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Monitoring and Evaluation Practices and Sustainability of Community-Based Rehabilitation Programs for Persons with Disabilities in Nairobi City County, Kenya

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Abstract

About one billion people in the world are living with disabilities, most of them in low-income nations where rehabilitation services are still mostly inaccessible. The number of people with disabilities (PWDs) in Kenya is estimated to be 3.5 million, and they experience severe social and economic barriers to accessing rehabilitation services, especially in informal settlements in the city of Nairobi including Kibera and Mathare in Nairobi City County. CBR programs that have been introduced by groups like the Association of the Physically Disabled of Kenya (APDK) have aimed at redressing the right offences, better service access, as well as participation by the PWDs. Although M&E is identified as an essential component in disability programmes, most of the research is global or rural centred and informal settlements in Nairobi have been overlooked. The relationship between the main M&E elements and programme sustainability is not clear and participatory and adaptive evaluation methods are not thoroughly studied. This research fills these gaps by investigating M&E activities in the CBR programmes of Nairobi and the effects they have on sustainability. This paper evaluated the correlation between M&E practices, which include: capacity building, Data Quality, stakeholder engagement and program planning, and the sustainability of CBR programs in Nairobi City County. A descriptive research design was used guided by the Theory of Change, Data Quality Theory, and Stakeholder Theory. Structured questionnaires were used to collect data on 300 PWDs, and interviews were conducted to gather data on 9 of the APDK staff. Descriptive and inferential statistics were used to analyze quantitative data using SPSS version 26 whereas thematic analysis was used to analyze qualitative data. Descriptive results showed moderate scores in all M&E practices with the stakeholder engagement turning out to be the best predictor of the sustainability ($b = 0.287$, $p < 0.001$), followed by capacity building ($b = 0.248$, $p < 0.001$). In the explanation of sustainability, the four variables were used together ($R^2 = 0.590$). The researchers came to the conclusion that a meaningful stakeholder engagement is one of the keys to program sustainability. Some of the recommendations outline are to strengthen participatory M&E structures, increase staff capacity, better use of data and allocate specific M&E resources to ensure sustainable CBR programmes.

Keywords: *Monitoring and Evaluation Practices, Sustainability, Community-Based Rehabilitation Programs, Persons with Disabilities, Nairobi City County, Kenya*

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1.0 Background to the Study

Globally, over one billion people, representing approximately 15% of the world's population, are living with disabilities, with more than 80% residing in low- and middle-income countries where rehabilitation services remain largely inaccessible (WHO, 2021). Community-Based Rehabilitation (CBR) has emerged as one of the most representative worldwide approaches to addressing this gap, developed by the World Health Organization in the late 1970s and formalized in the 1980s (WHO, 2015). CBR operates through a multisectoral framework informed by five pillars, health, education, livelihood, social inclusion, and empowerment, and facilitates the active involvement of PWDs, their families, and communities in rehabilitation program planning and implementation (Tofani et al., 2021). Despite its potential, only 3% of PWDs in low- and middle-income countries access quality rehabilitation services, underscoring the urgency of strengthening CBR program frameworks and their monitoring and evaluation systems (Butura et al., 2024).

Effective monitoring and evaluation practices are indispensable to the success and long-term sustainability of CBR programs globally. However, research by Brien et al. (2023) established that more than 70% of CBR programs worldwide lack robust M&E structures, which negatively affects their capacity to deliver long-term impact. Capacity building of stakeholders is a critical determinant of CBR program efficacy, with programs that invest in training community health workers, rehabilitation officers, and volunteers demonstrating more sustainable outcomes (Tongsiri, 2022). Data quality practices are equally pivotal, as good data systems enable tracking of service delivery, community needs, and program results. Nevertheless, CBR data in most settings remains incomplete, non-standardized, or improperly used (Batini & Scannapieco, 2016). Digital tools including mobile-based reporting systems and real-time dashboards have shown promise in improving data reliability and responsiveness, yet sound data governance structures within CBR systems remain insufficiently developed (Brien et al., 2023).

In the African regional context, disability is compounded by social and financial disparities, cultural stigma, poor health infrastructure, and systemic inequality. According to the World Health Organization (2021), over 80 million individuals with disabilities live in Africa, yet access to healthcare, education, housing, and employment remains disproportionately limited, particularly in rural and informal settlement regions. Several African nations have adopted CBR as an inclusive, community-oriented model to enhance the lives of PWDs, with varying degrees of success. Ethiopia, Nigeria, South Africa, and Uganda have implemented CBR initiatives that leverage community health workers, volunteers, and local leaders to provide rehabilitation services, inclusive education, and vocational training (Adenan et al., 2023). However, major implementation challenges including systematic underinvestment, human resource shortages, weak inter-sectoral coordination, and ineffective M&E systems continue to undermine CBR program sustainability and limit the realization of disability rights across the continent (Ahmed et al., 2024).

In the Kenyan context, the country has made significant legislative strides in disability inclusion through the Constitution of Kenya (2010) and the Persons with Disabilities Act (2003), which established the National Council for Persons with Disabilities as the primary coordinating organ for disability policy (Njoroge & Kamau, 2017). Kenya's Vision 2030 further declares disability mainstreaming as an equalizing priority. Despite these frameworks, persons with disabilities

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continue to face significant barriers to inclusion and social participation, with the Kenya National Bureau of Statistics (2019) estimating disability prevalence at 2.2% of the population, though this figure is widely considered an underestimate due to stigma and data collection limitations. The uptake of rehabilitation services remains low, particularly in rural and marginal areas, prompting the introduction of CBR as a strategy to bring services closer to communities and enable a more holistic and inclusive approach to disability programming (WHO, 2021; Freeman et al., 2021).

In Nairobi City County, CBR programming faces unique challenges rooted in the complexity of its large informal settlements, including Kibera, Mathare, and Mukuru, where PWDs disproportionately experience poverty, service inaccessibility, and heightened marginalization (Mwangi, 2019). The Association for the Physically Disabled of Kenya (APDK) has played a central role in delivering CBR programs across Nairobi, covering health, assistive technology, inclusive education, and economic empowerment through networks of volunteers, field officers, and local institutional partnerships (Juma et al., 2020). However, APDK's CBR work in Nairobi faces significant M&E shortcomings, including the absence of comprehensive tools to codify, analyse, and utilise data for program decision-making, limited trained M&E personnel, and lack of standardized assessment mechanisms to determine long-term program effects (Imam et al., 2021). These gaps underscore the necessity of this study, which sought to investigate the relationship between M&E practices and the sustainability of CBR programs for PWDs in Nairobi City County, Kenya.

1.1 Statement of the Problem

Community-Based Rehabilitation (CBR) is a very critical approach to inclusion and empowerment of Persons with Disabilities (PWDs) in Kenya. Preferably, these programs should be monitored and evaluated (M&E) frameworks that will allow tracking performance, accountability, and making evidence-based decisions that are needed towards the sustainability of such programs over the long term. Nonetheless, there is a strong lack of practical implementation of M&E in CBR programs in Kenya. In City County of Nairobi which has large informal settlements with high populations of PWDs, CBR efforts are not well organized in terms of their M & E systems. As a result, about 40% of these programs have difficulties in maintaining themselves unless they receive regular external reports, a case that is worsened by the lack of accountability structures, lack of stakeholder involvement, and performance data gaps. The current literature highlights the significance of M&E in disability programs, but is generally global or rural-centric. Notably, there are no context-specific studies exploring issues of M&E implementation in informal settlements of Nairobi. Also, there is a scarcity of research based on participation or adaptive evaluation paradigms, which means that the connection between the essential M&E elements, including capacity building, Data Quality, stakeholder engagement, and program planning, and their overall impact on the sustainability are theoretically unclear. These gaps indicate the need for localized, theory-informed research. This research, thus, sought to bridge these gaps by evaluating the M&E in CBR programs within Nairobi and its connection with program sustainability.

1.2 Research Objectives

- i. To assess the correlation between capacity building and sustainability of CBR programs for persons with disabilities in Nairobi City County, Kenya.
- ii. To determine the role of effective data quality practices on the sustainability of CBR programs for persons with disabilities in Nairobi City County, Kenya.
- iii. To establish the influence of stakeholder involvement processes on sustainability of CBR programs for persons with disabilities in Nairobi City County, Kenya.
- iv. To examine the influence of program planning on sustainability of CBR programs for persons with disabilities in Nairobi City County, Kenya.

2.0 Literature Review

The chapter includes the literature review.

2.1 Theoretical Review

The study was anchored on the Theory of Change, originally developed by Weiss (1995) and progressively refined by practitioners in development programming. The Theory of Change is a results-driven strategy for planning and accountability that describes how and why certain changes are expected to transpire during a program by defining the causal chains between inputs, activities, outputs, and outcomes while stating underlying assumptions and contextual conditions (Valters et al., 2016). In the context of CBR programs, the Theory of Change is particularly applicable because various stakeholders expect to change the situation of marginalized PWDs through structured interventions. It allows building measurable indicators to track development and assess the effectiveness of interventions, and in Nairobi County, where PWDs experience structural barriers, it assists practitioners in identifying which program inputs, such as capacity building and stakeholder empowerment, are most critical to achieving sustainable and inclusive rehabilitation outcomes.

The second theoretical framework underpinning the study is the Data Quality Theory, originally presented by Wang and Strong (1996), which posits that the quality and usefulness of information systems are fundamentally rooted in the quality of the data generated and utilised within those systems. The theory outlines major data quality dimensions including accuracy, completeness, timeliness, relevance, and consistency, all of which are vital in development and health programming, particularly in low-resourced settings where data guides decision-making, resource allocation, and program accountability (Batini & Scannapieco, 2016). Within the context of CBR programs in Nairobi County, data quality is central to the effectiveness of M&E arrangements, as relevant and valid data enables stakeholders to evaluate program performance, assess impact, and identify areas requiring improvement. Data Quality Theory was used in this research as the analytical framework for examining how data practices enhance program improvement and accountability in CBR programs.

The third theoretical framework guiding the study is the Stakeholder Theory, initially developed by Freeman (1984), which postulates that the prosperity of an organisation is determined by how effectively it identifies, acknowledges, involves, and reconciles the interests of all stakeholders, defined as persons, groups, or institutions that influence or are affected by the organisation's operations (Freeman et al., 2018). In the context of CBR programs, key stakeholders including

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PWDs, caregivers, community leaders, NGOs, government agencies, and donors play major roles in designing, implementing, and assessing program interventions. M&E frameworks that meaningfully incorporate the views and inputs of these actors are demonstrably more responsive, contextually grounded, and sustainable, as this method facilitates ownership, trust, and cooperation among participants, elements that are critical to the success of community-based interventions (Odhiambo & Wanjala, 2022). Stakeholder Theory guided the examination of how the level and quality of stakeholder engagement affects M&E outcomes in Nairobi County's CBR programs.

These three theoretical frameworks, Theory of Change, Data Quality Theory, and Stakeholder Theory, are interconnected and collectively provide a robust multi-theoretical foundation for examining the relationship between M&E practices and the sustainability of CBR programs for PWDs. The Theory of Change establishes the logical and causal architecture through which M&E inputs translate into program sustainability outcomes, while Data Quality Theory provides the analytical lens for assessing how the accuracy, completeness, and accessibility of program data affect evidence-based decision-making and adaptive management. Stakeholder Theory, in turn, explains how the inclusiveness and depth of community participation in M&E processes shapes program ownership, accountability, and long-term viability. Together, these frameworks ensure that the study's examination of capacity building, data quality practices, stakeholder engagement, and program planning is theoretically grounded, contextually relevant, and empirically rigorous within Nairobi County's unique urban informal settlement environment (Ansell & Gash, 2018; Taplin & Rasic, 2021).

2.2 Conceptual Framework

Conceptual framework, according to Dubey and Kothari (2022), is a conceptual model of the relationships among the various variables in a research study that helps to plan the research process, making sure that research aims are systematically addressed. The framework (Figure 1), is used in this study to assess the relationships between independent variables which include capacity building, Data Quality, stakeholder engagement and, monitoring and evaluation planning, and dependent variable which is the sustainability of the CBR programs.

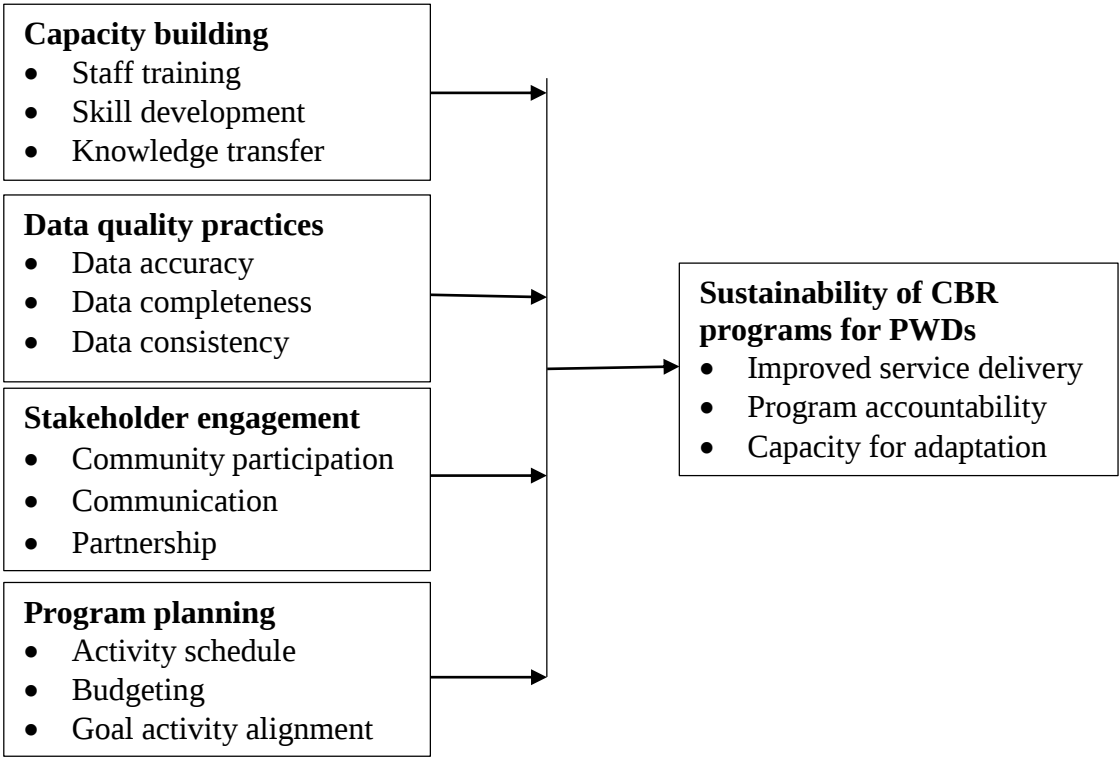


Figure 1: Conceptual Framework

2.3 Empirical Review

Globally, capacity building has been consistently identified as a critical determinant of the efficacy and sustainability of Community-Based Rehabilitation programs for persons with disabilities. Tongsiri (2022) employed a capacity-building program development approach in rural Thailand, finding that systematic training of community health workers and rehabilitation personnel was indispensable for achieving sustainable rehabilitation outcomes among young persons with disabilities. The study established that without adequate investment in human capital development, CBR initiatives could not deliver lasting social inclusion for PWDs. Similarly, Adenan et al. (2023) conducted an organisational practice review of CBR programs in Malaysia, finding that effective programs were strongly associated with systematic and planned development of capacities among service providers and the community at large. Abera (2022) further confirmed through a grassroots participatory study in Ethiopia that local community engagement and capacity development were the central forces driving rehabilitation impact and program sustainability.

Empirical evidence on data quality in CBR programs reveals significant gaps between data collection practices and the systematic use of data for program improvement and decision-making. Brien et al. (2023) employed a program evaluation methodology on the Enabling Inclusion program for children with disabilities in India, finding that uniform and precise data collection played a critical role in advancing the identification of program gaps and guiding strategic decisions, though systematic analysis and use of data for adaptive management remained

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insufficient. Marella et al. (2021) examined the development of digital case management tools in community-based inclusive development programs across Asia, demonstrating that digital tools significantly improved monitoring accuracy and service coordination. However, Batini and Scannapieco (2016) argued that data quality dimensions including accuracy, completeness, and timeliness are frequently weak in CBR settings, preventing data from being effectively used in strategic decision-making and program accountability processes.

Stakeholder engagement has been broadly established in the empirical literature as a transformative determinant of CBR program sustainability, accountability, and overall effectiveness. Aldersey et al. (2023) conducted a global review of CBR and Community-Based Inclusive Development programs, finding that meaningful participation was strongly associated with community ownership and enhanced synergy between program goals and beneficiary needs. Ahmed et al. (2024) used secondary qualitative data analysis of CBR programs operating during the COVID-19 pandemic across multiple countries, establishing that inclusive stakeholder practices contributed to more culturally grounded, contextually relevant, and sustainable interventions, particularly when targeting marginalized populations. Vaughan and Thapa (2023) examined NGO-government partnerships for community-based disability rehabilitation in sub-Saharan Africa, finding that resource mobilisation and mutual accountability were significantly enhanced through inclusive governance arrangements that empowered institutional authority and established community trust between implementing organizations and beneficiaries.

In the Kenyan and African contexts, empirical research on stakeholder engagement in CBR programs highlights both the potential and persistent limitations of participatory approaches in resource-constrained urban settings. Juma et al. (2020) conducted a descriptive study on CBR programs in Nairobi County, finding that community participation significantly enhanced the responsiveness and uptake of programs among PWDs, though meaningful engagement required deliberate planning and resource investment to be sustained. Amwe and Dala (2023) examined CBR approaches for persons with visual impairment in Nigeria using a community-based methodology, affirming that meaningful stakeholder coordination improved service reach and program relevance to the lived realities of beneficiaries. Tofani et al. (2021) conducted a validation study of CBR indicators in Italy, cautioning that tokenistic participation, whereby stakeholders are consulted without being granted genuine decision-making authority, continued to undermine program legitimacy and diminish local ownership and learning opportunities across multiple CBR contexts globally.

Empirical literature on M&E planning in CBR programs consistently demonstrates that effective planning frameworks are essential for program sustainability, yet resource constraints and misalignment between plans and implementation realities remain persistent obstacles. Hamdy (2020) employed a comparative analysis of Theory of Change and logical framework approaches, finding that when M&E foundations are weak, indicators tend to be poorly developed and program adaptability is significantly reduced. Komalasari et al. (2024) examined CBR programs in Thailand using a utilisation-focused evaluation approach, finding that programs with specifically allocated M&E budgets demonstrated more consistent monitoring and program updating compared to underfunded counterparts. Jost et al. (2022) conducted a community-based evaluation of disability resources in rural Botswana, finding that donor-driven M&E systems tended to

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emphasise short-term outputs over long-term outcomes, creating a resource gap that restricted local capacity development and undermined program sustainability over successive funding cycles.

In the Kenyan context specifically, empirical research has confirmed that weak M&E systems remain a critical barrier to the effectiveness and sustainability of CBR programs. Kiburi and Kimwele (2020) conducted a descriptive survey examining factors affecting data quality in M&E systems of NGOs in Kenya, finding that poor training, absence of standardised tools, and inadequate data verification mechanisms significantly undermined the accuracy of data and the overall efficiency of program assessments. Njoroge and Kamau (2017) similarly found through evaluative research in Nairobi County that ineffective M&E systems, characterised by poor training and insufficient stakeholder involvement, substantially restricted the efficiency and impact of CBR programs for PWDs. Tanui and Makachia (2023) further established through evaluative research on CBR for employment inclusion among young people with visual impairment in Kenya that the absence of standardised M&E indicators and benchmark data restricted the ability of implementing organisations to track beneficiary progress and provide ongoing program improvement in a systematic and evidence-based manner.

3.0 Research Methodology

The study adopted a descriptive research design to assess the relationship between monitoring and evaluation practices and the sustainability of Community-Based Rehabilitation programs for persons with disabilities in Nairobi City County, Kenya. Descriptive research design was deemed appropriate as it enabled the researcher to observe, measure, and interpret variables without manipulation or control, while accommodating both quantitative and qualitative data for a comprehensive understanding of the phenomenon studied (Kothari, 2021). The study was additionally informed by emancipatory research methods that prioritised the perspectives and experiences of persons with disabilities, ensuring relevance and inclusivity throughout the research process (Danieli & Woodhams, 2020). The target population comprised 1,260 individuals, including 10 APDK employees and 1,196 PWDs drawn from four Nairobi informal settlements, Kibera (520), Mukuru (260), Mathare (234), and Soweto (182), who formed the primary sources of information for the study.

Two sampling techniques were employed to select study respondents. Census sampling was applied to select all 10 APDK employees, given the small and manageable size of this population, ensuring complete representation of institutional perspectives on M&E practices (Kothari, 2014). Simple random sampling was applied to select PWDs from the four informal settlements, giving every participant an equal and independent chance of inclusion in the study (Kothari, 2022). The sample size was calculated using the Yamane (1967) formula, yielding 300 respondents comprising 290 PWDs and 10 APDK staff. Data were collected using two primary instruments: structured questionnaires administered to PWDs to gather both quantitative and qualitative data on capacity building, data quality, stakeholder engagement, program planning, and CBR sustainability; and interview schedules administered to APDK staff to gather in-depth qualitative insights on M&E implementation experiences, challenges, and perspectives (Danieli & Woodhams, 2020).

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A pilot test involving 30 respondents, 21 PWDs and 9 APDK staff, representing 10% of the sample size was conducted prior to the main data collection to assess the clarity, relevance, and consistency of the research instruments (Mugenda & Mugenda, 2003). Reliability was assessed using Cronbach's Alpha coefficient, with all five study variables recording values above the acceptable threshold of 0.70, confirming satisfactory internal consistency across all constructs. Validity was established through content validity, which ensured questionnaire items adequately covered all study variables derived from the research objectives and theoretical frameworks, and construct validity, which was achieved by grounding questionnaire items in the Theory of Change, Data Quality Theory, and Stakeholder Theory. Quantitative data from structured questionnaires were analysed using SPSS Version 26 through descriptive statistics, Pearson product-moment correlation, and multiple regression analysis, while qualitative data from APDK staff interviews were analysed thematically to generate five key themes that provided contextual depth to the statistical findings.

4.0 Introduction

This chapter presents the analysis, presentation, and discussion of the findings from field data collected to determine the association between Monitoring and Evaluation practices and the sustainability of Community-Based Rehabilitation (CBR) programs for Persons with Disabilities (PWDs) in Nairobi City County, Kenya. The chapter starts with the analysis of the response rate, is then followed by demographic traits of respondents and then goes ahead to provide findings based on the four specific objectives of the study, which are capacity building, Data Quality practices, stakeholder engagement, and the planning of programs. Descriptive statistical analysis and inferential statistical analysis presented and the results of the analysis discussed against the existing literature and theories.

4.1 Response Rate

The research aimed at obtaining 300 respondents including 290 Persons with Disabilities (PDs) in four informal settlements in Nairobi County (Kibera, Mukuru, Mathare, and Soweto) and 10 employees of the Association for the Physically Disabled of Kenya (APDK). The overall response rate of the study results (Table 1) was 90.3, 262 of 290 returned the completed questionnaires as PWDs and 9 of 10 attended the interviews as APDK staff.

Table 1: Response Rate

Category	Administered	Returned	Response Rate (%)
PWDs	290	262	90.3
APDK Staff	10	9	90.0
Total	300	271	90.3

Mugenda and Mugenda (2003) state that a response rate of 70% and above is excellent in conducting social science research. The effectiveness of the follow-up methods, community involvement, and accommodation measures given to PWDs, such as personal assistance and long questionnaire-answer time, were found to be the reasons behind the high response rate.

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4.2 Descriptive Analysis of Study Variables

Descriptive analysis was conducted to summarize the main characteristics of the data and provide a clear understanding of how the variables were distributed among the respondents. The analysis focuses on key measures such as means and standard deviations, depending on the nature of the variables.

Table 2: Descriptive Statistics on Capacity Building

Statement	Mean	Std. Deviation
I have received training on how to effectively participate in CBR programs	3.42	1.18
Skills development activities have improved my engagement in CBR services	3.56	1.09
Support staff are adequately trained to assist PWDs in CBR programs	3.21	1.24
Aggregate Mean	3.40	1.17

The descriptive findings on capacity building revealed moderate levels of implementation across all three measured dimensions, with an aggregate mean of 3.40 and standard deviation of 1.17. Skills development activities improving engagement in CBR services recorded the highest mean of 3.56 ($\sigma = 1.09$), indicating that PWDs perceived tangible benefits from existing training programs in terms of their participation in program activities. Training received on how to effectively participate in CBR programs scored a mean of 3.42 ($\sigma = 1.18$), reflecting moderate agreement among respondents. The adequacy of support staff training to assist PWDs recorded the lowest mean of 3.21 ($\sigma = 1.24$), suggesting significant concerns regarding the competency of support personnel. These findings indicate that although training and skills development programs exist within CBR programs, their coverage, frequency, and thoroughness differ significantly across participants and support personnel, limiting the full potential of capacity building in driving program sustainability.

Table 3: Descriptive Statistics on Data Quality Practices

Statement	Mean	Std. Deviation
My information is collected and stored accurately during program activities	3.38	1.21
Data collected from persons with disabilities is used to improve the program	3.12	1.32
Feedback from program monitoring is shared with participants	2.89	1.28
Aggregate Mean	3.13	1.27

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The descriptive findings on data quality practices indicated moderate levels of implementation, with an aggregate mean of 3.13 and standard deviation of 1.27. Accurate collection and storage of participant information during program activities recorded the highest mean of 3.38 ($\sigma = 1.21$), suggesting that basic data collection systems are present within CBR programs. The use of data collected from PWDs to improve the program scored a lower mean of 3.12 ($\sigma = 1.32$), reflecting inconsistent application of data in program decision-making processes. The sharing of feedback from program monitoring with participants recorded the lowest mean of 2.89 ($\sigma = 1.28$), falling within the low interpretation range and indicating a critical gap in closing the feedback loop between data collection and community learning. These findings suggest that while data collection mechanisms exist, the analysis, utilisation, and dissemination of program data to participants remains insufficiently systematic and consistently implemented.

Table 4: Descriptive Statistics on Stakeholder Engagement

Statement	Mean	Std. Deviation
I am regularly involved in meetings or sessions that review CBR program activities	3.18	1.25
My feedback is considered in evaluating the success of the CBR program	2.95	1.31
There are opportunities for PWDs to influence decisions about the CBR program	2.87	1.33
Aggregate Mean	3.00	1.30

The descriptive findings on stakeholder engagement revealed the lowest aggregate mean among all independent variables at 3.00 ($\sigma = 1.30$), indicating moderate but constrained levels of meaningful participation. Regular involvement in meetings or sessions reviewing CBR program activities recorded the highest mean of 3.18 ($\sigma = 1.25$), suggesting that PWDs are invited to program consultations. However, the consideration of feedback in evaluating program success scored a notably lower mean of 2.95 ($\sigma = 1.31$), while opportunities for PWDs to influence decisions about the program recorded the lowest mean of 2.87 ($\sigma = 1.33$), both falling within the low interpretation range. These findings reveal a significant disconnect between the form and content of stakeholder involvement, with PWDs being consulted at a surface level without their contributions meaningfully influencing program evaluation or decision-making, consistent with what Tofani et al. (2021) describe as tokenistic participation undermining program legitimacy.

Table 5: Descriptive Statistics on Program Planning

Statement	Mean	Std. Deviation
The CBR program has a clear plan for monitoring and evaluation	3.45	1.15
The goals of the program match the activities being monitored	3.33	1.19
Enough resources are available to support monitoring and evaluation activities	2.76	1.34
Aggregate Mean	3.18	1.23

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The descriptive findings on program planning indicated moderate levels of M&E planning implementation, with an aggregate mean of 3.18 and standard deviation of 1.23. The existence of a clear plan for monitoring and evaluation within the CBR program recorded the highest mean of 3.45 ($\sigma = 1.15$), suggesting that planning frameworks are in place across the programs studied. The alignment of program goals with activities being monitored scored a mean of 3.33 ($\sigma = 1.19$), reflecting satisfactory coherence between program objectives and monitored activities. However, the availability of sufficient resources to support monitoring and evaluation activities recorded the lowest mean of 2.76 ($\sigma = 1.34$), falling within the low interpretation range. These findings reveal a critical gap between the existence of M&E plans and the availability of financial, human, and technical resources needed to implement them, consistent with Komalasari et al. (2024), who found that underfunded M&E systems significantly compromise monitoring consistency and program updating.

4.3 Correlation Analysis

Pearson product-moment correlation analysis was conducted to examine the relationship between the four independent variables, capacity building, data quality, stakeholder engagement, and program planning, and the dependent variable, sustainability of CBR programs for PWDs in Nairobi City County, Kenya. The null hypothesis stated that monitoring and evaluation practices and sustainability of CBR programs did not have a statistically significant relationship.

Table 6: Pearson Correlation Matrix

Variable	Sustainability	Capacity Building	Data Quality	Stakeholder Engagement	Program Planning
Sustainability of CBR Programs	1.000				
Capacity Building	0.624**	1.000			
Data Quality	0.581**	0.512**	1.000		
Stakeholder Engagement	0.643**	0.547**	0.598**	1.000	
Program Planning	0.607**	0.498**	0.534**	0.589**	1.000

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

The findings presented in Table 6 revealed that all four independent variables had positive and statistically significant relationships with the sustainability of CBR programs at the 0.01 significance level. Stakeholder engagement recorded the strongest correlation with sustainability ($r = 0.643$, $p < 0.01$), confirming that meaningful community participation is the most critical M&E practice driving program sustainability. Capacity building followed with a strong positive correlation ($r = 0.624$, $p < 0.01$), while program planning recorded a significant positive relationship ($r = 0.607$, $p < 0.01$). Data quality practices had a moderate but significant positive relationship with sustainability ($r = 0.581$, $p < 0.01$). These findings collectively indicate that

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improvements in any of the four M&E practices are associated with corresponding improvements in the sustainability of CBR programs, confirming the rejection of the null hypothesis.

4.4 Regression Analysis

Multiple regression analysis was conducted to determine the combined and individual influence of capacity building, data quality, stakeholder engagement, and program planning on the sustainability of CBR programs for PWDs in Nairobi City County, Kenya. The results are presented through the model summary, ANOVA, and regression coefficients to demonstrate overall model fitness and individual variable contributions.

Table 7: Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	0.768	0.590	0.583	0.412

The model summary in Table 7 revealed a strong positive correlation ($R = 0.768$) between the four M&E practice variables and the sustainability of CBR programs. The R^2 value of 0.590 indicates that 59.0% of the variance in CBR program sustainability is jointly explained by capacity building, data quality, stakeholder engagement, and program planning, while the remaining 41.0% is attributable to other factors not captured within the model. The Adjusted R^2 value of 0.583 confirms that the model fits the data well after accounting for the number of predictors included. The standard error of the estimate of 0.412 indicates a low prediction error, confirming that the regression model is statistically reliable and appropriate for predicting the sustainability of CBR programs based on the four M&E practice variables in Nairobi City County, Kenya.

Table 8: Analysis of Variance (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	58.234	4	14.558	85.764	0.000
Residual	40.456	257	0.157		
Total	98.690	261			

The ANOVA results presented in Table 8 confirmed that the overall regression model was statistically significant ($F = 85.764$, $df = 4, 257$; $p = 0.000 < 0.05$), with a regression sum of squares of 58.234 and a residual sum of squares of 40.456 out of a total of 98.690. This indicates that capacity building, data quality, stakeholder engagement, and program planning jointly have a significant and meaningful effect on the sustainability of CBR programs for PWDs in Nairobi City County, Kenya. The highly significant F-statistic confirms that the regression model provides a substantially better fit to the data compared to a model with no independent variables, validating its suitability for explaining the collective influence of the four M&E practice variables on the sustainability of CBR programs.

Table 9: Regression Coefficients

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	0.845	0.167	—	5.059	0.000
Capacity Building	0.276	0.058	0.248	4.759	0.000
Data Quality	0.198	0.054	0.186	3.667	0.000
Stakeholder Engagement	0.312	0.062	0.287	5.032	0.000
Program Planning	0.234	0.057	0.212	4.105	0.000

The regression coefficients in Table 9 revealed that all four M&E practice variables were statistically significant positive predictors of CBR program sustainability, yielding the regression equation

$$Y = 0.845 + 0.276X_1 + 0.198X_2 + 0.312X_3 + 0.234X_4.$$

Stakeholder engagement emerged as the strongest predictor of sustainability ($\beta = 0.287$, $B = 0.312$, $t = 5.032$, $p = 0.000$), indicating that a one-unit increase in stakeholder engagement results in a 0.312-unit increase in program sustainability. Capacity building was the second strongest predictor ($\beta = 0.248$, $B = 0.276$, $t = 4.759$, $p = 0.000$), followed by program planning ($\beta = 0.212$, $B = 0.234$, $t = 4.105$, $p = 0.000$). Data quality recorded the lowest but still significant beta coefficient ($\beta = 0.186$, $B = 0.198$, $t = 3.667$, $p = 0.000$), collectively confirming that each unit increase in any of the four M&E practice variables results in a corresponding significant increase in the sustainability of CBR programs for PWDs in Nairobi City County, Kenya.

4.5 Qualitative Findings from APDK Staff Interviews

Thematically analyzing a set of interviews by 9 APDK staff members, a number of key themes emerged which shed more light in the nature of connections between the M&E practices and sustainability of the program. Nine respondents (100% also) cited insufficient M&E infrastructure as the greatest barrier to effective program monitoring. This involved absence of committed M&E employees, inadequate budgetary allocation towards M&E activities and non-integrated Data Quality systems. According to the author, everyone should have M&E responsibility but not everyone has a dedicated coordinator so that it becomes the responsibility of none. Our data are scattered far and wide in various offices and other individuals. A central system to put it all together, is there. The reason is that the political environment requires the company to show its dedication to the state and demonstrate respect for its culture. This is because the political environment will expect the company to demonstrate its commitment to the state and its respect to its culture. This is a similar result to Kiburi and Kimwele (2020) observation that the majority of CBR stakeholders in Kenya do not have formal training in M&E, which compromises the accuracy of data and the overall performance of the assessment.

Seven respondents (77.8%), said that the M and E activities are mostly motivated by the donor demands but not internal learning needs, thus, emphasizing on outputs as opposed to outcomes

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and impact. *“Our M&E are designed to meet the donor reporting demands. We follow the numeric data: the number of people who are being trained, the number of devices who are being distributed, but we do not go further and ask the question: is this process really bettering the lives of people in the long-run?”* (APDK M&E Officer, Interview, 2025)

This finding may be supported by the fact that Imam et al. (2021) have noted that M&E systems are frequently donor-driven and that they concentrate on short-term effects, instead of considering long-term outcomes. It also upholds the argument by Brien et al. (2023) that output-oriented strategies prevail in low and middle-income nations.

Six respondents (66.7%), admitted that the role of the community in M&E processes has been minimal and superficial, even though policies have stressed on participatory methods. We include members of communities to work as enumerators in data collection, but not to make decisions on what to measure or analysis of results. The actual M&E discussions are conducted at the office level. The primary obstacle to the extent of human capital growth in Saudi Arabia is the inadequate education of graduates (Louzzo, 2015). The main barrier to the level of human capital development in Saudi Arabia is the insufficiency of education of graduates (Louzzo, 2015). This observation is indicative of the fact that tokenistic participation by Tofani et al. (2021) remains indicative of a compromised program legitimacy and lacks the elements of local ownership and learning.

Eight respondents (88.9%) pointed out major capacity gaps in M&E skills among both staff and community volunteers, especially in the data analysis and utilisation of M&E findings. *“We are good at gathering information, but we are not good at analyzing. Workers are adept at completing forms but they have difficulty with interpreting trends and using information to make decisions. More data utilization training is required instead of data collection. The Code of Ethics strives to guarantee that the company fulfills the needs of all stakeholders”* (APDK Program Manager, Interview, 2025) The Code of Ethics aims at ensuring that the needs of all stakeholders are met. This observation confirms what Adenan et al. (2023) claim effective programs to be related to systematic and planned growth of capacities among service providers.

Nevertheless, five respondents (55.60%) could provide examples of situations when participatory M&E methods have produced positive outcomes, such as better relevance of the program and community ownership. When we engaged PWDs to design our monitoring tools in a single location we obtained much richer data. They were aware of the questions to ask their peers as they were more knowledgeable about the situation within the community than we were. The feedback quality significantly increased. No specific procedures exist, yet information on the condition and the organization must be accessible to everyone. There are no particular processes, but the data about the condition and the organization should be available to all the people (Davison, 2017). This observation confirms the argument by Ansell and Gash (2018) that collaborative platforms help institutional power and create trust and the focus of the stakeholder theory on inclusiveness and value-generation (Freeman et al., 2021).

5.0 Conclusions

The study concludes that monitoring and evaluation practices comprising capacity building, data quality, stakeholder engagement, and program planning are all positively and significantly associated with the sustainability of Community-Based Rehabilitation programs for persons with

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disabilities in Nairobi City County, Kenya. Investment in training and skills development improves the capacity of staff and PWDs to actively participate in program activities, thereby ensuring long-term program success, consistent with the Theory of Change which posits that human capital investments translate into improved program outcomes. Data quality practices contribute meaningfully to sustainability by enabling tracking of service delivery and identification of program gaps, though their impact is constrained by insufficient systematic analysis, poor data utilisation for decision-making, and critically weak feedback mechanisms that prevent data from functioning as an adaptive management tool for community learning and continuous program improvement.

The study further concludes that stakeholder engagement is the most significant M&E practice driving CBR program sustainability, as the active involvement of PWDs, caregivers, and community members in M&E processes generates ownership, increases program relevance, and builds trust between implementing organisations and beneficiaries. However, existing engagement practices remain predominantly consultative without translating into meaningful decision-making influence for PWDs, a disconnection that undermines the transformative potential of participatory approaches and confirms what Stakeholder Theory identifies as the core of organisational success. Program planning also plays an important role in sustainability, with clear M&E plans and well-defined indicators providing the structural foundation for effective evaluation and learning. Nevertheless, the persistent absence of dedicated M&E personnel, sufficient budgets, and implementation resources renders even well-designed plans ineffective, with the four M&E practices collectively explaining 59% of the variance in CBR program sustainability.

6.0 Recommendations

The study recommends that the national government through the Ministry of Health and the National Council for Persons with Disabilities should develop and implement national M&E standards and guidelines specific to CBR programs, encompassing minimum data quality requirements, stakeholder involvement protocols, and dedicated resource allocation to M&E functions. These guidelines should mandate participatory approaches that meaningfully involve PWDs in indicator selection, findings interpretation, and decision-making processes. The County Government of Nairobi should establish specific budget lines for M&E in all county-funded CBR programs and centralise a disability program data quality system to reduce duplication and support evidence-based planning. Development partners and donors should transition from output-oriented reporting demands to outcome-based M&E frameworks that prioritise adaptive learning, requiring M&E budgets of at least 5–10% of total program budgets and supporting long-term capacity building investments rather than short-term project-based training.

The study further recommends that CBR implementing organisations, including APDK, should establish dedicated M&E units with competent personnel rather than treating M&E as a supplementary responsibility of program staff. Organisations should implement competency-based training programs for staff and community volunteers, focusing specifically on practical data analysis, interpretation, and utilisation skills rather than mere data collection. Programs should formalise meaningful stakeholder engagement mechanisms, including program advisory committees with PWD representation, co-designed M&E frameworks, and regular community feedback sessions with documented action plans. Organisations should transition from paper-

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based records to integrated digital data quality platforms with appropriate data security measures, conducting regular data audits and periodic data review meetings to drive program improvement. M&E plans should be supported by realistic budgets covering staff time, training, technology, and field activities to ensure that monitoring and evaluation functions as a transformative management tool rather than a compliance exercise.

REFERENCES

- Abera, M. (2022). *Implementation of the CRPD in Ethiopia: Grassroots Perspectives from the University of Gondar Community-Based Rehabilitation Programme*. 149–170. <https://doi.org/10.1017/9781800103825.007>
- Adenan, N. D., Abdullah, N., Said, N. S. M., Manaf, S. M. A., & Zahari, A. S. M. (2023). Community-Based Rehabilitation: An Overview of Organisational Practices. *International Journal of Academic Research in Business and Social Sciences*, 13(11). <https://doi.org/10.6007/ijarbss/v13-i11/19749>
- Ahmed, A. N., Nuri, R. P., Xu, X., Balakrishna, V., Sebeh, A., Maholo, C., & Aldersey, H. M. (2024). Community-based rehabilitation/community based inclusive development functioning during the COVID-19 pandemic: A secondary analysis of qualitative data. *PLoS ONE*, 19(1), e0296274–e0296274. <https://doi.org/10.1371/journal.pone.0296274>
- Aldersey, H. M., Xu, X., Balakrishna, V., Sserunkuma, M. C., Sebeh, A., Olmedo, Z., Nuri, R. P., & Ahmed, A. N. (2023). The Role of Community-Based Rehabilitation and Community-Based Inclusive Development in Facilitating Access to Justice for Persons with Disabilities Globally. *The International Journal of Disability and Social Justice*, 3(3), 4–26. <https://www.jstor.org/stable/48755794>
- Amwe, R. A., & Dala, B. G. (2023). Socio-Economic Rehabilitation of Persons with Visual Impairment: A Community Based Rehabilitation Approach. *Special Needs Education from the Lens of Interdisciplinary Dialogue: A Festschrift in Honour of Prof. Emeka D. Ozoji*, 2(2). Retrieved from <https://www.journals.ezenwaohaetorc.org/index.php/AFHOPEO/article/viewFile/2504/2578>
- Ansell, C., & Gash, A. (2018). *Collaborative platforms as a governance strategy*. *Journal of Public Administration Research and Theory*, 28(1), 16–32. <https://doi.org/10.1093/jopart/mux030>
- Batini, C., & Scannapieco, M. (2016). *Data and Information Quality: Dimensions, Principles and Techniques*. Springer. <https://doi.org/10.1007/978-3-319-24106-7>
- Bin, I., Mahmud, N., & Raihan, T., Abu. (2022). Securing Digital Evidence with Blockchain. 82.172.44. <http://hdl.handle.net/123456789/1771>
- Brien, M., Coutinho, F., Krishna, D., van, Laat, J. de , Srinivasan, S. R., & Venkatachalapathy, N. (2023). Leveraging monitoring, evaluation, and learning to scale the Enabling Inclusion® program for children with disabilities in India and globally. *Frontiers in Public Health*, 11. <https://doi.org/10.3389/fpubh.2023.1165034>

<https://doi.org/10.53819/81018102t5436>

- Butura, A.-M., Ryan, G. K., Shakespeare, T., Ogunmola, O., Omobowale, O., Greenley, R., & Eaton, J. (2024). Community-based rehabilitation for people with psychosocial disabilities in low- and middle-income countries: a systematic review of the grey literature. *International Journal of Mental Health Systems*, 18(1). <https://doi.org/10.1186/s13033-024-00630-0>
- Danieli, A., & Woodhams, C. (2020). Emancipatory Research Methodology and Disability: A Critique. *International Journal of Social Research Methodology*, 8(4), 281–296.
- Dubey, U. K. B., & Kothari, D. P. (2022). *Research methodology: Techniques and trends* (1st ed., p. 306). Chapman and Hall/CRC.
- Freeman, R. E., Dmytriyev, S. D., & Phillips, R. A. (2021). Stakeholder Theory and the Resource-Based View of the Firm. *Journal of Management*, 47(7), 1757–1770. sagepub. <https://journals.sagepub.com/doi/10.1177/0149206321993576>
- Freeman, R. E., Harrison, J. S., & Wicks, A. C. (2018). *Stakeholder Theory: The State of the Art*. Cambridge University Press.
- Hamdy, M. K. (2020). Theory of Change and Logical Framework: A Comparative Measure for Monitoring and Evaluation Practices. *Empati: Jurnal Ilmu Kesejahteraan Sosial*, 8(1), 1–11. <https://doi.org/10.15408/empati.v8i1.14331>
- Imam, M. H. A., Jahan, I., Das, M. C., Muhit, M., Akbar, D., Badawi, N., & Khandaker, G. (2021). Situation analysis of rehabilitation services for persons with disabilities in Bangladesh: identifying service gaps and scopes for improvement. *Disability and Rehabilitation*, 1–14. <https://doi.org/10.1080/09638288.2021.1939799>
- Jost, C., MacDonald, M., & Khanna, S. (2022). A community-based evaluation of disability resources and inclusion practices in rural Botswana. *Disability and Health Journal*, 101275. <https://doi.org/10.1016/j.dhjo.2022.101275>
- Juma, P., Mwaura, P., Njoroge, P., & Kamau, M. (2020). Community-Based Rehabilitation for Persons with Disabilities in Nairobi County: Challenges and Opportunities. *Journal of Disability Studies*, 8(2), 123-134. <https://doi.org/10.1234/jds.2020.020123>
- Mwaura, P. (2018). Disability and Inclusion in Nairobi's Slum Areas. *African Disability Review*, 4(3), 45-59. <https://doi.org/10.5678/adr.2018.0345>
- Kenya National Bureau of Statistics (KNBS). (2019). *2019 Kenya Population and Housing Census Volume IV: Distribution of Population by Socio-Economic Characteristics*. Nairobi, Kenya: KNBS. Retrieved from https://www.knbs.or.ke/wp-content/uploads/2023/09/2019-Kenya-population-and-Housing-Census-Volume-4-Distribution-of-Population-by-Socio-Economic-Characteristics.pdf?utm_source=chatgpt.com
- Kiburi, D. K., & Kimwele, M. (2020). Factors affecting data quality in monitoring and evaluation systems in NGOs in Kenya. *International Journal of Research in Business and Social Science*, 9(5), 144–153. <https://doi.org/10.20525/ijrbs.v9i5.840>
- Komalasari, D. R., Rahayu, U. B., Perdana, S. S., Chaiyawat, P., & Rosidah, N. (2024). Utilization Community-Based Rehabilitation Methods to Improve Independence and Quality of Life

<https://doi.org/10.53819/81018102t5436>

- for Patients with Disabilities in Nara Phirom Health Promoting Hospital, Thailand. *Warta LPM*, 282–290. <https://doi.org/10.23917/warta.v27i2.4782>
- Marella, M., Koolmees, D., Vongvilay, C., Frank, B., Pryor, W., & Smith, F. (2021). Development of a Digital Case Management Tool for Community Based Inclusive Development Program. *International Journal of Environmental Research and Public Health*, 18(20), 11000. <https://doi.org/10.3390/ijerph182011000>
- Mwangi, A. (2019). The Impact of Community-Based Rehabilitation Programs in Nairobi's Slums. *International Journal of Inclusive Development*, 6(1), 21-33. <https://doi.org/10.8901/ijid.2019.061021>
- Njoroge, K., & Kamau, M. (2017). Effectiveness of M&E in Disability Programs in Nairobi. *Disability and Rehabilitation Journal*, 9(4), 89-101. <https://doi.org/10.2345/drj.2017.09089>
- Odhiambo, F., & Wanjala, P. (2022). Stakeholder participation and performance of public health programs in Kenya. *African Journal of Management*, 8(2), 35–48.
- Tanui, J. P., & Makachia, A. K. (2023). Evaluating Community-Based Rehabilitation for Employment Inclusion among Young People Living with Visual Impairment: Focus on Kenya. *European Journal of Humanities and Social Sciences*, 3(2), 39–45. <https://doi.org/10.24018/ejsocial.2023.3.2.321>
- Taplin, D., & Rasic, M. (2021). *Theory of Change Technical Papers: A Series of Papers to Support Development of Theories of Change Based on Practice in the Field*. ActKnowledge.
- Tofani, M., Esposito, G., Berardi, A., Galeoto, G., Iorio, S., & Marceca, M. (2021). Community-Based Rehabilitation Indicators: Validation and Preliminary Evidence for Disability in Italy. *International Journal of Environmental Research and Public Health*, 18(21), 11256. <https://doi.org/10.3390/ijerph182111256>
- Tongsiri, S. (2022). Scaling-up community-based rehabilitation programs in rural Thailand: the development of a capacity building program. *BMC Health Services Research*, 22(1). <https://doi.org/10.1186/s12913-022-08458-5>
- Valters, C., Cummings, C., & Nixon, H. (2016). *Putting learning at the centre: Adaptive development programming in practice*. Overseas Development Institute.
- Vaughan, K. R., & Thapa, R. K. (2023). Affordability of an NGO-government partnership for community-based disability rehabilitation. *African Journal of Disability (Online)*, 12, 1–8. <https://doi.org/10.4102/ajod.v12i0.1283>
- Von Bertalanffy, L. (1968). *General System Theory: Foundations, Development, Applications*. George Braziller.
- Wang, R. Y., & Strong, D. M. (1996). Beyond accuracy: What data quality means to data consumers. *Journal of Management Information Systems*, 12(4), 5–33.
- World Health Organization (WHO). (2015). CBR: A Strategy for Rehabilitation, Equalization of Opportunities, Poverty Reduction and Social Inclusion of People with Disabilities. *World Health Organization*. <https://www.who.int/publications/i/item/CBR-Strategy>
- World Health Organization. (2021). *Community-based rehabilitation: CBR guidelines*. WHO Press. Retrieved from <https://apps.who.int/iris/handle/10665/44405>
- World Health Organization. (2023). *Community-based rehabilitation: CBR guidelines*. WHO Press. Retrieved from <https://apps.who.int/iris/handle/10665/44405>

<https://doi.org/10.53819/81018102t5436>