Review article

A Systematic Review of Interventions in Psychiatric Rehabilitation

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Abstract

Background: Psychiatric rehabilitation has emerged as an important superspeciality of psychiatry in last few decades. There is a growing commitment to evidence-based practices in psychiatric rehabilitation. There is sufficient amount of literature, though not overwhelming, to have evidence based conclusions.

Aims & Objectives: To do a systematic review of interventions available in psychiatric rehabilitation internationally as well as in India. To assess and compare the level of evidence of each interventions.

Methods: Journal articles were identified through searches of the Pub Med, Medline and Psych INFO electronic databases from 1970 to 2014 with the search terms (Psychiatric rehabilitation services, recovery, evidence based, experience based, and chronic mental illnesses).

Results: Evidence that people with mental illnesses can learn new skills is quiet strong. However, most of the interventions in psychiatric rehabilitation in India have level III – Level IV (non RCT studies) evidence unlike western studies which have level II – level III evidence.

Conclusion: Psychosocial interventions as a part of psychiatric rehabilitation should be tailored according to the needs of the client and socio-cultural milieu of the community one lives in. At present, psychiatric rehabilitation interventions implemented in clinical practice are amalgamation of evidence-based practices and experience based practices.

Keywords: *Psychiatric rehabilitation services, recovery, evidence based, experience based, chronic mental illnesses*

Introduction

Psychiatric rehabilitation has become accepted by the mental health field as one of the preferred methods for helping individuals with serious mental illnesses (1,2). The term 'psychiatric rehabilitation' reflects the focus of this field on people with psychiatric disabilities and their improved abilities within their specific preferred role in the 'real' world, using the development of skills and supports as its primary types of interventions (1,3).

The main objective of a psychiatric rehabilitation service is to contribute to the recovery by enhancing functioning in a role valued by society and selected by the individual (1). Psychiatric rehabilitation interventions focus on the person as a whole rather than on a 'case', individualize the process and its outcomes, promotes self determination, hope and the importance of choice – all values consistent with the vision of recovery (3,4). Psychiatric rehabilitation intervention should be based on these recovery oriented values, while helping individuals to change (i.e. building skills) or changing the environment (i.e. supports) in relation to achieving a preferred valued role in the society (5)

Psychiatric rehabilitation interventions are currently based on evidence-based practices, experience based practices, promising practices and emerging methods (5).

There is a growing commitment to evidence-based practices in psychiatric rehabilitation. There is sufficient amount of literature, though not overwhelming, to derive evidence based conclusions. Evidence based medicine implies blending the best available evidence with clinical judgement and patient preferences in managing their illnesses (6). Evidence based practice has been, in fact defined as ''the integration of best researched evidence and clinical expertise with patient values'' (7). The four fundamental principles of EBM have been outlined as (i) use the best available scientific evidence, (ii) individualize

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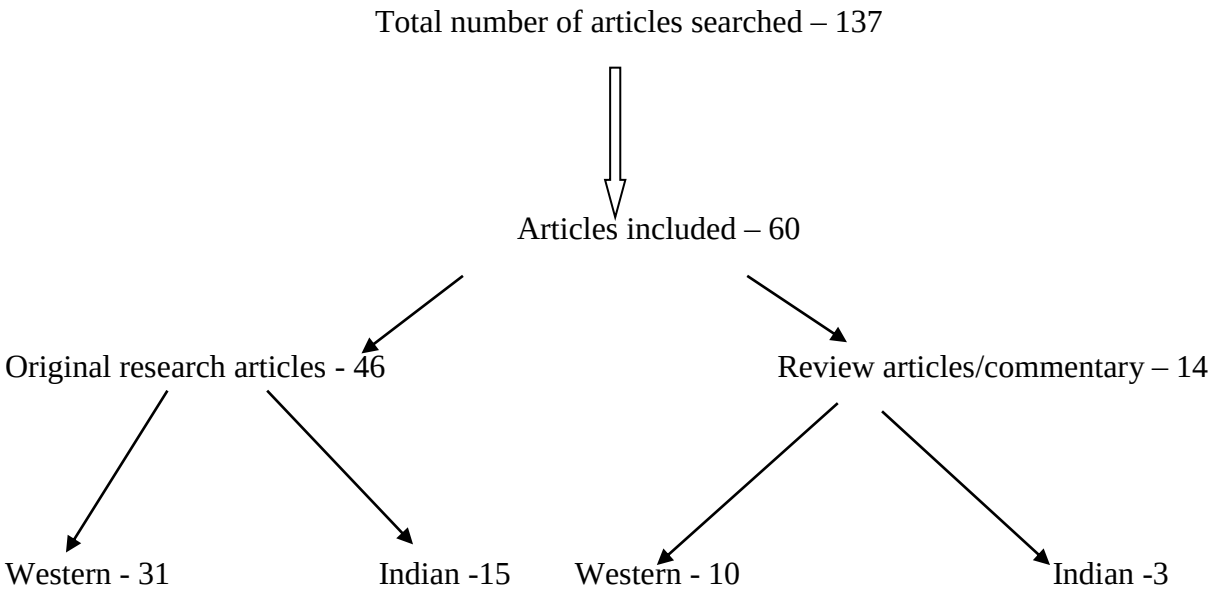
the evidence, (iii) incorporate patient preferences, and (iv)expand clinical expertise (8).
This selective systematic review examines various evidence based interventions practiced currently in psychiatric rehabilitation internationally and compares it with the evidence from Indian setting.

Method

Journal articles were identified through searches of the Pub Med, Medline and Psych INFO electronic databases from 1970 to 2014 with the search terms (Psychiatric rehabilitation services, recovery, evidence based, experience based, and chronic mental illnesses). Some Indian journals not indexed in the above mentioned electronic databases were hand searched. In these databases, the terms were searched directly in advanced search (All Fields) and the results of each individual search were combined. Besides electronic searches, manual searches were also performed through bibliographical references. We also consulted with experts in the field about the existence of additional studies that could not be located through the electronic search.
We included research review articles, review articles, commentaries but excluded book chapters and dissertations. Our search was solely based on evidence based interventions in psychiatric rehabilitation. Articles focusing on other topics in psychiatric rehabilitation were excluded.

Results

This literature search identified 137 articles, which then were examined for inclusion. 60 articles were included in the study and rests were excluded as they were not specifically related to interventions practiced in psychiatric rehabilitation. Out of 60 articles, 46 were original research articles, others were commentary and review articles. Out of 46 research articles, 15 were Indian studies. 14 articles were literature reviews and commentary.
Level of evidence for most of the western studies was level II – Level III (mixture of randomized controlled trials and quasi experimental studies), while for Indian studies level of evidence was level III – level IV.



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Table 1 : Evidence based interventions in psychiatric rehabilitation

EBP	Description	Result of studies	Level of evidence
Supported Employment (9-13)	Helps consumers find meaningful jobs that fit their preferences, promoting the integration of consumers in the competitive job market	Enhances competitive spirit, working hours and wages.	Randomized controlled trials. Level II
Supported Housing (14-16)	Clients rent or lease independent, affordable housing that is integrated into the community and it is separate from the mental health service agency.	Core strategy for realizing the goal of community integration	A mix of randomized and quasi experimental studies. Level II-Level III
Social Skills Training (17-20)	Helps the patients learn different social skills such as skills facilitating interaction and communication with others.	Improves ability of clients to function in everyday social situations.	A mix of randomized and quasi-experimental studies. Level II-Level III
Illness Management and Recovery (21)	Follows the principle of self determination and believes that clients will make better decisions if they are in charge of their own lives and provided the means necessary to make informed choices.	Increases awareness about illness, compliance, and coping and reduces relapse.	Randomized controlled trials Level II
Supported Education (22-24)	Refers to a set of strategies for helping consumers pursue post-secondary education	Supported education interventions that focus on in vivo assistance may ultimately prove to be the most effective strategy.	Mostly uncontrolled studies. Level III – Level IV

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EBP	Description	Result of studies	Level of evidence
Family psychoeducation (25-30)	Systematic approach to educating families about mental illness and recovery.	Improves family relationships, awareness about mental illness. Reduces family burden, rates of relapse.	Randomized controlled trials Level II – Level III
Peer support/ self help/consumer Operated services (31,32)	Clients offering mutual social emotional and/or instrumental assistance to other clients.	Improves social network and quality of life and reduces relapse rates.	Mostly uncontrolled studies. Level III – Level IV
Integrated Dual Diagnosis Treatment (33,34)	Uses a stage wise approach to engage and help individuals with dual disorders.	Effective in reducing substance abuse and relapses. Provides access to housing, employment and other services often denied individuals with substance use problems	Controlled research studies with experimental or quasi experimental design. Level II – Level III
Assertive community treatment (35)	ACT uses a multidisciplinary team approach to case management with shared caseloads and frequent staff meetings, intensive community-based services, focuses on assistance with daily living skills.	It has been particularly effective in reducing hospitalizations and homelessness. Helps consumers maximize level of functioning in the community	Experimental or quasi experimental designs. Level III- Level IV

Evidence based interventions in psychiatric rehabilitation practiced in India

1. Social skills training
2. Family psychoeducation

Table 2 :Social skills training in India

EBP	Description	Result of studies	Level of evidence
Social skills training (36)	Social skills are interpersonal behaviors that are socially acceptable or sanctioned in a particular community or society.	SST is effective in improving social skills of patients with schizophrenia. SST is effective in alogia, apathy and anhedonia, but not other domains of negative symptoms.	Cross sectional intervention study with control group. Level III

Family psychoeducation studies in India

Several Indian studies have demonstrated efficacy of family psychoeducation in patients suffering from chronic mental illnesses (37-47). Psychoeducation has shown improvement on various parameters like psychopathology,

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disability, and caregiver-support and satisfaction. For further details one can refer to Awasthi et al., 2010 (37) where he has compiled various family intervention studies in India.

Table 3 :Studies on Daycare Services in India

Authors	Description	Results	Evidence
Gopinath et al., 1985 (48)	Work Performance of 129 schizophrenics attending the Occupational Therapy Centre at NIMHANS, Bangalore as day boarders assessed on Griffiths Work behaviour assessment scale	Those unemployed earlier had significantly ($P < .005$) poorer work performance. Poor social support ($P < .05$) and presence of residual symptoms ($P < .001$) were related to poor work performance.	Retrospective chart review Level IV
Gopinath et al., 1987 (49)	Work performance and duration of stay of 79 mentally handicapped persons attending a day care centre was evaluated and correlated with demographic and clinical variables.	Work performance was below average in 37% and average in 30%.	Retrospective study Level IV
Gopinath , Sharma et al., 1987 (50)	Data was collected from a convenience sample of 60 subjects using the 'Medication Adherence Rating scale', 'Griffiths work behaviour scale' and the 'Rosenberg's Self-esteem scale'.	Medication monitoring and strengthening of work habit can improve self-esteem thereby, strengthening hope of recovery from illness.	Retrospective study Level IV
Gandhi et al., 2014 (51)	Sample of 60 subjects using the 'Medication Adherence Rating scale', 'Griffiths work behaviour scale''Rosenberg's Self-esteem scale'.	Medication monitoring and strengthening of work habit can improve self-esteem thereby, strengthening hope of recovery from illness.	Quantitative,descriptive correlational research design was adopted. Level IV

Discussion

Evidence that people with mental illnesses can learn new skills is quiet strong (20,52). Social skills training (SST) is one of the most commonly used skills training method (17,20). Studies have been conducted in different treatment settings, by different clinicians covering a defined set of skills (17-19). However, long term effects of social skills training are still unclear as follow up data is too small in these studies (5). Assertive community treatment is a treatment especially suited for consumers who have not done well in usual mental health services (35). ACT uses a multidisciplinary team approach to case management with shared caseloads and frequent staff meetings, intensive community-based services, and a focus on assistance with daily living skills that helps consumers maximize their independence and level of functioning in the community. However, there are two major caveats of ACT model. Sometimes it can become coercive and feasibility in developing countries is questionable (53).

The most well-known family support interventions are psycho-education group interventions. It is a systematic approach to educate families and patients about mental illness and recovery (27). Inclusion of family members as part of the treatment team enhances the effectiveness of other EBPs, reduces caregivers burden and enhances the satisfaction level of the family members (28,29). However, all families are not supportive, especially in western countries, nor are they interested in becoming part of the insufficient healthcare

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systems (54). In addition to PR support interventions provided by case managers and family members, peer support has been increasingly recognized as an important component of psychiatric rehabilitation services. Peer support works on the principle that people who have faced and defeated adversity can provide useful support and hope to other patients in similar situations. However, there are very few well controlled studies documenting the effects of peer support (30).

Supported employment helps consumers find meaningful jobs that fit their preferences, promoting the integration of consumers in the competitive job market (10). Any person with schizophrenia with a goal of employment should be offered supported employment, especially IPS (Individual placement and support system) (13). Studies have demonstrated the effectiveness of supported employment in different countries in helping individuals achieve competitive employment, earn more wages (11,12). However, the degree of job retention with IPS is unclear. Ignoring interests of the clients while implementing IPS results in lower employment rate (55). Supported housing, is an approach in which consumers rent or lease independent, affordable housing that is integrated into the community (56). Consumers have access to 24-hour services to avoid crises that might interrupt housing. In a systematic review of experimental and quasi experimental studies, Rogers, Cash, and Olschewski (2008) (15) demonstrated that the evidence for supported housing is strong, although much work is needed in this area. Supported education refers to a set of strategies for helping consumers pursue post-secondary education (22). Supported education provides practical methods for assisting individuals renew their quest to better themselves that may have been lost with the onset of their illness. However, there are very few well controlled studies of supported education (5) .

Discussion of the Indian studies

Koujalgi et al studied 65 patients with chronic schizophrenia, 34 in experimental and 31 as a control group in a cross-sectional interventional study. Positive and Negative Syndrome Scale was used to rule out predominant positive symptoms. Scale for the Assessment of Negative Symptoms (SANS), and social adaptive functioning evaluation (SAFE) were used to measure the efficacy of SST in schizophrenia patient. Social skills in the experimental group after SST was superior to that before training. SST was found to be effective in improving social skills of patients with schizophrenia. SST was effective in alogia, apathy and anhedonia, but not other domains of negative symptoms (36). All respondents were community living residents of their respective places. It is a well-known fact that social interaction is often compromised in the hospital. Glynn et al (2002) in their study pointed out that SST is more effective in those who reside in the community and they show significantly greater or quicker improvement rather institutional/hospital based skill training or closed indoor patient (57) .

Successful family psychoeducation reduces rates of relapse and improves quality of life for patients with schizophrenia, bipolar disorder, major depression, borderline personality disorder, and alcoholism. Studies on family psycho-education for schizophrenia has shown remarkable consistency of effects on rates of relapse, with minimum reductions of about 50% over the rates for control groups (37). Structured psychoeducational intervention is a viable option for treatment of schizophrenia even in developing countries like India. Structured psychoeducational intervention was significantly better than routine out-patient care on several indices including psychopathology, disability, caregiver support and caregiver satisfaction (47). Thara et al (2005) studied structured psychoeducation program and informal psychoeducation program conducted at SCARF, Chennai. It was found that informal educational sessions with periodic 'across-the-table' re-inforcers may be more effective and practical in the Indian setting. The evidence suggests that brief educational intervention can yield significant gain in knowledge of the caregivers, who will then be better equipped in dealing with patients with schizophrenia. It was also observed that families actively sought information and were more receptive in a crisis. Better-designed, randomized studies are needed to prove the definite efficacy of brief educational interventions (45).

Gopinath et al. (1985) studied performance of 129 patients attending the day care services at NIMHANS, Bangalore by Griffiths Work behaviour assessment scale. Those unemployed earlier had significantly ($P < .005$) poorer work performance. Poor social support ($P < .05$) and presence of residual symptoms ($P < .001$) were also significantly related to poor work performance. Persistence of residual symptoms, poor social support and previous unemployment possibly interfere with vocational training and occupational therapy (48). In another study Gopinath et al. (1987) studied work performance and duration of stay of 79 mentally handicapped persons attending a day care centre. Work performance was below average in 37% and average in 30%. Socio-demographic variables, degree of retardation and social support do not seem to influence the work performance and duration of stay (49). Gandhi et al. (2014) found out that medication monitoring and strengthening of work habit can improve self-

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esteem thereby, strengthening hope of recovery from illness. There is a positive correlation between medication adherence, work performance and self-esteem although it is not significant (51). This suggests that strengthening medication adherence and providing supported employment for persons with mental illness may contribute to enhanced self-esteem. Rehabilitation needs to start from the day of diagnosis itself and focus should be on establishing work behavior. However, these studies were cross sectional studies, randomization was not done and sample size was limited.

A large part of the current practice in clinical psychiatry or mental health is based on the type of evidence considered lower in the hierarchy of EBM. This is particularly so for psychological and psychosocial therapies (58). Most of the interventions have level III – Level IV (non RCT studies) evidence. The shortage of Level 1 clinical trials in psychiatric rehabilitation is due in large part to the nature and scope of the field. In both research and practice, psychiatric rehabilitation is an exceptionally wide, multidisciplinary field involving biological, psychological, social, economic, legal, and environmental factors related to disability. In both research and practice, some Psychiatric rehabilitation interventions target health or biological functions; others target skills, feelings, or behaviors; and still others target aspects of the social or physical environment that limit people with disabilities (e.g., attitudes of employers or physical accessibility). Interventions typically must be highly individualized, or client centered, and tailored to particular configurations of impairment or to personal and contextual factors. This diversity and need for customization often result in small samples for studies at any one local site. Though evidence based interventions should be included, overreliance on them should be avoided. We should also include experience based and emerging practices to achieve the goal of recovery. Furthermore, most of the evidence based interventions are practiced in western countries with only social skills training and family psychoeducation being implemented in India. Cultural and economical feasibility of others evidence based interventions in India is questionable. Also there are some interventions with proven efficacy which are not routinely used in the clinical practice. The relevance of RCT as the gold standard has also been debated because of the possibility of research getting influenced by the pharmaceutical companies.

Criticisms of Evidence based practices

Evidence is often contradictory. Reviews, systematic reviews, and meta-analyses attempt to resolve the differences; however, each of these methods of analysis has its own strengths and weaknesses, and the resulting conclusions inevitably suffer bias. There are differing level of empirical support among EBPs. Most of the evidence based interventions are imported from western world. Hence cultural and economic feasibility of such interventions is questionable. Evidence based interventions should be tailored according to the local population. Evidence based interventions are generally derived from studies conducted in research institutions. It is difficult to generalize these interventions in general population (59). Some EBPs like assertive community treatment has been considered paternalistic and coercive (60,61). Incorporating patient preferences/shared decision-making/informed choices often becomes difficult in EBPs especially psychiatry (58).

Relationship between Recovery oriented services (ROSeS) & EBPs

Traditional school of thought on recovery from serious mental illness that focused on remission of symptoms and impairments have been successfully challenged. It is now widely accepted that recovery occurs despite ongoing symptoms that an individual may experience. Recovery is understood to be a deeply personal experience involving growth, the development of meaning and sense of purpose, and becoming an active, contributing member to one's community. Fundamental to this new understanding of recovery is the importance of the consumer's involvement and control over the psychiatric treatment and rehabilitation services provided (1,7). Involvement of all the stakeholders including patients is very important in planning of treatment according to the new concepts of recovery. Recovery-oriented services have been defined as services that are guided by the core values inherent in this new understanding of recovery, including person-oriented (rather than illness oriented), involving the individual in the planning and delivery of services, respect for self-determination and choice, and focused on hope and resiliency (4). However, too much emphasis on evidence-based practices can result in neglect of important principles of recovery oriented services, because they may not as yet be empirically linked to the traditional outcomes reported. To promote individuals' right to self-determination and autonomy, recovery-oriented services and EBP should go hand in hand. Consumers should have full say in selecting the types of services for their recovery plans, they need to be made aware about different options, including the different EBPs (4).

Conclusions

The field of psychiatric rehabilitation faces the challenge of identifying and applying evidence to its practices. Guidelines and recommendations

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regarding clinical and community practices in psychiatric rehabilitation should be based on the best available evidence. There have been gradual advances in psychiatric rehabilitation in recent years. There are now robust evidence-based interventions, promising practices and emerging methods. Combination of all the above interventions guided by principles of ROSeS is the best value based practice. Evidence based practice should be tailored according to the culture of the local population. However, in Indian context little evidence is available and limited numbers of interventions are used. Hence, interventions in psychiatric rehabilitation in India will be guided by mixture of evidence based, experience based, audit based and emerging practices.

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