The study aimed at finding out the relationship of family environment to schizophrenia, affective disorders and neurosis in comparison to control group matched on socio-economic status in a North Indian Sample. 600 subjects-150 schizophrenic patients, 150 patients with affective disorders, 150 neurotics, diagnosed according to ICD-9, were studied. Results (one way ANOVA) revealed that there exists a significant difference in family environment of three categories of patients with psychiatric disorders as well as in comparison to control group. Significantly low scores of cohesiveness, independence, expressiveness, active-recreational orientation and organization, control and moral-religious emphasis were found in schizophrenics. Similarly in the families of patients with affective disorders there were less cohesion and control and more expressiveness, conflict, independence and moral-religious emphasis, while the family of neurotics had low levels of cohesion, intellectual-cultural orientation, active-recreational orientation, organisation and control.

The term 'environment' is used frequently in every day discourse. However, there are neither universal definitions nor consensually defined operational indices of environment. The researchers working in the field of environment and health agree that there exist a health-illness continuum and human functions rise and fall accordingly. It is clear that a wide variety of environmental factors influence how a persons feels and functions, and thus contribute to illness. Therefore the seemingly isolated societal element of poverty, inflation, unemployment, housing, ethnic conflict, family problems are, in reality, aspects of environmental health. These contribute directly to a variety of difficulties, including numerous mental health problems and physical disorders associated with worries, fears and anxiety of physical stress (Willgoose, 1979).

Recent researchers have established a positive relationship between the environment the individual lives in and his mental state. Schizophrenia and neurotic depression have been reported to be related to environment of the individual's family (Paskiewicz, 1977; Wetzel, 1978; 1980). Moos and Moos (1976, 1981) by using Family Environment Scale (FES) have reported a significant difference between perceived family environments of normal families and of distressed families (families with one or more 'disfunctional' members). Some have studied family environment of alcoholics (Filstead, 1979; Angela, 1985) and Bulimics (Craig & Flach, 1985), while others have reported significant influence of changes in home environment on social adjustment in adolescent (Nihira et al., 1985). Moreover, several investigators have assessed the differential effects of family interactions on psychiatric disorders (Rastogi and Mahal, 1971; Shetty and Mahal, 1977; Channabasavanna and Bhatti, 1982; Gautam and Kamal, 1986; Gautam et al., 1986). However, little attempt have been made in Indian setting to study family environment as a whole in relation to various psychiatric disorders.

Therefore, a prospective study was taken up to find out the relationship of family environment to Schizophrenia, Affective disorders and Neurosis in comparison to control group matched on socio economic status.
MATERIAL AND METHOD

SAMPLE included 600 subjects, out of which 450 were psychiatric patients attending O.P.D. at S.M.S. Hospital and Psychiatric Centre, Jaipur on randomly selected three days of a week (Monday, Tuesday and Saturday) over a period of one year. Patients were selected from the O.P.D. when a diagnosis of schizophrenia, Affective Disorder (manic-depressive psychosis, endogeneous depression, hypomania) and Neurosis (all types) was made according to ICD-9 by a consultant psychiatrist. 150 patients were included in each group. Rest of the 150 were normal subjects, from the community. These 150 normal subjects were selected from the Raja Park and Tilak Nagar area of Jaipur city. The houses were randomly selected and the investigators personally administered GHQ to these subjects matched on age, sex and socioeconomic status and if the GHQ score was less than seven the individual was included as a normal subject in the study. Each group had 150 subjects matched on age, sex and socioeconomic status (Kuppuswamy's scale). One-to-one matching was done at the time of selection of subjects because authors wanted to take family environment as an independent variable. Family Environment Scale was administered to all patients. Before administering the scale a fair clinical assessment of patients ability to understand the questions asked and reply was made. Only those patients who could do so were included in the study. Seriously disturbed Manics, Schizophrenics and depressed patients, where it was not possible to elicit adequate responses were excluded from the study.

TOOLS OF INQUIRY - Following scale was used.

Revised Hindi version of Moos Family Environment Scale (Joshi, 1984). Originally, the Family Environment Scale (FES) was developed by Rudolph H. Moos (1974). It is one of the nine social climate scales and was presented in the form of separate scale by Moos and Moos (1981). It was modified and translated in Hindi by Joshi (1984). The scale has been reported to be reliable and valid by the author in North Indian Population. It comprises of ten sub-scales that measures the social environmental characteristics of all types of families. These ten sub-scales assess three underlying domains or sets of dimensions: (i) The relationship dimensions (ii) The personal growth dimension and (iii) The system maintenance dimension.

(i) The relationship dimensions are measured by the cohesion, expressiveness and conflict sub-scales.

(ii) The personal growth dimensions are measured by the independence, achievement orientation, intellectual-Cultural orientation, active-recreational orientation and moral-religious emphasis.

(iii) The system maintenance dimensions are measured by the organization and control sub-scales.

The scale consistsof 90-items and there are 9 items in each sub-scales. Each item is scored on a five point scale, where the score of 4, represent the category of 'always' and the score of 0, the category of 'never'. There is no aggregate score for the scale. All the sub-scales are scored separately. The sum of all the items in each sub-scales represent them.

OPERATIONAL PROCEDURE - After the selection of sample, each subject was administered the family environment scale to assess the social environment of their family in one to one setting. The investigator (PK) personally asked the questions to all the subjects whether or not literate enough to read or understand the question in order to elicit proper response. Scoring was done accordingly and the
RESULTS

Table 1: Mean value of various subscales of FES and their significance in various diagnostic categories

| S.No. | Sub-scale of FFS | Schizophrenia (N = 150) | Affective disorder (N = 150) | Neuroses (N = 150) | Normal (N = 150) |
|-------|-----------------|-------------------------|----------------------------|-------------------|-----------------|
| 1.    | Cohesion*       | 13.04                   | 21.14                      | 16.86             | 23.42           |
| 2.    | Expressiveness* | 18.70                   | 25.12                      | 19.92             | 18.26           |
| 3.    | Conflict*       | 21.34                   | 18.57                      | 13.02             | 14.78           |
| 4.    | Independence*   | 17.27                   | 22.28                      | 18.95             | 18.25           |
| 5.    | Achievement Orientation | 24.30               | 25.39                      | 24.78             | 24.44           |
| 6.    | Intellectual Cultural Orientation* | 12.74   | 16.93                      | 14.26             | 16.46           |
| 7.    | Active-recreational Orientation* | 14.00   | 15.33                      | 14.38             | 15.30           |
| 8.    | Moral-religious emphasis* | 24.14   | 19.55                      | 18.56             | 17.81           |
| 9.    | Organization*   | 26.52                   | 22.65                      | 17.14             | 22.51           |
| 10.   | Control*        | 23.32                   | 18.58                      | 19.32             | 23.48           |

*Significance of difference in scores among diagnostic categories appeared as a result of one way ANOVA. F-ratios were significant at .01 level of significance.

raw data thus obtained was statistically analysed by using one way analysis of variance.

DISCUSSION

In the present study the family environment was found to vary in families of patients with schizophrenia, affective disorders and neurosis as well as normal subjects. 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. Moreover, although the achievement expectations (achievement orientation) were not significantly different in all the groups, there was less emphasis in families of schizophrenics on intellectual and social activities (low intellectual-cultural orientation).
Similarly in the families of patients with affective disorders there was less cohesion and control and more expressiveness, conflict, independence and moral religious emphasis, while the families of neurotics had low level of cohesion, intellectual-cultural orientation, active recreational orientation, organization and control.

These findings are supported by some of the previous studies e.g. Moos and Moos (1976, 1971) by using family environment scale have reported a significant difference between family environment of normal families and of distressed families. They found the distressed families to be less cohesive, expressive, organized, independent, achievement oriented, religious and with more conflict. These families were also less concerned with intellectual cultural and recreational activities. Such differences have been identified in other studies also. The most consistent finding is that distressed families are seen as having less cohesion and expressiveness and more conflict (Young et al., 1976; Lange, 1978; White, 1978; Scoresby and Christensen, 1976). Such families also tend to be less well organized (Scoresby and Christensen, 1976); less oriented towards independence, achievement and religious activities (Young et al., 1976; White, 1978) and less concerned with intellectual and recreational pursuits (Janes and Heselbrack, 1976; Lange, 1978).

Further it may be added that in the present study various dimensions of family environment have been studied as perceived by the patients. Though full care was taken to see that family environment scale is administered to such patients who could understand the questions asked and had the cognitive ability to reply them, even than the importance of disease in colouring the perception of family environment cannot be ruled out. Family environment scale was also administered to an adult healthy family member of the patient (results not included in the present study) did not reveal any difference in family environment. Some of the patterns observed in the families are likely to be culturally determined e.g. concept of independence is not encouraged as much as in the west. It is quite likely that a person with affective disorder because of the psychopathology itself may be more expressive and may report high independence, while it is not so reported by the schizophrenics, neurotics as well as normal individuals. The high score of independence perceived in the families of patients with affective disorders need to be further verified in subsequent studies by studying the family environment as perceived by normal adult individuals of the same family. The question is whether characteristics of family environment have a cause and effect relationship to the mental disorders or the characteristics of environment are brought by deviance in one of its members. This study only establishes the fact that these are characteristics of family environment related to various group of psychiatric disorders.

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