

Prevailing Practice and Perception on Managerial Aspects of Community Based Rehabilitation Projects in India

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Abstract - The major change in strategy in rehabilitation for people with disabilities over the past few years has been the expansion of services in the community. This has slowly gathered the momentum and has developed into a differentiated programme called 'Community Based Rehabilitation' (CBR). Ideally, a community-based rehabilitation programme is built on an integrated and decentralized managerial approach, in which both the service providing agencies and the community have a role to play.

A few aspects of management of community based rehabilitation were discussed in the research work of Shamrock, 2009; Evans et al., 2001; Andrew & Dominic 2004; Cheausuwantavee, 2005; Kuipers & Harknett, 2008; Andrew et al., 2009; Cornielje et al., etc.. Not much research work has been found addressing the issues and aspects related to the management of CBR directly and extensively. Hence present research has been taken up to study the community based rehabilitation implemented by various disability rehabilitation organizations, from managerial perspectives.

In the study, the efforts have been made to understand the CBR projects in the Indian context by studying the prevailing practices of Managerial Aspects of CBR and the perception of CBR managers on the effectiveness of these Managerial Aspects of CBR. The correlation between practices and perception has been studied by making use of regression analysis.

The important results of the study include the construction of an assessment tool to study the prevailing practice of Managerial Aspects of CBR and the perception of CBR managers on the effectiveness of Managerial Aspects of CBR and the regression equation to predict the prevailing practice of Managerial Aspects of CBR based on the perception score of CBR managers. The study also highlights the relevance of managerial aspects of CBR in Indian context.

Index Terms – Disability, Rehabilitation, Community Based Rehabilitation, Managerial Aspects, Non Government Organizations, India

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I. INTRODUCTION

The major change in strategy of rehabilitation for persons with disabilities over the past 25 years has been the expansion of services in the community. This has slowly gathered the momentum and has developed into a differentiated programme called 'Community Based Rehabilitation' (CBR). Among the recent strategies adopted for the rehabilitation of all persons with disabilities, 'community based rehabilitation' is of a special interest. This strategy has been found to be a viable alternative for the large populations of people with disabilities belonging to rural areas, especially those who are unable to access ongoing conventional rehabilitation services (Thomas & Thomas, 2008)[1].

Community-based rehabilitation (CBR) emerged in the 1970s with the intention to deliver "low-tech rehabilitation services" particularly to the large number of disabled people living in developing countries (Boyce & Lysak, 2000)[2]. Helander E (2007)[3] explained that in the late 1980s with the emergence of human rights for people with disabilities, community based rehabilitation shifted towards a greater focus on people and community development. Recently, community based rehabilitation is defined as "A strategy within community development for rehabilitation, equalization of opportunities, and social inclusion for all children and adults with disabilities" (ILO et al., 2002)[4].

Helander E (2002)[5] explained that the management in the context of CBR consists of all the efforts to ensure smooth functioning of the programme. This may include planning, policy-making, training of personnel, provision of resources, programme implementation at all levels, monitoring and evaluation. In the conventional system, the management practices existed in CBR were centralized and often practiced from the top to downward. If government is involved, it might make plans, get involved in the training of personnel, and introduce these projects at the district and the community level. The governments usually see communities as passive recipients of services and in

their benevolence they have organized the services. As a result, involvement of local people may not be as much as it should be. If Non-Government Organizations (NGOs) are the service providers, they normally limit themselves to managing their own center. As long as the rehabilitation services involve coordination between a few institutions, the system can easily be managed centrally. But, when communities are involved in service delivery, large resources are needed, both centrally and in the periphery. Central direction induces a certain degree of passivity in the population. People often view that they have to wait for the government to come and offer services for them. This becomes frustrating for the people. Even governments in most developing countries find it difficult to manage the implementation of most essential services.

II. REVIEW OF LITERATURE

The review of literature shows that the articles on community based rehabilitation covers wide range of aspects related to CBR in developing countries. The key aspects of CBR throw light on the issues like differences in rehabilitation of children, adults, and the old age, different needs and services for urban and rural populations, gender inequalities in rehabilitation, specific approaches to types of disabilities, types of rehabilitation, issues involving the setting up the services, locus of control etc. From the managerial perspective the research work on community based rehabilitation seems to be limited. Some aspects of management of community based rehabilitation were discussed in the research work of Shamrock, 2009[6]; Evans et al., 2001[7]; Andrew & Dominic 2004[8]; Cheausuwantavee, 2005[9]; Kuipers & Harknett, 2008[10]; Andrew et al., 2009[11]; Cornielje et al., 2008[12]; who talked about the project evaluation part of community based rehabilitation in various ways. The studies of Powell et al., 2002[13]; Vijayakumar et al., 2003[14]; Pupulin & Aldén, 2002[15] were related to the quality of life of people with disabilities and stakeholders participating in CBR projects directly or indirectly. Impact analysis of CBR was carried out in detail by Chappell & Johannsmeier, 2009[16]; Arne, 2006[17]; Boyce & Cote, 2009[18]; Stilwell et al., 1998[19]. Though the research work quoted above talks about management aspects of CBR in bits and pieces, hardly any study was found addressing managerial aspects of CBR directly and extensively. Hence, the present research was taken up to study the community based rehabilitation from managerial perspectives, in the Indian context.

III. RESEARCH METHODOLOGY

The scope of this study is wide from a concept point of view, because it covers broader aspects of community based rehabilitation management. In the study, efforts were made to understand the CBR

projects in Indian context by studying the prevailing practices of managerial aspects of CBR and the perception of CBR managers on the effectiveness of these managerial aspects of CBR.

The correlation between practices and perception has also been studied by making use of regression analysis to test the null hypothesis "prevailing practices of managerial aspects of CBR does not depends on the perception of CBR managers regarding effectiveness of these managerial aspects of CBR" while analyzing the results.

Sample unit for the study was the organizations implementing community based rehabilitation in India. By using stratified random sampling method of probability sample design, one hundred and twenty one organizations were chosen for the study. These one hundred and twenty one organizations has representation from each zone (strata) named as; North zone, South zone, East zone, West zone and Central zone as presented in Table I.

TABLE I.
ZONAL DISTRIBUTION OF SAMPLE

Zones	Frequency	Percent
East Zone	13	10.7
North Zone	24	19.8
South Zone	53	43.8
West Zone	25	20.7
Central Zone	6	5.0
Total	121	100

East zone includes Arunachal Pradesh, Assam, Bihar, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Sikkim, Tripura and West Bengal while the North zone includes Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Uttarakhand, Uttar Pradesh, Chandigarh and Delhi. The South zone represents Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Andaman and Nicobar Islands, Lakshadweep and Puducherry while the West zone represents Goa, Gujarat, Maharashtra, Dadra and Nagar Haveli and Daman and Diu. The Central zone includes the Chhattisgarh, Jharkhand and Madhya Pradesh.

To evaluate the prevailing practices of managerial aspects of CBR in India and the perception of CBR managers on the effectiveness of managerial aspects of CBR, an assessment tool consisting nineteen domains was developed. The 114 test items under nineteen domains of managerial aspects of CBR were derived from the research work of various authors viz. Rao, L.G, 2002[20], Kumar & Bhat, 2009[21], Silvia T, 2001[22], Kundu et al., 2007[23], Das K et al., 2009[24], Hjöllund L, 1983[25], Bontis N, 1989[26] etc.

In order to establish the validity of assessment tool, it was given to fifteen professionals working in the field to obtain their agreement on each item. All the 114 items of the assessment tool were fully agreed upon by all the professionals. Further to this, a pilot study was also conducted with twenty subjects to find out the contribution of each item towards the grand score. Pearson's coefficient of correlation 'r' of each item with total score was highly significant ($p < 0.01$)

and hence, all the 114 items planned were retained for the study.

To collect the primary data through survey, constructed assessment tool was circulated to all 121 organizations along with a covering letter by mail, e-mail and also through personal visits. The 86 responses received (duly filled assessment tool in all aspects), were taken up for the analysis by using SPSS software package 10.1 version.

IV. RESULT & DISCUSSION

The analysis of data collected from 86 sample organizations indicates that among the selected sample, majority of the organizations were from South zone and were established during 1981 – 2000. Majority of the organizations were implementing their CBR projects in sub urban areas and focusing on either all types of disabilities or on mental retardation. Majority of these organizations were recognized as either special school or HRD training centers. In most of the cases, their CBR projects were funded by government (either state or central) and the annual budget of their CBR projects falls between Rupees 5 Lakhs and 10 Lakhs. In most of these CBR projects, the staff strength was between 10 and 20 with the staff having qualification of either diploma or graduation. Of the CBR managers who responded to the assessment tool, majority of were males between 20 years and 40 years of age. These respondents were either diploma holders or postgraduates with work experience of 3 to 15 years.

A. Analysis of mean score

Average score for all the 86 participants was calculated for part B and part C of assessment tool. The distribution of mean score for all the nineteen domains for the sample is presented in table: 02. The mean score exhibited in table: 02 indicates that for part B of the assessment tool, the mean score is the lowest in domain “Strategic management” (1.33) and the highest in “Individual attention to persons with disabilities” (4.50). For part C of the assessment tool, the lowest mean (1.47) is for the domain “Collaborative working” and the highest (4.52) is for “Individual attention to persons with disabilities”.

In part B, out of nineteen domains, twelve domains viz. Strategic management, Collaborative working, Strategy and leadership, Building social and intellectual capital, Knowledge management, Total quality rehabilitation management, Project management, Operational effectiveness, Resource management, Client relationship management, Service values and meaning and Organizational culture and management have their mean score lower than the total scale mean score (2.54). Whereas seven domains viz. Finance management, Human resource management, Human resource development, Capabilities & ownership, Trust & motivation, The rights and needs of persons with disabilities and Individual attention to persons with disabilities have

their mean score greater than the total scale mean score (2.54).

In part C, thirteen domains viz. Strategic management, Collaborative working, Strategy and leadership, Building social and intellectual capital, Knowledge management, Total quality rehabilitation management, Project management, Operational effectiveness, resource management, client relationship management, Finance management, Service values and meaning and Organizational culture and management have their mean score lower than the total scale mean score (2.56). Whereas six domains viz. Human resource management, Human resource development, Capabilities and ownership, Trust and motivation, The rights and needs of persons with disabilities and Individual attention to persons with disabilities have their mean score greater than the total scale mean score (2.56).

Table II.
DISTRIBUTION OF MEAN SCORE

Domains	Max. Score	Mean Score	
		Part B	Part C
Service values and meaning	05	2.45	2.50
The rights and needs of PWD	05	4.48	4.50
Individual attention to PWD	05	4.50	4.52
Human resource development	05	3.42	3.53
Resource management	05	2.44	2.51
Collaborative working	05	1.48	1.47
Strategy and leadership	05	1.48	1.51
Trust and motivation	05	3.63	3.50
Capabilities and ownership	05	3.48	3.50
Operational effectiveness	05	2.41	2.49
Human resource management	05	3.41	3.51
Project management	05	1.59	1.52
Total quality rehabilitation management	05	1.53	1.53
Client relationship management	05	2.45	2.49
Organizational culture and management	05	2.49	2.47
Finance management	05	2.57	2.49
Knowledge management	05	1.53	1.52
Strategic management	05	1.33	1.52
Building social & intellectual capital	05	1.52	1.53
Mean	05	2.54	2.56
Total Score	95	48.19	48.63

B. Relationship between mean score and organizational characteristics

The analysis of variance through one way ANOVA for prevailing practice of managerial aspects of CBR as dependent variables and organizational characteristic of CBR implementing agencies as independent variables indicate that the mean score obtained for prevailing practice of managerial aspects of CBR is not related to the organization's zonal representation and period of establishment.

The same test statistics indicates that there is a significant relationship between mean score of

prevailing practice of managerial aspects of CBR and the CBR project location, disability focused in CBR projects, organizational recognition, funding source, annual budget, staff strength, and higher qualification of CBR staff.

C. Relationship between mean score and individual characteristics

Considering the mean score obtained for manager’s perception as dependent variable and the manager’s characteristics as independent variables, the analysis of variance through one way ANOVA reflects that the perception of manager’s on prevailing practice of managerial aspects of CBR is not influenced by the gender of CBR managers.

The perception of CBR manager of the effectiveness of prevailing practice of managerial aspects of CBR depends on the age of the CBR manager, qualification of CBR manager and the work experience of CBR manager.

D. Test of null hypothesis

“Prevailing practices of managerial aspects of CBR does not depends on the perception of CBR managers on the effectiveness of these managerial aspects of CBR”

The hypothesis here tries to find out the relationship between practices of managerial aspects of CBR and the perception of CBR managers on the effectiveness of these managerial aspects of CBR. The mean score for perception of effectiveness was treated as independent variable and the mean score for the prevailing practices was treated as dependent variable. In order to find out that the practices on managerial aspects of CBR depend on the perception of CBR managers regarding effectiveness of these managerial aspects of CBR, the following tests were used:

Pearson product-moment correlation coefficient: Pearson correlation test statistics in table: 03 indicate a strong and positive correlation ($r=.754$) between practices of managerial aspects and the perception regarding effectiveness of these aspects.

Table III.

CORRELATIONS BETWEEN PRACTICE & PERCEPTION		
		Practice
Perception	Pearson Correlation	.745**
	Sig. (2-tailed)	.000
	N	86

** Correlation is significant at the 0.01 level (2-tailed).

This correlation indicates that if the score on perception regarding effectiveness of managerial aspects of CBR increases, it is more likely to get higher score on prevailing practice of managerial aspects of CBR. To establish this relationship further, linear regression analysis was performed with the collected data by ‘forced entry’ method.

Linear regression analysis: In the linear regression analysis, R square was a measure of the proportion of variation in the scores that is explained by the

variables in the model. The closer to 1 the more strongly the variables explain the response. The closer to 0 the less strongly the variables explain the response. The Table IV. indicates positive and fairly strong relationship between predictor (perception) and dependent variable (practice) with R value 0.755 closure to 1 and the R Square 0.570 also closure to 1.

Table IV.

MODEL SUMMARY^b FOR PREVAILING PRACTICE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Perception of CBR Managers	.755a	.570	.565	6.567

a. Predictors: (Constant), Perception

b. Dependent Variable: Practice

The value of R Square for the prevailing practice of managerial aspects of CBR is 0.570 meaning that the model composed by the test variable (manager’s perception on effectiveness) account for 57%. This regression value is fairly high and indicates that the perception of CBR managers on the effectiveness of prevailing practice of managerial aspects of CBR has significant influence on the practices of managerial aspects of CBR. The model itself is highly significant (ANOVA $p = 0.000$) and therefore this model is a better explanation than using just mean values (Table V).

Table V.

ANOVA^b ON PREVAILING PRACTICE

Model		Sum of Squares	df	Mean Square	F	Sig.
Perception of CBR Managers	Regression	4794.418	1	4794.418	111.180	.000a
	Residual	3622.338	84	43.123		
	Total	8416.756	85			

a. Predictors: (Constant), Perception

b. Dependent Variable: Practices

The model presented in Table VI., composed of perception and a constant, where the constant represents the percentage of practice if there was no information on perception. The beta value (column B) for the constant is -33.569. The beta value of perception is 31.049 with significant level 0.000.

Table VI.

COEFFICIENTS^a OF PREVAILING PRACTICE

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error				Beta	Lower Bound
(Constant)	-33.569	10.170		-3.301	.001	-53.793	-13.344
Perception of CBR Managers	31.049	2.945	.755	10.544	.000	25.194	36.905

a. Dependent Variable: practice

This indicates the slope of the regression line by offering information about two aspects: one, there is a positive or negative regression; second, the change in the predicted value for each unit change in the parameter. Regression equation derived from above statistics is:

$$\text{Practice} = -33.569 + 31.049 (\text{Perception})$$

The positive slope in Figure 1. represents that the higher the values of these perception higher the chances of practice. The residual plot (Figure 2.) shows a random scatter of the points (independence) with a constant spread (constant variance).

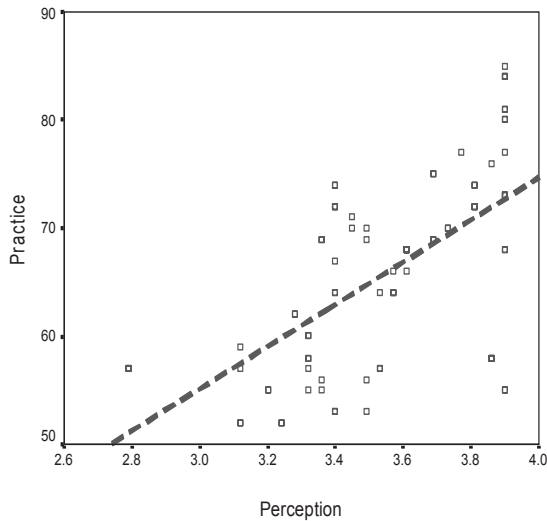


Figure 1. Slope of regression line (perception vs. Practice)

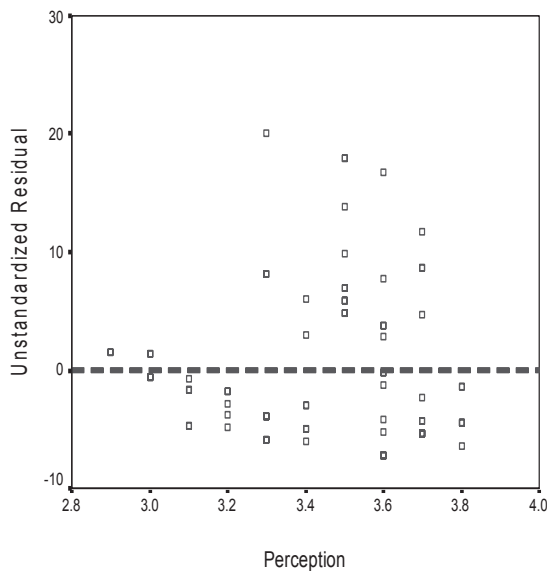


Figure 2. Residual plot

The standardized residual plot (Figure 3.) shows a random scatter of the points (independence) with a constant spread (constant variance) with some outliers (values beyond the ± 2 standard deviation reference lines). These outliers are not treated or

analyzed further in this study. The normal probability plot of the residuals (Figure 4.) shows the points close to a diagonal line; therefore, the residuals appear to be approximately normally distributed. Thus, the assumptions for regression analysis appear to be met.

Summary of regression analysis: At the 10% significance level, the data provide sufficient evidence to conclude that the slope of the population regression line is not 0 and, hence, perception of CBR managers on effectiveness of prevailing practice of managerial aspects of CBR is a useful predictor for prevailing practice of managerial aspects of CBR. Thus the null hypothesis “prevailing practices of managerial aspects of CBR does not depend on the perception of CBR managers on the effectiveness of these managerial aspects of CBR” is rejected.

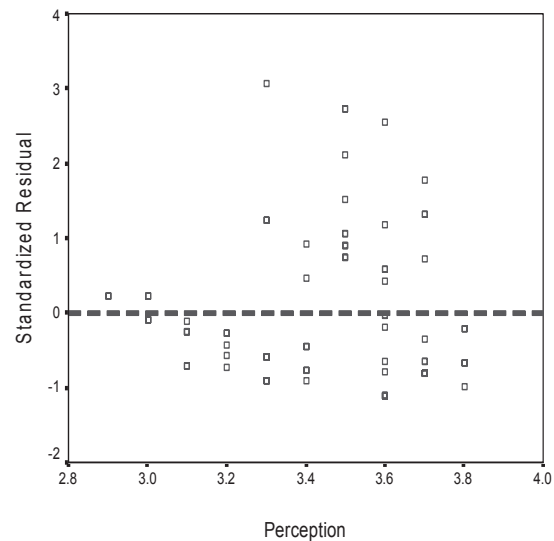


Figure 3. Standardized residual plot

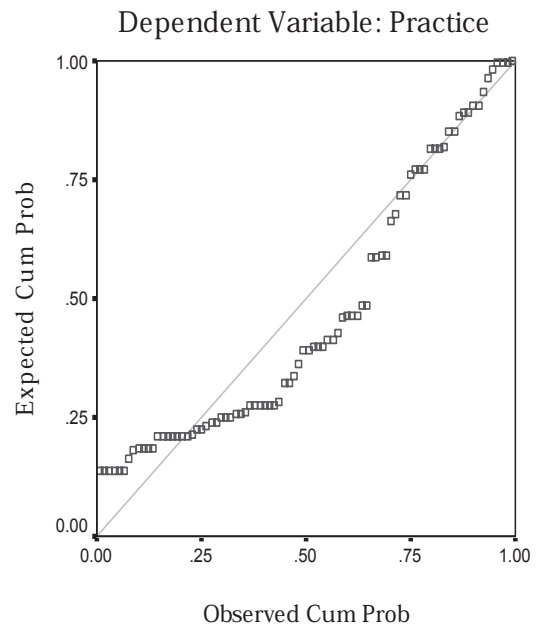


Figure 4. Normal P - P plot of regression standardized residual

CONCLUSIONS AND RECOMMENDATIONS

The results of present study on prevailing practice and perception on managerial aspects of community based rehabilitation projects in India indicate that these organizations are rated as 'average' in terms of addressing the managerial aspects of CBR. The perception on effectiveness of managerial aspects of CBR is also rated as 'average' among CBR managers in India. The study points out that the prevailing practices of managerial aspects of CBR depends on the CBR project location, disability focused in CBR projects, organizational recognition, funding source, annual budget, staff strength, and higher qualification of CBR staff. The perception of CBR managers on effectiveness of managerial aspects of CBR depends on the age of the CBR manager, educational qualification of CBR manager and the work experience of CBR manager. Linear regression analysis indicates that there is a strong and positive correlation between practices of managerial aspects and the perception regarding effectiveness of these managerial aspects. Hence change in perception may lead to the change in practices of managerial aspects. In order to improve the management practices of CBR projects the perception of CBR managers need to be improved through a proper training and development in the area of managerial aspects of CBR.

Hence, the study suggests that managerial aspects of CBR cannot be ignored if a disability rehabilitation organization wants to implement CBR projects successfully. Top management need to put conscious efforts towards inclusion of managerial aspects of CBR in day to day affairs of CBR project management. Existing human resource involved with the CBR projects may also think of upgrading their skills to practice managerial aspects of CBR in day to day operations. Rehabilitation Council of India is the regulatory authority in India to develop and design the curriculum for developing human resource in the field of disability rehabilitation. Existing curriculum on CBR training does not have the adequate coverage on managerial aspects of CBR prescribed in this study. Inclusion of these aspects will not only improve the quality of existing long term training courses but also open up the scope of designing tailor made short term training programme in the field of Community Based Rehabilitation.

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