

## ACUTE PSYCHOSIS DIAGNOSED AS SCHIZOPHRENIA IN ICD 9 : A DISCRIMINANT VALIDITY STUDY

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*Consequent to the ICD-10, schizophrenic patients with illness duration of less than one month will now be diagnosed as acute and transient psychosis. On the basis of the hospital records of 801 first admission patients, the acute schizophrenic patients (n = 253) were compared on demographic and clinical characteristics with the rest of the patients (n = 548) under 295 of the ICD-9 diagnosis. Logistic discriminant function analysis on 21 variables achieved 88% overall correct classification rate, 86% for short duration group and 89% for long duration group. The significance of the results is discussed.*

The symptomatic boundaries of schizophrenic psychosis and the minimum duration of illness required for its diagnosis have been controversial (Pope and Lipinski, 1978). There has been a long tradition, however, of diagnosing schizophrenia even when the schizophrenic disorganization was only for a few weeks (Lehman, 1967; Bleuler, 1978). The Research Diagnostic Criteria (RDC) also required a duration of only two weeks (Spitzer and Endicott, 1978). As no minimum duration was required for 295 schizophrenia in ICD-9, clinicians continued to diagnose it even when the duration was short. A minimum duration of one month has been introduced in ICD-10 (World Health Organization, 1990) with the provision that the "schizophrenic" psychosis of less than one month duration will now be Acute and Transient Psychosis. It would be of considerable theoretical interest and practical significance to compare these acute "schizophrenic" psychosis patients with the rest who had a longer duration of illness.

The present study compares the demographic characteristics, type of

schizophrenia and hospital course of "schizophrenic" patients with an illness duration of less than one month with those schizophrenic patients who had a longer illness duration at the time of their first admission to a mental hospital.

### MATERIAL AND METHODS

The study was conducted at the National Institute of Mental Health & Neuro Sciences (NIMHANS), Bangalore, India. The clinical charts of all the patients admitted to the psychiatric wards of NIMHANS in the calendar years 1981 and 1982, and discharged with a final diagnosis of 295 schizophrenia were identified. There were 801 such charts, all of them sufficient in information and satisfactory in the quality of information for the present study. As the characteristics of patients admitted in 1981 did not differ significantly from those admitted in 1982, all the 801 patients were considered together for further analysis. Patients with illness duration of one month or less are compared to those with more than one month.

Alpha level for statistical significance was fixed at 5%. In view of the two groups differing significantly on a number of important variables, the possibility of multivariate discrimination was examined. The method of Logistic Discriminant Function Analysis (Anderson, 1972) has been used as it allows variables measured in both interval and nominal/binary scales unlike in the case of Linear Discriminant Function Analysis. Two continuous and 19 binary variables with frequencies 10 percent are used to differentiate between the short and long duration patients. Using the discriminant weights for these 21 variables all the patients were classified into one of the two groups to ascertain the correctness of discriminant classification.

## RESULTS

The demographic and clinical characteristics of the 801 schizophrenic patients are shown in Table 1.

Table -1 : Demographic and clinical characteristics of 801 Schizophrenic patients

| Variable                       | <One month<br>(n = 253) | >One month<br>(n = 548) |
|--------------------------------|-------------------------|-------------------------|
| Age at onset<br>meanyears (SD) | 26.10 (9.5)             | 29.90 (9.6)***          |
| Males                          | 149 (59)                | 322 (59)                |
| Females                        | 104 (41)                | 226 (41)                |
| Residence                      |                         |                         |
| Bangalore                      |                         |                         |
| Urban                          | 71 (28)                 | 155 (28)                |
| Bangalore                      |                         |                         |
| Rural                          | 34 (13)                 | 38 (7)**                |
| Others                         | 145 (57)                | 348 (64)                |

| Variable                            | <One month<br>(n = 253) | >One month<br>(n = 548) |
|-------------------------------------|-------------------------|-------------------------|
| Education                           |                         |                         |
| Illiterate                          | 101 (40)                | 164 (30)**              |
| < 7 Standard                        | 48 (20)                 | 114 (21)                |
| > 7 Standard                        | 104 (41)                | 270 (49)*               |
| Occupation                          |                         |                         |
| Student                             | 33 (13)                 | 40 (7)**                |
| Housewife                           | 79 (31)                 | 176 (32)                |
| Manual                              |                         |                         |
| Labour                              | 94 (37)                 | 174 (32)                |
| Blue Collar +                       |                         |                         |
| White Collar                        | 32 (13)                 | 66 (12)                 |
| Other                               | 15 (6)                  | 92 (17)**               |
| Season<br>admitted                  |                         |                         |
| November to<br>February<br>(Winter) | 66 (26)                 | 173 (32)                |
| March to June<br>(Summer)           | 108 (43)                | 203 (37)                |
| July to October<br>(Rainy)          | 79 (31)                 | 172 (31)                |
| Subtype                             |                         |                         |
| Paranoid                            | 193 (76)                | 393 (72)                |
| Catatonic                           | 27 (11)                 | 136 (25)***             |
| Others                              | 33 (13)                 | 19 (3)***               |
| Outcome at<br>discharge             |                         |                         |
| Recovered                           | 136 (54)                | 269 (49)                |
| Improved                            | 64 (25)                 | 64 (12)***              |
| Not improved                        | 53 (21)                 | 215 (39)***             |
| ECTs, No                            |                         |                         |
| < 6                                 | 198 (79)                | 440 (80)                |
| > 6                                 | 55 (21)                 | 108 (20)                |
| Days of Hosp.<br>stay               |                         |                         |
| Mean (SD)                           | 25.77(18.81)            | 29.43(21.40)*           |

\* P < 0.05, \*\* P < 0.01, \*\*\* P < 0.001

The less than one month duration group had a significantly lower age at onset. Both illiterates and students are over represented in them whereas catatonic type is less so. They stayed in the hospital for less number of days and were in a better condition at discharge.

The discriminant coefficients are significant for three variables (age at onset, - 0.0505,  $p < 0.01$ ; catatonic type - 1.30,  $p < 0.05$ ; days of hospital stay, - 0.0502,  $p < 0.01$ ). On the basis of the coefficients for all the twenty one variables a correct classification rate of 88% was achieved, 86% for short duration group and 89% for long duration group.

## DISCUSSION

The substantial differentiation between the less than one month duration patients and the rest under 295 Schizophrenia justifies the separation of the former. Acute psychoses remain to be studied sufficiently for their satisfactory validation (Kendell, 1987). Relevant studies in India gave conflicting indications. Acute psychosis without precipitating stress was akin to schizophrenia (Kapur and Pandurangi, 1979). But in the Indian Council of Medical Research (ICMR) study (Indian Council of Medical Research, 1989) among the 35% of patients with nonorganic psychotic symptoms of less than four weeks and diagnosed as having schizophrenia (295 of ICD-9), one year follow-up revealed full remission in 66% of these patients. Besides the possibility of these patients having an atypical affective disorder, it is also pertinent to examine organic causation. Significant numbers of them may be having a currently active viral infection (Ahokas and Rimon, 1987; Srikanth, 1990).

The results of the present study lend support to the idea of separating the less than one month duration psychoses from schizophrenia. Such separation should encourage the much needed validation studies from diverse angles.

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