Indian Psychiatric Society multicentric study on assessment of health-care needs of patients with severe mental illnesses

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**Aim:** To assess the health-care needs of the patients with severe mental disorders.

**Materials and Methods:** Patients with the diagnosis of a severe mental disorder (schizophrenia and related psychotic disorders, bipolar disorder, recurrent depressive disorder, major depressive disorder and obsessive compulsive disorder) were assessed using Camberwell Assessment of Need-Research version (CAN-R) Scale and indigenously designed Supplementary Needs Assessment Scale (SNAS).

**Results:** The study included 1494 patients recruited from 15 centers. The most common diagnostic group was that of affective disorders (55.3%), followed by psychotic disorders (37.6%). The mean number of total needs as perceived by the patients was 7.6 on the CAN-R. About two-third of the needs as assessed on CAN-R were met, and one-third were unmet. On CAN-R, main domains of needs as reported by patients were those of money, welfare benefits, transport, information about the illness and treatment, relief of psychological distress, company, household skills and intimate relationships. On SNAS, the mean number of total needs as perceived by the patients was 7.6 of which 4.1 were met needs. The most common domains of needs as assessed on SNAS were those of financial help, medical reimbursement, psychoeducation, free treatment, certification of mental illness, flexible work/job timings, addressing the caregiver stress and legal aid.

**Conclusion:** About two-third of the needs of the patients with severe mental disorders are met as assessed using CAN-R. However, higher percentages of unmet needs are identified on SNAS. In view of the commonly reported needs, a change in the orientation of services offered to people with mental disorders is very much called for. At the government level, desired policies must be formulated to support the patients with mental disorders.

**Key words:** Needs, outcome, severe mental disorders

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**How to cite this article:** Grover S, Avasthi A, Shah S, Lakdawala B, Chakraborty K, Nebhinani N, et al. Indian Psychiatric Society multicentric study on assessment of health-care needs of patients with severe mental illnesses. Indian J Psychiatry 2015;57:43-50.
INTRODUCTION

Various outcome measures like symptom remission quality of life, disability and functioning have been studied in psychiatry. However, these do not provide much information about how the dysfunction or lack of satisfaction of the patients or their caregivers can be addressed. Over the years, the concept of “needs” has been evaluated as a measure of outcome. Assessment of needs involves collection of information from the patients, carers and physicians with respect to what can be done to improve the overall outcome of the patients. Further, the concept of need has also helped in understanding the mismatch between the demands of patients and their carers and the services provided to them.

Studies evaluating the needs of the patients are mostly limited to schizophrenia.[11–14] A few studies have evaluated the needs of patients with bipolar disorder.[15,16]

Studies on the needs of patients with schizophrenia have more commonly used Camberwell Assessment of Need-Research version (CAN-R).[1–8] Some studies have used CAN-R Short Appraisal Schedule (CANSAS).[9] Cardinal Needs Schedule (CNS) or some other scales to assess the needs.[11] The mean number of needs reported by patients on CAN has varied from 5.3–7.9.[1–8] Mcnulty et al.[10] reported mean number of 2.6 needs on CNS. In the study that used Needs for Care Assessment Schedule (NFCAS), patients had on an average 6 needs; clinical needs being slightly more frequent (mean 3.1) than social needs (mean 2.9). In most studies, the majority of needs expressed by patients were met;[1–8,23] however, there were some unmet needs which reflected the mismatch between the demand and the supply. Studies assessing needs of patients with bipolar disorder have in general not relied on CAN-R. Nevertheless, based on the assessment instruments, researchers have reported that patients with bipolar disorder too have many health-care needs. In the study by Goossens et al.,[15] 80% of patients reported one or more health-care needs. Pollack[16] evaluated six areas of informational needs of patients with bipolar disorder and found that denial of the disorder was the most prevalent obstacle in the management. Studies, which have compared patients with schizophrenia and affective disorders suggest that patients with schizophrenia have more met needs compared with the patients with affective disorders and other diagnoses, while, patients with affective disorders have more unmet needs compared to the other two diagnostic groups.[17] Some studies have assessed the needs of subjects of severe mental illness as a group and found that the overall number of needs reported are in the range of that reported for schizophrenia.[18–20] Studies have also reported inconsistent sociodemographic and clinical correlates of needs.[1–14]

It is suggested that due to the differences in the range and quality of health-care services provided, including rehabilitation, managed care and insurance etc., findings reported on needs in studies from one country cannot be generalized to another. There are few studies from India that have evaluated the needs of patients with mental disorders.[21–23] These studies are single center reports and do not provide a comprehensive national picture. Accordingly, the aim of this study was to assess the health-care needs of the patients with serious mental illnesses through a multi-site study. The additional objectives were to compare the needs of the patients with different severe mental disorders and to study the sociodemographic and clinical correlates of needs.

MATERIALS AND METHODS

In recent years, Indian Psychiatric Society (IPS) has started an initiative to conduct multicentric studies by providing some funds to the interested researchers to work on a common research proposal. This study is part of that initiative and was funded by the IPS. The study was approved by the IPS Ethical Review Board and/or by the local Institutional Ethics Committees. Participants were recruited after obtaining written informed consent.

The study followed a cross-sectional design in which participants were assessed only once.

To be included in the study, patients were required to fulfill the criteria of one of following mental disorders, that is, schizophrenia or other psychotic disorders, bipolar disorder, recurrent depressive disorder, major depressive disorder or obsessive compulsive disorder (OCD) as per Diagnostic and Statistical Manual of Mental Disorders-IV Edition criteria.[24] Patients were required to be aged between 18 and 75 years, of either gender with duration of illness of at least 1 year. Patients were also required to be in remission and clinically stable. Remission was defined by criteria proposed by Andreasen et al.[25] for schizophrenia; score of < 8 on the 17-item Hamilton Depression Rating Scale (HDTRS)[26] and/or score of < 6 on the Young Mania Rating Scale (YMRS)[27] for patients with bipolar disorder; score of < 8 on the 17-item HDTRS[24] for patient with recurrent depressive disorder and major depressive disorder; and score of < 16 on Yale Brown Obsessive Compulsive Scale (YBOCS).[28] Clinical stability was defined as “no more than a 50% hike or reduction of dosages of psychotropics during the last 3 months.” Patients with other comorbid psychiatric disorders, chronic physical illness and organic brain syndromes were excluded.

Needs were assessed using CAN-R version (CAN-R). CAN-R was developed by the section of Community Psychiatry (PriSM) at the London Institute of Psychiatry. The instrument is described as a tool for assessing the needs of people suffering from serious mental illness. It includes a list of clinical and social needs divided into 22 areas. In each of the 22 areas, there are four sections: The severity
of need (no problem = 0, moderate problem = 1, serious problem = 2), the current help received from friends or relatives (none = 0, low = 1, moderate = 2, high = 3), help from social services and outpatient clinics (none = 0, low = 1, moderate = 2, high = 3) and the adequacy of help received and satisfaction with the help received (no = 0, yes = 1). If a need is recognized (i.e. a severity rating of 1 or 2), then follow-up questions as stated above are asked to gain information about the current and required level of support as well as the appropriateness and effectiveness of any help given. The CAN-R is a valid and reliable instrument for assessing the needs of people with severe mental illness.\textsuperscript{[29]} A complete assessment takes around 25 min.\textsuperscript{[29]}

Besides CAN-R, needs of the patients were assessed using Supplementary Assessment of Need Scale (SNAS) Questionnaire designed by Neogi et al.\textsuperscript{[31]} This questionnaire assesses specific areas of needs of the patient based on the health-care facilities available to patients with mental illness in the Indian context. The areas of needs for this instrument were initially generated after detailed discussion with the fellow psychiatrists, social workers and clinical psychologists at the Department of Psychiatry, Post Graduate Institute of Medical Education and Research, Chandigarh. Additionally, 30 patients and their caregivers were interviewed on the initial list of items for the completeness and the additional suggested items were incorporated. The scoring pattern for the instrument is in line with the CAN-R with no need rated as 0, met need rated as 1 and unmet need rated as 2.\textsuperscript{[31]}

The time frame, which was taken into consideration for assessment of needs on both the scales, was past 1 month. We choose to assess the needs using 2 different instruments, because in CAN-R, the welfare benefits are assessed as only one item and this does not provide specific information about type of welfare needs, which are expressed by the patients. Besides these instruments, patients were also rated on Global Assessment of Functioning Scale (GAF).\textsuperscript{[32]}

When the study was being planned, researchers from 26 centers showed their willingness to participate, but finally recruitment was done at 15 centers only. Of the centers, which participated, four centers were in North India (Chandigarh, Shimla, Delhi and Rohtak) and another four centers were from Western India (2 centers in Wardha, 1 each in Ahmedabad and Vadodara). There were three centers from South India (2 centers in Chennai and 1 center in Tiruvallu), two each from Central India (Agra and Lucknow) and East India (both at Kolkata).

Among the participating centers, six centers were in the state Government run Medical Colleges (Agra, Ahmadabad, Lucknow, Kolkata-1, Kolkata-2, and Rohtak), five centers were in privately run Medical Colleges (Chennai-2, Tiruvallu, Vadodara and 2 centers at Wardha), one center was in a Centrally funded autonomous Institute of National Importance (Chandigarh), one center in government funded mental hospital (Shimla), one center in a mental health-care facility run by nongovernmental organization (Chennai-1) and one privately run clinic (Delhi).

Analysis was done using SPSS version 14 (Chicago, IL, USA). Descriptive analysis involved calculation of mean and standard deviation (SD) with a range for continuous variables and frequency and percentages for ordinal or nominal variables. Comparisons were done using the Chi-square test, t-test and analysis of variance with post hoc analysis using Scheffe’s test. Correlations were carried out using Pearson’s correlation coefficient and Spearman’s rank correlation coefficient. In view of multiple correlations and comparisons, only $P \leq 0.01$ was considered significant.

RESULTS

The study included 1494 patients recruited across the 15 centers. The highest numbers of patients were from Chandigarh ($n = 307$) followed by Vadodara ($n = 151$), Ahmedabad ($n = 106$), Kolkata-1 (Kalyani), Rohtak and Tiruvalla ($n = 100$ from each center), Agra and Lucknow ($n = 97$ from each center), Wardha (Mahatma Gandhi Institute of Medical Sciences; $n = 86$), Kolkata-2 (R. G. Kar; $n = 75$), Chennai (SCARF) ($n = 72$), Wardha-2 (Dutta Meghe) ($n = 56$), Shimla ($n = 52$) and Chennai-2 (SRM Medical College Hospital; $n = 50$). Least number of patients were from the Delhi ($n = 45$).

Sociodemographic profile
The sociodemographic profile of the patients is depicted in Table 1.

Clinical profile
The most common diagnostic group was that of affective disorders ($n = 826$; 55.3%), followed by psychotic disorders ($n = 561$; 37.6%). Patients with OCD formed a small proportion of study sample ($n = 107$; 7.2%). Among the patients with psychotic disorders, schizophrenia formed the predominant diagnostic group (537 out of 561). Bipolar disorder ($n = 478$; 32%) was the most common affective disorder noted in the study sample. Other affective disorders included recurrent depressive disorder ($n = 234$; 15.7%) and major depressive disorder ($n = 114$; 7.6%). The mean age of onset of the study sample was 28.7 (SD - 10.0; range 10–66) years and the mean duration of illness was 8.7 (SD - 7.3; range 1–48) years. The GAF score for the study sample was 71.26 (SD - 15.9; range 11–100). The Positive and Negative Syndrome Score for the psychotic disorder group was: Positive (mean -9.1 [SD - 4.5]), negative (mean - 9.7 [SD - 4.6]), general psychopathology (mean - 18.6 [SD - 4.5]) and total score (mean - 37.4 [SD - 12.4]). For the patients with affective disorder, the mean HDRS score was 0.8 (SD - 1.8) and mean YMRS score was 1.7 (SD - 2.3). The YBOCS score for the patients with OCD group was 6.87 (9.3).
Needs as assessed on Camberwell Assessment of Need [Table 2]
As per CAN-R, the most commonly reported needs by patients were those of money (67.8%), welfare benefits (60.9), transport (55.6%), information about the illness and treatment (58.3%), relief of psychological distress (56.2%), company (45.2%), household skills (40.4%) and intimate relationships (38%). In terms of met needs, the most commonly reported met needs were those of relief of psychological distress, information about the illness and treatment, transport, company, household skills and intimate relationships. The most commonly reported unmet needs were in the areas of welfare benefits, money, information about illness and treatment, transport, relief of psychological distress and psychotic symptoms.

Needs as per Supplementary Needs Assessment Scale [Table 3]
On SNAS, as per the patients most commonly identified total needs were those of financial help (64.6%), medical reimbursement (61.4%), psychoeducation (60.4%), certification of mental illness (53.2%), free treatment (51.1%), flexible work/job timings (48.5%), addressing the caregiver stress (43.9%) and legal aid (40.5%). In terms of met needs the most commonly reported met need was that of psychoeducation, followed by flexible work/job timing, certification, financial help, dealing with caregiver stress, travel concession, medical reimbursement and free treatment. However, in terms of unmet needs the most commonly identified unmet needs were that of medical reimbursement, financial help, free treatment, job reservations/help at job, certification, legal aid and tax benefits.

Total needs on Camberwell Assessment of Need and Supplementary Needs Assessment Scale
The mean number of needs on CAN-R and SNAS were 7.6. On CAN-R about two-third of the needs were met, and one-third needs were unmet. On SNAS, 46% of needs remained unmet.

Sociodemographic and clinical factors associated with needs
Maximum numbers of correlations were seen between the needs and the education in years. Level of education correlated negatively with CAN-R met needs (Pearson correlation coefficient -0.160***; P < 0.001), CAN-R total needs (Pearson correlation coefficient - 0.130***; P < 0.001), SNAS unmet needs (Pearson correlation coefficient − 0.09***; P < 0.001) and SNAS total needs (Pearson correlation coefficient − 0.115***; P < 0.001).

In terms of categorical variables, as is evident from Table 4, males had more met needs. Those who were employed had more total needs as per CAN-R but less as per SNAS. Additionally, those who were employed had a higher number of unmet needs as per CAN-R.

Table 1: Sociodemographic profile of patients and the family caregivers (n=1494)

| Variables                                | Patients Mean (SD)/n (%) |
|------------------------------------------|-------------------------|
| Age in years                             | 37.4 (11.17) (range 18-75 years) |
| Gender                                   |                          |
| Male                                     | 835 (55.9)              |
| Females                                  | 659 (44.1)              |
| Marital status                           |                          |
| Single                                   | 434 (29)                |
| Currently married                        | 966 (64.7)              |
| Widowed/divorced/separated               | 94 (6.2)                |
| Education in years                       |                          |
| Illiterate                               | 78 (5.2)                |
| Less than high school                    | 546 (36.6)              |
| Up to or beyond high school              | 847 (58.2)              |
| Education in years                       | 9.74 (4.4) (0-19)       |
| Occupation                               |                          |
| Unemployed                               | 678 (45.4)              |
| Employed                                 | 816 (54.6)              |
| Family income in rupees                  |                          |
| Up to 7322                               | 810 (54.2)              |
| ≥7323                                    | 684 (45.8)              |
| Family type                              |                          |
| Nuclear                                  | 828 (55.4)              |
| Locality                                 |                          |
| Urban                                    | 704 (47.1)              |

Table 2: Health-care needs as per CAN-R

| Variable                           | Met needs (%) | Unmet needs (%) | Total needs (%) |
|------------------------------------|--------------|-----------------|-----------------|
| Accommodation                      | 293 (19.6)   | 108 (7.2)       | 401 (26.8)      |
| Food                               | 414 (27.7)   | 93 (6.2)        | 507 (33.9)      |
| Household skills                   | 457 (30.6)   | 146 (9.8)       | 603 (40.4)      |
| Self-care                          | 316 (21.2)   | 76 (5.1)        | 392 (26.3)      |
| Daytime activities                 | 279 (18.7)   | 187 (12.5)      | 466 (31.2)      |
| Physical health                    | 337 (22.7)   | 90 (6.0)        | 427 (28.7)      |
| Psychotic symptoms                 | 258 (17.5)   | 164 (11.0)      | 421 (28.3)      |
| Information                        | 586 (39.2)   | 286 (19.1)      | 872 (58.3)      |
| Psychological distress             | 622 (41.6)   | 218 (14.6)      | 840 (56.2)      |
| Safety to self                     | 176 (11.8)   | 40 (2.7)        | 216 (14.5)      |
| Safety to others                   | 149 (10.9)   | 82 (5.5)        | 231 (15.5)      |
| Alcohol                            | 54 (3.6)     | 50 (3.3)        | 104 (6.9)       |
| Drugs                              | 68 (4.6)     | 126 (8.4)       | 194 (13.0)      |
| Company                            | 554 (37.1)   | 121 (8.1)       | 775 (54.2)      |
| Intimate relationships             | 439 (29.4)   | 129 (8.6)       | 568 (38.0)      |
| Sexual expression                  | 262 (17.5)   | 109 (7.3)       | 371 (24.8)      |
| Child care                         | 303 (20.3)   | 77 (5.2)        | 380 (25.5)      |
| Basic education                    | 255 (17.1)   | 111 (7.4)       | 366 (24.5)      |
| Telephone                          | 407 (27.2)   | 150 (10.0)      | 557 (37.2)      |
| Transport                          | 560 (37.5)   | 271 (18.1)      | 831 (55.6)      |
| Money                              | 494 (33.1)   | 518 (34.7)      | 1012 (67.8)     |
| Welfare benefits                   | 345 (23.1)   | 564 (37.8)      | 909 (60.9)      |
| Total [mean (SD)]                  | 5.1 (3.3)    | 2.5 (2.6)       | 7.6 (4.3)       |

Unemployed participants reported higher number of needs as per SNAS. Higher needs were reported by those with lower family income, from nonnuclear families and rural background.

Association of psychopathology and needs [Table 5]
In terms of GAF score, higher level of functioning was
associated with a lower number of needs. In the affective disorder group, higher level of residual psychopathology was associated with more needs. In the psychotic group, in general, higher level of residual psychopathology was associated with a higher number of met, unmet and total needs. There was no relationship of YBOCS score with needs.

### Comparison of needs across different diagnostic groups [Table 6]

When the mean number of needs were compared across the different broad diagnostic groups, no significant differences emerged on CAN-R and SNAS. Further, no significant difference was seen on CAN-R when the psychotic disorder, bipolar disorder, unipolar disorder and OCD groups were compared with each other. However, on SNAS, compared to patients with psychotic disorders patients of bipolar disorder reported significantly higher met and total needs. In general, patients of OCD had a higher number of needs on SNAS compared to patients of schizophrenia and unipolar disorder. Details of the results are shown in Table 6. No significant differences were noted in the areas of needs between those with unipolar and bipolar disorder except that those with bipolar disorder had higher met needs as per SNAS.

### DISCUSSION

This multicentric study evaluated about 1500 patients with severe mental disorders for needs across 15 centers distributed in the various geographical zones of India and

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**Table 3: Health-care needs as per SNAS**

| Needs | Met needs (%) | Unmet needs (%) | Total needs (%) |
|-------|---------------|-----------------|-----------------|
| Medical reimbursement | 323 (21.6) | 594 (39.8) | 917 (61.4) |
| Free treatment | 308 (20.6) | 577 (30.5) | 885 (51.1) |
| Travel concessions | 380 (25.4) | 215 (14.4) | 595 (39.8) |
| Rehab facilities | 285 (19.1) | 174 (11.6) | 459 (30.7) |
| Financial help | 451 (30.2) | 514 (34.4) | 965 (64.6) |
| Psycho-education | 650 (43.5) | 253 (16.9) | 903 (60.4) |
| Home visits | 185 (12.4) | 147 (9.8) | 332 (22.2) |
| Help during emergency | 64 (4.3) | 145 (9.7) | 209 (14.0) |
| Spiritual needs | 128 (8.6) | 143 (9.6) | 271 (18.2) |
| Religious needs | 116 (7.8) | 167 (11.2) | 283 (19.0) |
| Job reservations/help | 225 (15.1) | 336 (22.5) | 561 (37.6) |
| Certification needs | 474 (31.7) | 321 (21.5) | 795 (53.2) |
| Caregiver stress help | 402 (26.9) | 254 (17.0) | 656 (43.9) |
| Physical therapy groups/ clubs/societies | 294 (19.7) | 47 (3.1) | 341 (22.8) |
| Guardianship | 321 (21.5) | 36 (2.4) | 357 (23.9) |
| Legal aid | 285 (19.1) | 320 (21.4) | 605 (40.5) |
| Tax benefits | 144 (9.6) | 307 (20.5) | 451 (30.1) |
| Flexible work/job timings | 502 (33.6) | 222 (14.9) | 724 (48.5) |
| Insurance | 146 (9.8) | 146 (9.8) | 292 (19.6) |
| Social support | 172 (11.5) | 156 (10.4) | 328 (21.9) |
| More time from clinicians | 311 (20.8) | 175 (11.7) | 486 (32.5) |
| Total [Mean (SD)] | 4.1 (3.8) | 3.5 (4.7) | 7.6 (6.2) |

**Table 4: Association of categorical sociodemographic variables with needs**

**Table 5: Association of psychopathology with needs**

**Table 6: Comparison of needs across different diagnostic groups**

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**Assessment of Functioning; HDRS – Hamilton Depression Rating Scale; YMRS – Young Mania Rating Scale; PANSS – Positive and Negative Syndrome Scale**

**SNAS total needs**

**SNAS unmet needs**

**SNAS met needs**

**CAN-R total needs**

**CAN-R unmet needs**

**CAN-R met needs**

**UB versus R***

**E>U***

**L>H***

**NN>N***

**UB versus R***

**E>U***

**L>H***

**NN>N***

**UB versus R***

**N versus NN**

**UB versus R***

**E>U***

**L>H***

**NN>N***

**UB versus R***

**UB versus R***

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**E – Employed; U – Unemployed; L – Income<7322 rupees; H – Income>7322 rupees; NN – Nonnuclear; N – Nuclear; R – Rural; UB – Urban; CAN – Camberwell Assessment of Need; SNAS – Supplementary Needs Assessment Scale; **P<0.01; ***P<0.001**

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**GAF – Global Assessment of Functioning; HDRS – Hamilton Depression Rating Scale; YMRS – Young Mania Rating Scale; PANSS – Positive and Negative Syndrome Scale; SNAS – Supplementary Needs Assessment Scale**

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**BD versus UP (P<0.001)**

**OCD>UP**

**BD versus OCD**

**OCD>Psych**

**Psych>BD**

**BD versus OCD**

**OCD>Psych**

**Psych>BD**

**BD – Bipolar; UP – Unipolar; OCD – Obsessive compulsive disorder; SNAS – Supplementary Needs Assessment Scale; **P<0.01; ***P<0.001**
from different settings in both private and public psychiatric care services. The study evaluated the needs using a standard instrument for need assessment, that is, CAN-R. In addition to CAN-R, the study included assessment of needs using SNAS, an instrument design to assess the needs in the Indian context.

**Needs as per Camberwell Assessment of Need**

In the present study, the mean number of needs on CAN-R was 7.6. Of these about two-third of the needs were met, and one-third were unmet needs.

The number of needs reported by the patients in the present study are more or similar to that reported in studies from the West and India using CAN-R in patients with schizophrenia. Studies from the West have reported 5.3–7.9 needs as per the patients on CAN-R and the previous studies from India reported 6.84–8.12 needs as per the patients. The finding of two-third needs being met and one-third needs being unmet are also supported by the studies from the West and India. Presence of one-third unmet needs underscores the need to improve the services and facilities to improve the outcome of patients.

In terms of diagnostic categories, there was no significant difference in the mean number of needs reported by those with psychosis, bipolar disorder, unipolar disorder and OCD. Most of the studies that have compared patients of schizophrenia with other diagnostic groups have suggested lack of difference between different severe mental disorders and findings of the present study does support the same observation. One study has reported that compared to the needs of patients with other disorders, patients with schizophrenia had more met needs. In the same study, patients with affective disorders had more unmet needs compared to the other two groups. A previous study from India, which compared needs of patients of bipolar disorder and schizophrenia had reported lack of difference in mean number of needs as reported by patients assessed using CAN-R, except for higher total needs seen in patients with schizophrenia.

Most consistently reported needs by the patients of schizophrenia in various studies include management of psychotic symptoms, company, food, information, house upkeep/looking after home, daytime activities, psychological distress and intimate relations. In the present study, the most commonly reported needs by patients were those of money (67.8%), welfare benefits (61%), transport (55.6%), information about the illness and treatment (58.3%), relief from psychological distress and management of psychotic symptoms and welfare benefits. However, in the present study, the most commonly reported unmet needs were in the areas of welfare benefits, money, information about illness and transport. A previous study from India also reported welfare needs to be the most common unmet need, along with the needs in the area of psychotic symptoms, information about illness and money. Findings of the present study are in line with the previous study, except for lower reporting of needs in the area of psychotic symptoms. This is understandable because of the heterogeneity of diagnostic groups included in the present study.

Although there are differences in the diagnostic groups in the present study and earlier studies from the West, still the findings of the present study suggest that there are few differences in the needs as reported by patients from India and West. The basic differences in the findings also reflect the services available to the patients. In India, the commonly reported needs by patients reflect the lack of social security for the citizens. Accordingly, the patients have to worry about the basic needs like money, transport and the welfare benefits. Welfare benefits being the most commonly reported unmet need reflect the lack of facilities in this country for rehabilitation and possibly lack of dissemination of information about the government policies for patients with mental illness. When one looks at the treatment-related needs, like studies from the West, patients in the present study also commonly reported the need for information and relief of psychological distress. This possibly reflects the impact of illness per se on patients across the globe. Need for company reported in the present study and studies from the West again speaks about the nature of mental illnesses that lead to social exclusion and social isolation. However, compared to the studies from the West, in the present study the needs like those of food, house upkeep/looking after home, daytime activities and intimate relations were not among the most commonly reported needs. Possibly the family plays a much greater role in the management of mental illness in the Indian setting. Whenever a person falls sick, the family as a unit takes the responsibility of providing food, accommodation and looks after the home, without burdening the patient for the same.

**Needs as per Supplementary Needs Assessment Scale**

As evident from the findings of the present study welfare benefits were among the most commonly identified area of needs. The mean number of total needs as per SNAS was 7.6. Mean number of needs noted in the present study are significantly higher in comparison to that reported by Neogi et al. The possible reasons for this could be larger sample size of the present study. Inclusion of patients from different
parts of the country could have also led to higher reporting of needs depending on the kind of services available.

The common areas of needs as per SNAS included financial help, medical reimbursement, psychoeducation, free treatment, certification of mental illness, flexible work/job timings, addressing the caregiver stress, social support, insurance, more time from the clinicians and travel concession. Previous study by Neogi et al. [21] also identified free treatment, medical reimbursement and financial help to be the most common needs. These findings again amplify the deficient state of health-care service in India.

**Correlates of needs**

Some studies done earlier have reported that more needs are expressed by males, unemployed and older patients [1,2,7,8,12,21,33] and subjects belonging to nonnuclear families. [21] Findings of the present study too support the association of the higher number of needs with male patients and those from nonnuclear families. Additionally, findings of the present study also suggest the association of the higher number of needs with lower educational level of the patients, lower family income and being from the rural background. Taken together, these three variables indicate social and financial disadvantage of these patients.

Present study suggests an association of lower level of functioning with a higher number of needs. This is in agreement with the findings of previous studies that have shown that CAN-R has a negative correlation with GAF and [6,31] and have also demonstrated a positive correlation between the number of needs and level of dysfunction. [7,9,11,21]

In the present study, patients with a higher level of residual psychopathology scores had more needs. This is in keeping with the existing literature [7,31,36] that suggests that symptom control is an important aspect of management to decrease the number of needs.

**Limitations of the study**

The study included only those patients who were attending the mental health services, and this may not be a true reflection of the needs of the patients with severe mental disorders in the community. Further, the assessment of needs was done using a cross-sectional design and patients included in the study were clinically in remission and stable over the last few months. Only few correlates of needs were studied. Future studies must attempt to overcome these limitations.

**Implications of the study**

Attending to the needs of the patients with severe mental disorders can help in improving the outcome of the patients. Findings of the present study suggest for a need to change the orientation of the services provided to the patients with severe mental disorders. Mental health services require a shift from pharmacotherapy oriented services to that of having both pharmacotherapy and psychological interventions as the focus for patients with severe mental disorders. Further, there is a need to have daycare centers and rehabilitation facilities to help patients learn skills to function independently. In terms of policy at the government level, there is a need to provide free treatment, medical reimbursement and financial help to patients with mental illness, which would be more akin to the social services provided to the citizens in many Western countries. Insurance for treatment of mental disorders in India is a controversial subject that merits greater discussion and clarity of opinion. Current certification procedure is also very cumbersome, and there is a need to simplify the same. Although there are certain provisions made by the government like those of travel concession, yet many patients are not able to avail the same either due to difficulties of certification procedure or due to the lack of awareness of such provisions. Other issues include flexible job timings, reservations in jobs and support at the work place. At present, there are no clear guidelines on these issues, especially for those with mental illnesses. Government should come up with clear policies so as to support the patients with mental illness.

**ACKNOWLEDGMENTS**

We are thankful to Prof. Subho Chakrabarti for allowing us to use the SNAS.

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Source of Support: Indian Psychiatric Society (Funded amount 3.04 lakhs), Conflict of Interest: None declared