Research Paper Medical Science

Family Functioning in Schizophrenia : A Clinical Study

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ABSTRACT

INTRODUCTION - The family is the basic unit of society and plays an integral part in the pathogenesis, treatment and recovery from schizophrenia. Modifying the functioning and perception of the family is the mainstay of successful treatment in schizophrenia.

AIM - To study the differences in perception between schizophrenics and their normal siblings with regard to family functioning and support.

METHOD - 300 patients and 300 normal siblings were the subject of the study. A multidimensional semi-structured interview, the Family Functioning Scale, Family Assessment Device and Family Support Scale were used to elicit these differences. The data was tabulated and statistically analyzed.

RESULTS - Conflicts, expressiveness, organization, family sociability, laissez faire family style, democracy and idealization were the factors that were most significant on family functioning ($p < 0.0005$). Significant differences were also noted in perception of general family functioning and family support ($p = 0.0001$).

CONCLUSIONS – We conclude that relatives and patients perceive their family and their family functioning differently and family dynamics must be delved into in the management of schizophrenia.

KEYWORDS

Introduction

The family is both a system and a unit in society, a primary multifunctional institution into which all human beings are born, brought up and nurtured by various interpersonal relationships. Thus family serves as the basic architect of the individual's personality[1-3]. The inter-relationship of the individual and the family members determine the disposition to illness and health in every stage of life right from infancy to old age[4]. The family is strategic centre to understand human emotions and relationships that play pivotal roles in both positive health and disease[5]. It is the major support system for the patient that is mentally ill but at times the patient is often deprived of psychiatric treatment due to family burdens that exist[6-8].

Schizophrenia is an illness that causes severe disturbances in thought, perceptions and emotions of patients starting early in adolescence and producing severe psychological, social and occupational disability that often disrupts the most creative and productive years of a person's life[9]. Within family studies in schizophrenia, the mother child relationship has been the focus of research and found to be disordered by many researchers[10-14]. Concepts based on family malfunction and disordered family interaction such as pseudo-mutuality, emotional divorce, isolation, alienation, scape-goating, marital schism and marital skew have also highlighted schizophrenia literature over the years[15-21].

Various researchers have explored the burden on families of schizophrenic patients but few have delved into the way the schizophrenic patient and his normal relatives or siblings perceive their family and its functioning[22-26]. The need for the current research is the serious nature of the problem itself. Schizophrenia is a matter of serious concern because of its early onset, chronic course, treatment costs and its devastating nature that affects the patient and his family alike. Schizophrenia is not bounded by cultural, racial and geographical boundaries with its virulence showing an upward trend in both developed and developing nations[27].

Research points towards various determinants as a cause of schizophrenia – genetic, biochemical, social, psychological, neurological and familial factors all have their shares alike. Familial factors are often implicated in the pathogenesis of schizophrenia[28-29]. The present study focuses on the family particularly one aspect – the way schizophrenic patients and their normal siblings perceive their family, its functioning and their family members. It also highlights the differences between these perceptions. Today though science has progressed, we are yet at this point of time unable to change the genetic code or the brain of individuals with schizophrenia. We can definitely modify the functioning of the family as a unit and the individuals that live within that unit for the betterment of our patients.

Aim of the study

To compare perceptions regarding their family and its' functioning between schizophrenic patients and their normal siblings.

Material and Methods

The study was conducted in a psychiatric hospital within the city of Mumbai with the patients being recruited over a period of 5 years from Jan 2000 – Jan 2005. The sample consisted of 300 patients with schizophrenia that were following up as out patients in the same hospital along with one normal sibling for each of them.

Two groups were formed for the study –

Group A – consisting of schizophrenic patients – 300 subjects.

Group B – consisting of normal siblings – 300 subjects.

Inclusion Criteria for the Patients

1. They must be in the age range 21-60 years.
2. They must be diagnosed as schizophrenia using the DSM-IV criteria (APA, 1994) with persistent symptoms for a period of at least 1 year.
3. Absence of any organic disorder / medical illnesses.

4. All must possess normal intelligence.
5. They must not be in the acute phase of the illness.
6. The patient must not be absent from home for a period of 1 month or more for any reason during the last 3 months.

Inclusion Criteria for the Normal Siblings
1. Only siblings staying with the patient were considered.
2. They should be in the age range 21-60 years.
3. They should not be absent from home for a period of 1 month or more for any reason during the last 3 months.
4. They should be of average intelligence and without any psychiatric and medical illness.

Tools Used in Assessment
The following tools were used in assessing both the groups –

1. **Multi Dimensional Semi Structured Interview –** that was made up of questions regarding personal data, socio-demographic profile and history of the present illness.
2. **Family Functioning Scale (FFS) –** used to measure the perception of various areas of family environment. It is a standardized comprehensive scale that measures the family system. It consists of 75 one sentence descriptions (marked yes or no) that are categorized in 15 areas. The score of each area is a summation of the scores of 5 items relevant in the scale to that area. The scale has a total of 15 areas with 'yes' scores favorable in 9 areas and 'no' scores favorable in 6 areas[30].
3. **The McMaster Family Assessment Device (FAD) –** used to assess global family functioning. It is a 53 item self reported measure with demonstrated reliability and validity. The 12 item General Functioning Scale was used as a summary measure of family functioning. Mean scores of 2.0 or more on this 12 item validated scale are considered indicative of unhealthy family functioning[31-33].
4. **The Family Support Scale (FSS) –** A seven item scale to measure family support. Participants had to indicate their agreement with statements if they could rely on their family for financial assistance and if their family would always be there if they needed them. Responses were provided on a 4 point scale from 1 (strongly disagree) to 4 (strongly agree). It has a good reliability in English (Cronbach's alpha = 0.85)[34].

Statistical Analysis
The statistical analysis was done by a qualified bio-statistician. Group differences were analyzed using the Chi square test and the unpaired t test wherever appropriate. The entire analysis was done on the computer using a software package as deemed fit by the statistician.

Results & Discussion
The demographic data of both groups revealed no significant difference between age, sex and educational variables in both groups confirming that both the groups were well matched in this regard (Table 1)

When examined for employment and marital status (Table 2), the two groups showed a significant difference. More patients were unemployed compared to normal siblings in keeping with the nature of schizophrenia as supported by previous research[35]. Larger number of patients were single compared to their normal siblings. This is in keeping with the fact that schizophrenics often remain single or undergo a divorce more often than the normal population[36].

On assessing religion data (Table 3) it was seen that the largest group of patients were Hindu. Majority had 5-7 members in the family indicating that a variety of interpersonal transactions and thought systems prevailed in the family. The patients may have also been exposed to a variety of expressed emotions from various family members as a result[37].

The largest group of patients were suffering from paranoid schizophrenia (Table 4). This is in keeping with epidemiology studies worldwide where the paranoid variety is the commonest type of schizophrenia noted[38].

On assessing the scores on the Family Functioning Scale (FFS) (Table 5), it was noted that the patient group had lower scores on all items of scales compared to their normal siblings. They perceived cohesion, expressiveness, conflicts, organization, family sociability, idealization, authoritarian family style and Li-assez faire family style to be present in their family functioning in a significantly greater manner than their normal siblings ($p < 0.05$). The global scores too reflected a significantly less positive perception about family functioning by the patient group. Of these scores on a majority of items differed in an extremely significant manner ($p < 0.0005$).

Family functioning in general has been thought to be deficient by schizophrenic patients in their families as compared to various family members[39-40]. Low family sociability i.e. the extent to which family members derive and seek gratification from social interaction with others along with a lack of cohesion i.e. the extent to which family members have bonding towards one another as perceived by schizophrenics have been noted in previous work[41]. Conflicts between family members, authoritarian family styles i.e. the extent to which parents dominate the locus of rule making and low family sociability seen in our study replicates the findings of various studies[42-45].

On assessing the mean scores on the General Functioning Scale of the McMaster Family Assessment Device (FAD) (Table 6), it was noted that patients reported unhealthy family functioning as compared to their normal siblings ($p = 0.0001$). This is in keeping with previous work where schizophrenic patients have perceived poor family functioning as well as perceive the family as responsible for their illness[46-47]. Schizophrenic patients often perceive their families as one where insecurity and dependency predominates leading to low self worth and self concept along with a negative evaluation of the family atmosphere[48].

On assessment of the scores on the Family Support Scale (FSS) (Table 7), schizophrenic patients perceived significantly less family support for themselves as compared to their normal siblings ($p = 0.0001$). The fact that patients with schizophrenia often view family members as oppressors rather than supports has been noted in many family studies and is even perceived at times by the family members themselves[4,10,49-50]. As mentioned previously, patients with schizophrenia often have a sense of rejection, alienation and isolation in them and a deficient self structure. Using projection as a major defence mechanism they often create a negative perception about their family[51].

Limitations
1. This study was circumscribed to a group of 300 patients and their patients that were attending a psychiatric facility in Mumbai. Larger studies across various cultures and various centers are needed to replicate these findings.
2. The study is rather cross sectional and a longitudinal study would have greater yield in an area like family functioning and support.
3. Similar studies in patients and relatives of other mental disorders shall enhance family intervention programs in psychiatric rehabilitation and relapse prevention.

Conclusions & Implications
From the study we conclude that schizophrenic patients have vary in their perceptions regarding family functioning and support as compared to their normal siblings.

The family is no longer a neglected lot in schizophrenia. The family plays multiple roles in the treatment process, course of the illness and in relapse prevention[52-53]. It is therefore of utmost importance than in our routine practice we delve into family dynamics and work on this aspect of psychiatric illness. The perceptions of our schizophrenic patients towards their families and that of family members towards schizophrenics must change for better maintenance treatment in schizophre-

nia. Psychoeducation and family therapy must be entwined in routine psychiatric treatment programs and shall go a long way to reduce family burden and prevent relapse in schizophrenia. Today with the emphasis on neurobiology, family psychology has taken a back seat. Abnormal psychology, family studies and neurobiology rarely speak one language – a problem that is endemic in psychiatry today. The chasm is wide but a bridge shall be built some day.

TABLE 1 - AGE, SEX & EDUCATION DATA OF BOTH GROUPS

DEMOGRAPHIC DATA		PATIENT GROUP (N = 300)	SIBLINGS GROUP (N = 300)	p VALUE
AGE GROUPS	21-30 YRS	117 (39%)	112 (37.33%)	X^2 5.4763 df = 3 p = 0.673 NS
	31-40 YRS	103 (34.33%)	115 (38.33%)	
	41-50 YRS	58 (19.33%)	63 (21%)	
	51-60 YRS	22 (7.33%)	10 (3.33%)	
	MEAN AGE	31.66 years	32.33 years	
SEX	MALE	207 (69%)	198 (66%)	X^2 0.6153 p = 0.4328 NS
	FEMALE	93 (31%)	102 (34%)	
EDUCATION	PRIMARY	23 (7.66%)	24 (8%)	X^2 2.4338 p = 0.2961 NS
	SECONDARY	18 (6%)	28 (9.33%)	
	GRADUATES & ABOVE	259 (86.33%)	248 (82.66%)	

NS – not significant.
Chi Square test used in the assessment.

TABLE 2 - EMPLOYMENT & MARITAL STATUS OF BOTH GROUPS

DEMOGRAPHIC DATA		PATIENT GROUP (N = 300)	SIBLINGS GROUP (N = 300)	p VALUE
EMPLOYMENT	EMPLOYED	84 (28%)	223 (74.33%)	X^2 128.876 p 0.0001*
	UNEMPLOYED	216 (72%)	77 (25.66%)	
MARITAL STATUS	MARRIED	88 (29.33%)	245 (81.66%)	X^2 167.285 p 0.0001*
	SINGLE	189 (63%)	52 (17.33%)	
	DIVORCED	23 (7.66%)	03 (1%)	

*** significant**
Chi Square test used in the assessment.

TABLE 3 – RELIGION AND FAMILY SIZE OF THE PATIENTS

DATA		TOTAL (n = 300) (%)
RELIGION	HINDU	192 (64%)
	MUSLIM	62 (21%)
	CHRISTIAN	44 (14.66%)
	OTHERS	02 (0.66)
FAMILY SIZE	UPTO 4 MEMBERS	38 (12.66%)
	5 - 7	201 (67%)
	8 - 10	46 (15.33%)
	11 & ABOVE	15 (5%)
FAMILY TYPE	NUCLEAR	141 (47%)
	JOINT	21 (7%)
	EXTENDED	138 (46%)

TABLE 4 - TYPES OF SCHIZOPHRENIA (AS PER DSM – IV)

TYPE OF SCHIZOPHRENIA	(N = 300) (%)
PARANOID	165 (55%)
CATATONIC	33 (11%)
DISORGANIZED	36 (12%)
UNDIFFERENTIATED	66 (22%)

TABLE 5 - PERCEPTIONS OF FAMILY FUNCTIONING

ITEM	MEAN SCORES		t value	p value
	PATIENT GROUP (N = 300)	SIBLINGS GROUP (N = 300)		
COHESION	1.63 ± 0.53	1.86 ± 0.46	2.1154	0.0369*
EXPRESSIVENESS	1.72 ± 0.62	2.14 ± 0.43	9.6414	0.0001*
CONFLICTS	1.68 ± 0.93	2.47 ± 0.87	10.7446	0.0001*
CULTURAL	2.16 ± 0.83	2.23 ± 0.96	0.9554	0.3398
RECREATIONAL	2.24 ± 0.46	2.18 ± 0.67	1.0656	0.2870
RELIGIOSITY	2.86 ± 1.06	2.78 ± 1.03	0.9375	0.3489
ORGANIZATION	1.93 ± 0.78	2.65 ± 0.89	10.5378	0.0001*
SOCIABILITY	1.78 ± 0.99	2.72 ± 1.22	10.3627	0.0001*
EXTERNAL CONTROL	2.06 ± 0.67	2.13 ± 0.72	1.2382	0.2182
IDEALIZATION	1.36 ± 0.27	1.67 ± 0.38	6.6881	0.0002*
DISENGAGEMENT	2.28 ± 0.89	2.43 ± 0.88	2.0758	0.0383*
DEMOCRACY	1.43 ± 0.89	2.08 ± 0.86	6.9987	0.0001*
AUTHORITARIAN	1.89 ± 0.86	2.04 ± 0.56	2.5316	0.0116*
LAISSEZ-FAIRE STYLE	1.67 ± 0.83	2.27 ± 0.86	7.1010	0.0001*
ENMESHMENT	2.08 ± 0.74	2.19 ± 1.18	1.3679	0.1719
GLOBAL SCORES	29.62 ± 3.61	36.8 ± 4.71	22.4243	0.0001*

*** Significant.**
Unpaired t test used in the assessment.

TABLE 6 – SCORES ON FAMILY ASSESSMENT DEVICE

DATA	PATIENT GROUP (N = 300)	SIBLINGS GROUP (N = 300)	p VALUE
Scores on the Family Assessment Device	2.1 ± 0.6	1.7 ± 0.7	t = 7.5147 p = 0.0001*

*** significant.**
Unpaired t test used in the assessment.

TABLE 7 – SCORES ON FAMILY SUPPORT SCALE

DATA	PATIENT GROUP (N = 300)	SIBLINGS GROUP (N = 300)	p VALUE
Scores on the Family Support Scale	13.6 ± 5.8	18.3 ± 5.9	t = 9.8395 p = 0.0001*

*** significant.**
Unpaired t test used in the assessment.

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