Rehabilitation needs of patients with schizophrenia attending the general hospital psychiatric unit of a tertiary care hospital in South India

ABSTRACT

Context: Schizophrenia is a major psychiatric illness that is stressful for both patients and their families. Along with clinical improvement with medications, psychosocial rehabilitation is an essential part of treatment to improve functioning and quality of life.

Aims: This study aims to assess the rehabilitation needs of patients with schizophrenia and to identify the association of these needs with demographic and clinical variables.

Settings and Design: A cross-sectional descriptive design was used. The study was conducted in a general hospital psychiatric unit (GHPU) of a tertiary care teaching hospital.

Subjects and Methods: The sample included 770 subjects (385 patients and 385 caregivers). A standardized self-administered questionnaire, the Rehabilitation Needs Assessment Schedule was used to assess the patients’ rehabilitation needs.

Statistical Analysis Used: Categorical variables were expressed as frequencies and percentages. Continuous variables were expressed in terms of mean with standard deviation or median with an interquartile range. The association between different rehabilitation needs was analyzed using the Chi-square test or Fisher’s exact test.

Results: The most common requirement was skill training rehabilitation needs (93.8%), followed by psychosocial modification rehabilitation needs (88%) and help for family members (87%). There were significant associations ($P < 0.05$) between age at onset of illness with employment, current living status with overall needs, and help needed by the family.

Conclusion: The study found that 76.9% of the patients required help in at least one rehabilitation domain. The findings of the study have implications in planning and implementing rehabilitation programs.

Keywords: General hospital psychiatric unit, rehabilitation needs, schizophrenia

Schizophrenia is a severe mental illness characterized by severe distortion of thinking, reality perception, and emotion.[1] This disorder severely affects the personal, social, cultural, and occupational functioning of an individual.[2,3] Though medication helps 60% of the recovery in any psychiatric illness, psychosocial rehabilitation constitutes a vital part of treatment. Patients with schizophrenia continue to experience deficits in functioning even after clinical improvement.[4-6] The rehabilitation measures aim to increase the individual’s level of functioning and quality of life and nurture the strength of patients with schizophrenia. However, rehabilitation tailored to each patient’s unique needs is often lack in the community settings, due to limited resources. In developing countries, stigma and
discrimination toward individuals with mental illness aggravate and complicate the recovery of people living with schizophrenia. Many studies have shown that the quality of life of patients is determined by their unmet needs. A variety of psychosocial factors influence the effective functioning of families of patients with schizophrenia. Many studies have shown that the caregivers of persons with severe mental illness suffer from stressful situations, experience moderately high levels of burden in family, and receive inadequate assistance from mental health professionals. Prior studies insist on the need for attitudinal change among mental health professionals toward planning programs for mentally ill people, and this can be helped by the proper understanding of the problems in families of patients with schizophrenia. Therefore, our study aims to assess the rehabilitation needs of patients with schizophrenia and its association with sociodemographic variables.

SUBJECTS AND METHODS

Patients and their caregivers attending psychiatric services at a tertiary care teaching hospital in Southern India formed the population for sample selection for this study. Patients aged between 18 and 65 years, who had schizophrenia of >2 years, who diagnosed as per International Classification of Diseases, Tenth Edition criteria, and who were in remission were enrolled in the study. Their remission state was confirmed based on the score of <3 on the positive symptoms subscale of the Positive and Negative Syndrome Scale and a score of less than four on the Brief Psychiatric Rating Scale.

In this study, caregivers refer to family members (spouses or blood relatives) who were directly involved in the day-to-day care of patients with schizophrenia and stayed with the patients for more than a year.

A semi-structured questionnaire was used to collect the sociodemographic data, and the Rehabilitation Needs Assessment Schedule (RNAS) was used to assess their rehabilitation needs. RNAS contains purely qualitative information and does not require an observer rating whatsoever. Hence, there was no need for standardization. The questions in RNAS are open ended and covered the following areas: employment, vocational training/guidance, accommodation, leisure activities, psychosocial attitude modification, skills training, help needed by the family, and any other need not covered by the above. The rehabilitation needs of the patients were assessed with RNAS, except for items six and seven (skills training and help needed for the family), which were responded by the caregivers.

The study was conducted in a general hospital psychiatric unit of a tertiary care teaching hospital after obtaining ethical clearance. A brief explanation of the study details was given to the participants. Subjects who fulfilled the inclusion criteria were recruited in the study after obtaining informed consent. Privacy and confidentiality were maintained throughout the study.

The sample size was estimated at a 5% level of significance and with 5% absolute precision with a minimum expected proportion of patients with the rehabilitation requirement in any of the domains as 50%. It came to be 385, and finally, 780 subjects (385 patients and 385 caregivers) were included in the study by using a convenience sampling technique.

Statistical analysis

Categorical variables such as gender, education, clinical characteristics, and sociodemographic characteristics were expressed as frequencies and percentages. Continuous variables such as age, duration of illness, and income were expressed in terms of mean with standard deviation or median with an interquartile range based on data distribution. The association of rehabilitation needs with clinical and sociodemographic profile and the association between different rehabilitation needs were analyzed using the Chi-square test or Fisher’s exact test. The statistical analysis was carried out at 5% significance, and a P < 0.05 was considered statistically significant.

RESULTS

The demographic profile of the patients and their caregivers is summarized in Table 1. The assessment of the overall rehabilitation needs of patients with schizophrenia showed that 296 (76.9%) subjects reported rehabilitation needs in at least one domain. The employment status of patients implicated that 212 (55%) subjects became unemployed after the illness. The assessment of help needed for employment is illustrated in Table 2.

The assessment on vocational rehabilitation needs indicated that around 81 (21%) patients needed help in domestic craft training, 47 (12.2%) in skilled work training, 46 (11.9%) in craftwork, 36 (9.4%) each in semiskilled work and industrial work training, and 1 (0.3%) needed help in agriculture. Around 138 (35.8%) patients required no help in vocational rehabilitation.
The assessment in the domain of help for the family members of the patients with schizophrenia showed that the majority of subjects (336, 87.3%) needed help for the family, of whom 137 (35.6%) required support for looking after other needs, 77 (20%) in vocational training, 61 (15.8%) in finding a job for family members, and 59 (15.3%) in educating family members, whereas 51 (13.2%) required no help.

Majority of the subjects (339, 88%) required psychosocial modification rehabilitation needs, of whom 161 (41.8%) of the subjects expected a change in the attitude from friends and neighbors, 97 (25.2%) from colleagues and superiors, 65 (16.9%) required modification in immediate family activity, and 16 (4.2%) expected the change in the attitude of distant relatives, whereas 46 (12%) of the individuals required no change.

The assessment under the subdomain and leisure activity rehabilitation needs of the patients showed that only 144 (37.4%) required leisure activities. The details are listed in Table 3.

The assessment of accommodation needs of the patients showed that the majority of subjects (n = 360, 93.5%) did not require any help for accommodation, 7 (1.8%) required accommodation in hospitals; 7 (1.8%) in halfway homes, 4 (1%) in independent lodging, 2 (0.5%) in night care, and 1 (0.3%) in independent group lodging.

The assessment of skill training for the family revealed that 361 (93.8%) subjects required help in this area, of whom 148 (38.4%) expected to teach household skills, 110 (28.6%) needed social skills, 103 (26.8%) wanted personal skills, and 24 (6.2%) required no help.

The assessment of patients’ other rehabilitation needs showed that majority (371, 96.4%) required help, whereas 14 (3.6%) required financial assistance, pension for family and personnel, free home loans, and education for children. The overall needs of rehabilitation by our subjects are shown in Table 4.

The results of the Chi-square/Fisher’s exact test showed that there was a significant association (P < 0.05) between rehabilitation needs and sociodemographic variables. Rehabilitative needs on psychosocial attitude modification were significantly associated (P = 0.002) with habitat and occupational status (P = 0.001) and the details are listed in Tables 5 and 6, respectively. Likewise, current living status and habitat were significantly associated with overall needs (P = 0.03 and P = 0.02, respectively). Monthly income was significantly associated with skill training (P = 0.01). The type of relation with the caregiver showed a significant association with overall needs (P = 0.02) and the type of help needed for the family (P = 0.04).

### Table 1: The demographic profile of patients and their caregivers

| Demographic variables | Patient’s characteristic, n (%) | Caregiver’s characteristic, n (%) |
|-----------------------|---------------------------------|-----------------------------------|
| Age (years)           |                                 |                                   |
| 36-45                 | 139 (33.5)                      | 119 (30.9)                        |
| 46-55                 | 68 (17.7)                       | 84 (21.8)                         |
| 56-65                 | 29 (7.5)                        | 66 (17.1)                         |
| Sex                   |                                 |                                   |
| Male                  | 168 (43.6)                      | 167 (43.4)                        |
| Female                | 237 (60.4)                      | 218 (56.6)                        |
| Currently living status |                               |                                   |
| Parents               | 175 (45.5)                      | 138 (35.8)                        |
| Sibling               | 68 (17.7)                       | 81 (21.0)                         |
| Other relatives       | 142 (36.9)                      | 166 (43.1)                        |
| Type of family        |                                 |                                   |
| Nuclear family        | 138 (35.8)                      | 145 (37.7)                        |
| Joint family          | 247 (64.2)                      | 240 (62.3)                        |
| Marital status        |                                 |                                   |
| Single                | 108 (28.1)                      | 58 (15.1)                         |
| Married               | 242 (62.9)                      | 309 (80.3)                        |
| Widowed               | 18 (4.7)                        | 10 (2.6)                          |
| Divorced              | 17 (4.4)                        | 8 (2.1)                           |
| Domicile/habitat      |                                 |                                   |
| Urban                 | 65 (16.9)                       | 68 (17.7)                         |
| Rural                 | 320 (83.1)                      | 317 (82.3)                        |
| Educational status    |                                 |                                   |
| Illiterate            | 74 (19.2)                       | 74 (19.2)                         |
| High school           | 241 (62.6)                      | 256 (66.5)                        |
| Graduate              | 64 (16.6)                       | 53 (13.8)                         |
| Postgraduate          | 6 (1.6)                         | 2 (0.5)                           |
| Occupational status   |                                 |                                   |
| Unemployed            | 262 (68.1)                      | 158 (44.1)                        |
| Unskilled worker      | 92 (23.9)                       | 189 (49.1)                        |
| Skilled worker        | 16 (4.1)                        | 32 (8.3)                          |
| Professional          | 15 (3.9)                        | 6 (1.6)                           |
| Monthly income (Rs.)  |                                 |                                   |
| <2000                 | 58 (15.4)                       | 49 (12.7)                         |
| 2001-5000             | 157 (40.8)                      | 154 (40.0)                        |
| 5001-10,000           | 149 (38.7)                      | 148 (38.4)                        |
| >10,000               | 21 (5.5)                        | 34 (8.8)                          |

### Table 2: Employment needs of patients with schizophrenia (n=385)

| Help needed for employment | Frequency, n (%) |
|-----------------------------|------------------|
| No help                     | 80 (20.8)        |
| Vocational guidance         | 21 (5.5)         |
| Vocational training         | 115 (29.9)       |
| Finding employment          | 161 (41.8)       |
| Others                      | 1 (0.3)          |
| More than one help          | 2 (0.5)          |
| Not applicable              | 4 (1.0)          |
Table 3: Assessment of rehabilitation needs on leisure activity of patients with schizophrenia (n=385)

| Leisure activity required                  | Frequency, n (%) |
|-------------------------------------------|------------------|
| Library                                   | 32 (8.3)         |
| TV, radio, etc.                           | 23 (6.0)         |
| Indoor games                              | 12 (3.1)         |
| Outdoor games                             | 27 (7.0)         |
| Group meeting                             | 24 (6.2)         |
| Group activity                            | 22 (5.7)         |
| Hobby                                     | 3 (0.8)          |
| Others                                    | 1 (0.3)          |
| Not applicable                            | 233 (60.5)       |
| Unknown                                   | 8 (2.1)          |

Table 4: Assessment of different aspects of rehabilitation needs of patients with schizophrenia (n=385)

| Rehabilitation needs                      | Yes, n (%) | No, n (%) |
|-------------------------------------------|------------|-----------|
| Overall needs                             | 296 (76.9) | 89 (23.1) |
| Employment                                | 300 (77.9) | 85 (22.1) |
| Accommodation                             | 25 (6.5)   | 360 (93.5)|
| Leisure activity                          | 144 (37.4) | 243 (62.6)|
| Psychosocial attitude modification        | 339 (88.1) | 46 (11.9) |
| Help for family                           | 336 (87.3) | 49 (12.7) |
| Skill training                            | 361 (93.8) | 24 (6.2)  |

DISCUSSION

In our sample, 76.9% of the patients required help in at least one rehabilitation domain such as employment, vocational training, accommodation, leisure activities, psychosocial modification, help for the family, or skill training. This is in line with the findings of earlier studies by Nagaswami et al. and Gandotra et al. This stresses the need for a wide range of rehabilitation services to improve the standard of care given to these patients.

The majority of the subjects experienced the onset of their illness in the ages of 20–29 years and were in the age group of 36–45 years at the assessment time, reflecting similarity with previous studies.

The use of a standard scale in assessing chronically ill patients’ rehabilitation needs helps in knowing the actual requirements and plans their rehabilitation. Adding to the early onset of illness, planning such rehabilitation programs at an early stage will improve their quality of life.

The sample for the current study contained a majority of women. Despite rigid cultural norms regarding gender roles, rehabilitation needs were comparable across genders in all the domains, including employment and skill training needs. In our study, marital status was significantly associated with employment needs, in contrast with the findings of Nagaswami et al. In Indian society, married women are expected to contribute to their family in many ways. Appropriate rehabilitation facilities will assist them in improving their functioning across various domains, particularly in the case of women from rural backgrounds. Awareness and availability of rehabilitation programs at the community level would significantly enhance the quality of life.

In the present study, skill training was perceived as the most important rehabilitation need, reported by (93.8%) individuals. Skill training consists of a wide range of interventions to improve social skills, social function, cognition and competence for independent living in individuals with schizophrenia, who may have failed to acquire these skills or gradually lost them due to the chronicity and social consequences of their illness. Hence, training in these skills is essential for the restoration of adequate functioning. Singh et al. reported that social skills training (80%) was the most preferred area of rehabilitation needs followed by employment (65%).

The majority of subjects (88%) expressed a need for psychosocial modification as part of rehabilitation, especially interventions aimed at changing their friends’ and neighbors’ attitudes. These findings are in line with the reported stigmatization faced by these individuals in an earlier study by Pavithra et al. where 80% reported needs in psychosocial attitude modification. Stigma, which is a complex issue, imposes an additional burden on the health of many individuals with schizophrenia. Hence, addressing this need is essential not only for the individual and the family but also for society as a whole.

Our assessment of the needs of family members of patients with schizophrenia showed that most subjects required family support, which is in line with the findings of other studies. Family members play a significant role in the care of patients with schizophrenia and impose substantial emotional, physical, social, and economic burdens on them. Therefore, most of the caregivers in our sample reported a requirement for assistance in taking care of the patient’s health, obtaining medications, arranging for regular follow-ups, and financial help.

The overall requirement for employment and vocational training in the present study is 78%. Employment needs mainly focused on skilled works, while vocational rehabilitation was focused on domestic crafts and work. In our subjects, the need in areas of employment and vocational training was ranked fourth in importance, in contrast to the results of other studies. Access to employment plays a critical role in the functioning and recovery of people with schizophrenia. Engaging and
participating in vocational training and other forms of rehabilitation will increase the independence of patients. The present study showed that most patients were unemployed due to mental illness, which indicates the importance and relevance of vocational rehabilitation in improving work-related outcomes.
The accommodation was considered as the least essential rehabilitation needs by our patients in the current study. The majority of patients did not require help with accommodation, similar to the findings of Gandotra et al.[14] as most of them lived with their parents or siblings. This further highlights the importance of the need to assess the help required by the family members while taking care of the patients, as well as the significance of rehabilitation programs such as vocational training and job placement for the individuals, which would help them to support their families.

Concerning leisure activities, some subjects expressed a need for library facilities. Few of them reported a preference for television or radio, which is in contrast with the findings of Gandotra et al.[14] Our subjects also expressed a preference for outdoor games when compared to indoor games, which could have a positive effect on their physical well-being and could also lead to an improvement in their negative symptoms.

Our study is subject to certain limitations. First, it was limited to patients with schizophrenia and not to those with other chronic mental illnesses. Second, family members’ rehabilitation needs in handling the individual during the various phases of the illness may vary. Complete family needs could not be captured by our study, due to its cross-sectional design. Finally, a longitudinal design incorporating the results of the feedback given by patients and caregivers would aid in assessing the real-world effectiveness of rehabilitation programs.

**CONCLUSION**

The rehabilitation needs assessments strengthen institutional and community-based rehabilitation measures. The results of the present study can be used not only to identify and prioritize the rehabilitation needs of patients with schizophrenia but also to plan and implement appropriate strategies to enhance their quality of life. It is recommended that these types of assessments should be included as a routine part of care to improve the functioning level of patients.

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**Conflicts of interest**

There are no conflicts of interest.

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