

**A Cross Sectional Survey to Identify the Rate and Predictors of Utilization of Rehabilitation Services among People with Psychotic Disorders****Farheen Fatma****Assistant Professor, Department of Psychiatry, Netaji Subhas Medical College and Hospital, Amhara, Bihta, Patna, Bihar, India****Received: 10-07-2023 Revised: 12-08-2023 / Accepted: 28-09-2023****Corresponding author: Dr. Farheen Fatma****Conflict of interest: Nil****Abstract****Aim:** The aim of the present study was to identify the rate and predictors of utilization of rehabilitation services among people with psychotic disorders.**Methods:** A cross-sectional survey was conducted to investigate the utilization of psychiatric rehabilitation among individuals aged over 15 years with severe mental disorders and their caregivers for the period of one year. The survey employed a multistage stratified, clustered sampling scheme.**Results:** A total of 500 severe mental disorder patients (64% male) aged over 15 years and 300 caregivers were interviewed. The mean age of the patients was  $42.6 \pm 12.0$  years and the caregiver was  $54.6 \pm 14.6$  years. 52% were single. 65% were engaged in agricultural work. Median scores of positive, negative and general symptoms of the PANSS were 12, 15 and 25, respectively. The utilization rate for any rehabilitation service was 20%. There were no significant differences between those who ever utilized and those who had never utilized any rehabilitation service in terms of gender, age group, marital status, occupation, disease duration and caregiver's gender. However, statistically significant differences were found in educational level, type of psychoses, having a caregiver and PANSS scores.**Conclusion:** It is important that the government formulate relevant mental health policies and incorporate them into public health and social policy that suits the needs of severe mental disorder patients and their families. Psychiatric rehabilitation service operates as a whole system which includes many other institutions and organizations. Therefore, the collaborative and partnership network should be developed and the links with local community resource to facilitate services should be strengthened.**Keywords:** Severe Mental Disorder, People With Psychotic Disorders, Psychiatric Rehabilitation Services, Influencing Factors.

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**Introduction**

Progress in development and use of pharmacological agents and other treatments including electroconvulsive therapy made it possible for many people with severe mental illness like schizophrenia live out-side the restrictive and costly long-stay hospital environment. People with severe mental illness have the same life goals as everyone else. These goals include a safe, decent, affordable and permanent place to live, access to education and employment, friendships and community participation in leisure and growth activities. In other words, they want to live satisfying, functional, meaningful lives, not just be stable. [1] However people are discharged from highly structured and supervised environment of hospital care into community with nothing more than a prescription for medicines. [2] Reduction in symptoms of the schizophrenia was not seen to correlate with functional improvement. [3]

Psychiatric Rehabilitation (PR) or Psychosocial Rehabilitation (PSR) is of crucial importance in addressing the issue of facilitating a person with severe mental illness to progress beyond clinical improvement to full functional capacity and participation in life. The discipline promotes the adoption of a broad, holistic approach to care for the mentally ill and challenges the mental health services to think more inclusively of people with severe mental illness with focus on inherent strengths and possibilities of recovery. [4,5] A patient with chronic mental illness has different cognitive and functional disabilities that cause behavioral problems and make it impossible to fulfill roles and responsibilities. [6] Although the majority of chronically mentally ill patients have a diagnosis of schizophrenic disorders, other patient groups with psychotic and non-psychotic disorders [7-10] are targeted by psychiatric rehabilitation. [11]

Psychiatric rehabilitation services focus on helping patients develop skills and access resources needed to increase their ability to be successful and satisfied in the living, working, learning, and social environments of their choice. [12] They are especially related to the improvement of functioning and quality of life. [13] Additionally, psychiatric rehabilitation aims to reintegrate patients with severe mental disorders into society and help them to live fulfilling lives. [14,15] Psychiatric rehabilitation services include medications for treatment-resistant psychosis and affective disorders, physical health promotion, psychological interventions such as cognitive behavioral therapy and family interventions, occupational therapy, and supported employment. [16]

The aim of the present study was to identify the rate and predictors of utilization of rehabilitation services among people with psychotic disorders.

### Materials and Methods

A cross-sectional survey was conducted to Department of Psychiatry, Netaji Subhas medical College and Hospital, Amhara, Bihta, Patna, Bihar, India, investigate the utilization of psychiatric rehabilitation among individuals aged over 15 years with severe mental disorders and their caregivers for the period of one year. The survey employed a multistage stratified, clustered sampling scheme.

An indigenous field worker sampling method was employed in which village doctors were trained to recruit participants. These village doctors located individuals known to them and suspected as having schizophrenia or other psychoses within the target area and recruit them into the study. Multiple sites and recruitment networks were chosen to ensure a wide coverage of the target population and to reduce volunteer bias.

### Study Participants

Individuals aged 15 years or over, residing in the study area for at least 6 months prior to the study period were eligible. In this study, severe mental disorders included schizophrenia, schizotypal, and delusional disorders (International Statistical Classification of Diseases and Related Health Problems (ICD-10) codes F20–F29) and other psychoses (e.g. organic psychoses) which are consistent with the “Severe mental illness treatment and management specification” launched by the Chinese Government. All patients were assessed for a definitive diagnosis by qualified psychiatrists.

### Interview and Measures

After providing written informed consent, each participant met in person with a research staff for an interview that lasted approximately half an hour. Data on demographic characteristics, clinical symptoms, treatment history, use of psychiatric rehabilitation services and, if appropriate, reasons for not utilizing the service were elicited. Psychiatrists conducted clinical interviews to evaluate the severity of a patient’s condition using the positive and negative syndrome scale (PANSS). [17] Scores range from 7 to 49 for positive and negative scales and from 16 to 112 for the general scale and higher scores represent more severe symptoms. The psychiatrists also inquired about the caregiver’s information such as age, gender, education level and marital status.

Utilization of psychiatric rehabilitation services was defined as any use of psychiatric rehabilitation programmes by the patients within 12 months prior to the survey. This included social skills training, cognitive/ cognitive-behavioral therapy, family psycho education and vocational rehabilitation. In this study, the utilization of psychiatric rehabilitation services included both inpatient and community-based services.

### Data Analysis

Descriptive statistics were used to summarize the demographic data of the participants and their caregivers. Pearson’s Chi square test was used to compare differences in socio-demographic variables, cause of illness and disease duration between those utilizing and not utilizing psychiatric rehabilitation services while Student’s independent t-test was used to compare differences in positive, negative and general symptom scores. Based on some previous studies, patients’ characteristics, including demographics, course of illness, type of symptoms (positive or negative) and type of psychotic disorders as well as caregivers’ characteristics were associated with the use of treatment and rehabilitation services<sup>18</sup>, we therefore looked at the associations between each of these variables in the univariate analyses. The variables with  $p$  value  $\leq 0.20$  in the univariate analyses were included in the initial model. To identify predictive factors influencing the utilization of psychiatric rehabilitation services, multivariate logistic regression models were then used to calculate adjusted odd ratios (OR) and 95% confidence intervals (CI). The significance level was set at  $p < 0.05$ . All data were analyzed using R version 3.3.2.

### Results

**Table 1: Socio-demographic and clinical characteristics of the participants and their caregivers**

Characteristics	N	%
<b>Gender</b>		
Male	320	64
Female	180	36
<b>Age groups</b>		
< 30	110	22
30–39	150	30
40–49	125	25
≥ 50	115	23
<b>Education level</b>		
Illiterate	75	15
Elementary school	200	40
Junior high school	175	35
High school or higher	50	10
<b>Marital status</b>		
Single	260	52
Married	220	44
Divorced or widowed	20	4
<b>Occupation</b>		
Unemployed	150	30
Farmer	325	65
Other	25	5
<b>Cause of severe mental disease</b>		
Organic psychoses	50	10
Other non-organic severe mental disorders	450	90
<b>Disease duration (years)</b>		
< 10	200	40
10–19	150	30
≥ 20	150	30
<b>PANSS score, median (IQR)</b>		
Positive scale	12 (7–14)	
Negative scale	15 (7–48)	
General psychopathology	25 (16–76)	
<b>Caregiver</b>		
Yes	240	80
No	60	20
<b>Caregiver's gender</b>		
Male	180	60
Female	120	40
<b>Utilization of rehabilitation services</b>		
No	400	80
Yes	100	20

A total of 500 severe mental disorder patients (64% male) aged over 15 years and 300 caregivers were interviewed. The mean age of the patients was  $42.6 \pm 12.0$  years and the caregiver was  $54.6 \pm 14.6$  years. 52% were single. 65% were engaged in agricultural work. Median scores of positive, negative and general symptoms of the PANSS were 12, 15 and 25, respectively. The utilization rate for any rehabilitation service was 20%.

**Table 2: Comparison of factors between patients who utilized rehabilitation services and those who did not**

Characteristics	Utilization of rehabilitation services		P Value
	No (N=400)	Yes (N=100)	
<b>Gender</b>			
Male	250	70	0.840
Female	150	30	
<b>Age groups</b>			
< 30	90	20	0.620

30–39	125	25	
40–49	100	25	
≥50	85	30	
<b>Education level</b>			
Illiterate	67	8	0.750
Elementary school	160	40	
Junior high school	133	42	
High school or higher	40	10	
<b>Marital status</b>			
Single	190	70	0.552
Married	175	45	
Divorced or widowed	15	5	
<b>Occupation</b>			
Unemployed	120	30	0.365
Farmer	265	60	
Other	15	10	
<b>Cause of severe mental disease</b>			
Organic psychoses	45	5	0.007
Other non-organic severe mental disorders	355	95	
<b>Disease duration (years)</b>			
< 10	155	45	0.080
10–19	115	35	
≥ 20	130	20	
<b>PANSS score, median (IQR)</b>			
Positive scale	13 (7–22)	9 (7–18)	0.024
Negative scale	17 (10–25)	13 (10–19)	0.016
General psychopathology	27 (20–37)	23 (19–28)	0.003
<b>Caregiver</b>			
Yes	180	60	0.032
No	50	10	
<b>Caregiver gender</b>			
Male	150	30	0.240
Female	100	20	

There were no significant differences between those who ever utilized and those who had never utilized any rehabilitation service in terms of gender, age group, marital status, occupation, disease duration and caregiver's gender. However, statistically significant differences were found in educational level, type of psychoses, having a caregiver and PANSS scores.

### Discussion

Psychiatric rehabilitation is an important part of a mental health service. It promotes recovery, community integration, and improves quality of life for patients who have been diagnosed with any mental health condition that seriously impairs their ability to lead meaningful lives. If the patients received rehabilitation their social function will be improved which in turn will decrease the burden of caregivers. [19] A major challenge in psychiatric care is to create an open and rehabilitative environment that promotes patient recovery [11] and that involves redefinition of one's illness. [20] These people need to access services that are not only effective in treating their mental health but

also increase their awareness of lifestyle choices and promote autonomy and independence, thereby reducing their need for inpatient services. Therefore, it is important to develop appropriate procedures of psychosocial rehabilitation that put an emphasis on improving patient functioning in various spheres of life. [21,22] Rehabilitation interventions concern the so-called "subjective" model of recovery and, thus, promote taking an active position against the illness, which encourages self-determination and empowerment. [23]

Reasons for the low utilization of psychiatric rehabilitation services are multifactorial. Some of the factors in developing countries are largely similar to developed countries, such as the economic problems, defective national insurance system, high social stigma of mental illness, lack staff trained in basic principles of psychosocial rehabilitation, the aim of rehabilitation is not fully understood, lack of national mental health policy. [24,25] A total of 500 severe mental disorder patients (64% male) aged over 15 years and 300 caregivers were interviewed. The mean age of

the patients was  $42.6 \pm 12.0$  years and the caregiver was  $54.6 \pm 14.6$  years. 52% were single. 65% were engaged in agricultural work. Median scores of positive, negative and general symptoms of the PANSS were 12, 15 and 25, respectively. The utilization rate for any rehabilitation service was 20%. This study found that patients with organic psychoses were less likely to use psychiatric rehabilitation services. It is likely that this group of patients is lack of the ability to express their needs adequately or their caregivers did not believe the psychiatric rehabilitation service could work on the patients, thus did not seek psychiatric rehabilitation services. [26]

There were no significant differences between those who ever utilized and those who had never utilized any rehabilitation service in terms of gender, age group, marital status, occupation, disease duration and caregiver's gender. However, statistically significant differences were found in educational level, type of psychoses, having a caregiver and PANSS scores. Patients with caregivers were more likely to utilize rehabilitation services compared to those without. Caregivers constitute the major support system bearing the responsibility for patient care and influence patients to receive services that they need. [25]

This study found that participants who did not utilize psychiatric rehabilitation services had higher scores for negative symptoms, higher scores for positive symptoms and higher scores for general psychopathology compared to those who did not utilize these services. Psychiatric rehabilitation service users often have prominent 'negative' symptoms that may impair their motivation and organizational skills to manage daily activities. This places them at risk of self-neglect. Many also have on-going 'positive' symptoms which have not responded fully to medication and can make communication and engagement difficult. They are lack of the ability to express their needs thus their caregiver and family members are required to help them to access the psychiatric rehabilitation service. However, for some reasons such as the low education level or lack of the awareness, patients and their family can't express their needs adequately.

### Conclusion

It is important that the government formulate relevant mental health policies and incorporate them into public health and social policy that suits the needs of severe mental disorder patients and their families. Psychiatric rehabilitation service operates as a whole system which includes many other institutions and organizations. Therefore, the collaborative and partnership network should be developed and the links with local community

resource to facilitate services should be strengthened.

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