for certain emotional or psychiatric problems. This led to a surge of psychiatric researches on this issue. Initially the focus of birth order studies was on the correlation with Obsessive Compulsive Disorder which included the study by Kayton and Borge [2], Snowden et al [3] in 1979, Khanna and Channabasavanna[4] in 1987 and Pollard et al [5]. Afterwards, birth order studies were conducted on Schizophrenia, for example by Sandler et al[6], and in 1986 by Tezris[7]. In 1998 Zucker and colleagues[8], did an intelligent birth order research on Gender Identity Disorder. The results of these studies remained contradictory and non-conclusive. But there is a dearth of birth order studies on birth-order and its relationship with Depressive Disorder. One such study by Larry Gates et al [9] studied not only depression but also anxiety and self-concept in children. Among a sample population of 404 children, he found out that birth order one is more immune to depression than the rest of the birth orders. This finding is partly in line with the study by Andersson,[10] conducted on 207 elderly females,

which pointed out that first borns experience less loneliness under stable circumstances than the later borns; but after a social loss, first borns experience more loneliness. Wells et al carried out one similar study with less clear-cut contribution of birth order on depression among adolescents in 1985[11]. With this background we initiated this study to identify if there is any relation of depressive disorder with any birth order in our community. This may help to initiate further studies to find out missing details and links.

METHODOLOGY

This is a retrospective study. The record of patients who had attended psychiatric out patient department at Isra University Hospital from January 2002 to February 2004 was explored for their birth-orders and diagnosis. Isra University Hospital is located at the junction of Hyderabad city and rest of the interior of Sindh province connecting many cities, small towns and rural areas. Thus Isra University Hospital caters to the health needs of all types of catchment areas. Patients in the study therefore represent all types of population. A proforma, on which demographic characteristics, diagnosis and birth order was recorded, was developed. Diagnosis had already been done on the basis of ICD-10[12], using Present State Examination[13]. This fact eliminated experimental bias, as researchers had no preset mind regarding hypothesis. Each patient with the diagnosis of depression, irrespective to the age, gender, social class, or family type; was included in the study. History of polygamy in parents, dual diagnosis, suspicion of organicity contributing to the psychopathology, only child and twin births were excluded from the study. In order to facili-

tate the researches on the data, every patient or their accompanied legal guardians had already been asked for the consent to use this data in future researches without breaching confidentiality. In addition approval from the ethical committee of Isra University was also granted before started working on the data. Data thus obtained were then subjected to analysis on SPSS 13th version. Chi square test was applied to calculate p-values, which was considered significant upto 0.05.

RESULTS

Total 626 cases of depressive disorder were studied **Table I** shows two important findings. Maximum percentage of depressed cases lies in birth-order two, followed by last borns. Another noticeable feature is that, if we leave aside others (which include missing cases ad middle borns), first borns are only 19%. **Table II** depicts the break-up of the cases in terms of catchment area. Again the maximum percentage of depressed cases lies in birth order two, in people belonging to both catchment areas. But this is more so among rural population. Among birth-order one 21.35% of urban depressed population lies, as compared to 17.10% of rural depressed people. Last borns carry the same risk of depression among both catchment areas (32.74%). **Table III** shows the distribution of the population with reference to the type of family of our sample population. Pattern of distribution is almost the same among people belonging to joint families. But among those depressed patients, who come from nuclear families, a lesser percentage (16.78) of birth –order one carry the disorder, and percentage of depression is same among second borns and last borns. Finally in **Table IV**, gender wise break-up is given, to find out the pattern of birth order among both genders. In both genders, depressive disorder is predominantly found among birth–order two. This is more so among males, but not reaching the statistical significance. Followed by last borns, which is more so among female patients.

TABLE I:
DISTRIBUTION OF DEPRESSIVE DISORDER IN BIRTH ORDER (n=626)

Birth Order	Frequency (%)
First	119(19)
Second	228(36.42)
Last	205(32.75)
Others	74(11.83)

P = <.001

TABLE II:
CATCHMENT AREA V/S BIRTH ORDER (n=626)

Birth Order	Rural (%)	Urban (%)
First	59(17.10)	60(21.35)
Second	130(17.10)	60(21.35)
Last	113(32.74)	92(32.74)
Others	43(12.46)	31(11.03)
Total	**345(55.1)**	**281(44.9)**

P = 0.557

TABLE III:
TYPE OF FAMILY V/S BIRTH ORDER (n=626)

Birth Order	Joint (%)	Nuclear (%)
First	71(20.88)	48(16.78)
Second	124(36.47)	104(36.36)
Last	101(27.70)	104(36.36)
Others	44(12.94)	30(10.48)
Total	**340(54.3)**	**286(45.67)**

P = 0.234

TABLE IV:
GENDER V/S BIRTH ORDER (n=626)

Birth Order	Males (%)	Females (%)
First	50(21.83)	69(17.38)
Second	85(37.11)	143(36.02)
Last	68(29.69)	137(34.50)
Others	26(11.35)	48(12.09)
Total	**229(36.6)**	**397(64.4)**

P = 0.447

DISCUSSION

In the studied population, depressive disorder appears to be more common among birth-order two followed by the youngest or last borns. Second borns and last borns are found to be more vulnerable for depressive disorder than the rest of the birth orders, even after the sample has been analyzed in terms of gender and catchment area. Birth-order two shares the first position with last borns for having depressive disorder in population belonging to nuclear families. This finding partly supports the study by Gates et al[9], in view of the fact that second borns do not have a superior position with reference to self-esteem and immunity from

depression. Also it appears that first borns have least vulnerability to depressive disorder (with the exception of "other" group). We can compare these two findings with the study by Gates et al in some way. This study may be said to contradict the Adlerian theory[1] of family constellation, which asserts that birth-order two carries an advantage over birth-order one in terms of self-esteem. But in current study self-esteem has not been measured. Finally, some of the findings in this study are worth noticing and further studies are required to answer the questions that are raised. Among urban patients with depression, first borns carry more risk (21.35%) of depression than those from rural areas (17.10%). Is this due to complex life style or less time shared with eldest kids in urban areas than in rural areas? needs to be explored. Another finding to be noticed is that significantly higher percentage (37.68%) of second borns are depressed among rural population than the second borns in urban sample (34.87%). Also, to be noticed that, first borns from nuclear families carry lesser risk (16.78%) of depression than those from joint families (20.88%). Does this reflect higher self-esteem indicating careful parenting or something else? Needs to be understood. But this difference is blurred in second borns and among last birth-orders. Those from nuclear families are at a disadvantage for being more vulnerable to depression (36.36% v/s 29.70%). Finally first-born females are at a lesser risk of depression than first-born males (17.38% v/s21.83%). Despite a thorough search of literature, Medline and PUBMED; we were not able to find very relevant studies, which may be used to mention in, and compare with the findings of this study. Secondly, more questions have aroused than answers inferred from this research.

CONCLUSION

In our studied sample, second-borns and last borns are found to carry more risk of depressive disorder than the rest of the birth orders. This is more so among rural population than the patients coming from urban areas. Further studies are required to ascertain the findings of this research, and to answer the new questions arising out of this study.

REFERENCES

1. Adler A. The collected clinical works of Alfred Adler. Journal Article, 1931-1937 Birth Order and Early Memories social interest and education-Techniques of Treatment.
2. Kayton L, Borge G L. Birth Order and Obsessive Compulsive Character. Arch Gen Psychiatry 1967;17: 751-4
3. Snowdon J. Family Size and Birth Order in Obsessional Neurosis. Acta Psychiatr Scand 1979; 60(1): 121-8.
4. Khanna S, Channabasavanna SM. Birth Order in Obsessive Compulsive Disorder. Psychiatry Res 1987; 21(4): 349-54.
5. Pollard CA, Wiener RL, Merkel WT, Ensely RE. Examination of relationship Between Birth Order and Obsessive Compulsive Disorder. Psychopathology 1990; 23(1):52-6.
6. Sandler PC, Sandler EH. Schizophrenia and Birth Order. Arq Neuropsiquiatr 1978;38(1):46-66.
7. Terzis A. Birth Order, Sex and Schizophrenia. Arq Neuropsiquiatr 1986; 44(2): 147-54.
8. Zucker KJ, Lightbody S. Pecore K, Bradley SJ, Blanchard R. Birth Order in Girls with Gender Identity Disorder. Eur Child Adolesc Psychiatry 1998;7(1):30-5.
9. Gates L, Lineberger MR, Crockett J, Hubbard J. Birth-Order and its relationship to depression, anxiety, and self-concept test scores in children. J Gen Psychol 2005;149(1): 29-34.
10. Andersson L. Loneliness, birth-order and social loss among a group of elderly women. J Psychosom Res 1985; 29(1): 33-42.
11. Wells V E. Risk Factors for depression in adolescence. Psychiatr Dev 1985; 3(1): 83-108.
12. World Health Organization. The ICD 10 classification of mental and behavioraldisorders. 1992; World Health Organization, Geneva.
13. Wing JK, Cooper JE, Sartorius N. Measurement and classification of psychiatric symptoms. Cambridge University Press. 1974.

AUTHOR AFFILIATION:

Dr. Moin Ahmed Ansari (Corresponding Author)
Consultant Psychiatrist, Department of Psychiatry
Liaquat National Hospital, Karachi, Sindh-Pakistan.
dr_moinansari@hotmail.com

Dr Raza-ur-Rahman
Assistant Professor, Department of Psychiatry
Dow University of Health Sciences/ Civil Hospital
Karachi, Sindh-Pakistan.

Prof. Aftab Ahmed Siddiqui
Head the Department of Medicine
Liaquat College of Medicine and Dentistry/
Darul-Sehat Hospital, Karachi, Sindh-Pakistan.

Dr Rakhshinda Jabeen
Assistant Professor of Medicine
Liaquat College of Medicine and Dentistry/
Darul-Sehat Hospital, Karachi, Sindh-Pakistan.