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# Perceive Family Environment among Caregivers of Male and Female Patient with Schizophrenia- A Comparative Study in a Tertiary Care Centre in Eastern India

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***Abstract:***
***Introduction:*** *Great variation observed in family environment among male and female schizophrenic patient in clinical practice.Detail understanding about family environment is very much crucial for family intervention. On the other hand, it has a tremendous effect on disease course and prognosis.*
***Materials and Methods:*** *Caregivers of 30 male and 30 female patients with schizophrenia are selected. Family Environment Scale is used to assess the family environment of patient's family. Pearson Chi squire, Fisher Exact test and t-test were calculated to assess the group differences on demographic characteristic between male and female caregivers of persons with schizophrenia.*
***Result:*** *It shows that there was statistical significant difference ($p<0.05$) in between two groups in domains of Family Environment scale.*
***Discussion:*** *Family environment difference among caregivers male and female patients of schizophrenia need to be addressed accordingly.* ***Conclusion:*** *Significant difference was found between the two groups in conflict domain of family environment.*
***Key words:*** *Family environment, schizophrenia, care giver.*

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## I. Introduction:

Schizophrenia has roughly a prevalence of 1% among general population. Although prevalence and incidence varies across the world, within countries, and at the local and neighbourhood level. It causes approximately 1% of worldwide Disability Adjusted Life Years (DALY).

Family Theories of schizophrenia include schizophrenogenic mother, lack of 'real' parents, dependency on mother, anxious mother, parental marital schism or skew, double-bind theory, communication deviance, and pseudo mutuality.

Family environment is the core process of every child upbringing, with positive and negative influences.Family environment involves the circumstances and social climate condition within the families.

Good family environment will have a sense of love and mutual help, which based on the strong bond between families, and has a large contribution in build a child's personality. It can motivate children to develop themselves and improve their capabilities and potential.

The loss sense of love and family causing bad result in education. They feel such neglected and abandoned and hinder its ability to foster a sense of self-esteem that can benefit themselves and the community around it.

Family, the primary environment, might stimulate the persons with schizophrenia in reducing their disability. There are inadequate resource personnel to execute psychosocial interventions mainly after discharge from hospital, hence key relatives are important and can be utilised as treatment collaborators. Healthy family environment with adequate social support would be ideal for persons with schizophrenia in leading the life with optimal functioning. A recent study showed deficit in the areas of social functioning have a significant negative correlation with social support system. Baker et al (1992) have shown that psychiatric patients with high and sustained social support have higher life satisfaction over time. Healthy family environment with maintained high level of social support would be ideal for persons with schizophrenia for better community living with adequate functioning.

## II. Materials And Methods:

**Aim:** To assess and compare the family environment among the caregivers of male and female patients with schizophrenia.**Research Design:** The study is a cross-sectional hospital based study.**Sample:**Caregivers of 30 male and 30 female patients with schizophrenia are selected from outpatient and indoor of MHI, COE, SCBMCH, Cuttack.

**Inclusion criteria for patients with schizophrenia:**

- Diagnosed schizophrenia according to DCR of ICD-10.
- Age range 20-55 years.
- At least educated up to primary level.
- Duration of illness must be 2 years or above.

**Exclusion criteria for male and female patients with schizophrenia:**

- Any history of significant physical or neurological conditions.
- Any history of psychiatric co-morbidity.
- Any history of Mental retardation, Epilepsy or Substance abuse.

**Inclusion criteria for caregivers**

- Primary caregiver is defined as a caregiver who has been with the patient continuously for the last 2 years and spending a lot of time and emotional support providing to the patient.
- The caregivers can be parents, spouse, sibling or children.
- Male/Female
- Age range from 20-60 years.
- Must be educated up to primary level and above.
- Give consent.

**Exclusion criteria for caregiver:**

- Any history of epilepsy, organic brain disorder or major physical illness.
- Any history of psychiatric illness including substance dependence.
- Any history of personality disorders or mental retardation.
- More than one psychiatric ill patient present in the family.

**Tools used:**

**1. Socio-demographic and clinical data sheet:** It is self-structured Performa which contains information regarding socio-demographic variables like age, sex, religion, education marital status, domicile and occupation and clinical details like diagnosis, age of onset, total duration of illness etc.

**2. General Health Questionnaire (GHQ-12;Goldberg & William, 1988):** It is used to screen any psychiatric morbidity in healthy persons.

**3. Family Environment Scale (Joshi, M.C., & Vyas, O.P.R., 1987):** Family Environmental Scale is an instrument used to measure many family aspects such as family integrity, family dynamics, communication, closeness, and functions of each family member. The FES was developed to assess the interpersonal atmosphere within a family with respect to its relationships, patterns of growth, and its organizational features. The scale consists of 79 items and there are 10 items in each sub scale, where the scale 4 represents the category of always and the score of 0, the category of 'never'. There is an aggregate score for the scale. All the subscales are scored separately, the sum of the entire item in each subscales represent them. Reliability and validity of the scale was established. The coefficients of homogeneity or internal consistency vary between 0.62 to 0.89 which are also highly assuring. They too show a high degree of internal consistency for each of the 10 subscales of the Family Environment Scale.

**Procedures:**

Informed consent was taken from each patients coming to OPD and IPD by considering the inclusion and exclusion criteria. The tools were administered on the sample. Further information was collected on the basis of socio-demographic data sheet. Subsequently, Persons willing to participate in the study was screened with general health questionnaire (GHQ).

After completion of data collection data were coded in the sheet and data analysis was done by using statistical package for social science (SPSS) version 16.0. Descriptive statistics were used to get the mean scores, percentile and chi square the socio-demographic variables.

## III. Result:

**Table-1: Descriptive Statistics for socio demographic profile of Caregivers of persons with schizophrenia.**

| Variables | | | Frequency & Percentile (Male & Female) 30+30 (N =30) | df | $X^2$/Fisher's Exact Test | p |
|---|---|---|---|---|---|---|
| Cg Age | Male | 20-30 | 1 (3.33%) | 3 | 3.516[f] | .343 |
| | | 31-40 | 15 (50%) | | | |
| | | 41-50 | 11 (36.66%) | | | |
| | | 51-60 | 3 (20%) | | | |
| | Female | 20-30 | 3 (10%) | | | |
| | | 31-40 | 10 (33.33%) | | | |
| | | 41-50 | 10 (33.33%) | | | |
| | | 51-60 | 7 (23.33%) | | | |
| Religion | | Hindu | 49 (81.7%) | 1 | 1.002 | .506 |
| | | Islam | 11 (18.3%) | | | |
| Education | | Primary | 12 (20.0%) | 3 | 13.664[f] | .003 |
| | | Upper Primary | 16 (26.7%) | | | |
| | | Matriculation | 19 (31.7%) | | | |
| | | Above | 13 (21.7%) | | | |
| Types of family | | Nuclear | 23 (38.3 %) | 2 | .071 | 1.000 |
| | | Joint | 37 (61.7%) | | | |
| Domicile | | Rural | 36 (60%) | 1 | 1.111 | .430 |
| | | Urban | 24 (40%) | | | |
| Occupation | | PVT Job | 18(30.0%) | 3 | 23.792[f] | .000 |
| | | Govt. job | 4(6.7%) | | | |
| | | Self Employed | 21(35.0%) | | | |
| | | Others | 17(28.3%) | | | |
| Marital status | | Married | 59(98.3%) | 1 | 1.017 | 1.000 |
| | | Unmarried | 1 (1.7%) | | | |
| Relationship with pt. | | Father | 3(5.0%) | 5 | 56.864[f] | .000 |
| | | Mother | 12(20.0%) | | | |
| | | Brother | 18(30.0%) | | | |
| | | Sister | 5(8.3%) | | | |
| | | Wife | 13(21.7%) | | | |
| | | Husband | 9(15.0%) | | | |
| Socio Economic Status | | Upper lower | 36 (60%) | 1 | 2.500 | .187 |
| | | Lower Middle | 24 (40%) | | | |
| Family monthly Income | | 3908-11707 | 23(55.0%) | 2 | 1.368 | .518 |
| | | 11708-19515 | 23(38.3%) | | | |
| | | 19516-29199 | 4(6.7%) | | | |

(df= degree of freedom, [f] = Fisher's Exact Test)

**Table-2 Descriptive statistics for caregivers Age**.

| Variable | Sex | Sample N =30 Mean ±SD | Df | t | p |
|---|---|---|---|---|---|
| Age | Male | 41.566±7.079 | 58 | -737 | .464 |
| | Female | 43.233±10.173 | | | |

The table-2 shows the descriptive statistics for caregivers' age. It stated that Mean ± SD of the age of male caregivers was41.566± 7.079 whereas for the female caregivers it was43.233± 10.173.

**Table-3: Comparison of family Environment of caregivers of the persons with Schizophrenia**

| FE Domains | Caregiver Groups | | t | Df | p |
|---|---|---|---|---|---|
| | Male(N=30) Mean ±SD | Female(N=30) Mean ±SD | | | |
| Cohesion | 20.36±3.66 | 21.80±3.53 | -1.542 | 58 | .129 |
| Expressiveness | 22.66±2.39 | 23.23±2.76 | -649 | 58 | .400 |
| Conflict | 19.53±2.80 | 21.70±3.73 | -2.543 | 58 | .014* |
| Independence | 19.63±4.08 | 22.06±4.51 | -2.189 | 58 | .033* |
| Achievement Orientation | 24.53±2.30 | 24.53±2.01 | .000 | 58 | 1.000 |
| Intellectual Cultural Orientation | 24.80±2.02 | 24.76±2.14 | .062 | 58 | .951 |
| Active Recreational | 24.96±1.75 | 24.23±2.12 | 1.457 | 58 | .150 |

| | | | | | |
|---|---|---|---|---|---|
| Orientation | | | | | |
| Moral Religious Emphasis | 24.80±1.64 | 26.06±1.99 | -564 | 58 | .575 |
| Organization | 23.86±2.14 | 24.66±1.78 | -1.569 | 58 | .122 |
| Control | 21.60±2.77 | 22.96±2.53 | -1.990 | 58 | .051 |

***p <0.05 (Statistical significance at 0.05 Level).**

Table-3 presents the comparison of Family Environment of male and female caregivers of persons with schizophrenia. It shows that there was statistical significant difference ($p<0.05$) in between two groups in domains of Family Environment scale like 'Conflict' and Independence. However, no difference could be observed in other domains of family environment scale like 'Cohesion', 'Expressiveness', 'Achievement Orientation', 'Intellectual Cultural Orientation', 'Active Recreational Orientation', 'Moral Religious Emphasis', 'Organization' and 'Control'.

## IV. Discussion:

This study revealed that out of 60 caregivers each 50% was male and female respectively. It showed that Mean ± SD of the age of male caregivers was (41.566±7.079) whereas for female it was 43.233±10.173. It showed that 20.0% of the caregivers studied up to primary level only whereas 21.7% completed their education above matriculation. However, the highest 31.7% studied up to matriculation whereas the rest 26.7% studied up to upper primary. It also revealed that the maximum caregivers (35.0%) were self-employed but only 6.7% were engaged in Govt. Job. However, 30.0% of caregivers were engaged in private job and the rest 28.3% were engaged in some other occupational activity. The majority 98.3% of caregivers were married whereas only 1.7% were unmarried. This study also revealed that the majority 30.0% of caregivers were brother of the patients and the lowest 5.0% were father of the patients. The 2nd majority 21.7% of the caregivers were wife of the patients whereas the mother relationship of caregivers with the patients were 20.0%. The rest 15.0% and 8.3% were husband and sister of the patients respectively. Also it showed that most of the caregivers (60.0%) were belonging to the upper lower socio economic status whereas the rest 40.0% were belonging to the lower middle socio economic status. From this study it was found that the monthly family income Rs. (3908-11707) was of the maximum caregivers' family i.e. 50.0% and the lowest 6.7% of them have the monthly family income Rs (19516-29199). The rest 38.3% of them have within (11708-19515). Similar study findings were reported by Singh et al., (2012).

This study revealed the comparison of family environment of caregivers of the persons with Schizophrenia. It showed that here was statistical significant difference ($p<0.05$) in between male and female caregivers of persons with schizophrenia in domains of Family

Environment scale like 'Conflict' and Independence. The Mean ±SD of male caregivers was (19.53±2.80) and for female caregivers it was (21.70±3.73) on Conflict of family environment scale. Also a significant difference was found on this domain between the two groups ($t=2.543$, $p=.014$). Similarly, the Mean ± SD of male caregivers was (19.63±4.08) and that of the female group was (22.06±4.51) on domain independence where there was significant difference between the two groups in this domain ($t=-2.189$, $p=.033$). However, except the above two domains of the family environment scale no difference could be observed in all other domains of family environment scale. The Mean ±SD of male caregivers was (20.36±3.66) and for female caregivers it was (21.80±3.53) on cohesion of family environment scale. Like this on domain expressiveness the Mean ±SD of male caregivers was (22.66±2.39) and that of the female group was (23.23±2.76). On Achievement Orientation domain the Mean ±SD of male caregivers was (24.53±2.30) and that of the female group was (24.53±2.01). Similarly, (24.80±2.02) and (24.76±2.14) are the Mean ±SD of male and female caregivers on domain intellectual cultural orientation. The Mean ±SD of male caregivers was (24.96±1.75) and for female caregivers it was (24.23±2.12) on domain Active Recreational Orientation. Similarly, (24.80±1.64) and 26.06±1.99 are the Mean ±SD of male and female caregivers on domain moral Religious Emphasis. The Mean ±SD of male caregivers was (23.86±2.14) and for female caregivers it was (24.66±1.78) on domain organization whereas (21.60±2.77) and (22.96±2.53) are the Mean ±SD of male and female caregivers on domain Control. Similar to this study Kamal et al., has been studied Schizophrenics perceived their families as being less supportive and helpful (low cohesiveness); reported that their families did not encourage, assertive, self-sufficient behaviour (low independence) and being less involved in social and recreational activities (low active-recreational orientation) as compared to normal subjects. Interestingly these subjects viewed their families as experiencing a great deal of conflict and anger (high conflict) and yet they reported that open, direct expression was discouraged (low expressiveness).Furthermore, they reported that their families have clear organization and structure (high organization) and more emphasis on ethical and religious issues and values (high moral-religious emphasis), but rules and procedures to run family life (control) were found to have equal importance in the families of schizophrenics as well as normal subjects.

In contradiction to my study Dewangan et al., (2018) has concluded that though they did not find gender to be a significant correlate with family environment in the risk of schizophrenia, both a systematic review and meta-analysis reported a higher risk of schizophrenia among men compared to women.

## V. Conclusion:

Significant difference was found between the two groups in conflict domain and independence domain of family environment.

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