PSYCHIATRIC MANIFESTATIONS OF CATEGO CLASS S+ SCHIZOPHRENIA

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SUMMARY

Psychiatric manifestations of 72 CATEGO Class S+ schizophrenics were studied using a syndrome check list. Comparison of syndromic manifestations with other published works revealed significant cross-cultural differences. It was observed that Indian CATEGO S+ patients had significantly less depression, tension and anxiety. Differences in nuclear syndrome and Schneider's First Rank Symptoms were also visible. Difficulties in rating syndromes of affect and subcultural delusions are commented upon. Usefulness and applicability of the Present State Examination as a tool of assessment in the transcultural context are discussed.

Cross-cultural comparability of diagnostic categories and pan-cultural generality of psychopathological findings from the Western culture are some of the key issues in research in transcultural psychiatry (Triandis et al 1973; Lipsedge & Littlewood 1979). Whether psychiatric conditions present similarly in different cultural and ethnic groups is still a debatable subject (Singer 1975; Kleinman 1977, Leff 1981).

Until the publication of the International Pilot Study of Schizophrenia – IPSS (WHO 1973), most studies pertaining to transcultural differences in manifest psychopathology, course and prognosis in schizophrenia were either anecdotal or lacked in methodology. However, with refinement in epidemiological survey methods and with the help of structured, standardized and reliable psychiatric interview schedules, cross-cultural differences in diagnostic practices and psychopathology have been more credibly documented (WHO 1973; Cooper et al 1972).

Following the research tradition of the IPSS (WHO 1973) more recently a study from South Africa has demonstrated differences in psychopathology among three ethnic groups in a narrowly defined group of schizophrenics (Teggin et al 1985). This particular study was conducted on a group of CATEGO class S schizophrenics and utilized the Present State Examination-PSE to derive psychiatric syndromes (Wing et al 1974).

The present study examines to syndromic manifestations of CATEGO S+ schizophrenics. To highlight cross-cultural differences, the results have been compared with other studies which have employed similar interview schedule and rules of classification.

Material and Methods

Consultant colleagues were requested to refer patients with a clinical diagnosis of schizophrenia to the research team. Using the Hindi adaptation (WHO/ Dept. of Psychiatry 1978) of the 9th edition

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of the PSE (Wing et al 1974), one of us (P.K) interviewed the patients thus referred. This investigator was trained at the Institute of Psychiatry, London, U.K. in the use of the PSE. All PSE interviews were conducted within 3 to 7 days of referral. Details of patients’ clinical and personal history were also recorded.

The 9th edition of the PSE (Wing et al 1974) is a structured interview schedule which systematically but flexibly assesses all areas of psychopathology. It consists of 140 items which can be organized into 38 syndromes. By a computer programme CATEGO, these 38 syndromes can be further reduced to 8 classes and the patient can be assigned to any one of these 8 CATEGO classes. Schizophrenic patients are allocated to one of the 3 CATEGO classes: S, P and O. For the purpose of the present study, only those patients who were allocated CATEGO class S+ were included. The rest were discarded because of their being of doubtful significance in relation to the diagnosis of schizophrenia. For receiving a diagnosis of CATEGO S+ schizophrenia, the patient must have at least one Schneiderian First Rank Symptom-FRS (Schneider 1959) or other unequivocal clustering of schizophrenic symptoms viz. auditory hallucination not based on affect, delusions of persecution and delusions of reference.

PSE data of the patients were analysed at the Institute of Psychiatry, London, U.K. according to CATEGO to derive CATEGO classes. Using the syndrome Check List of Wing et al (1974), the patient’s PSE schedules were rated to compute the frequencies of various syndromes. Chi Square Test with Yates correction was employed to assess the degree of significance.

Names of the syndromes and the PSE items from which they are derived are listed in the Appendix.

Results

112 patients with a clinical diagnosis of schizophrenia were referred to the research team for evaluation of which 72 (64 per cent) were identified as class S+ schizophrenia by CATEGO. Rest were assigned to other CATEGO classes. Agreement between clinical diagnosis of paranoid schizophrenia and CATEGO decision of Class S+ schizophrenia was good (79 per cent). A similar agreement between clinical diagnosis of acute schizophrenia and CATEGO Class S+ categorization was observed (73 per cent). There was poor agreement between other clinical subtypes viz. chronic, hebephrenic, catatonic etc. and CATEGO S+ (34%). The agreement between CATEGO class S+ decision and clinical diagnosis was significantly higher in patients with Schneider’s FRS (92 per cent) than those without FRS (42 per cent) ($X^2 = 5.75$ at df 1p $<0.025$).

The study sample thus consists of 72 CATEGO S+ schizophrenics: 36 (50 per cent) males and 36 (50 per cent) females. Mean age of the sample was 28.0 (SD 8.1) years. 44 (61 per cent) were below 30 years and 28 (39 per cent) were above 30 years of age. 54 (75 per cent) had urban origin and 18 (25 per cent) were from rural areas. 32 (44 per cent) had less than 10 years of formal education whilst 40 had received more than 10 yrs of education including some who had university degrees. 34 (47 per cent) were unmarried. 51 (71 per cent) were Hindus, 20 (28 per cent) were Sikhs and there was 1 Christian patient in the sample. 38 (53 per cent) were treated from outpatient clinic only but 34 (47 per cent) were admitted to the inpatient unit. 42 (63 per cent) patient had been ill for more than 6 months.
11 syndromes which were present in more than half of the patients were as follows: auditory hallucinations (82 per cent), delusions of persecution (78 per cent), worrying etc. (76 per cent), delusions of reference (73 per cent), irritability (69 per cent), nuclear syndrome (65 per cent), social unease (63 per cent), other symptoms of depression (55 per cent), lack of energy (51 per cent), lack of concentration (51 per cent) and sexual and fantastic delusions (50 per cent). Syndromes of ideas of reference and situational anxiety were not seen in any of the patients. Some syndromes which were not frequently seen were organic impairment (1 per cent), obsessional neurosis (3 per cent), depersonalization (7 per cent), Hypomania (11 per cent), Olfactory hallucinations (11 per cent), grandiose and religious delusions (13 per cent), depressive delusions and hallucinations (17 per cent), special features of depressions (18 per cent), Hypochondriasis (18 per cent) and general anxiety (19 per cent). It was found that socio-demographic variables like age, sex, marital status, religion, education and place of origin of the patients did not have any significant influence on the frequencies of various syndromes.

A comparison of syndromic manifestations of our patients with the pooled data of class S schizophrenia of IPSS as described by Wing et al (1974) revealed that of the 20 syndromes compared, significant differences emerged in 14 syndromes. Our patients were found to have significantly more syndromes of catatonia, residual symptoms, and persecutory delusions than the patients of IPSS (Wing et al 1974). Overactivity, affective flattening, nuclear syndrome, visual hallucinations, grandiose and religious delusions, hypomania, special features of depression, simple depression, general anxiety, situational anxiety and obsessional neurosis were significantly more frequently seen in IPSS patients. Syndromes in which no significant differences were observed between our patients and patients of IPSS were slowness, incoherent speech, olfactory hallucinations, depressive delusions, delusions of reference and auditory hallucinations. These findings are displayed in Figure 1.

![Figure 1](image1)

Figure 1
Comparison of syndromic manifestations between present study and IPSS pooled data for CATEGO S schizophrenia: Source of data Wing et al (1974)

Comparison of frequencies of various syndromes as seen in our patients with a recently published study from South Africa (Teggin et al 1985) brought out few transcultural differences. South African patients had significantly more syndromes of tension, simple depression, special features of depression and olfactory hallucinations; our patients were found to have significantly more auditory hallucinations. In other syndromes no significant differences were noted. These results are depicted in Figure 2.

![Figure 2](image2)

Figure 2
Comparison of syndromic manifestations of CATEGO S Schizophrenic of the present study with the study of Teggin et al (1985).
Nuclear syndrome comprises of Schneider's FRS (Schneider 1959). This particular syndrome was present in 65 per cent of our patients, thus FRS were present in 65 per cent of CATEGO S+ Schizophrenics. This is a higher figure than the one seen in patients from Agra which was a collaborative centre in IPSS (WHO 1973). However, the frequency of FRS in our patients is still lower than the patients from Washington, D.C. and London (Carpenter & Strauss 1974). Most frequently seen FRS in our patients were delusion of control, third person auditory hallucinations, thought insertion and thought broadcast. A comparison of FRS in our patients with two other studies in which the PSE was used is shown in the table.

| FRS                             | % Frequency |
|---------------------------------|-------------|
| Present study (N=72)            |             |
| Teggin et al (N=56)**           |             |
| Carpenter & Strauss (N=466)**    |             |
| Delusion of control             | 40          |
| Third person auditory hallucina-| 32          |
| tion                            | 26          |
| Thought insertion               | 17          |
| Thought broadcast               | 17          |
| Delusion of alien forces penetra-| 17          |
| tion                            | 14*         |
| Thought echo/ commentary        | 14*         |
| Thought block/ withdrawal       | 14*         |
| Primary delusion                | 1           |

* Significant at p < 0.05
** Source of data: Teggin et al (1985); Carpenter & Strauss (1974).

24 per cent of our patients were rated to have sub-culturally influenced delusions and hallucinations. The rating of this syndrome was entirely based on item 83 of the PSE. None of the patients were rated to have sub-cultural hallucination (item 64(1) of the PSE). It is worth mentioning that socio-demographic variables did not have any significant bearing on the presence of this syndrome. A comparison with a South African study (Teggin et al 1985) revealed that black patients of that study had significantly more sub-cultural delusions than our patients ($X^2=6.18$ at df $1=p<0.0255$). However, for the two study samples on the whole, no significant difference was forthcoming.

**Discussion**

Some of the findings of the study reflect clinically observed characteristics of schizophrenia viz-equal sex ratio, level of education and duration of illness. Our sample had more married subjects which is at variance with generally observed preponderance of single people in studies reported from the West. Part of the reason for this could be cultural in as much that marriage in Indian culture though an individual phenomenon is a social event. In our sample, over-representation of patients from urban areas as compared with rural segments is an indicator of pattern of resource utilization rather than high prevalence of schizophrenia in urban settings.

As regards the PSE (Wing et al 1974) the prevalence of various syndromes in the patients did not have any relationship with sociodemographic variables, thereby indicating that the syndromic manifestations of CATEGO class S+ schizophrenia are perhaps inherent to the disorder. However, when compared with other studies (Teggin et al 1985, Wing et al 1974) certain significant differences emerged. Our patients reported significantly less on depressive syndromes i.e. simple depression and special features of depression. There is
no simple explanation for this striking difference though Leff (1973) has commented that patients from developed countries display greater ability to differentiate between unpleasant emotional states than those from the developing countries. Syndromes of anxiety and tension were also noted to be significantly less frequent in our patients. This could be because of difficulties in ascertainment of these symptoms of PSE in our cultural context. It has been remarked by workers from India that few PSE items pertaining to anxiety, tension and restlessness because of inadequate translation in the local language are difficult to probe (Wig et al 1982).

CATEGO decision to allocate patients to class S+ schizophrenia is dependent on the presence of nuclear syndrome, or a combination of auditory hallucination, delusions of persecution and delusion of reference. For nuclear syndrome to be rated as positive, presence of one FRS is sufficient. Thus this study provided us with an opportunity to study the occurrence of Schneider’s FRS cross-culturally. 65 per cent of the study patients were rated as positive for nuclear syndrome, thus indicating that at least one FRS was present in as many patients.

Of the various FRS, delusion of control was the commonest in our patients followed by third person auditory hallucinations and thought insertion. The occurrence of FRS in the study sample is higher than that seen in IPSS patients from Agra but less than in patients from Washington, D.C. and London (WHO 1973). Comparison with other studies which have used methodology similar to ours showed that phenomena of thought echo/commentary and thought block/withdrawal were significantly less in the study patients (Teggin et al 1985; Carpenter & Strauss 1974). In a study from London, cross-cultural differences in the prevalence of nuclear syndrome were reported by Ndetei and Vadher (1983). Compared to that study, the frequency of nuclear syndrome observed by us is less than that seen in Whites but somewhat higher than that seen in Asians (Ndetei & Vadher 1983). These findings suggest that nuclear syndrome and FRS genuinely occur less in Indian patients and perhaps in patients from the developing world. The point that presence of FRS significantly increased the rate of agreement between CATEGO division of class S+ schizophrenia and the clinical diagnosis of schizophrenia is highlighted by the present work and is also in agreement with findings reported in the literature (WHO 1973; Teggin et al 1985).

In the study, only 24 per cent patients were rated to have syndrome of subcultural delusions and hallucinations which is similar to the findings of the South African study. However, if our patients are compared with only black subjects of that study, then the differences become significant.

As has been mentioned earlier, this syndrome comprises of two PSE items (item no. 64(1) dissociative hallucination and item no. 83 subculturally influenced delusions). In the larger context of Indian culture, determination of sub-culturally influenced delusions is a difficult problem which has been made more complex by the criteria and instructions for rating these phenomena as given in the glossary of the PSE (Wing et al 1974). It is not easy to categorically determine when certain culturally accepted beliefs become pathological or delusional. It also appears that the very concept of sub-culturally influenced delusions has inherent contradiction, for if one were sure of a phenomenon being culturally acceptable that one would not have rated this phenomenon as delusional
later on. Commenting on the ratings of culturally influenced items Swartz et al (1985) have also expressed similar views.

Since its inception, PSE has been used widely in psychiatric research. It has been translated in many major languages of the world. Though, in multi-cultural context, there exist problems of translation and standardization (Wig et al 1982; Swartz et al 1985), it cannot be denied that because of its meticulous glossary, clarity and excellent design, PSE is an useful instrument in transcultural psychiatric research. To resolve some conceptual issues more work needs to be done.

Our study has found PSE and CATEGO meaningful and useful tools in psychiatric research. Despite its long duration of usage, there is a need to gain further experience with PSE in different languages and diverse cultural settings. The study also indicates than even in a so precisely defined group of schizophrenics such as CATEGO class S schizophrenia, there are striking cross-cultural difference in psychiatric manifestations.

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## Syndrome Check List (SCL)

| No. | Name of Syndrome                  | PSE Symptoms |
|-----|-----------------------------------|--------------|
| 1   | Nuclear Syndrome                  | 55,56,57,58,62,71,81,82 |
| 2   | Catatonic Syndrome                | 116,119 |
| 3   | Incoherent Speech                 | 135,136 |
| 4   | Residual Syndrome                 | 60(2),118,132 |
| 5   | Depressive Delusions and Hallucinations | 61(2),88,91,92 |
| 6   | Simple Depression                 | 19,23,24,25,121 |
| 7   | Obsessional Neurosis               | 44,45,46 |
| 8   | General Anxiety                   | 11,14,120 |
| 9   | Situational Anxiety               | 15,17,18 |
| 10  | Hysteria                           | 64(2),100,101,122 |
| 11  | Affective Flattening              | 128 |
| 12  | Hypomania                          | 41,42,43,123,137 |
| 13  | Auditory Hallucinations            | 63 |
| 14  | Delusions of Persecution           | 74 |
| 15  | Delusions of Reference             | 72,73 |
| 16  | Grandiose and Religious Delusions | 76,77,78 |
| 17  | Sexual and Fantastic Delusions     | 59,70(2),75,79,80,84,85,86,87,89,90 |
| 18  | Visual Hallucinations              | 66(2) |
| 19  | Olfactory Hallucinations           | 68,69 |
| 20  | Over activity                      | 112,113,115 |
| 21  | Slowness                           | 110,130,133,134 |
| 22  | Non Specific Psychosis             | 49,50,52,53,60(1),61(1),66(1),70(1),94,102,109,117,125,126,129 |
| 23  | Depersonalisation                  | 47,48 |
| 24  | Special features of Depression     | 29,32,33,51,54 |
| 25  | Agitation                          | 111 |
| 26  | Self Neglect                       | 108 |
| 27  | Ideas of Reference                 | 31 |
| 28  | Tension                            | 5,7,8 |
| 29  | Lack of Energy                     | 36 |
| 30  | Worrying                            | 4,6,10,21,35 |
| 31  | Irritability                        | 40,124 |
| 32  | Social Unease                       | 16,28,30 |
| 33  | Loss of Interest and Concentration | 20,22 |
| 34  | Hypochondriasis                     | 9 |
| 35  | Other Symptoms of Depression       | 27,34,37,38,39 |
| 36  | Organic Impairment                 | 67,103 |
| 37  | Subcultural Delusions or Hallucinations | 64(1),83 |
| 38  | Doubtful Interview                  | 139,140 |

Symptoms not used in SCL: 1,2,3,12,13,26,61(3),65,93,95-99,104-107,114,127,131,138.