Research Paper

Volume : 3 | Issue : 9 | September 2014 • ISSN No 2277 - 8179

Study of Behavior and Temperament of the Eldest Son or Eldest Daughter of the Parent Suffering From BPAD

Medical Science

KEYWORDS : Eldest son, eldest daughter, behavior and temperament, BPAD parent.

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ABSTRACT

Parents with Bipolar Affective Disorder (BPAD) have significant effect on their children who may experience problems in multiple areas of functioning. The present study evaluated the gender based variations in the behavior and temperament of the eldest son or eldest daughter of sixty three BPAD parents, by Child Behavior Check List (CBCL) and Temperament Measurement Schedule (TMS). Both the eldest son and the eldest daughter of parent with BPAD are at risk and exhibit significant pathological deviations in their behavior and temperament (CBCL mean score 94 v/s 33; TMS mean score 42.83 v/s 84.17, p-values >.001). Hence it is prudent to have early scrutiny and interventions in such vulnerable children.

Introduction

Children of the parents with prodrome or full blown psychiatric disorders are at increased risk of developing behavioral problems or other psychopathologies.[1] Familial nature of mood disorders is commonly observed by clinicians in the patients and their families and genetic loading may be as high as 20%.[2] According to Smoller et al. (2003) longer the duration of illness and more the members of a family are affected, the risk to the child is greater. The risk is further more if the affected family members are first-degree relatives.[3] Marital difficulties, parenting problems, chronicity and severity of parental affective illness have been associated with the increased rate of disorder observed in these children.[4] Studies have showed that children of BPAD (bipolar affective disorders) parents have decreased tendency to approach new situations, decreased flexibility, decreased ability to follow the daily sleep patterns, decreased persistence on tasks and easy distraction. Children who were exposed to hostile and critical mothers or fathers on the pretext of their illness were prone to the behavioral problems and lower self-concept. This made them less accepted and less popular with peers, thereby interrupting the development and important adaptive skills. The present study is primarily aimed at assessing the behavior and temperament of the eldest son or eldest daughter of the parents suffering from BPAD in Indian family set up .We have chosen the eldest child because he or she is likely to share the maximum time with parents and bear the brunt of parental mood and household problems.

SUBJECTS AND METHODS

It was an interview based cross sectional study conducted at the department of Psychiatry of a tertiary care Government Medical College & Hospital, New Delhi, for the period of 12 months After taking approvals from the ethical committee of the institute, consecutive and equal numbers of eldest children of all the interested parents were enrolled in two study groups i.e. Case Group and Control Group. Cases were drawn from the families with one parent healthy and the other suffering from BPAD who currently presented with manic or depressive episode. For control group, children were selected from the families with both healthy parents. Sixty three eligible subjects were recruited in each group who gave an informed written consent. Child was between 4-16 years of age and eldest among the siblings. Exclusion criteria for case were- any chronic medical, surgical or mentally challenged state in the child or in either of the parents and families which did not have two or more children.

A semi-structured Performa was used to gather important socio-economic and demographic information about children and parents involved in the study. ICD-10-DCR criteria[5] for BPAD with current episode mania or depression, were used to make final diagnoses.

The Indian Council of Medical Research task force modified version of child behavior check list (CBCL) [6] for Indian children was used to assess and quantify the behavior of subjects in both the groups. It is a 118- questions-screening tool to assess deviation in behavior of subjects in terms of withdrawal; somatic complaints; anxiousness; social, thought, attention and sexual problems; aggressiveness and delinquency. Scores of all the CBCL questions were added up to get a grand total as a measure of behavior of subjects in the control and the case group. A modified version of the Temperamental Measurement Schedule (TMS) [7] for Indian children was used to quantify the temperament of children This scale measures nine temperamental variables which are approach-withdrawal response; adaptability; threshold of responsiveness; mood; persistence; activity level; intensity; distractibility and rhythmicity. It has 45 items in total (5 each for 9 variables) and all were rated on a 5 point likert scale. To make the analysis easy to comprehend, standardized grouping variables of TMS are considered such as approach-withdrawal response, adaptability and threshold of responsiveness clustered into Sociability; predominant mood and mood persistence clubbed into Emotionality and activity level and intensity put under Energy level. Distractibility and Rhythmicity are considered as such.

STATISTICAL ANALYSIS

Data was analysed using the 17th version of Statistical Product and Service Solution (SPSS-17) The level of significance of the difference in the mean scores of CBCL and TMS variables between groups and their comparison was done using student's t-test. SA was expressed as mean ± SD values. P value ≤0.05 was considered to be statistically significant.

RESULTS

Table1. Socio-demographic profile of the eldest children in two groups

Characteristic	Cases (n=63)	Controls (n=63)
Gender		
Male	32(50.8%)	33(52.4%)
Female	31(49.2%)	30(47.6%)
Age Group		
4-10yrs	30(47.6%)	26(41.3%)
11-16yrs	33(52.4%)	37(58.7%)
Family Type		
Nuclear	49(78.6%	50(79.4%)
Joint	14(21.4)	13(20.6%)
SES Group		
Lower	39(61.9%)	37(58.7%)

Middle	24(38.1%)	26(41.3%)
Upper	NIL	NIL
Religion		
Hindu	26(41.27%)	32(50.8%)
Muslims	28(44.44%)	26(41.27%)
Others	9(14.29%)	5(7.94%)

SES: Socio-economic Status

Table 2. Gender based analysis of mean scores of CBCL and TMS variable of subjects

Groups	Subjects	CBCL	TMS Variables				
			Sociability	Emotionality	Energy Level	Distractibility	Rhythmicity
Study groups (N=126)	Case (n=63)	94	51.02	36.57	58.21	67.91	15.59
	Control (n=63)	33	60.02	39.11	68.79	59.09	14.71
	p value	0.001	0.001	0.001	0.101	0.167	0.025
Eldest sons (N=65)	Case (n=32)	48.61	50.91	36.41	31.31	36.22	15.44
	Control (n=33)	17.86	60.48	38.48	34.64	29.88	14.64
	p value	0.001	0.001	0.001	0.474	0.166	0.085
Eldest daughters (N=61)	Case (n=31)	45.95	51.13	36.74	27.37	32.26	15.94
	Control (n=30)	15.55	59.5	39.8	34.75	29.70	14.97
	p value	0.001	0.001	0.001	0.102	0.568	0.148
Highly significant value p <0.01.							

In total, 104 cases of BPAD visited the study centre during the period of one year and out of 72 eligible subjects, 63 (87.5%) consented to participate in the study. Equal number of healthy parents having minimum two children, were included in control group. The socio-demographic characteristics of children of BPAD parents are shown in table 1, the sample was peculiar with no representation of upper socio-economic status. Table 2 illustrates gender based inter-group analysis of mean scores of CBCL and TMS variable of subjects. In the case group eldest daughter showed little more behavioral problems and poorer energy levels while eldest son exhibited poor sociability and emotionality. However none of these findings were statistically significant.

DISCUSSION

This study showed significant differences in the behavior and temperament of an eldest child of the parents suffering from BPAD, in all studied parameters, except rhythmicity (p>0.025). This finding is in accordance to a general observation in Indian families that when any one member of the family get sick then other members including children preferably the eldest ones are expected to be more responsible and caring toward self and to the ailing person.[8]

The eldest sons and the eldest daughters of BPAD parent exhibited higher behavioral problems and distractibility. They showed similar trend in overall poor sociability, emotionality and energy level while at work. If a parent is not consistent with his/her parenting skills on the pretext of an affective illness in him/her, then the children are at risk of suffering various shortcomings in their phenotypic attributes such as behavior and temperament. Moreover these disruptive behavior changes could be proved harbinger of the development of BPAD and other psychiatric disorders. This finding is supported by the Dutch bipolar offspring 12 year follow-up study where overall, 72% of the bipolar offspring developed a lifetime DSM-IV axis I disorder, 54% a mood disorder, and 13% bipolar spectrum disorders[9] Mental health professionals should pay attention to early identification of abnormal behavior and temperament in the offspring of BPAD parents so that a timely help can prevent significant damage to their education, career and psycho-social growth. Recently, a web based positive parenting intervention program has shown improvement in affected parents' skill and hence better child outcome.[10] There were some limitations that need to be considered while interpreting the results of this study. The study had cross-sectional design and assessment of behavior and temperament of the eldest child was based solely on their parents' subjective; reports from other source such as teachers and friends are not incorporated.

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