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Article

Attitude of Families of Persons with Disabilities towards Community-Based Rehabilitation (CBR) Programme

Md. Mousuf Raza[1*] , Danish Nadim[1] , Aftab Alam[1] , Afroz Zaheer[2]

1. College of Teacher Education, Darbhanga, Maulana Azad National Urdu University, Hyderabad, India.
2. Department of Education & Training, Maulana Azad National Urdu University, Hyderabad, India.

*Corresponding Author:
raza.jmi09@gmail.com

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Abstract:

Community-Based Rehabilitation (CBR) identifies the family as the primary source of support and social inclusion for individuals with disabilities. The degree to which the programme can be effective relies heavily on caregivers' attitudes and perceived competencies; however, little empirical research has been conducted in urban India regarding caregivers' perceptions and attitudes toward caring for individuals with disabilities. This study was to assess the attitudes of family caregivers regarding CBR in a metropolitan area and determined whether there were significant differences in caregivers' attitudes based on gender, age, or type(s) of disabilities. A cross-sectional survey design was used, included 120 primary caregivers selected through purposive sampling from 12 Non-Governmental Organizations (NGOs) providing CBR services. Data were collected using a psychometrically validated self-constructed 30-item Attitude Scale (Cronbach's $\alpha = 0.72$) and analyzed using Descriptive Statistics, an Independent-samples t-test, one-way ANOVA with Tukey HSD post-hoc comparison, and Chi-square testing. The overall mean attitude score was 103.33 (SD = 6.72), indicating that the average attitude of family caregivers fell within the operationally defined negative attitude category. Furthermore, 55.0% of caregivers demonstrated negative attitudes, while 40.8% exhibited neutral attitudes. Only 4.2% reported positive attitudes towards the CBR programme. These findings indicate that favourable perceptions of CBR were relatively limited among the participating families. The gender and age of the caregivers had no significant impact on the overall attitudes ($p = 0.19$; $p = 0.59$, respectively). The type of disability had a highly significant effect on overall attitudes toward CBR ($F(4, 115) = 8.83$, $p < 0.001$, $\eta^2 = 0.24$) with families of children with ASD (M = 97.33) and Down Syndrome (M= 94.00) having significantly lower mean attitude scores towards CBR than families of children with locomotor or sensory disabilities. The predominance of negative and neutral attitudes reveals a critical implementation gap in urban CBR. These findings highlight the need for several strategies to enhance the overall acceptance of Urban-based CBR and improve the sustainability of CBR programmes, including a specific focus on capacity-building for developmental disabilities, the development of a structured engagement process through which families can support one another, and the establishment of an ongoing diagnosis-specific peer support model.

Keywords: Community-Based Rehabilitation, Caregiver Attitude, Disability, Persons with Disabilities, Social Inclusion, Special Education

1. INTRODUCTION

Rehabilitation services for Persons with Disabilities (PWDs) in India have traditionally been structured around an institution-based model focused on providing medical assistance and treatment, primarily located in large urban areas. Although specialist hospitals, rehabilitation centres, and segregated special schools provide valuable support in terms of expert interventions, assistive technology,

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and therapeutic services, their reach remains structurally limited due to geographic barriers, cost, and the lack of availability of specialist staff members (Mitra, et al., 2013). As per the Census of India (2011), around 26.8 million individuals (2.21% of the national population) live with some form of disability. However, this figure is widely regarded as an underestimation due to definitional ambiguities, the prevalence of societal stigma against persons with disabilities, and the persistent under-reporting of disabilities among marginalized and rural populations (World Bank, 2019). If India's true disability burden aligns with the WHO estimates, the absolute number of people with disabilities would jump from 26.8 million to roughly 200 million, a projection widely accepted by public health experts and advocacy groups in India. Although the need for rehabilitation services for PWDs is significant, estimates indicate that less than 3% of individuals with disabilities who require support have accessed rehabilitation services through institutions (WHO, 2010; Raza, M. M., & Begum, S., 2022). Therefore, a significant gap in equity and access exists in institute-based rehabilitation services.

Due to the limitations of the traditional institution-based model, such as high operational costs, limited scalability, and limited community involvement, national policymakers and international organizations began to explore decentralized, participatory models for service delivery. The primary strategy that emerged from this shift is Community-Based Rehabilitation (CBR), which has received joint endorsement by the World Health Organization (WHO), International Labour Organization (ILO), United Nations Educational, Scientific and Cultural Organization (UNESCO), and United Nations Children's Fund (UNICEF) (WHO, 2010; Raza, Md & Begum, Sara., 2022). CBR includes five interdependent domains: health, education, livelihood, social participation, and empowerment. It aims to develop a decentralized network for rehabilitation service delivery by mobilizing local resources, promoting intersectoral collaboration, and adopting a rights-based approach to inclusion. In low- and middle-income countries, CBR is widely regarded as a cost-effective and scalable method for addressing a significant proportion of rehabilitation needs, particularly when supported by meaningful community engagement and robust policy frameworks (Helander, 1993; WHO, 2010). In India, CBR also aligns with the Rights of Persons with Disabilities Act (RPwD Act 2016) and the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), both of which emphasize tenets of inclusion, participation, and equal opportunity.

Within the CBR framework, the family is placed at its core. In contrast to institute-based models, where rehabilitation is primarily delivered through professionals, CBR assumes that family caregivers will work in partnership with professionals to ensure the continuity of therapeutic gains achieved through the rehabilitation process, provide support in daily living and community participation, and act as advocates for the PWDs (WHO, 2010). This approach places significant responsibilities on family members, as caregiver attitudes towards CBR are considered fundamental determinants of programme uptake, fidelity, and long-term effectiveness (Scorgie et al., 2004).

1.1. Theoretical Framework

The social model of disability forms the foundation for this study, as it views disability with an emphasis on societal, environmental, and attitudinal barriers rather than solely on impairment (Oliver, 1996; Shakespeare, 2014). The social model conceptualizes disability as both a relational and contextual phenomenon, with the family serving as the closest micro-community for the individual with disability. Therefore, the attitudes of family members influence how effectively the individual with disability interacts with their social environment on a day-to-day basis.

Ajzen's (1991) Theory of Planned Behaviour and the Social Model of Disability complement each other by providing insight into how attitude, social norms, and perceived behavioral control influence the likelihood of a particular behavior. The Theory of Planned Behavior posits that individuals are more likely to demonstrate high levels of active participation in community-based rehabilitation (CBR) when they hold positive attitudes towards rehabilitation, perceive supportive attitudes from family members and friends, and feel a sense of control over rehabilitation-related activities. For example, caregivers who demonstrate positive attitudes toward rehabilitation will be more likely to actively participate in the programme's activities, continuously implement home-based interventions, and encourage their family members and friends to participate socially with PWDs. In contrast, negative or ambivalent attitudes may lead to passive involvement, inconsistent participation, or withdrawal from the programme. Therefore, measuring and understanding family attitudes toward CBR are critical not only for predictions of participation but also for informing effective programme design and implementation.

1.2. CBR in India: Policy Context and Urban Challenges

India has a long history of implementing Community-Based Rehabilitation (CBR), beginning in 1980 through pilot projects supported by the World Health Organization. Since then, CBR has been incorporated into various national and state-level disability welfare programmes. The Rights of Persons with Disabilities Act (RPwD Act) established a legal framework for providing CBR as one of the approaches to ensuring the rights of people with disabilities at the community level. Although government commitment is evident through policy and legislation, considerable variability exists in the actual delivery of CBR services. There are greater numbers of CBR programmes in rural and tribal areas than in urban areas; most CBR programmes in these regions are facilitated by international non-governmental organizations (NGOs). At the same time, many urban areas have witnessed an increase in private specialist service providers, often competing with community-based organizations (CBOs) for the same clients and, in some cases, replacing them (Sharma & Lakshminarayanan, 2019). The presence of diverse service options in metropolitan areas has created a unique context that influences caregivers' attitudes towards CBR, shaped

by their experiences with both community-based and institutional or private rehabilitation services.

1.3. Research Gap

The majority of existing literature in India related to the rehabilitation of individuals with disabilities has typically addressed issues around rural delivery of services, workforce development, and the overall coverage of rehabilitation programmes (Dalal, 2006; Murthy, 2016). In contrast, the attitudes of caregivers towards community-based rehabilitation (CBR) have received much less systematic empirical attention, particularly in urban areas. This information is important for managers of rehabilitation programmes because attitudes are considered modifiable determinants of behavior. Understanding the distribution and correlates of caregiver attitudes toward CBR can help managers develop interventions tailored to specific groups of caregivers.

1.4. Objectives

The objectives of this study were to determine:

1. to study of the overall attitude of family caregivers towards CBR in the metropolitan area;
2. to study on the caregiver's gender and age group influence their attitude; and
3. to study the attitude vary according to the type of disability, thereby identifying groups of caregivers who may require targeted intervention related to their attitude towards CBR.

2. METHODOLOGY

2.1. Research Design

The present study employed a quantitative, cross-sectional descriptive survey design to examine the attitudes of family caregivers towards the Community-Based Rehabilitation (CBR) programme in Delhi-NCR, India. A cross-sectional survey design enables researchers to collect information from a defined population at a particular point in time and examine the distribution of attitudes and their variations across selected demographic and disability-related characteristics (Kelley et al., 2003). The design was considered appropriate for assessing caregivers' attitudes towards CBR and examining differences according to gender, age group, and disability category. However, because the data were collected at a single point in time, the study does not establish causal relationships between the investigated variables.

2.2. Population and Sample

The target population consisted of primary family caregivers of persons with disabilities enrolled in Community-Based Rehabilitation programmes implemented by non-governmental organisations (NGOs) in Delhi-NCR, India.

A two-stage sampling procedure was adopted. In the first stage, 12 NGOs actively implementing CBR programmes in the study area were identified and selected through snowball sampling. This approach was adopted because a comprehensive and publicly accessible register of CBR organisations operating in the region was not available. In the second stage, purposive sampling was employed to select 120 primary family caregivers who fulfilled the predetermined inclusion criteria.

Ten caregivers were recruited from each participating NGO, resulting in a total sample of 120 respondents. The selection of participants from different organisations was intended to incorporate caregivers with exposure to varying organisational structures and CBR service-delivery approaches. The sample included caregivers associated with CBR programmes for at least six months before data collection.

The final sample comprised 74 female caregivers (61.7%) and 46 male caregivers (38.3%). Participants were distributed across three age groups: 31 caregivers (25.8%) were aged 35 years or below, 81 (67.5%) were between 36 and 45 years, and eight (6.7%) were above 45 years. With respect to disability category, the sample included 56 caregivers of persons with locomotor/physical disabilities, 26 of persons with intellectual disabilities, 21 of persons with sensory disabilities, nine of persons with Autism Spectrum Disorder (ASD), and eight of persons with Down syndrome.

2.3. Inclusion and Exclusion Criteria

Participants were included in the study if they met the following criteria:

1. They were primary family caregivers of persons with disabilities enrolled in a CBR programme operated by one of the selected NGOs.
2. They had been associated with the respective CBR programme for at least six months before the data collection.

Caregivers whose family members had enrolled in the CBR programme within the preceding six months were excluded from the study. This criterion was adopted to ensure that participants had sufficient exposure to programme activities to provide informed responses regarding their experiences and perceptions.

2.4. Research Instrument

Data were collected using a researcher-developed instrument entitled the *Attitude Scale for Families of Persons with Disabilities towards the Community-Based Rehabilitation Programme*. The development of the instrument was informed by established principles of attitude-scale construction and scale development (DeVellis & Thorpe, 2021).

Initially, a pool of 45 items was developed through a review of relevant literature on CBR, disability, family caregiving, and rehabilitation-related attitudes. The development process also incorporated insights from discussions with caregivers and consultations with rehabilitation professionals. The initial items were organised into five thematic domains:

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1. Perceived benefits of CBR participation for persons with disabilities.
2. Understanding of family roles and responsibilities in CBR participation.
3. Perceptions of the professional competence of CBR personnel.
4. Perceptions of community acceptance and social integration.
5. Preferences for community-based rehabilitation versus institutional care.

The initial item pool was reviewed by an expert panel comprising five professionals. Based on their feedback regarding relevance, clarity, and redundancy, 15 items were removed, resulting in a final instrument containing 30 Likert-type statements.

The final scale consisted of 25 positively worded and five negatively worded items. Each item was rated on a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). The negatively worded items (items 3, 4, 5, 14, and 17) were reverse-coded before calculating the total attitude score.

The total possible score ranged from 30 to 150, with higher scores indicating more favourable attitudes towards the CBR programme. For descriptive interpretation, the scores were classified into three operational categories: negative attitude (≤104), neutral attitude (105–114), and positive attitude (≥115).

A pilot study involving 60 family caregivers was conducted to examine the preliminary functioning and internal consistency of the instrument. The pilot participants were not included in the final study sample. The instrument demonstrated a Cronbach's alpha coefficient of 0.72, indicating acceptable preliminary internal consistency for exploratory research (Nunnally, 1978).

2.5. Ethical Considerations

The study was conducted after obtaining institutional ethical approval through the prescribed institutional process. All participants were informed about the purpose and nature of the study, and written informed consent was obtained before data collection. Participation was entirely voluntary, and participants were informed of their right to decline participation. Confidentiality and anonymity were maintained throughout the research process. No personally identifying information about individual participants or participating organisations was included in the research report.

2.6. Data Analysis

The collected data were analysed using IBM SPSS Statistics, Version 25. Descriptive statistical techniques, including frequencies, percentages, means, and standard deviations, were used to summarise the socio-demographic characteristics of the participants and their overall attitudes towards the CBR programme.

An independent-samples t-test was employed to examine differences in mean attitude scores between male and female caregivers. One-way analysis of variance (ANOVA) was conducted to assess differences in attitude scores across the three caregiver age groups and five disability categories. Where statistically significant overall differences were identified, Tukey's Honestly Significant Difference (HSD) post-hoc test was used to determine the specific group differences.

The assumptions underlying the parametric tests were examined before conducting the analyses. The Shapiro-Wilk test was used to assess normality, while Levene's test was employed to examine the homogeneity of variances. The relevant diagnostic results were considered when interpreting the statistical findings.

Statistical significance was evaluated at the 0.05 level ($p < .05$). Effect sizes were calculated to assess the magnitude of observed differences. Cohen's d was used for the independent-samples t-test, while eta squared (η^2) was used for the one-way ANOVA. Effect sizes were interpreted using conventional guidelines proposed by Cohen (1988). All statistical findings were interpreted in relation to the study objectives and the limitations of the sampling design.

3. RESULTS

3.1. Socio-Demographic Characteristics of the Participants

The socio-demographic characteristics of the study participants are presented in Table 1. A total of 120 primary family caregivers of persons with disabilities participated in the study. The mean age of the participants was 39.7 years (SD = 4.7), with ages ranging from 29 to 57 years. Female caregivers constituted the majority of the sample (61.7%), while male caregivers accounted for 38.3%.

Regarding age distribution, the majority of participants (67.5%) belonged to the 36–45 years age group, followed by those aged 35 years or below (25.8%). Only 6.7% of participants were above 45 years of age.

In terms of disability category, caregivers of persons with locomotor/physical disabilities represented the largest group (46.7%), followed by caregivers of persons with intellectual disabilities (21.7%) and sensory disabilities (17.5%). Caregivers of persons with Autism Spectrum Disorder (ASD) and Down syndrome accounted for 7.5% and 6.7% of the sample, respectively.

Table 1: Socio-Demographic Characteristics of the Study Participants (N = 120)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Female	74	61.7
	Male	46	38.3

Variable	Category	Frequency (n)	Percentage (%)
Age group (years)	≤35	31	25.8
	36–45	81	67.5
	>45	8	6.7
Disability category	Locomotor/ Physical	56	46.7
	Intellectual disability	26	21.7
	Sensory disability	21	17.5
	Autism Spectrum Disorder	9	7.5
	Down syndrome	8	6.7
Total		120	100.0

3.2. Overall Attitudes of Family Caregivers towards the CBR Programme

The overall attitude scores of family caregivers towards the Community-Based Rehabilitation (CBR) programme were examined using descriptive statistical analysis. The findings revealed a mean attitude score of 103.33 (SD = 6.72), with scores ranging from 84 to 122. Based on the operational classification established for the attitude scale, the overall mean score fell within the negative attitude category (≤104).

The distribution of participants across the three attitude categories is presented in Table 2. The findings indicated that 66 caregivers (55.0%) demonstrated negative attitudes towards the CBR programme, while 49 caregivers (40.8%) exhibited neutral attitudes. Only five caregivers (4.2%) demonstrated positive attitudes.

These findings indicate that negative and neutral attitudes predominated among the participating family caregivers, whereas positive attitudes towards the CBR programme were comparatively limited.

The Shapiro–Wilk test indicated that the overall attitude scores did not significantly deviate from a normal distribution ($W = 0.98$, $p = 0.22$).

Table 2: Distribution of Family Caregivers According to Their Attitude towards the CBR Programme (N = 120)

Attitude category	Score range	Frequency (n)	Percentage (%)
Positive	≥115	5	4.2
Neutral	105–114	49	40.8
Negative	≤104	66	55.0
Total		120	100.0

3.3. Differences in Caregivers' Attitudes According to Gender and Age

3.3.1 Gender-wise Differences in Attitude Scores

An independent-samples t-test was conducted to examine whether family caregivers' attitudes towards the CBR programme differed significantly according to gender. The descriptive findings indicated that female caregivers obtained a mean attitude score of 103.91 (SD = 6.73, n = 74), whereas male caregivers obtained a mean score of 102.24 (SD = 6.63, n = 46).

The analysis did not reveal a statistically significant difference in attitude scores between female and male caregivers, $t = 1.31$, $p = 0.19$. The observed effect size was small (Cohen's $d = 0.25$), suggesting that the difference between the two groups was relatively limited. Levene's test indicated that the assumption of homogeneity of variances was satisfied ($F = 0.07$, $p = 0.79$).

These findings suggest that caregiver gender was not significantly associated with differences in attitudes towards the CBR programme within the present sample.

3.3.2 Age-wise Differences in Attitude Scores

A one-way analysis of variance (ANOVA) was conducted to determine whether caregivers' attitudes towards the CBR programme differed across the three age groups.

The descriptive analysis revealed that caregivers aged 35 years or below obtained a mean attitude score of 102.87 (SD = 6.55), while those in the 36–45 years age group obtained a mean score of 103.28 (SD = 6.98). Caregivers above 45 years of age recorded a comparatively higher mean score of 105.62 (SD = 4.27).

However, the one-way ANOVA did not identify a statistically significant difference in attitude scores across the three age groups, $F(2, 117) = 0.54$, $p = 0.59$, $\eta^2 = 0.01$.

Although caregivers above 45 years of age demonstrated a relatively higher mean attitude score, the observed differences were not statistically significant. The relatively small number of participants in this age category (n = 8) should also be considered when interpreting the findings.

These results indicate that caregiver age group was not significantly associated with variations in attitudes towards the CBR programme in the present study.

3.4. Differences in Attitudes According to Disability Category

A one-way analysis of variance (ANOVA) was conducted to examine whether family caregivers' attitudes towards the CBR programme varied according to the disability category of the persons receiving rehabilitation services.

The analysis revealed a statistically significant difference in mean attitude scores across the five disability categories, $F(4, 115) = 8.83$, $p < 0.001$, $\eta^2 = 0.24$. The effect size indicated that disability category accounted for a substantial proportion of the variation in caregiver attitude scores.

As presented in Table 3, caregivers of persons with sensory disabilities recorded the highest mean attitude score (M = 105.48, SD = 5.59), followed by caregivers of persons with locomotor/physical disabilities (M = 104.93, SD = 6.20).

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Caregivers of persons with intellectual disabilities obtained a mean score of 103.12 (SD = 5.98).

In comparison, caregivers of persons with Autism Spectrum Disorder (ASD) recorded a lower mean attitude score of 97.33 (SD = 6.46), while caregivers of persons with Down syndrome obtained the lowest mean score of 94.00 (SD = 4.50).

Post-hoc comparisons using Tukey's Honestly Significant Difference (HSD) test indicated that caregivers of persons with locomotor/physical and sensory disabilities demonstrated significantly higher attitude scores than caregivers of persons with ASD and Down syndrome ($p < 0.05$). However, caregivers of persons with intellectual disabilities did not demonstrate statistically significant differences from the other disability categories, according to the reported post-hoc findings.

The results suggest that caregivers' attitudes towards the CBR programme varied considerably according to disability category, with comparatively less favourable attitudes observed among caregivers of persons with ASD and Down syndrome.

Table 3: Comparison of Family Caregivers' Attitude Scores According to Disability Category (N = 120)

Disability category	N	Mean (M)	SD	Reported post-hoc findings
Locomotor/Physical	56	104.93	6.20	Significantly higher than ASD and Down syndrome
Sensory disability	21	105.48	5.59	Significantly higher than ASD and Down syndrome
Intellectual disability	26	103.12	5.98	No significant differences reported
Autism Spectrum Disorder	9	97.33	6.46	Significantly lower than locomotor and sensory groups
Down syndrome	8	94.00	4.50	Significantly lower than locomotor and sensory groups

Note. ASD = Autism Spectrum Disorder; SD = Standard Deviation. One-way ANOVA: $F(4, 115) = 8.83$, $p < 0.001$, $\eta^2 = 0.24$. Post-hoc comparisons were conducted using Tukey's HSD test. Reported significant comparisons are at $p < 0.05$.

4. DISCUSSION

4.1. Predominance of Negative Attitude: Interpreting the Findings

The striking finding that 55.0% of the caregivers in the present study demonstrated negative attitudes towards the CBR programme, while only 4.2% exhibited positive attitudes, is significant in relation to the ongoing policy direction of CBR. This finding differs considerably from earlier rural Indian studies in which CBR was often perceived more positively, largely because community-based services were among the few accessible rehabilitation options available in rural settings (Dalal, 2006; Sharma & Lakshminarayanan, 2019). In contrast, families living in urban areas have access to a wider range of rehabilitation services, including private physiotherapists, special schools, hospital outpatient departments, and NGO- operated special centres. The availability of multiple service options in urban settings may encourage families to compare CBR unfavorably with alternative services, often with lower service intensity and fewer specialized personnel. Wirz and Thomas (2002) observed that caregivers who previously experienced intensive service through institutional settings tended to evaluate community-based alternatives against comparatively higher standards.

The high percentage of neutral responses (40.8%) is also noteworthy. It is likely that neutrality represents ambivalence, or that caregivers are engaged with CBR primarily for practical reasons such as affordability and accessibility rather than the strong belief that CBR is an effective service delivery model. In this context, such ambivalence may represent a form of "reluctant participation," as described in the CBR literature from sub-Saharan Africa (Hartley et al., 2009; Finkenflügel et al., 2005). From a sustainability perspective, ambivalent attitudes may represent an unstable condition. Unless deliberate and targeted efforts are put in place to change the ambivalence to positive engagement, there is a possibility that such attitudes may gradually shift towards negative participation, particularly .

4.2. Gender and Age as Non-predictors: Implications for Outreach

The absence of significant gender differences in caregiver attitudes reinforces the view that caregiving attitudes in South Asian cultures may no longer be shaped solely by the traditionally higher caregiving burden experienced by female caregivers, which was often associated with a more negative attitude toward caregiving (McConachie, 1994). This finding may also reflect changing family structures in urban metropolitan areas, where fathers are increasingly participating in rehabilitation-related decision-making, attending therapy sessions, and becoming more actively involved in rehabilitation programmes. Consequently, CBR programmes may not focus extensively on gender-specific attitudinal interventions, but rather on developing interventions that address factors related to disability.

Similarly, the non-significance of age is in agreement with the findings of Srinivasan and Bhatt (2018) and supports the argument that caregiving attitude is primarily based on a person's experience with the individual with the disability and the quality of the CBR experience and not dependent on the caregiver's age or years of experience caring for a person with a disability. This makes it easier for programmes to target their outreach efforts; therefore, universal outreach methods should be used to engage potential users of CBR programme resources while developing disability-specific

materials for additional support.

4.3. Disability-Specific Disparities: A Critical Programme Gap

The major conclusion of this study was that the type of disability significantly influences caregivers' attitudes towards the support provided for their children ($\eta 2 = 0.24$). The comparatively lower scores among caregivers of children with ASD and Down syndrome highlight the additional challenges and support requirements associated with these specific developmental conditions. In the case of locomotor and sensory impairments, the strategies, mobility aids, and support systems used by CBR workers are relatively well established and can often be implemented effectively with appropriately trained community personnel. However, in comparison, supporting children with developmental disabilities frequently requires highly individualized, intensive, and specialized interventions, such as Applied Behavioural Analysis for children with ASD, speech and language therapy, structured educational programming, and long-term transitional support (Guralnick, 2019; Lord et al, 2020).

Consequently, when CBR workers do not possess the specific skill required to address the complex needs associated with developmental disabilities, caregivers (families) may perceive that CBR programmes lack the capacity to provide adequate support for their children. This often contributes to reduced confidence and trust in the effectiveness of CBR services.

These findings are consistent with evidence from other regions of the world, which suggests that CBR programmes tend to perform more effectively in addressing physical and sensory disabilities than developmental or intellectual disabilities Hartley, 2002; WHO, 2010). The relatively moderate position of disability group indicated that although certain community-based supports, such as daily living skills training and social inclusion activities, may be beneficial across developmental disability categories, additional specialist support is often necessary to address more complex presentations effectively. As mandated by the Rehabilitation Council of India, rehabilitation professionals are expected to possess specific competencies are not consistently incorporated into the training of CBR workers at the community level, thereby creating a significant service gap that must be addressed in order to build caregiver trust and confidence in CBR programmes.

5. LIMITATIONS

This study has several limitations. First, a casual interpretation cannot be made because the cross-sectional design does not allow the establishment of cause-and-effect relationships, thereby limiting the understanding of whether attitudes influence participation in the CBR programme or whether participation itself shapes caregiver attitudes. Second, although participants were purposively sampled from 12 different NGOs and therefore had varying degrees of exposure to CBR programming, the findings may not be generalizable to all caregivers of PWDs within the same region. Third, the relatively small number of participants in the Autism Spectrum Disorder (n = 9) and Down syndrome (n = 8) group limits the strength of statistical comparisons involving these categories, making future replication studies with larger samples necessary. Finally, it is acknowledged that the nature of the data collection process, particularly the use of face-to-face interviews, may have introduced social desirability bias, potentially leading participants to report a slightly more positive attitude than they may actually hold.

6. CONCLUSION AND RECOMMENDATIONS

This study provides evidence to support the argument that community-based rehabilitation (CBR) in an urban city is experiencing a relatively low level of acceptance among families receiving its services. The high prevalence of negative and neutral attitudes, particularly among families of children with autism spectrum disorder and Down syndrome, suggests concern regarding service quality as well as limited family engagement CBR process. These findings are not merely descriptive in nature; rather. They highlight important areas where CBR programme can be strengthened and improved. The findings suggest several important areas for improvement in CBR programmes. First,

Disability-specific Capacity Building: There is a need to strengthen disability-specific capacity building by increasing the availability of trained professionals for developmental disabilities, particularly ASD and Down syndrome. Such professionals should receive formal, structured, and competency-based training aligned with standards established by the Rehabilitation Council of India and should be equipped to deliver interventions appropriate to the needs of the clients.

Structures Family Engagement: The next priority area is that CBR programmes should incorporate regular family training initiatives through counselling services, transparent and continuous evaluation of children's progress within CBR programmes, and community-level awareness campaigns highlighting the effectiveness and success of CBR, particularly those based on evidence-based practices. Such activities may help caregivers transition from attitude of neutrality or negativity towards more active engagement and informed commitment to the rehabilitation process.

Diagnosis-specific Peer Support Networks: The third recommendation is to establish diagnosis-specific peer support networks for caregivers. Support groups are organiszed based on the specific type of disability diagnosed in their children and help reduce feelings of isolation, promote peer learning, establish community-level normalization of rehabilitation services, and foster collective advocacy efforts to improve the quality of CBR programmes (Gupta & Singhal, 2005). Studies have shown that these types of networks can help caregivers reduce the burden they are placed under, as well as increase their participation in CBR programs globally.

To better understand the long-term impact of CBR on caregiver attitudes, future research should adopt

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longitudinal study designs and incorporate mixed-method approaches combining qualitative and quantitative methods. Such approaches would provide deeper insight into how caregivers perceive changes brought about through CBR and how they interpret and construct their attitudes towards rehabilitation services. Furthermore, to determine whether these findings can be generalized across different regions of India and to develop a more comprehensive understanding of CBR policy implementation at the national level, future studies should include larger samples drawn from multiple metropolitan areas across the country.

DECLARATIONS

Author(s) Contribution

Conceptualization was performed by Dr. Md. Mousuf Raza and Dr. Aftab Alam. Formal analysis was carried out by Dr. Danish Nadim, while investigation was conducted by Dr. Md. Mousuf Raza and Dr. Afroz Zaheer. Methodology was developed by Dr. Md. Mousuf Raza and Dr. Danish Nadim. Resources were provided by Dr. Md. Mousuf Raza, and software contributions were managed by Dr. Danish Nadim. Supervision was overseen by Dr. Aftab Alam and Dr. Afroz Zaheer. Validation was handled by Dr. Aftab Alam, and visualization was done by Dr. Md. Mousuf Raza. The original draft of the writing was prepared by Dr. Md. Mousuf Raza, and writing – review & editing was performed by Dr. Aftab Alam. All authors have read and agreed to the published version of the manuscript.

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The data supporting this study are available upon request.

Competing Interests

The author(s) declare no competing interests.

Clinical Trial Registration (if applicable)

Not applicable

Human Ethics and Consent to Participate

The study did not involve any clinical interventions requiring formal ethical approval.

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Author Bio:

1. Dr. Md. Mousuf Raza is an Assistant Professor of Education at the College of Teacher Education (CTE), Maulana Azad National Urdu University (MANUU), Darbhanga, where he has been serving since March 2020. He earned his Ph.D. in Education (2024) and an M.Ed. in Special Education specializing in Learning Disabilities from Jamia Millia Islamia, New Delhi, and has qualified the UGC-NET in Education. An active researcher and educator, Dr. Raza specializes in Inclusive and Special Education, Community-Based Rehabilitation, Pedagogy of Social Studies, Assistive Technology, Artificial Intelligence in Education, and the Sociological Perspectives of Education. His academic output includes 25 peer-reviewed journal articles, 7 book chapters, 1 edited book, 1 patent/design, and 17 research paper presentations at national and international forums. Dedicated to academic mentorship, he has guided 7 M.Ed. dissertations and is currently supervising 2 Ph.D. scholars.

2. Dr. Danish Nadim is an Assistant Professor of Education at the College of Teacher Education (CTE), Darbhanga, under the School of Teacher Education and Training, Maulana Azad National Urdu University (MANUU). He holds a Ph.D. in Education (2019), an M.Sc. in Mathematics (2013)—for which he was awarded a University Gold Medal—and an M.Ed., alongside UGC NET-JRF and SRF qualifications. An active researcher and pedagogue, Dr. Nadim specializes in Mathematics Pedagogy, Research and Statistics in Education, Measurement and Evaluation, and Information and Communication Technology (ICT) in Education. His scholarly output includes 6 peer-reviewed journal articles, 6 book chapters, and 16 research paper presentations delivered across international and national conferences and seminars. Deeply engaged in academic research mentorship, he has guided 7 M.Ed. dissertations (5 awarded and 2 ongoing) and is supervising a Ph.D. scholar.

3. Dr. Aftab Alam is currently working as an Assistant Professor (Education) at College of Teacher Education (CTE) Darbhanga, School of Education and Training, Maulana Azad National Urdu University (A central University). He has acquired degrees from renowned universities such Jawaharlal Nehru University (JNU) New Delhi, The English and Foreign Languages University, Hyderabad, Jamia Milia Islamia (JMI), New Delhi, Maulana Azad National Urdu University (MANUU), Hyderabad and Indira Gandhi National Open University (IGNOU), New Delhi. He has a strong interest in teaching-learning and research, with strong communication and interpersonal skills. He has presented about 30 research papers related to education in various international/national seminars/conferences and authored more than 50 research papers which were published in highly indexed, UGC care approved & peer-reviewed international journals in India and abroad as well as authored 3 well known books in Urdu language. He has edited a book in English language and also authored 30 chapters for various edited books as well as written more than 10 units/chapters for various courses (B.Ed., Diploma in Early Childhood Care and Education, Diploma in Early Childhood Care and Education and Diploma in Guidance and Counselling) as a part of Student Learning Material (SLM) for Centre for Distance and Open Education (CDOE), Maulana Azad National Urdu University (MANUU), Hyderabad.

4. Dr. Afroz Zaheer is an academic and researcher in education associated with Maulana Azad National Urdu University (MANUU), having contributed to teaching and teacher training initiatives across MANUU CTE Darbhanga and the university headquarters in Hyderabad. He earned his Ph.D. in Education (2020) from the Department of Education and Training, MANUU, where his doctoral research focused on teachers' perceptions of Open Educational Resources (OERs) and their role in resource development in higher education. He also holds an M.A. in English, an M.Ed., and a B.Ed. Dr. Zaheer specializes in Open Educational Resources (OERS), Information and Communication Technology (ICT) in Education, Teacher Education, and Pedagogical Development. His scholarly publications include studies on distance learning attitudes among prospective teachers, digital resource adoption, 21st-century teaching competencies, and the social dimensions of schooling in Urdu-medium and madrasa institutions.