

Effectiveness of Community Based Rehabilitation for persons with Severe Mental Disorders in a rural area of South India

J. W. James¹, Jagadisha Thirthalli², T. Sivakumar³, C. Naveen Kumar²

ABSTRACT

Background: People with Severe Mental Disorders (SMD) have complex needs which involve different sectors which requires the need for intra- and inter-sectoral coordination. Critical attention is required on rehabilitation to address the long-standing disabilities and multiple areas of negative impact on individuals and their families. There is a need to offer such interventions in their own community. **Methodology:** To examine the effectiveness of CBR programme for persons with severe mental disorders in a rural taluk of Karnataka. We tried to document the effectiveness of CBR in terms of reduction in the disability levels and illness severity and also in terms of the number of disability certificates issued, the extent of welfare benefits used, reduction in out of pocket expenditure, and the number of patients productively employed at one year follow-up. **Results:** A total of 171 persons with severe mental disorders completed the follow up assessment. Most of the participants were male and belonged to low socio-economic status. There was significant reduction in the disability scores, symptom severity, and out of pocket expenditure during follow up. The CBR program was effective in providing various welfare benefits to the participants and increase in the number of participants being productively employed. **Conclusion:** Implementing such a CBR program requires coordination of multiple stakeholders at multiple levels and using both governmental and non-governmental resources. Such interventions in the community can reduce the burden faced by individuals with SMD and their caregivers and as a whole reduce the treatment gap and out of pocket expenditure.

Keywords: Community-based rehabilitation, severe mental disorders, psychiatric disability, out-of pocket expenditure

INTRODUCTION

The Years Lost to Disabilities (YLDs) worldwide due to Mental disorder alone accounted for 21.2 %, which is more than any other group of conditions (Vos et al., 2015). Although effective treatments are available for mental disorders, many affected individuals remain untreated. Despite the best efforts to reduce this gap and enhancing the mental health care delivery of the nation, an enormous treatment gap still exists. Treatment gap for mental disorders ranged between 70-92% and it was around 73% for severe mental disorders only (Gururaj et al., 2016). Treatment gap for mental disorders are maintained by multiple factors ranging from lack of awareness, pervasive stigma towards mental disorder prevailing in the community, inadequate budget for mental health scarcity of mental health professionals and uneven distribution of available resource in mental health and affordability of care etc. (Gureje et al., 2005).

On an average, families had to spend INR 1000 – 1500 in a month from their pocket towards travel and treatment in accessing care. Not only family members spend from their pocket for the treatment of affected person, in any given quarter of the year, 10 working days were missed on an average in taking care of them. Further, time required to be devoted in care giving also

¹ Assistant Professor, Department of Psychiatric Social Work, Central Institute of Psychiatry, Ranchi.

*Email: jameypsw@gmail.com

²Professor of Psychiatry, NIMHANS, Bangalore, India

³Additional Professor of Psychiatry, NIMHANS, Bangalore, India

hinders the caregivers from taking on full-time employment to overcome their financial burden (Gururaj et al., 2016).

Considering the limitations of institutional care, wide scale stigma, prevailing treatment gap, delay in seeking help and acute scarcity of manpower in the mental health field, mental health initiatives that are community based utilising the local community resources are warranted. WHO has given the optimum mix of different service pyramid which provides guidance to countries on how to organise their mental health services. They pyramid points out that there is huge need for mental health services at the community level and most of this need can be addressed with informal and basic community based care. The cost for providing such a service is low and can address a large number of individuals (WHO, 2003).

Following the Declaration of Alma-Ata in 1978 Community based rehabilitation (CBR) was initiated by WHO which was done in an effort to improve the quality of life for people with disabilities and their families help them meet their basic needs and to ensure their inclusion (World Health Organization, 1978). To implement CBR the combined efforts of people with disabilities, their families and communities are required. Empowering persons with disabilities and enhancing their quality of life by facilitating access and benefits from education, employment, health and social services; meeting basic needs; and ensuring inclusion and participation (Khasnabis et al., 2010). Such care relies on accessibility, community participation, and cultural sensitivity in providing services (Jacob, 2001) and emphasis on task-sharing with non-specialists and appropriate training of community health workers (Mendenhall et al., 2014; Nimgaonkar & Menon, 2015).

People with mental disorders have complex needs which involve different sectors which requires the need for intra- and inter-sectoral coordination. These individuals have limited access to health services and support which is particularly seen in low-income countries and they have been excluded from community-based rehabilitation programmes in the past (World Health Organization, 1978). CBR strategies similar to other disabilities could be used in meeting the complex needs of persons with severe mental disorders in resource poor settings. CBR can be an effective way of intervention in a limited resource setting country like India (Kumar et al., 2012).

Literature about the effectiveness of various strategies to extend care to people with serious mental disorder in developing countries and in rural communities in India are limited (Jacob, 2001). While evaluating a CBR programme for people with schizophrenia in rural India it shows that positive outcomes can be achieved using CBR for people with mental health problems in settings which have less resources (Balaji et al., 2012; Chatterjee et al., 2003, 2009). The published Indian studies have implemented CBR as stand-alone projects for psychiatric disorders, with help of community resources. Such programmes need ongoing funding and supervision. The existing CBR efforts for physical disabilities can be utilized to cater to psychiatric disabilities as well. Government resources (including health professionals, rehabilitation resources like welfare benefits, grass root workers, and medications in PHC) are another potential resource.

CBR programs are usually long-term and are implemented on a large scale whereas CBR projects are focused and usually small in scale. They might choose very specific outcomes in any of the component of the CBR matrix. It is usually taken up by local communities or non-governmental organizations when it has limited support from the government but it can be taken up by outside organizations to deal with specific issues (Khasnabis et al., 2010).

There are multiple challenges in utilizing government resources for CBR of persons with Severe Mental Disorders (SMD). Using only the community resources might not be adequate

in implementing and sustaining CBR and there is need for using government resources. To use governmental resources there is a need to sensitize of key officials about the need for such a project when they are engaged with multiple responsibilities, coordinating with different stakeholders in addressing the different needs that arise from persons with SMD and their caregivers. It is also important to consider factors such as cost-effectiveness and sustainability while implementing such a project. Exploring the possibilities of utilizing the existing resources from the governmental and nongovernmental in implementing CBR project for persons with SMDs and examining the effectiveness of this CBR project in improving the clinical status and managing the disability was the focus of this study.

METHODOLOGY

The aim of this study was to examine the effectiveness of CBR programme based on the WHO CBR guidelines for persons with severe mental disorders in a rural taluk of Karnataka. We tried to document the effectiveness of CBR in terms of reduction in the disability levels and illness severity and also in terms of the number of disability certificates issued, the extent of welfare benefits used, and the number of patients productively employed at one year follow-up

Sample: Persons with SMD were recruited from Jagalur which is a rural and drought prone taluk of Davangere District in Central Karnataka. The recruitment was done over a period of 21 months from September 2015 to June 2017. The number of people with SMD that completed the baseline and follow up assessment was 171. This included 141 persons with psychosis, schizophrenia and schizoaffective disorder and 30 persons with bipolar affective disorder. The follow up assessment was done after 12 months of the baseline assessment. During the assessment 21 participants dropped out after the baseline assessment. Persons with severe mental disorders (psychosis, schizophrenia, bipolar affective disorder and schizoaffective disorder) of both genders above the age of 18 years who provided written informed consent were recruited for the study. Persons with organic psychosis and co-morbid substance use disorder were excluded. The assessment tools used at baseline and follow up were socio demographic and clinical data sheet, Clinical Global Impression Scale (CGI-S) (Guy, 1976) and Indian Disability assessment and Evaluation Schedule (IDEAS) (Rehabilitation Committee IPS, 2002).

Collaboration with NGO: Association of People with Disability' (APD), is an NGO working in the field of disability, rehabilitation and development in different parts of Karnataka over the last 60 years. In partnership with APD, the effectiveness of implementing a CBR project for persons with severe mental disorders (SMD) with existing network of community and government systems was planned to be studied.

Statistical analysis: Descriptive statistics and paired t test was used to describe the population and to assess the pre post difference in psychopathology and level of disability of persons with SMD. Statistical analysis was done using R software for statically computing and graphics version 3.3.2 for windows.

Ethical considerations: Institutional ethical clearance was obtained and written informed consent was taken from the respondent household members for administering screening questionnaire. For screen positive cases, written informed consent was sought separately for the purpose of detailed research assessments. Most of the times, patients were able to provide consent. In 23 cases patients were not in a position to give consent the family members consent was taken.

RESULTS

Table 1. Socio-demographic and clinical data of persons with Severe Mental Disorders (N= 171)

Variables		N(%) /Mean (SD)
Age in years		40.29(12.42)
Education in years		5.54(4.69)
Duration of illness in years		8.92(±7.53)
Gender	Male	85(49.7%)
	Female	86(50.3%)
Marital status	Married	127(74.3%)
	Unmarried	40(23.4%)
	Widow	2(1.2%)
	Separated	2(1.2%)
Family Type	Joint	95(55.6%)
	Nuclear	73(42.7%)
	Other	3(1.8%)
Income Status	BPL	160(93.6%)
	Non BPL	11(6.4%)
Diagnosis	Psychosis/ Schizophrenia	138 (80.7)
	BPAD	30(17.5)
	Schizoaffective disorder	3(1.8)

The participants had a mean age of 40.29 (±12.42) with almost equal representation from both the genders. Majority of them were married belonging to below poverty line category. The mean duration of illness was 8.92 (±7.53) years and most of them had a diagnosis of psychosis/schizophrenia.

Table 2: Comparison of Clinical and demographic variables from baseline to follow up

Clinical and demographic Variables		N (%) /Mean (SD) Baseline	N (%) /Mean (SD) Follow up
Occupation	Farmer	31(18.1%)	42(24.6%)
	Labour	32(18.7%)	49(28.7%)
	Self employed	8(4.7%)	16(9.4%)
	Home maker	23(13.5%)	28(16.4%)
	Unemployed	75(43.9%)	33(19.3%)
	Student	2(1.2%)	3(1.8%)
Treatment status	On regular treatment from CBR	-	100(58.5%)
	Off treatment	48(28.1%)	25(14.6%)
	Irregular treatment	-	31(18.1%)
	On regular treatment from hospital	85(49.7%)	15(8.8%)
	Untreated	38(22.2%)	0
Disability certificate	Availed	7(4.1)	51 (29.8%)
	Eligible but not availed	139 (81.3%)	45 (26.3%)
	Not eligible	25 (14.6%)	75 (43.9)
Cost of treatment per month Rs.		1172.05 (1271.14)	59.39 (191.74)
Number of hospitalizations		Before CBR)	After CBR
	No Hospitalization	76(44.4%)	162(94.7%)
	1-2 times	74 (43.3%)	9(5.3%)
	More than 2 times	21 (12.3%)	0

At follow up, the percentage of 'unemployed' occupation status had reduced from 43.9% to 19.3% and most of the individuals (94.7%) did not have any hospitalisation in the past one year after involving them in the CBR program. The number of people receiving treatment from other hospital had reduced from 49.7% to 8.8% and simultaneously there was also a drop in the number of people from 'off treatment' status (from 28.1% to 14.6%). All the identified 'untreated people' at the baseline were treated during follow up. The percentage of people who availed disability certificate increased from 4.1% to 29.8% and their cost of treatment dropped from 1172.05 ± (1271.14) to Rs. 59.39 ± (191.74) which was 1/20 of the earlier treatment cost.

Table 3 Pre post comparison of IDEAS scores

Variable	Mean (SD) Baseline	Mean (SD) Follow up	t	df	p-value
Self-care	1.73 (1.19)	0.79(0.86)	11.664	170	<0.001
Interpersonal Activities	2.16 (1.08)	1.26 (0.94)	10.969	170	<0.001
Communication & Understanding	1.91 (1.12)	1.11 (0.90)	10.072	170	<0.001
Work	2.64 (1.24)	1.54 (1.14)	12.369	170	<0.001
Duration of Illness Score	2.80 (1.17)	2.81 (1.08)	-0.106	170	0.916
Global Score	11.25 (4.38)	7.50 (3.78)	13.04	170	<0.001

Table 3 describes the pre post comparison of IDEAS score using paired t test. The results show that all the domains of IDEAS such as self-care, interpersonal activities, communication and understanding and work as well as the global score show significant reduction from baseline to follow up which is significant at p value <0.001.

Table 4 Pre post comparison of CGI

Variable	Mean (SD) Baseline	Mean (SD) Follow up	t	df	p-value (two tailed)
Severity Scale	4.35 (1.46)	2.64 (1.29)	15.15	170	<0.001
Global Improvement Scale	2.91 (1.08)	2.12 (1.02)	8.72	170	<0.001

Table 4 describes the pre post comparison of the severity and global improvement scales of CGI using paired t test. There was significant reduction in the scores of both the scales [CGI-Severity baseline 4.35 (±1.46) vs follow up 2.64 (±1.29), $t(170) = 15.15$, $p = <0.001$, CGI-Global Improvement baseline 2.91 (±1.08) vs follow up 2.12 (±1.02), $t(170) = 8.72$, $p = <0.001$] from baseline to follow up which was statistically significant.

Table 5: Welfare benefits availed on follow up

Welfare benefits availed (n=51)	N (%)
Disability Pension	48 (94.1%)
Health Insurance	15 (29.4%)
Employment related	2 (3.9%)
Travel related	0 (0%)
MGNREGA Job card	15 (29.4%)

Table 5 describes the welfare benefits availed by persons with SMD on follow up. Among the 51 individuals who were certified to have a disability, the most availed welfare benefit was

pension followed by Swalamban health insurance and MGNREGA job card. Only 2 persons with SMD availed employment related benefits which were to avail loan facility for self-employment and no individuals availed any travel related benefits. Other benefits like income tax benefit, housing scheme, marriage allowance, educational and job reservation were also not availed by anyone.

DISCUSSION

Socio demographic and clinical characteristics

The average age of the persons with SMD was 40.29 (± 12.42) years. Other Indian study conducted in the community too have depicted that the mean age of a person with mental illness around 40 years (Chatterjee et al., 2009; Thirthalli et al., 2009; Venkatesh et al., 2008). The average years of education of the participants was 5.54 (4.69), which is primary education. As the study population was selected from rural Taluk where literacy rate was one among the lowest (71%) when compared to other taluk in the district of Davangare, Karnataka. Apart from that basic literacy in a rural community in India is less than the urban areas. Various studies conducted in the rural community of India found the similar education status of persons with mental illness (Nair et al., 2018a; Reddy et al., 2014a; Suresh et al., 2012a; Thirthalli et al., 2010). Studies also reported barriers in education for a person with mental disability such as early onset of illness, delay in seeking treatment, availability of mental health care facility in the community, stigma and cognitive deficits (Gutman, 2008; Hartley, 2010; Reddy et al., 2014; Ringeisen et al., 2017).

Majority of the participants were married 127 (74.3%) and 40 (23.4%) of them were unmarried. This finding is similar to one study (Chatterjee et al., 2009) but different from other community studies done in India as other studies reported lower number of married persons with SMD (Kumar et al., 2017; Suresh et al., 2012a). This could be explained with the diversity in the population and culture in different communities in India. However, the widely prevailing societal belief that marriage helps person with mental illness in getting better and being unmarried is stigmatised are some of the reasons which could explain the majority of the participants marital status being married. Marital status has been found to be one of the protecting social factors for person with mental disability in Asian countries compare to western countries (Bhugra, 2004; Cohen, 1992; Lauber et al., 2004; Warner, 1992) and it is considered as a protective factor for disability caused due to SMD in some communities (Suresh et al., 2012b).

Most of the participants were from a joint family system 95(55.6%) this could be because the samples were selected from rural community. As per national census, 2011 in rural areas of India people live in joint family system when compared to comparing to urban dwelling (Chandramouli & General, 2011). A significant number of the people were belonging to Below Poverty Line [160 (93.6%)] and only 6.4% of them belongs to above poverty line. This could be because of Jagalur being one of the most backward taluk in the District. The National Mental Health Survey report reveals that mental illness is significantly higher in households with lesser income, poor education and limited employment (Gururaj et al., 2016). This negative cycle increases the risk of mental illness among people living in the lower socio-economic countries where persons with mental disability are often unproductive leading to poverty. This negative cycle of mental illness and poverty also acts as one of the hindering factors in accessing mental health care services ("Mental Health Care-the Economic Imperative," 2011; Murali & Oyebode, 2004; Patel & Kleinman, 2003; Saunders, 2007).

The average duration of illness was 8.92(± 7.53) which shows that most individuals had a chronic illness. Similar findings have also been reported by some other community studies

(Ravilla et al., 2019; Reddy et al., 2014). Severe Mental Disorders is a condition that is relapsing and hospitalisation might be required to manage acute symptoms (Bister, 2018; Craig & Hyatt, 1978) the current study found 90(52.6%) of them were admitted hospital at least once. The results of the current study revealed that the mean cost of treatment at baseline was around 1172.05 (\pm 1271.14) per month. Similar to our findings, the National Mental Health Survey conducted in the country reported that families spend nearly INR 1000-1500 a month for treatment and for travel to access care and in any given quarter of the year, they missed 10-20 working days to take care of a mentally ill person affecting their employment status, productivity and earning capacity (Gururaj G et al., 2016).

Around 28% (48 participants) of the patients were not on any treatment (off treatment) This could be because of the cost involved and the distance in accessing mental health services. These findings were also reported in a long term community follow up study (Thara et al., 2008). Some individuals in the current study reported that they knew treatment is required and that it has shown improvement for their patient in the past but they could not afford the treatment cost and the cost spent in travelling to the treatment centre. Some of them had to take a choice between having three meals per day and taking the patient for mental health treatment. There were a good proportion [38(22.2%)] of individuals who were untreated. The reasons stated were lack of knowledge that the symptoms are of mental illness, and their magical-religious believes. It is seen that most rural communities lack awareness about mental illness and have religious attribution about mental illness which delays access to treatment (Lucca et al., 2015; Rao et al., 2017)

The other study conducted in rural South Indian taluk assessing the factors impeding the continuity of psychiatric care for severe mental health issues revealed that continuity of care is influenced by the interplay of several factors like lack of support from family, lack of awareness about the illness and treatment process, lack of insight, financial issues and distance/transport etc. Distance and financial issues were some of the important factors impeding the patients and family members from continuing the care (Shanivaram Reddy et al., 2017).

Majority of the patients had the diagnoses of Psychosis/schizophrenia 138 (80.7%) and bipolar affective disorder 30(17.5%) the national mental health survey reports that the prevalence of schizophrenia or psychotic illness (0.4%) higher than Bipolar Affective Disorder (0.3%). Majority of the patients [164 (95.9%)] did not avail disability certificate at baseline even when 139 (81.3%) were eligible as their IDEAS score indicated Moderate disability or more (40% cut off which used for the certification of disability as per IDEAS). This might be due to lack of knowledge about disability certificate and welfare benefits among persons with SMD and caregivers especially rural communities. However, in our study, we have not explored the reasons for not availing the disability certificate despite being eligible which limits our understanding of the reasons behind the same.

Employment

There is a significant decline in the ‘unemployed’ status from, 43.9% at the baseline to 19.3% during the follow up. Studies conducted in various community also reported the improvement in occupation following treatment (Chatterjee et al., 2003a; Ravilla et al., 2019; Reddy et al., 2014b; Suresh et al., 2012a). Among these studies, one has used the scores of work section of the IDEAS to evaluate work related disability and the other study used the scores of occupational domains under Disability Assessment Schedule. In both the studies, the work-related disability has reduced statistically significantly after treatment is provided. In addition to that, studies also reported about lesser disability score being associated with higher occupational functioning (Chatterjee et al., 2003a; Suresh et al., 2012b).

Hospitalisation

Follow up assessment shows that there were no hospitalisations in the past one year (after initiating CBR program) for 94.7% of patients with SMD. This finding cannot be compared to the number of hospitalisations at baseline as it was assessed for any past hospitalisation for the psychiatric condition. However, studies conducted in the community have shown that patients are compliant to treatment when treated in the community and community intervention is effective in ensuring medication compliance and reducing relapse than standard out-patient treatment (Chatterjee et al., 2003a, 2009b; Reddy et al., 2014b; Reddy et al., 2017). All the identified 'untreated people' at the baseline were treated during follow up, and 28.1% of the patients were off treatment at the beginning of the intervention (at baseline) and post one year of follow up it was found that patient off treatment is only 14.6%. Various studies reported that Delay in accessing psychiatric treatment has considerable influence on the outcome of mental illness, given the accessibility in the community with various components of CBR, early treatment seeking for treatment is better in community compare to urban areas (Chatterjee et al., 2003a; Reddy et al., 2014b, 2014c; Reddy et al., 2017).

Disability certification

The percentage of people who availed disability certificate increased from 4.1% to 29.8%, this was because of the efforts taken by the CBR team to coordinate between different authorities like the district psychiatrist, district disability welfare officer and the persons with SMD and caregivers in facilitating disability certification. Studies report that sensitisation among the various stakeholders, training of lay health workers as a component of community based rehabilitation help in improving such services (Chatterjee et al., 2003a; Reddy et al., 2014b).

Services utilisation

The current CBR project involved working with different stakeholders in the community to provide treatment and rehabilitation which is easily accessible, freely available and locally acceptable for persons with SMDs. As part of it, free treatment to persons with SMD was facilitated at the nearest primary health care centres and taluk hospital. CBR workers visited their homes whenever required to ensure treatment compliance and follow up and ASHAs also were trained in ensuring follow up. So, all the persons with SMD under the CBR program availed free medication which is considered to be the main stay of treatment for their conditions and followed by this, majority of them availed home visit services of the treating team. In cases where illness resulted in disability, appropriate referrals were made to help persons with SMD to avail welfare benefits and coordinated with service provided from the concerned departments.

Welfare benefits

Among the 51 individuals who were certified to have a disability, the most availed welfare benefit was disability pension followed by health insurance and job card. Only 2 persons with SMD availed employment related benefit and no individuals availed any travel benefits. The reasons for employment related benefits being used less may be due to the non relevance of employment related provisions provided under the welfare benefits to their occupations. No participant availed education related welfare benefits since majority of them were middle aged with the mean age of 40.29 (± 12.42). The reason for not availing the travelling benefit may be because, travelling was not important for their daily lives and even if they have to travel, most often they used private transport than the Government transport facilities since government transport facilities were not connected well. Overall, the government schemes not in sync with the needs of patients and their caregivers may explain these findings and stresses the

importance of assessing the needs of people with disability and their caregivers systematically and framing the provisions under the welfare benefits accordingly.

However, one needs to note that not everyone who was eligible for disability certification availed the same. But the percentage of eligible people who did not get certified has decreased from 81.3% in the baseline to 26.3% at follow up. The invisible nature of the disability associated with psychiatric conditions, the difficulty at administrative levels like providing the necessary documents, apprehension of the patients and their caregivers about the whole disability certification process, stigma of being labelled as disabled and the available government schemes not matching the needs of patients and their caregivers may be some of the reasons why not everyone who were eligible for disability certification got themselves certified. In line with this finding, a study conducted to assess the pattern of utilisation of government disability benefits among the chronic mentally ill also revealed that patients belonging to rural areas did not avail any benefits other than the disability pension (Kashyap et al., 2012; Reddy et al., 2011)

Cost of treatment

In our study, it was noted that the mean cost of treatment has statistically significantly dropped from baseline to follow up after persons with SMD were enrolled for CBR. As part of health component of CBR project, free treatment to person with SMD were facilitated at the nearest primary health care centres and taluk hospitals which avoided the family members spending on travelling long distances and paying for medication seeking treatment. To ensure treatment compliance and follow up, ASHAs along with Social Workers or other treating team members visited their homes whenever required. The indirect cost of losing a day's wages had also reduced as the treatment was available in the nearest proximity and they didn't have to spend more than few hours for accessing mental health treatment. All these together would have reduced the 'out-of-pocket' expenditure for families of persons with SMD (Sivakumar et al., 2019).

Disability and clinical functioning

On an average, the persons with severe mental disorders scored 11.25(\pm 4.38) on IDEAS at baseline which was noted to decrease significantly during the follow up to 7.50 (\pm 3.78). This decrease in the disability score can be the result of treatment provided to the identified patients under the CBR program. Interventions provided as part of the program helped in ensuring the adherence to the prescribed medicines, follow up with the treating team to review the progress in the patients. This improved the treatment outcome and functioning in the affected persons.

Similarly, in the study encompassing the community-based plus facility-based care was noted to be useful in reducing of disabilities associated with severe mental illness at the end of 12 months after initiating program. Adherence to the prescribed drug and improvement in the symptom severity was also noted with the provided intervention (Chatterjee et al., 2014). The result of another study looking at the usefulness of antipsychotics in limiting the disability in schizophrenia living in the community also confirms that being on antipsychotics treatment was associated with significant reduction in the disability scores (Thirhalli et al., 2009, 2010).

In line with the findings of the current study on effect of CBR program on the reduction of disability in the individual with SMDs followed by the regular treatment, the usefulness of the CBR program in reducing the severity of illness and bringing improvement in the clinical status was reflected through the differences in the scores of CGI from baseline to follow up. The statistically significant improvement noted in CGI severity and improvement score from baseline to follow up assessment may be attributed to the changes brought in persons with SMDs after receiving treatment and follow up service provided under the CBR program. It is

already known that psychotropic drugs with adjunct follow up services and necessary referrals for other services will go a long way in bringing down the disability caused due to illness, improve the clinical outcome and quality of life of persons with psychiatric illness (Chatterjee et al., 2014; Thirthalli et al., 2009, 2010a).

CONCLUSION

From this study we can conclude that CBR for SMD using the WHO guidelines in a rural area of south India is effective. Implementing such a CBR required coordination of multiple stakeholders at multiple levels and using both governmental and non-governmental resources. It emphasises on task sharing by training health workers, PHC doctors and CBR workers in mental health rehabilitation. CBR can be useful in identifying individuals with SMD in the community by training existing manpower in the health sector. CBR can be useful in addressing the rehabilitation needs of patients of SMD and their caregivers and it can reduce the severity of the illness and disability associated with the illness. It can decrease the work related disability and increase the number of people productively employed with SMD. There is also emphasis on involving stakeholders in disability welfare sector by identifying people with psychiatric disability, facilitating disability certificates and various welfare benefits. However, there is an emphasis on providing services and welfare benefits that can cater the various requirements of persons with SMD and their caregivers. Social workers play a central role in coordinating and facilitating all these activities in the community.

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