

# Assessment of Rehabilitation Practices and outcomes: A Case study on Mentally Ill Patients in Rehabilitation Unit of Punjab Institute of Mental Health Lahore, Pakistan

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## ABSTRACT

**Objective:** To assess the rehabilitation services for mentally ill patients and their outcome.

**Study Design:** Descriptive study

**Place and Duration of Study:** This study was conducted at the Punjab Institute of Mental Health Lahore, Pakistan (PIMH) from July, 2014 to October, 2014.

**Materials and Methods:** Semi-structured questionnaires were developed to collect data for 85 mentally ill patients (admitted in the rehabilitation unit), from caretakers working in the Rehabilitation Units, using simple random sampling technique. Demographic data was collected from hospital records.

**Results:** Psychiatric patients who underwent treatment for duration longer than 6 weeks in Rehabilitation Units, showed statistically significant positive responses in terms of having a friendly attitude with doctors ( $\chi^2=3.542$ ;  $p=0.059$ ), fellow patients ( $\chi^2=8.432$ ;  $p=0.003$ ) and paramedical staff ( $\chi^2=5.051$ ;  $p=0.024$ ). Moreover, their personal hygiene improved and they not only took interest in watching television, singing and games but also showed enthusiasm on meeting with their relatives ( $\chi^2=11.484$ ;  $p=0.001$ ). Their ability to quickly grasp instructions showed a significant enhancement ( $\chi^2=7.083$ ;  $p=0.007$ ) and their ability to use labour tools during vocational training increased ( $\chi^2=8.745$ ;  $p=0.003$ ). However, comparatively less eagerness was shown in block printing on clothes ( $\chi^2=2.941$ ;  $p=0.086$ ) and weaving clothes on 'khaddi' ( $\chi^2=3.035$ ;  $p=0.081$ ).

**Conclusion:** The study concluded that vocational and psychosocial rehabilitation had been beneficial for chronic mentally ill patients and prepared them to revert back to normal life become useful and respectable members of the society.

**Key Words:** Rehabilitation services, deinstitutionalization, mentally ill patients, vocational rehabilitation.

**Citation of article:** Vehra S, Qureshi EMA, Chawala SZ. Assessment of Rehabilitation Practices and outcomes: A Case study on mentally ill patients in Rehabilitation Unit of Punjab Institute of Mental Health Lahore, Pakistan. Med Forum 2017;28(5):181-186.

## INTRODUCTION

Rehabilitation has generally been defined as restoring something to its original state but medically it refers to the process of assisting an ill or injured person in such a way that the lost skills are restored and maximum self-sufficiency is regained. It simply means to make a person fit for community<sup>1</sup>. However, the official definition of rehabilitation put forward by United States Psychiatric Rehabilitation Association states that 'Psychiatric rehabilitation promotes recovery, full community integration and improved quality of life for

persons who have been diagnosed with any mental health condition that seriously impairs their ability to lead meaningful lives.'<sup>2</sup>

According to WHO (2009), rehabilitation of people with disabilities is a process aimed at enabling them to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels. Rehabilitation provides disabled people with the tools they need to attain independence and self-determination<sup>3</sup>.

There are four major types of rehabilitation, namely, Medicine Rehabilitation: restoration of function; Vocational Rehabilitation: restoration of capacity to earn livelihood; Social Rehabilitation: restoration of family and social relationship, and Psychological Rehabilitation: restoration of personal dignity and confident<sup>4</sup>.

It is now believed that psychiatric rehabilitation is highly demanding and that satisfactory results are not always achieved, but it necessitates cooperation from various sectors of societies and expertise, along with equipment and finances. However, with the availability of modern drugs and acceptance that psychiatric

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condition must be treated as an illness, the prospects of rehabilitation have increased<sup>5</sup>.

The concept of Deinstitutionalisation was rapidly adopted by many countries in 1960's to 1980's, whereby the long-stay psychiatric hospitals were replaced with community mental health service centres for patients with mental illness or developmental disability and were less isolated and relatively open to community. In this way the patients with mental disorders got an opportunity to live and even work in their communities rather than being confined to hospital environment<sup>6</sup>.

The three most common psychiatric illnesses that require rehabilitation are Schizophrenia (commonly known as split personality, in which the patient fails to comprehend what is real and lives in a fantasy world), Manic Depressive Psychosis, MDP, (variation between extreme excitement to deep depression) and Paranoid delusion (severe but baseless suspicion and false beliefs, especially of one being harmed by someone).<sup>7</sup>

Corrigan and McCracken (2013) stated that the ultimate aim of rehabilitation is to restore patient's self esteem, confidence and personal dignity<sup>8</sup>. Siris and Bermanzohn (2003) proposed two models to be employed for rehabilitation of mentally disturbed patients, namely, Treatment and Training<sup>9</sup>. The Treatment model, also known as the Medical model, treats the issues on the basis of disorders or defects which need to be diagnosed and rectified. On the other hand the Training model or the Educational model is based on constructively exploiting the potentials, abilities and strengths of the patients. Psychiatric rehabilitation has been reported to be closely associated with a global social movement called, 'The Recovery Movement' that aims to reverse the disgrace of Schizophrenia and promotes clinical technology which is a step ahead of the simplistic Medical Model<sup>10</sup>.

In Pakistan mental illness is on the rise, depression being the most common problem. Average overall prevalence of depression disorders and anxiety in the community population was reported to be 34% (ranging between 10 to 33% for men and 29 to 66% for women) whereas 1% of the country population suffered from schizophrenia. Prevalence of substance abuse approximated to 12%<sup>11</sup>.

Keeping in view the increasing proportion of mental disorders, the significance of the effective Rehabilitation practices and the concept of deinstitutionalization, the present study was carried out on the patients admitted in the Rehabilitation Unit of the Punjab Institute of Mental Health, Lahore, Pakistan. Generally, those patients who have long stay (chronic patients) in the hospital or those who show signs of substantial improvement are shifted to the Rehabilitation Unit. The rehabilitation Unit differs from the rest of the wards of the PIMH as it allows partial interaction of the patients with the community and also

provides opportunity for vocational training. Thus, an investigation was carried out in the light of statistical analysis to assess the Rehabilitation services and their outcomes in terms of positive responses by the patients.

## MATERIALS AND METHODS

**Study population:** The subjects of the present project were 85 chronic mentally ill patients (both male and female) under treatment in Rehabilitation Units of Punjab Institution of Mental Health, Lahore.

**Inclusion criteria:** Communicative and cooperative patients suffering from Chronic mental ill health.

**Exclusion Criteria:** Patients suffering from acute Mental health

**Sampling, Data collection and analysis:** With the help of a semi-structured questionnaire, information for 85 chronic mentally ill patients was collected from their caretakers (ward boys and 'ayaas'), who were all literate, with their educational status ranging from Matric to Intermediate. The reason for choosing the caretakers as respondents was that they monitor the progress of the patients closely, have frequent interaction and are familiar with their responses. Patient's demographic data was retrieved from hospital records. Information was collected using Simple Random Sampling method. The questionnaire was divided into two sections, one to obtain information regarding behavioural and psychosocial responses of the patients and the other to assess the responses to vocational environment. Although the male and female Rehabilitation units were separate, the analysis was based on overall data collected to remove gender bias. The outcome of the rehabilitation services was assessed on the basis of duration of stay of the patients in the hospital, being less or more than 6 weeks. Data analysis was carried out by using the software Epi Info-6. Chi square test was used to calculate the 'p' value.

**Ethical Consideration:** Written permission of the relevant authorities was sought before embarking the process of collection of data. Fully informed, understood and voluntary consent of the health authorities was obtained and the confidentiality was ensured.

## RESULTS

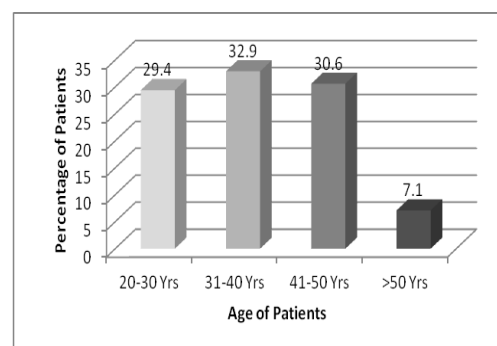
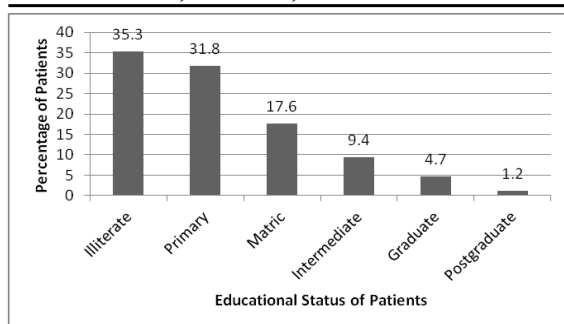
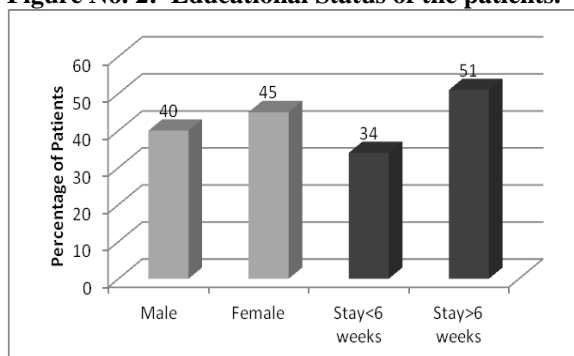


Figure No. 1: Age distribution of the patients



**Figure No. 2: Educational Status of the patients.**



**Figure No. 3: Gender distribution and duration of mental illness**

The present study, carried out to assess the outcomes of the rehabilitation services extended to 85 mentally ill patients admitted in Rehabilitation Unit of Punjab Institute of Mental Health, Lahore, Pakistan, showed that majority of the patients aged between 20 to 50 years and further categorization revealed that 29.4, 32.9, 30.6 and 7.1% belonged to the age group of 20-30, 31-40, 41-50 and >50 years, respectively (Fig. 1)

As regards the educational status of the patients, 35.3% were illiterate, whereas 31.8% had acquired primary education and 17.6, 9.4, 4.7 and 1.2% were matric, intermediate, graduate and postgraduate, respectively (Fig. 2).

According to Fig. 3, out of a total of 85, 40 were male and 45 were females. The period of stay of 34 patients in the Rehabilitation Unit was less than 6 weeks and that of 51 was more than 6 weeks

The information collected regarding patient's behavioural and psychosocial responses, shown in Table 1 revealed interesting results. 82.4% had a friendly behaviour with fellow patient and the patients who had been admitted in Rehabilitation Unit for more than 6 weeks were significantly ( $\chi^2 = 8.4325$ ;  $p = 0.003$ ) more friendly than those with a shorter stay. Likewise, 94.1, 92.9 and 92.9% had a friendly attitude towards doctors, nurses and paramedical staff, respectively.

**Table No.1: Frequency distribution of patients based on behavioural and psychosocial responses**

Information regarding behavioral and psychosocial environment	YES				NO				$\chi^2$	P value
	Stay < 6 weeks	Stay > 6 weeks	Freq.	%	Stay < 6 weeks	Stay > 6 weeks	Freq.	%		
Friendly with fellow Patients	23	47	70	82.4	11	4	15	17.6	8.432	.003*
Friendly with doctors	30	50	80	94.1	4	1	5	5.9	3.541	.059*
Friendly with nurses	33	46	79	92.9	1	5	6	7.1	1.464	.226
Friendly with Paramedics	29	50	79	92.9	5	1	6	7.1	5.051	.004*
Takes medicine regularly	33	51	84	98.8	1	0	1	1.2	1.512	.217
Takes bath regularly	29	50	79	9.9	5	1	6	7.1	5.051	.024*
Brushes teeth regularly	21	44	65	76.5	13	7	20	23.5	6.810	.009*
Changes clothes regularly	31	43	74	87.1	3	8	11	12.9	0.852	.355
Changes bed sheets regularly	23	40	66	77.6	9	11	19	22.4	0.462	.496
Takes meal on time	27	49	76	89.4	7	2	9	10.6	5.985	.014*
Cleans utensils after having meals	25	36	63	74.1	9	13	22	25.9	0.01	.919
Goes out with fellow patients	20	41	61	71.8	14	10	24	28.2	4.683	.030*
Interest in watching TV	17	38	55	64.7	17	13	30	5.3	5.366	.020*
Interest in singing	20	16	36	42.4	14	35	49	57.6	6.296	.012*
Takes part in indoor/outdoor games	17	19	36	42.4	17	32	49	57.6	1.357	.244
Shows enthusiasm on meeting relatives	18	44	62	72.9	16	7	23	27.1	11.484	.001*

n = 85; Level of significance= 0.05; \* = Significant

**Table 2: Frequency distribution of patients according to information about vocational environment**

Information regarding behavioral and psycho-social environment	YES				NO				$\chi^2$	P value
	Stay<6 weeks	Stay>6 weeks	Freq.	%	Stay<6 weeks	Stay>6 weeks	Freq.	%		
Uses labor tools/equipments	13	36	49	57.6	21	15	36	42.4	8.745	.003*
Communicates spontaneously	28	37	65	76.5	6	14	20	23.5	1.089	.296
Grasps instructions quickly	12	33	45	52.9	22	18	40	47.1	7.083	.007*
Seeks more work	15	9	24	28.2	19	42	61	71.8	7.054	.007*
Cooks food	5	20	25	29.4	29	31	60	70.6	5.902	.015*
Interest in stitching/embroidery	17	14	31	36.5	17	37	54	63.5	4.476	.034*
Interest in weaving clothes on Khaddee	3	12	15	17.6	31	39	70	82.4	3.035	.081
Interest in Block printing	7	4	11	12.9	27	47	74	87.1	2.941	.086
Interest in gardening	9	24	33	38.8	25	27	52	61.2	3.640	.056

n = 85; Level of significance = 0.05; \* = Significant

However, patients who had received longer treatment were significantly more friendly with doctors ( $\chi^2=3.517$ ;  $p=0.059$ ) and Paramedical staff ( $\chi^2=5.051$ ;  $p=0.024$ ). Almost all i.e. 98.8% patients took medicine regularly. Bath was regularly taken, teeth were regularly brushed and clothes were regularly changed by 92.9, 76.5 and 87.1%, respectively. 89.4% had a tendency to take meals on time and 74.1% cleaned their used utensils. 71.8% liked going out with fellow patients and comprised 41 out of 51 patients with longer stay. 64.7, 42.4 and 42.4% showed interest in watching television, singing and taking part in outdoor activities, whereas enthusiasm to meet relatives was expressed by 72.9%.

Table No. 2 shows the frequency distribution of patients in context with their responses towards the vocational environment which they were provided in the Rehabilitation Units. The tools (used by labourers) and equipment involved in vocational practices, such as in cloth weaving, were used by 49 patients and amongst them 36 were those whose stay in the Rehabilitation Units was more than 6 weeks. Spontaneous communication was accredited to 76.5% of the patients and about half of the subjects (52.9%) grasped the instructions quickly. Relatively few, 28.2% were eager to look for more work. Cooking food, either alone or in supervision was practiced by 29.4%. Interest in stitching or embroidery, weaving cloth on khaddi, block printing on clothes was shown by 36.5, 17.6 and 12.9, respectively. On the other hand, 38.8% showed interest in gardening.

## DISCUSSION

The chronic mentally ill patients are usually shifted to rehabilitation units or centres with the intention of deinstitutionalization and where relatively open environment is provided in terms of permission to interact with relatives and friends. Vocational training is imparted to the patients in order to make them skilled enough to survive on their own, once they are discharged from the rehabilitation centre. This is done

to restore their self esteem and confidence. Over the last two decades, extensive research carried out in USA has revolutionized the concept of vocational rehabilitation<sup>12,13</sup>.

For effective rehabilitation, it becomes imperative to evaluate psychiatric rehabilitation, which like other avenues of health, has intensified in recent times<sup>14</sup>. The present study conducted on mental patients admitted in Rehabilitation Units of Punjab Institute of Mental Health, Lahore, generated interesting results regarding their responses to the services provided to them.

In the present study out of the randomly selected subjects 40 were male (52.95%) and 45 (47.1%) were female. This is in line with the findings of Somers et al. (2006)<sup>15</sup> who reported that women generally have higher prevalence of mental illnesses than men. Our findings recorded a major proportion, 67.1% of mentally ill patients to be either illiterate or possessing mere primary education, indicating the significance of higher education.

Important indicators of rehabilitation in chronic mentally ill patients can be obtained through assessment of behavioural and psychosocial responses. Similar studies have been undertaken by Priebe (2000)<sup>16</sup> and Deva (2006)<sup>17</sup>. In the present study a significant difference was found between the patients with varied duration of stay in the rehabilitation unit with regards to friendly behaviour with fellow patients, doctors and paramedical staff, as those with longer stay, were much more friendly. There was an insignificant difference ( $\chi^2=1.517$ ;  $p=0.217$ ) in context with taking the medicine regularly, perhaps the reason being that medicine was given under strict supervision of the caretakers and nurses. The positive impact of rehabilitation was evident from the fact that patients who had longer stay tended to be more careful about personal hygiene as they brushed their teeth and took bath more regularly ( $\chi^2=6.810$ ;  $p=0.009$ ; ( $\chi^2=5.051$ ;  $p=0.024$ ) than those with shorter stay. Behavioural responses like taking more interest in watching television and singing revealed a significantly

( $\chi^2=5.366$  ;  $p=0.020$ ; ( $\chi^2=6.296$  ;  $p= 0.012$ ) greater tendency of restoring back to normal life for patients receiving longer treatment. Statistically more significant inclination towards interaction with relatives ( $\chi^2=11.484$  ;  $p=0.001$  ) and going out with fellow patients ( $\chi^2= 4.683$ ;  $p=0.030$  ) was observed for patients with longer stay in the Rehabilitation Unit. Thus, the rehabilitation services clearly enabled the psychiatric patients to overcome functional limitations, which include social (difficulty faced in interacting with community) and emotional (difficulty in controlling and managing extreme emotions), as also suggested by MacDonald et al., (2003)<sup>18</sup>.

Information about adaptability of patients to vocational environment revealed a statistically significant positive response ( $\chi^2=8.745$ ;  $p=0.003$ ) towards handling and using labour tools like axe, spade, cloth weaving equipment. Longer treatment resulted in grasping instructions quickly ( $\chi^2= 7.083$ ;  $p=0.007$ ). Comparatively fewer patients showed interest in stitching/ embroidery, as men did not take interest in this activity. Few patients took interest in weaving cloth on khaddi, block printing and gardening. Furthermore it was found that the duration of rehabilitation did not seem to influence these responses (results were statistically insignificant). However, the aspect of vocational training is a very important component of psychiatric rehabilitation, even though re-entering the community is not an easy task. Loveland et al. (2007)<sup>19</sup> advocated the same school of thought and reported that people suffering from psychological and psychiatric disorders experience innumerable barriers and disincentives on returning back to work, the reason being, highly demanding labor market and associated complications of disability benefits.

Rehabilitation of patients with mental disorders is not by any means an easy task and requires cooperation between patient, doctors, psychiatrists, psychologists, nurses, paramedical staff and most of all, the community. Cook et al. (2005)<sup>20</sup> also suggested that multidisciplinary teams comprising of vocational staff and clinical staff are likely to produce fruitful results. Thus, deinstitutionalization of psychiatric patients along with rehabilitation services is a promising and effective strategy in enabling them to lead a normal life once again<sup>20</sup>.

## CONCLUSION

Management of psychiatric disorders has undergone remarkable changes in the recent past with the introduction of community based system of care. The significance of vocational and psychosocial rehabilitation has received considerable recognition. The present study carried out in the Rehabilitation Units of Punjab Institute of Mental Health, Lahore, revealed a positive outcome of the rehabilitation services. On the basis of our findings it was concluded that in 16 out of

25 attributes studied, the patients who had been admitted in Rehabilitation for a period longer than 6 weeks, showed a statistically significant positive response. Our results support the vision that psychiatric rehabilitation expedites recovery, restores the ability to work, encourages interacting with community and enhances overall quality of life quality of life

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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