POST-PSYCHOTIC DEPRESSION IN SCHIZOPHRENICS
(A PROSPECTIVE STUDY)

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SUMMARY
The study consists of 44 Schizophrenic patients. All the patients were the first admission cases and treated for the first time within 6 months of their illness. The subtype Schiza affective schizophrenia was not included. Cases were studied and treated initially in the hospital. After recovery from the psychotic episode, they were followed up in the community for a minimum period of one year, during which 4 cases went into an unequivocal, depression. Phenomenological aspects of the depression and a prediction of variables in terms of socio-demographic and the clinical state of cohort has been attempted.

A serious depression in the aftermath of a psychotic episode has been described by many workers. Mayer Gross (1920) first suggested post-psychotic depression, when he described denial of future or despair as a mode of reacting to a psychotic experience. Thirty years later, Fissler (1951) presented the first extensive description of the syndrome. He noted two phases of schizophrenic break down, an initial phase of acute symptoms and a subsequent "Phase of relative clinical muteness". Semrad (1966) discussing recovery from a schizophrenic episode noted that "there follows a period of nine to twelve months during which the patient works to re-establish his relationship with his own object." He believed that, as the patient progresses out of his narcissistic regressed position with it's major use of denial, projection and distortion he functions more as a depressed patient.

The frequency of the syndrome as reported in the Western literature varies. McGlashan et al. (1976) in their recent review of the syndrome based on the reports of various workers and of their own have worked out the frequency at an average of about 25 per cent of treated schizophrenic population.

MATERIAL AND METHOD
The population of the study consisted of all the consecutive cases of schizophrenia, admitted for the first time in the National Institute of Mental Health and Neurosciences, Bangalore, during the period 1st December 1976 to 30th June 1977, who satisfied the following criteria:
(1) Age between 16 and 40 years.
(2) Living in and around the city of Bangalore to facilitate subsequent follow up after discharge from hospital.
(3) Duration of illness at the time of admission not exceeding six months and with no history of taking antipsychotic medication prior to admission.
(4) A diagnosis of schizophrenia as per criteria laid down in ICD-8.
(5) Schizophrenic symptoms remitting during maximum period of 4 months stay in the hospital and being able to return to the community at the time of discharge.

The study was divided into two broad phases. The "Hospital Phase" and "Post hospital phase".

In the Hospital Phase, the cases were screened as per criteria laid down above,
by the initial assessment interview. The reliability of the diagnosis of schizophrenia was further tested by the Carpenter's 12 point diagnostic schedule. The group of 74 patients initially screened during admission demonstrated an average of 6.8 of these 12 signs and symptoms giving a probability of more than 95 percent, that on the basis of international criteria, the authors were certain of dealing with a schizophrenic group of patients. A fortnightly assessment was made for their psychotic and depressive psychopathology. A final assessment was similarly made at the time of discharge. Only those cases who remitted fully from the Psychotic episodes were taken for the follow up study in the post hospital phase.

During the Post Hospital Phase, besides testing for psychotic and depressive psychopathology, assessment was also made for stressful life events and level of social functioning of each patient. The assessment was made every month.

Following tools were used for data collection:

I. An initial assessment interview with a structured proforma containing socio-demographic status, history of the illness and mental status examination.

II. Carpenter's 12 point diagnostic schedule for schizophrenia.

III. Depressive dimension items, containing the following 17 sensitive symptoms of depression to identify depression.

1. Difficulty in concentrating.
2. Weight loss.
3. Too little energy.
4. Awakening too early.
5. Little sexual desire.
6. Slowed thinking.
7. Difficulty in deciding.
8. Feeling unhappy.
9. Crying.
10. Brooding over disease.
11. Loss of interest.
12. Future bleak.
13. Life not worth living.
14. Suicidal thoughts.
15. Suicidal attempt.
16. Depressed mood.
17. Depressed facies.

These items were used as a symptom check list and no attempt was made to rate the severity of the depression based on these items.

IV. Hamilton Depression scale to rate the depression. A cutting score of depression was worked out at a minimum score of 17 in the Hamilton scale with minimum of 5 symptoms in the depression dimension items. This was co-related with observable depression.

V. Katz adjustment scale: which measures the level of performance of socially expected activities and level of expectation for performed activities. This scale was used only during the monthly assessment of post hospital period.

VI. Life events Manual: this identified the significant life stress during the post hospital period.

RESULT AND OBSERVATION

A total number of 608 fresh cases of schizophrenia were admitted for the first time in NIMHANS hospital during the period 1st December 1976 to 30th June, 1977, out of which 74 (48 males and 26 females) cases satisfied the screening criteria at admission. 18 cases failed to have complete remission of schizophrenic symptoms at the time of discharge from the hospital and therefore the remaining 56 (41 male and 15 female) cases were taken for the post hospital follow up of one year. 12 cases could not be followed up for the specified period in the post hospital period because of the failure of the patients and their family in cooperating in the study. Therefore the present study included only 44 (31 male and 13 female) patients who could
be followed up for a period of one year. The
Type of schizophrenia in the sample was—
hebephrenic (19), catatonic (18), paranoid,
(6) acute schizophrenic episode (7) and
unspecified (1).

Analysis of Post-Psychotic Depression (PPD)
amongst the 44 treated schizophrenics

The clinically observable depression was found with a minimum score of 17 in
Hamilton the depression scale and a minimum of 5 symptoms in the depression dimension items. This agreed well with a previous study by John (1975) who got a minimum score of 17 in the Hamilton depression scale of his 50 depressed patients. In view of the above, the cutting score of depression in the present study was taken at 17 in the Hamilton depression scale with a minimum of 5 symptoms in the depression dimension items.

The severity of the depression was rated as follows:

- Mild Depression—(Score 17-24), Moderate depression—(Score 25-39); Severe depression—(Score 40 & above).

Frequency of Post-Psychotic Depression (PPD)

Tables 1 and 2 show the Hamilton ratings of the PPD patient after discharge from the hospital. Two patients also had depression during the hospital phase; but did not come in the category of PPD as they still manifested schizophrenic symptoms as well. In terms of severity of depression two cases were rated as moderate depressed (Score 26—39) and remaining two as mild depression (Score 17—24). It was observed that one patient developed PPD within a month of discharge from the hospital, two patients developed depression between 4th and 5th month and the other one between 5th and 6th month.

Duration of PPD

It was noted that only one out of the 4 cases of PPD recovered completely during the follow up. This patient developed depression shortly after discharge from the hospital and hence could be followed up for a maximum period while on PPD. He remained in depression for about 5 months and the recovery was uniformly gradual. The second patient could be followed up in PPD for about 6 months. Though there was gradual improvement, depression was still apparent towards the end of the period of follow up (Score-17). The third patient could be followed for about 4½ months after development of PPD. This patient responded well with treatment during the first one month and later his depressive state remained static for the rest of the period of follow up. The 4th patient, who developed PPD later, could be followed only for 3½ months after development of PPD. Though depression score came down initially—mild depression was persisting towards the end of follow up.

Nature of Depressive Psychopathology of PPD

The total score in each of the areas of Hamilton depression scale of the 4 PPD cases at 3 months, 6 months and 12 months
with their mean score is given below in Table 3.

It was observed from the data that the nature of the symptomatology can be grouped in order of the descending frequency in the following areas:

*All 4 Cases affected had:*
- Sleep disurbance,
- Depressed mood,
- General somatic symptoms,

*Three out of Cases affected had:*
- Retardation,
- Somatic anxiety,
- Hypochondriasis,
- Suicidal ideation,

In terms of severity of the symptoms (Table 3) the maximum severity was in the areas of work and interest (8.3), followed by sleep disturbance (7), general somatic symptoms (4.7), retardation (4.3), hypochondriasis (4), somatic anxiety and suicidal ideation (4) and mood disturbance (3.7).

Feeling of guilt was almost non-existent, only one patient had a transient idea of guilt that he had let down the other members of the family because of his illness. Sleep disturbance, though a dominant symptom in all the cases did not fall in to any particular pattern.

**COMMENTS**

The study was conducted with a preset criteria of sampling a group of schizophrenic patients who were to be studied prospectively for a minimum period of one year aiming to test out few specific hypotheses. Inclusion criteria were rigid. All the patients were the first admission cases, had been treated for the first time within 6 months of their illness. Another feature of the study was its extension to the post hospital period.

The psychodynamic formulation of PPD is generally based on the view that it is basically reactive to psychosis. To integrate the trauma of the regression with its

| Sl. no. | Symptoms                  | Score Range | 3 months | 6 months | 12 months | Mean Score |
|--------|---------------------------|-------------|----------|----------|-----------|------------|
| 1.     | Depressed mood            | 0—4         | 2        | 7        | 5         | 3.7        |
| 2.     | Guilt                     | 0—4         | 1        | 1        | 0         | 0.7        |
| 3.     | Suicide                   | 0—4         | 5        | 5        | 2         | 4          |
| 4.     | Insomnia                  | 0—4         | 6        | 8        | 7         | 7          |
| 5.     | Work and interest         | 0—4         | 3        | 13       | 9         | 8.3        |
| 6.     | Retardation               | 0—4         | 3        | 4        | 6         | 4.3        |
| 7.     | Agitation                 | 0—2         | 1        | 2        | 2         | 1.7        |
| 8.     | Anxiety-Psychic           | 0—4         | 1        | 4        | 2         | 2.3        |
| 9.     | Anxiety-Somatic           | 0—4         | 4        | 4        | 4         | 4          |
| 10.    | Somatic symptoms (G. L.)  | 0—2         | 1        | 2        | 1         | 1.3        |
| 11.    | Somatic symptoms (General)| 0—2         | 3        | 7        | 4         | 4.7        |
| 12.    | Genital symptoms          | 0—2         | 2        | 3        | 3         | 2.7        |
| 13.    | Hypochondriasis           | 0—4         | 2        | 5        | 5         | 4          |
| 14.    | Loss of weight            | 0—2         | 2        | 3        | 2         | 2.3        |
| 15.    | Loss of Insight           | 0—2         | 2        | 1        | 1         | 1.3        |
| 16.    | Diurnal Variation         | 0—2         | 2        | 2        | 2         | 2          |
| 17.    | Depersonalisation         | 0—4         | 0        | 0        | 0         | 0          |
| 18.    | Paranoid symptoms         | 0—2         | 1        | 0        | 0         | 0.3        |
| 19.    | Obsessive symptoms        | 0—2         | 1        | 1        | 1         | 1          |
concomitant blow to the self esteem imposes a difficult dilemma when the patient returns to reality. Another view regarding development of PPD is the depressogenic effect of phenothiazines (Klein, 1969; De Alarcon, 1969; Cohen 1964). All the patients in the present study were under phenothiazine medication throughout the period. However, these two views were lost to statistical analysis owing to the wide discrepancy in the sample sizes between the depressed and non-depressed group. The four cases of the present study—were of relatively younger age group between 19 and 26 years and there was only one woman. The premorbid personality did not fall into any particular type. Education, income, family characteristics were evenly distributed. Therefore the present study does not point to any particular predictive factors in any of the above variables. However, there is definite correlation between the clinical type of schizophrenia and subsequent development of Post-Psychotic Depression.

| Sl. no. | ICD No. | Type               | No. cases | No. of PPD | Significance |
|--------|---------|--------------------|-----------|------------|--------------|
| 1      | 295.1   | Hebephrenic        | 19        | 43         | 0. N.S.      |
| 2      | 295.2   | Catatonic          | 11        | 25         | 1. N.S.      |
| 3      | 295.3   | Paranoid           | 6         | 13.6       | 0. N.S.      |
| 4      | 295.4   | Acute schizophrenic episode | 7 | 16 | $p < 0.01$ |
| 5      | 293.9   | Unspecified        | 1         | 2.75       | 0. N.S.      |

Statistical Technique used was "Fisher's Exact probability test".

There is significant association ($p < 0.01$) between acute schizophrenic episode and subsequent development of PPD. Out of 4 PPD cases, 3 belong to the 7 cases of acute schizophrenia in this series. The other one developed after recovery from a catatonic stupor. Two of these cases had history of mental illness in the family (grand mother of one patient had MDP and father of the other patient was an alcoholic psychotic). It is interesting to note that, though bulk of the patients belonged to the hebephrenic variety, none developed PPD. Paranoid group also remained unaffected.

Thus the present study suggests that the subtype "Acute schizophrenic episode" of schizophrenia, has a significant risk of developing post-psychotic depression.

This observation raises another question about the true nosological status of acute schizophrenic episode. Ollerenshaw (1973) has described cases of patient becoming depressed following an acute schizophrenic breakdown and uses this to argue that acute schizophrenia is actually a “Manic equivalent” of MDP. A similar view has recently been advanced by Taylor et al. (1974) who documented a high frequency of affect disorder like symptoms in acute schizophrenia. The observation in the present study finds agreement with these views and suggests that substantial number of cases diagnosed as acute schizophrenic episode remain within the spectrum of affective disorder.

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