

Disability in Manic Depressives and Schizophrenics : A Comparison using the WHO Disability Assessment Schedule

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~~P S V N Sharma~~

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- *Department of Psychiatry, National Institute of Mental Health & Neuro Sciences, Bangalore 560 029, India*

B M Tripathi, - *Department of Psychiatry, Post Graduate Institute of Medical Education & Research (PGIMER), Chandigarh - 160 012, India*

Abstract

Twenty nine manic depressives and 39 schizophrenics were followed up 3 - 5 years after onset of their illness and assessed for the presence of disability as measured by the WHO-Disability Assessment Schedule - II revision.

Schizophrenics have greater disability in all areas and an earlier onset of illness with a longer duration of psychosis as compared to manic depressives. Some manic depressives experience disability but they differ from the schizophrenics in that they do not suffer as wide spread a disability in specific social roles as the latter and have almost no disability in certain roles.

The relevance of these findings and possible future directions of research are discussed.

Key words -

**Disability,
Schizophrenia,
Manic depressive psychosis,
Outcome,
Social-roles**

In psychiatry, interest in patients' community adjustment has been a natural outgrowth of the change in treatment trend from custodial to outpatient care [1]. This applies especially to the psychoses.

Since Kraepelin's classic description of manic depressive psychosis, traditional teaching has placed emphasis on the relatively good prognosis enjoyed by the affective disordered as compared to the schizophrenics. However, Stern [2], Poort [3], Lundquist [4], Bratfos et al [5], Murphy et al [6] and Shobe et al [7] amongst others have commented that between one-sixth and one-third may gain little relief and may be characterised by social and psychological disability. Kraepelin's thesis was probably largely with reference to the psychotic episodes per se and not the temperamental substrate of the manic depressives. "When observations are extended to cover the intervals between affective episodes, one observes residual symptoms, signs of maladjustment, changes in personality and certain subclinical disturbances that

complete the picture of the illness" (affective disorders) according to Cassano et al [8].

On the other hand, the long term disability of schizophrenics especially in the areas of 'social functioning', has been well documented in outcome studies as of Kant [9], Langfeldt [10], Stephens et al [11], Vaillant [12], [13], Bland et al [14], [15] and Strauss et al [16], [17], [18].

Long term outcome can be viewed in a number of ways. Since an illness episode can have effects on jobs, friendships and marriages, which extend beyond the period of active symptomatology; at any one point of time the correlation between symptoms and social adjustment may be poor. Most follow up studies have arrived at global outcome categories, or, at best at broad areas of social, marital, occupational, interpersonal and symptomatological disability as in Kerr et al [19], [20], Murphy et al [6], Clayton [21] and Hastings [22]. But Strauss et al [18] finding a high correlation between the sum of a few individual outcome items and the global outcome ratings, suspect that the latter finding may reflect a form of interviewer bias rather than the true global outcome.

Bromet et al [23], Morrison et al [24] and Tsuang et al [25] amongst others, have attempted to compare the social disability between schizophrenics and manic depressives. Tsuang et al's [25] study is especially interesting for the operationalisation of outcome measured in four areas (marital, residential, occupational and symptomatological); and the use of a surgical control group. They found that over a 30-40 year follow up, schizophrenics and affective disordered do generate an outcome notably poorer than the control group. Between the two, manic depressives do better than the schizophrenics.

However, if social adjustment is broadly defined as the interplay between the individual and the social environment, specific ways of behaving or roles are commonly accepted as appropriate. The individual is perceived in terms of the way his role performance conforms to the norms of the referrant group. Symptoms are a function of an illness, impairments a function of the person and disability a function of the social situation according to Reusch [26]. This distinction has been documented by Wing [27].

Weissman [1] identifies at least five conceptual areas underlying social functioning. They are social supports, social attachments, social competence, social status and social role performance. Since dysfunction in each of these areas may have considerably different implications for intervention, as many or all of them should be measured. An adjusted person will function in several roles according to Weissman [28]. Furthermore, there can be many dimensions involved in the measurement of outcome and a person may have impaired function in one outcome sphere but may perform well in another according to Kenniston et al. [29] and Strauss et al [16]. Hogarty et al. [30] have shown that various outcome functions are affected differentially by treatment whilst Strauss et al [17] have found that they (outcome functions) have different predictors. Hence outcome or disability in an illness reflects several processes best conceptualised as an open linked system, each with its own determinants and mechanisms but all somewhat interrelated.

Assessment of disability in a community setting may necessitate a simple method as advocated by Murphy et al [31]. But there is a need, initially, to assess disability in its widest scope for distinguishing between illnesses by their patterns of disability (if possible), and in accordance with Reusch [26] in diverting the patient into appropriate channels for the rehabilitation of the specific disabilities. Keeping this in view a study of disability in diagnosed and followed up cases of manic depressive psychoses and schizophrenia was conducted in the Department of Psychiatry, PGIMER, Chandigarh, with the aim of comparing the level and nature of disability over a wide range of social role functions in these two illnesses.

Material & Methods

Sixty-eight patients (39 schizophrenics and 29 manic depressives) who formed a part of the urban cohort of an ongoing WHO outcome study of schizophrenia in the Department of Psychiatry, PGIMER, Chandigarh were selected by simple random sampling for this study. All the patients had been diagnosed by a consultant in psychiatry in accordance to the ICD-9 at the time of their entry into

the original study (which was at the time of first onset of their illness) and were on regular follow up and treatment when the present investigation was carried out.

The investigator (PSVNS) was blind to the diagnosis, course and treatment of the patients when he made home visits to each member of the sample. After introductory comments and explanation, the key informant was identified and the WHO-Disability Assessment Schedule (DAS) 1978 - II revision (Jablensky et al. [32]) was administered. This instrument was chosen for its wide coverage, fair amount of operationalisation of items and cross cultural utility. Its use has already been reported on schizophrenic cohorts by Wiersma et al. [33] and Schubart et al. [34]. Judging from its contents, it was felt, that it could be administered to a manic depressive cohort with equal facility.

The DAS contains four sessions.

- (i) Overall behaviour (selfcare, levels of activity, slowness, social withdrawal).
- (ii) An inventory of ten social role domains which can be found in most cultures - anchor point definitions are provided and rating is done taking the 'average' performance of a given activity for an individual of a particular social and cultural background as the reference. A separate rating of perceived change over one year prior to the interview is also done.
- (iii) A section to be filled for the hospitalised patient
- (iv) 'Modifying factors' including items designed to describe specific assets and liabilities of a patient as well as his home environment.

At the end is the interviewer's global rating of the disability of the patient. In addition, a global rating of disability by the key informant was also done in this study to see how far the investigator and the key informant concurred. Ratings were done as the interview progressed and subsequently the patient's clinical status was assessed and diagnosis made. Whenever necessary the patient was shown to the consultant (BMT). Information regarding the psychiatric history and demographic variables was collected. The initial psychiatric diagnosis and follow up data was retrieved from the case files subsequently. There was no case of change in diagnosis from MDP to schizophrenia or vice versa.

Although the investigator had not received formal training in the use of the DAS, the instrument's operationalisation, a pilot use on six patients before the present investigation, and the fact that a single person blind to the clinical data was conducting all the interviews, would, it was thought, offset any drop in reliability due to this lack in training.

Observations and Results

Change over one year in overall behaviour

The schizophrenic group tended to show 'change for the better' significantly more often than the manic depressive group ($p < 0.05$) in the area of social withdrawal. No such difference was noted in the other areas of overall behaviour.

Change over one year in social role performance

A significant difference between the two groups was observed (with schizophrenics showing a change for the better in the past one year) in the areas of participation in household activities ($p < 0.01$); affective relationships with spouse ($p < 0.01$); sexual relationship with spouse ($p < 0.01$); parental role ($p < 0.001$); social contacts and confiding relationships ($p < 0.05$); interest in getting a job ($p < 0.05$);

interests and information ($p<0.01$); and behaviour in emergencies and crises ($p<0.05$).

Table 1 - Comparison of Demographic and Illness Characteristics

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Table II - Comparison in overall behaviour (Section 1) and social role performance (Section 2) of DAS between MDP and schizophrenia

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Key : 0=no dysfunction;

1= minimum dysfunction;

2=obvious dysfunction;

3=serious dysfunction;

4=very serious dysfunction;

5=maximum dysfunction ;

9=not applicable.

+ Since no patients in either group rated '5' on any of the items the tables are presented from 0-4 onwards. Whenever '9' had been rated, these cases have been excluded from analysis in the relevant items.

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Modifying factors

In a comparative analysis of the modifying factors, no significant differences were noted between the two groups in activities to increase knowledge / skills; strong special interests or activities; above average abilities or assets; favourable characteristics in the patient or his environment, characteristics in the patient's past / current environment which are disadvantageous; physical, neurological or sensory

handicaps; other characteristics in the patient's environment which are disadvantageous; controls and demands made on the patient; rejection of the patient; and access of privacy to the patient.

With regard to key figures it was found that whilst 22 (75.9%) manic depressives had spouses and 5 (17.1 %) had other relatives (it being impossible to make a judgement in 2, i.e., 7%) as key figures, the schizophrenics had mothers in 8 (20.5%) fathers in 2 (5.1%), spouses in 14 (35.9%), and other relatives in 5 (12.8%), (it being impossible to make a judgement in 9, i.e., 23.1%).

There was a significant difference ($p < 0.05$) in the mean number of hours per week spent in face to face contact by the key informant, with the schizophrenics having the higher mean. When the two groups were dichotomised on this variable to less than 35 hours / week and more than 35 hours / week of face to face contact and the data analysed, the difference between the schizophrenics and manic depressives remained significant ($p < 0.05$) with the former tending to greater exposure.

Emotional involvement was analysed with three categories - no involvement, some involvement and considerable or strong involvement. There was a significant difference ($p < 0.05$) between the two groups, with schizophrenics having relatives who more often showed strong emotional involvement. In the section on help seeking behaviour, it was noted that six of the schizophrenics' families sought help from others and only two received such help whereas one manic depressives' family sought help and obtained it from others.

In the area of 'ease of getting jobs' it was found that 18 (46.1%) schizophrenics would find it very difficult / almost impossible to get jobs whilst only 8 (27.6%) of the manic depressives would have a similar difficulty. Twenty one (53.9%) of the schizophrenics and 2 (72.4%) of the manic depressives would have little or no difficulty in finding a job.

Global assessment by the investigator of the disability showed significant difference ($p < 0.001$) between the two groups - disability being more in the schizophrenics. The key informants assessment also revealed such a significant difference in the same direction.

Discussion

A group of 29 manic depressives and 39 schizophrenics have been assessed for disability about four years after the onset of their first episode of illness. It is to be noted that there has been no change in three-digit (ICD-9) diagnosis over time. Amongst the manic depressives only 17.24% were classifiable as unipolar depressives. Their numbers being small, they have been included in the analysis under the single category of manic depressive psychoses. Amongst the schizophrenics, a diagnostic change to chronic schizophrenia was made in 53.85% cases at follow up, from the initial diagnoses of acute, paranoid, catatonic and hebephrenic sub-types.

As has been noted by Cancro [35] and others, there is a significant ($p < 0.001$) difference in the mean age of onset - the schizophrenics falling ill earlier than the manic depressives. Schizophrenics also tended more often to be single ($p < 0.001$) than manic depressives at onset of illness. Overall the schizophrenics spent more time with positive symptomatology at the time of first contact ($p < 0.05$), in the duration of the first episode ($p < 0.01$), and in total period of positive symptomatology ($p < 0.01$) than the manic depressives. The former tended more often to be on continued medication, this finding being reflective of their need for maintenance medication.

However, the lack of significant differences in the other socio-demographic and follow up variables in

Table I is possibly a function of

- (a) the urban nature of the sample,
- (b) the sampling procedure to the original outcome study from which the present investigation was undertaken and
- (c) the continuous nature of drug follow-up ensured to these subjects.

Hence the assessment of disability was done on two groups of patients, one of whom (the schizophrenics) had suffered a longer period of illness with an earlier age at onset and more often a 'single' status.

On the 'DAS', on all individual items of overall performance and on a combined analysis of these items, the mean scores of schizophrenics were significantly higher than those of the manic depressives. However, when nominal data for the presence or absence of disability was analysed, it was noted that on items of 'underactivity' and 'slowness' the difference does not reach significance. This appears to be due to 27.6 % and 44.8% of manic depressives showing minimal dysfunction in these areas whilst the rest have no dysfunction. The comparable data for schizophrenics is that 53.8% and 60% of them show dysfunction ranging from grades 1 to 3 in these areas.

On the individual items of social role performance and on a combined analysis of the items there in, the mean scores of the schizophrenics are significantly higher than those of the manic depressives (this is with the exception of the 'hetero-sexual role' item where the data is too small to comment). On nominal analysis however, for the presence or absence of disability no significant difference is seen in the 'social contacts and relationships' item. This appears to be due to 48.3% of manic depressives having minimal dysfunction in this area in contrast to 74.4 % of schizophrenics.

Considering sections 1 & 2 of the 'DAS' on the whole, more schizophrenics (54-84 % on different items) than manic depressives (7-48 % on different items) have dysfunction. The dysfunction seen in schizophrenics varies through all grades of severity whereas the manic depressives have minimal to obvious dysfunction only. Such areas as interests and information, interest in getting a job, sexual relationship with spouse and self-care seem to be almost totally unaffected in the manic depressives. Although schizophrenics did tend to show a change for the better over the previous one year over several areas, a finding in keeping with Bleuler's [36] findings, this result should be viewed with caution since the assessment on this item depends a lot on the accuracy of the unbiased perception and memory of the informant. Furthermore, some of the schizophrenics did get married during the follow up period hence scoring on hitherto unscored areas.

Interpretation of the results on modifying factors should be made with caution due to the subjective nature of the items. Yet it is interesting to note that although the two groups did not differ in many of the patients and environment characteristics, the schizophrenics tend to have their parents (probably due to 'single status') as the more common key figures. This, when considered along with the findings on face to face contact and emotional support, may be contributing at least in part to the illness and hence heightened disability amongst the schizophrenics. This conclusion may be drawn in the light of the work of Brown et al [37] and Vaughn et al [38]. In keeping with the overall dysfunction, schizophrenics would find greater difficulty in finding jobs and hence would be in greater need for vocational rehabilitation.

Both the investigator (as per the DAS) and the key informant (our innovation) noted a significant difference ($p < 0.001$) between the two groups on global assessment - the schizophrenics having a more severe dysfunction. This concordance can be viewed also as a measure of agreement in the assessment

of dysfunction between the clinician seeing the situation cross-sectionally and informant who was living in it longitudinally, thus offsetting some of the criticism of Strauss et al [18] regarding global assessments.

It may be noted that with the DAS which assesses a wide range of social roles, schizophrenics manifest dysfunction more often - but of varying degree of severity from subject to subject and area to area - as compared to manic depressives. The latter, although manifesting dysfunction, do so to a milder extent as noted by Tsuang et al [25] also, with some of the subjects being totally spared. Part of the difference between the two groups may be attributed to the younger age of onset and longer period of illness with the consequent narrowing of the social role repertoire of the schizophrenics.

This work does not throw light on the specific peculiarities of the subgroup of schizophrenics who show only milder form of dysfunction. It will also be worthwhile to measure dysfunction against an appropriate control group, examine the relevance of negative symptoms to social disability and look for any difference in the disability pattern between subcategories of schizophrenia and manic depressive illness.

The use of this exercise exists in distinguishing between the disabilities engendered by the two illnesses and as suggested by Reusch, [28] planning of rational and adequate rehabilitative measures specific to the disabilities of the individual patients. To this purpose it is our opinion that this instrument can be easily and fruitfully used in Indian conditions without any major changes or difficulty.

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