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Community-Based Rehabilitation on Health and Education Services to Improve Quality of Life for Children with Intellectual Disability in Adama City, Ethiopia

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Abstract

Children with intellectual disabilities deserve social inclusion, health care services, and access to education through community-based rehabilitation. Community-based rehabilitation is among the models of service provision to children with intellectual disability. In countries where there are few psychiatric hospitals and specialized treatments, community-based rehabilitation gives hope to individuals with intellectual disabilities by empowering them and improving their quality of life. The purpose of this study was to describe the functions of community-based rehabilitation on health and education services for children with intellectual disability in Adama City, Ethiopia. To this end, a community-based participatory research design was employed. Eighty-two (82) participants were selected through purposive, availability, and snowball sampling techniques. Data collection tools were observation and questionnaire. Findings reveal that parental lack of education (29.29%) and absence of training at home (20.72%) were major problems for children with intellectual disability. Findings also show that community-based rehabilitation programs significantly improved health and education services to children with intellectual disability by increasing awareness of families, facilitating emotional support, and empowering them in their schooling process. The study recommends that effective multidisciplinary strategies of community-based rehabilitation programs should be designed to integrate children with intellectual disabilities into general service provision.

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INTRODUCTION

Community-based rehabilitation (CBR) on health and education services to improve the quality of life for children with intellectual disability is an integrated and holistic approach that emphasizes the active involvement of families, governmental and non-governmental organizations (NGOs), and the community in providing health and education supports, tailored interventions, and inclusive opportunities (Martelli et al., 2012). It ultimately - fosters empowerment, social integration, and enhanced quality of life for these children while promoting awareness and acceptance of people with intellectual disabilities within society. Community-based rehabilitation is one of the models of service provision to individuals with intellectual disability. It gives hope to children with disabilities and their families by empowering them and improving their quality of life (Jansen-van

Vuuren et al., 2021). It is a means to reach the health, education, and other social services needs of individuals with intellectual disabilities. CBR is also used to raise community awareness to achieve full inclusion of persons with intellectual disability. Thus, CBR is of utmost importance in developing countries, including Ethiopia, where there are no/limited specialized services and hospitals for children with intellectual disabilities.

Intellectual disability (ID), also called intellectual developmental disorder, is classified as a neurodevelopmental disorder that begins during the developmental period, typically before the age of 18 (Carulla et al., 2011). Intellectual disability is a disorder that holds significant health, educational, and social implications that lead to cognitive limitation (McDermott et al., 2007). It significantly impacts both intellectual functioning and adaptive behaviors, which are crucial for everyday life and social interactions (Shree & Shukla, 2016; American Psychiatric Association, APA, 2013). ID affects about 1–3% of the general population (De Vries et al., 2005).

Individuals with ID often face various challenges. These individuals typically exhibit limitations in both cognitive functioning and adaptive behaviors (APA, 2013; Katz & Lazcano-Ponce, 2008; Schalock et al., 2010). The most common characteristic of individuals with intellectual disability is deficits in general mental abilities, such as academic learning, reasoning, problem-solving, decision-making, planning, abstract thinking, and learning from environmental experiences (APA, 2013). According to the American Association of Intellectual and Developmental Disabilities (AAIDD, 2017), persons with ID have the following limitations: communication, personal care, home life, social skills, utilization of the community, self-management, health and protection, practical academic skills, and work. Such deficits result in impairments of adaptive functioning, including failing to satisfy standards of personal independence and social responsibility in one or more aspects of daily life, communication, self-care (care from hazardous personal hygiene, well-being), social participation, or occupational functioning, and personal independence at home or in community settings (APA, 2013).

The etiology of ID is multifaceted, with research identifying a variety of contributing factors. Karam et al. (2015) explain that ID can be caused by genetic and environmental factors. Literature shows that the causes of ID are genetic/hereditary causes (Karam et al., 2015), exposure to unsafe use of chemicals in agriculture and industry, pollution, and toxic chemicals (Kuruganti, 2005), environmental factors such as poor parent-child interactions, poverty (inadequate nutrition during pregnancy), drug and alcohol intake during pregnancy, child abuse, neglect, and limited stimulation (Shree & Shukla, 2016), toxins such as lead poisoning, fetal alcohol syndrome, prenatal exposure to substances; and sociocultural factors (Katz & Lazcano-Ponce, 2008).

One of the most recognized causes of ID is Down syndrome, also known as trisomy 21, which results from extra copies of the mother's chromosome 21(McClimens, 2005). Down syndrome is a mother's chromosomal disorder that leads her child to be affected by ID (McClimens, 2005). Lots of factors can contribute to extra copies of the mother's 21st chromosome. Exposure to high amounts of heat during pregnancy (Edwards et al., 2003), excessive intake of drugs (Yohn et al., 2015), and random error during cell division (Mega et al., 2024) are some of the factors that contribute to the breakup of the 21st mother's chromosome. Hence, genetic factors play a crucial role, as certain genetic disorders can lead to ID through inherited mutations or chromosomal abnormalities (Karam et al., 2015). In addition to genetic causes, environmental influences have been increasingly acknowledged as significant contributors to the development of ID. Exposure to harmful chemicals in agricultural practices and industrial processes can have detrimental effects on fetal development and contribute to cognitive impairments (Kuruganti, 2005). Intellectual disability can also result from an acquired insult during the developmental period, for example, a severe head injury, in which case a neurocognitive disorder also may be diagnosed (APA, 2013).

Intellectual functioning refers to general cognitive abilities, while adaptive behavior encompasses the practical, everyday skills needed to function effectively in society. The deficiencies in these areas can significantly restrict an individual's ability to perform daily activities, engage with peers, and navigate various life situations, and below common intellectual functioning (Katz & Lazcano-Ponce, 2008). Consequently, children with ID require ongoing support and tailored interventions to improve their quality of life and facilitate their integration into the community (Martelli et al., 2012).

In the past, children with ID were stigmatized and associated with negative elements of society, such as rustics who live in rural areas (Wark et al., 2013), victims of criminal offenses (Scior et al., 2020), social malaise, and pauperism (Jackson, 2016). There were wrong beliefs that anyone even remotely connected to children with ID had a possibility of transmitting "mental deficiency" and would face harsh criticism for the connection with them (Chandler, 2005).

In developing countries, little has been done to either prevent or alleviate the problems related to children with ID. This problem is combined with the inevitable limitations accompanying poverty and underdevelopment. In the case of Ethiopia, despite some encouraging efforts in recent years, the aspect of service delivery for children with ID is by far lagging what it ought to be.

Ethiopia is among the leading 20 countries that scored strong performances across multiple outcome areas and child-related sustainable development goal (SDG) indicators (UNICEF, 2023). However, the Ethiopian Ministry of Health has not taken sound measures in formulating strategies that are tailored to persons with disabilities, particularly children with ID. Few services that are currently being rendered are sponsored by NGOs and are visibly limited to urban areas and places where there is better accessibility (WHO, 2007). According to Jeffrey et al. (2024), while high-income countries have already achieved over 80% of the targets associated with children's well-being and associated rights, low-income countries are still in the infancy stage of progress. This reflects a substantial gap in access to resources, services, and opportunities for children in lower-income settings.

Children with ID deserve social inclusion, educational inclusion, protection, health care, access to available services, and support from their families, community, and national and international organizations (UNICEF, 2023). In modern societies, the societal attitude toward children with intellectual disabilities is shifting from seeing them as unfortunate or innocent individuals who could only fill limited roles to acknowledging their need for special attention, protection, and assistance (Carey, 2015). Despite the ratification of conventions and legal frameworks to protect the rights of children, these individuals with ID and their families in developing countries, including Ethiopia, are still facing challenges that hinder their ability to enjoy their rights. The social justice and civil rights model of disability asserts that accessibility of environments and services must be incorporated into interventions such as community-based rehabilitation.

Community-based rights are likely to be particularly important in Africa. Statistically, Africa has a low rate of psychologists and psychiatric hospitalization by international standards. For instance, there are 0.004 psychiatric professionals per 100,000 people in Ethiopia (Charlson et al., 2014). Thus, presumably, there is a high prevalence of people with intellectual disabilities in the community who need support. As deinstitutionalization and integration into the community have progressed, an area of increasing concern has been the social competence of individuals with developmental disabilities.

Diagnostic Statistical Manual (DSM-5) presents four categories of ID: mild, moderate, severe, and profound. Mild ID with an intelligence quotient (IQ) range of 55-69 is equivalent to the educational category of "educable," and children in this category require intermittent support. This group set up the largest subdivision (85%) of children with ID. Moderate ID with an IQ range of 36-54 is equivalent to the educational category of "trainable," and children in this category of ID require limited support. This group makes up 10% of the entire population of people with ID (American Psychiatric Association, 2013). Severe ID with an IQ range of 20-35 is equivalent to the educational category of “Severe or Dependent,” and children in this category of ID require extensive support. This group set up 3.5% of individuals with ID. Profound ID with an IQ range < 20 is equivalent to the educational category of “custodial,” and children at this level of ID require pervasive or life-support care. This group set up 1.5% of people with intellectual disability.

Statement of the problem

This study looks at the major challenges of children with ID, how children with ID are involved and benefit from the community-based rehabilitation program, whether it helps to empower them and raise awareness of their family, and whether parents' and community perceptions about those children have become more positive and helpful. The purpose of this study was to describe the functions of community-based rehabilitation on health and education services in improving the quality of life for children with intellectual disabilities, the involvement of the community, families, organizations, and rehabilitation workers to meet the needs of children with intellectual disabilities, and helping them to find a meaningful place in the community.

Research questions

To deal with these objectives, the following basic research questions were addressed.

What are the challenges of children with intellectual disability?

How do children with intellectual disabilities get health and education services from community-based rehabilitation?

MATERIALS AND METHODS

Research design

To address the purpose of this study, community-based participatory research was employed. Community-based participatory research (CBPR) is a collaborative research approach that combines knowledge and actions to improve specific community issues and co-create pragmatic strategies to resolve issues under study (Wallerstein et al., 2017; Tremblay et al., 2018; Belone et al., 2016). A community-based participatory approach is employed, suggesting an emphasis on collaboration with community members in the research process. This research method is important to evaluate, provide rehabilitation, and improve the health and education services and life situations of individuals with ID in their community (Stoecker, 2016).

Sampling technique and sample size

The participants of the study were from different key stakeholders who have worked with intervention and rehabilitation in Adama City. The target settings for the study were Adama No. 2 Primary School, Adama Referral Hospital, Adama City Social Affairs Office, Adama City Health Office, Adama City Education Office, an international NGO named Christian Blind Mission (CBM), and a local NGO named Rehabilitation and Prevention of Intellectual Disability (RAPID) that works with children with ID. Multi-stage sampling techniques were used to select participants in the study. Forty (40) children with ID were selected through snowball sampling, six (6) special needs and inclusive education teachers were selected by purposive sampling, six (6) psychiatrists, fourteen (14) rehabilitation and prevention field workers, five (5) supervisors, five (5) community councils, three (3) health office experts, and three (3) education experts were selected by availability sampling. The total number of participants in this study was 82.

Data collection instruments

Home- and school-based observations, structured questionnaires, and document analysis were employed to gather data for this study. The researchers considered both primary and secondary sources to generate data from the above-mentioned institutions and offices. For those parents who couldn't read the questionnaires, the researchers read them to them and filled in their responses or information about experiences related to intellectual disability.

Methods of data analysis

The baseline data about CBR on health and education services for children with ID were collected from Adama No. 2 Primary School, Adama Referral Hospital, Adama City Social Affairs Office, Adama City Health Office, Adama City Education Office, and a local NGO called Rehabilitation and Prevention of Intellectual Disability (RAPID). A structured questionnaire was developed and administered by the researchers and social workers. Baseline data have been gathered from documented sources. Home- and school-based observations have been made to evaluate the functional improvement of children with ID. Percentages were computed to describe the functions of CBR in improving the quality of life for children with ID and their families.

RESULTS AND DISCUSSION

Results

Major problems of children with intellectual disability

The major problems of children with ID were sanitation, clothing, health and educational problems, lack of control over urine, and restlessness. These created boredom among parents about sanitation, clothing, health, and education-related problems. Thus, children with ID who do not get support services through CBR are most likely hindered from joining school, getting healthcare, and integrating into society. This could lead children and their families to social exclusion, stigmatization, starvation, poverty, and hopelessness. Respondents were asked about the major problems of children with ID and responded as in Table 1.

Table 1

Major problems of children with ID as rated by family and field workers

Items	Parents' response		Workers' response		Average in %
	No	%	No	%	
Neglected by parents	4	10	3	21.43	15.72
Abuse by other children or adults	5	12.5	2	14.29	13.36
Parental lack of education	12	30	4	28.57	29.29
Lack of sanitation & clothing	7	17.5	1	7.14	12.32
Shortage of nutrition	4	10	1	7.14	8.57
Absence of daily activity training at home	8	20	3	21.43	20.72

As indicated in Table 1, the major problems of children with ID were parental lack of education (29.29%), followed by the absence of training on daily living activity (DLA) at home (20.72%), neglect by parents (15.72%), and abuse by adults and other children or peers (13.36%). Lack of sanitation and clothing (12.32%) and shortage of nutrition (8.57%) were among the major problems facing children with intellectual disability, respectively. According to this finding, the problems of children with ID begin within the family, which is the basic area of provision for their mental health needs. Basic education, daily living activity training at home, sanitation and clothing, nutrition, and healthcare are very important for children with ID. These factors are related to the family's quality of life. Family quality of life is a sense of good fortune in the family in which individual and family-level needs interrelate and affect the entire family's well-being (Jansen-van Vuuren et al., 2021). Thus, the provision of these services through community-based rehabilitation is very important to minimize the impact of ID on children and their families.

Parental perceived causes of intellectual disability

The findings show that religious beliefs, culture, and attitude influence the parental perception of their children with ID. The traditional model of disability is the most prevalent in the community. The majority of the community, including parents of children with ID, believes that intellectual disability is a curse or sin for families of children with ID.

Table 2

Parental perception about the causes of intellectual disability

Items	Parental belief before CBR		Parental belief after CBR	
	No	%	No	%
Courses from God (religious beliefs)	23	57.5	3	7.5
Accident and disease	8	20	7	17.5
Lack of vaccinations for mother and child	2	5	10	25
Complications during pregnancy and birth	4	10	14	35
Alcohol and drug intake during pregnancy	-	-	6	15
Unknown cause	3	7.5	-	-

As shown in Table 2, with the highest percentage (57.5%), parents perceived that religious beliefs were the causes of intellectual disability before they were involved in a community-based rehabilitation program. Most parents believed that curses were the cause of intellectual disability. Accident and disease (20%), complications during pregnancy and birth (10%), unknown causes (7.5%), and lack of vaccination (5%) were causes of ID, respectively. However, after the commencement of CBR, the majority of parents showed improvement in their understanding that the causes for intellectual disability are not curses (reduced to 7.5%), accidents and diseases (reduced to 17.5%), complications at pregnancy and birth (understanding increased to 35%), lack of vaccination (understanding increased to 25%), or causes from alcohol and drugs used during pregnancy (understanding increased to 15%), and understanding of an unknown cause is completely changed among the parents.

These findings show that the awareness-raising activity of community-based rehabilitation programs played a pivotal role in changing the wrong parental perception that intellectual disability is caused by curses and punishment from God and thinking that its cause is unknown. It also added knowledge to parents that intellectual disabilities are caused by other factors such as lack of vaccination, complications during pregnancy and birth, accidents, and disease.

Identification strategies used for the rehabilitation of children with intellectual disability

To be effective in mobilizing the community for identification and rehabilitation, different strategies have been used by the community-based rehabilitation program.

Table 3

Identification strategies used by community-based rehabilitation

Items	Parents' response		Supervisor & Fieldworker		Total
	No	%	No	%	%
School disability clubs	8	20	4	21	20.5
Child-to-child interaction, peer and parent meetings	10	25	5	26.3	25.6
Community education in the neighborhood	15	37.5	7	36.8	37.1
Community representative workshops/seminars/	7	17.5	3	15.7	16.6

Table 3 shows that community education in the neighborhood for adults was a major information dissemination strategy, accounting for 37.1%, and child-to-child and parent meetings were also an important strategy for identification, accounting for 25.6%. The next most important strategies in raising awareness in the community were school disability awareness clubs (20.5%) and community representative workshops/seminars (16.6%). Professional psychiatrists trained community-based rehabilitation workers, and families and community leaders were involved in these identification strategies.

Community participation strategies

Community participation is vital to identify children with ID. Community-based rehabilitation (CBR) is an instrument for sustainable and equitable human development in sub-Saharan Africa to accomplish the goal of "Health for All" (Mpofu et al., 2017). However, in recent years, community participation in CBR has been decreasing in Ethiopia. The reason for this could be due to the termination of many national and international NGOs. A local study by Ayalew et al. (2020) showed that the availability of national and international NGOs is limited and that CBR service provisions are weak. Planning with the CBR program, fundraising using NGOs to initiate, and visiting the homes of children are major strategies to identify children with ID. Table 4 shows that most of the participation was manifested in planning (23.1%), fundraising with the CBR program to initiate identification (19.3%), and visiting the homes of parents whose children have disabilities (18.5%), respectively. On the other hand, monitoring and evaluation (17.1%), discussion at public meetings (15.6%), and other support services (5.9%) stand at the lower end of the scale, respectively.

Table 4

Community participation strategy for the identification of children with ID

Items	Parents' & Councils' responses		Supervisors' & field workers'		Average
	No	%	No	%	In %
Discussion at public meetings	7	15.5	3	15.7	15.6
Visiting Homes of Children	12	26.6	2	10.5	18.5
Planning with the CBR program	9	20	5	26.3	23.1
Fundraising using NGOs to initiate	8	17.7	4	21	19.3
Monitoring and evaluation	6	13.3	4	21	17.1
Other support services	3	6.6	1	5.2	5.9

As indicated in Table 4, the strategies for identification implemented by the rehabilitation program were effective by using the participating community in planning to create a sense of belonging, fundraising to support the identification program, and visiting homes to address neighborhood and community to increase acceptance of children with intellectual disabilities. Each of the strategies has a significant relationship to implementing the identification. Ayalew et al. (2020) argue that local participation is first needed because it allows the mobilization of the local community for rehabilitation and development purposes.

Parents' involvement in supporting children with ID

For the question that stated, "Who is the primary caregiver and duty-bearer for the children with disability in the family?" The findings revealed that, with the mean score of respondents (61.4%), mothers in the CBR program welcomed the role of greater involvement in their children's rehabilitation. Fathers' involvement and role in the rehabilitation process is minimal (21.4%), while caregivers' involvement is lower than that of fathers' involvement (18%).

Table 5

Participation in rehabilitation activities

Item	Responses	Supervisors		CBR councils		Field workers		Mean
		No	%	No	%	No	%	%
Duty-bearer for children with ID	Fathers	1	20	1	20	3	21.4	21.4
	Mothers	3	60	3	60	9	64.2	61.4
	Caregivers	1	20	1	20	2	14.2	18

Table 5 shows that mothers are the ones who mostly look after children with ID. This was considered a given responsibility for mothers. Caregivers and fathers are supported from a distance. Thus, in most cases of community-based rehabilitation services, the workers deliver services, and mothers receive skills from the workers to have future service capacity after the program discharges the children.

Intervention of health and education services is interlinked by CBR

As shown in Table 6, the linkage on average between them was very satisfactory (28.6%), satisfactory (44.1%), fair (10%), and not satisfactory (17.2%). On average, 10% of respondents still witnessed the linkage to be fair. On the other hand, 17.2% of the respondents were not satisfied and indicated that there is no sort of linkage between parents, health institutions, and schools after the commencement of CBR. This implies that some children with ID still have difficulties attending formal education, and the family life quality of some children with ID is not improved.

Students with ID are placed in different primary schools in the city. Data from school-based observation shows that children with ID who attend schools in which special needs and inclusive education teachers exist are getting educational support through individualized educational programs (IEPs) by a pull-out and pull-in approach to offer tutorials. Hence, students in such schools get better support in schools. Students with intellectual disabilities who are attending schools where there are no special needs and inclusive education teachers do have unique characteristics, such as withdrawal, a sense of isolation, and feelings of anxiety, because regular teachers would not have the skills to handle these students. Hence, to handle students with ID, teachers should get specific training on how to rehabilitate children with ID.

Parents' awareness of health care services for children with intellectual disability

Children with ID require special consideration because of their special treatment and management needs. Findings reveal significant positive outcomes from community-based rehabilitation programs. The results show that there is an enhancement in understanding (increased awareness) among families and the community regarding the health care needs of children with ID.

Table 7

Role of CBR in accessing children with intellectual disability to health services

Item	Responses	Before		After	
		No	%	No	%
How often do children with intellectual disabilities attend the hospital?	Very often	5	12.5	21	52.5
	Often	3	7.5	9	22.5
	Sometimes	14	35	6	15
	Never	18	45	4	10

Table 7 indicates that parents of children with ID improved their awareness regarding the medication of their children. The finding points out that before CBR, the status of parents taking their children to health centers and accessing health services was (12.5%) for very often, (7.5%) for often, (35%) for sometimes, and (45%) for never taking their children to health care centers. Data shows that before participating in the community-based rehabilitation program, the health service for children with ID was at a minimal level. Many parents had not taken their children with ID to health institutions either because of attitudinal or economic factors.

As shown in Table 7, the frequency of accessing health centers after CBR increased. Parents responded that they attended the hospital very often (52.5%), attended often (22.5%), attended sometimes (15%), and never attended (10%). CBR helped the majority of children with ID (90%) to get health services with the help of awareness gained from rehabilitation programs. However, 10% of children with ID and their families are still at a level of helplessness about health services.

The functions of CBR on health and education services for children with ID are paramount. However, the scant research evidence regarding the progress of students with ID in health and education is a research gap in the area of CBR for effective inclusion (Hornby & Kauffman, 2024).

According to the United Nations Convention on the Rights of Persons with Disabilities (CRPD) Article 25, people with disabilities have the right to access healthcare services. Hence, children with intellectual disabilities deserve social inclusion, protection, health care, access to education, and support services from communities, national, and international organizations through community-based rehabilitation. Even though families of children with ID get benefits from general community health insurance, the absence of a policy that enhances medical cost waivers for people with disabilities, including children with ID, and systematic support for them was not attempted. The findings revealed that there is a significant difference between the service before the rehabilitation and after the rehabilitation, as the magnitude of the problem of lacking health service was reduced. It indicates that there are changes in attitude and frequency of taking children with ID to health services. These findings are in line with the findings of Wallerstein et al. (2017), who state that community-based rehabilitation improves the health quality of children with intellectual disorders. Community-based rehabilitation on health services for children with ID is the means but not the end to improve the quality of life of children with ID and their families. Intellectual disability is non-curable, but it is possible to support persons with ID to achieve emotional well-being, happiness, or self-sufficiency (Katz & Lazcano-Ponce, 2008).

CONCLUSIONS

Community-based rehabilitation on health and education services has played a pivotal role in improving the quality of life for children with ID. Children with ID have received healthcare and educational services from community-based rehabilitation. The major problems of children with ID were parental lack of knowledge regarding ID and the absence of home-based training on adaptive behavior or daily living activities to support children with ID. CBR significantly improved parental perception about causes of intellectual disability and attitude towards children with ID. Community schools in neighborhoods for adults were a major information dissemination strategy in CBR. Mothers are greatly involved in their children's rehabilitation. Community-based rehabilitation helped to link health centers and schools to deliver support services to children with ID and improved children's frequency of visiting the hospital for their healthcare.

Promoting community-based rehabilitation (CBR) is a good way to facilitate access for children with ID to existing services. Identifying children who require alternative service delivery models, for example, targeted services or care coordination to improve access to healthcare, requires the attention of stakeholders. Individuals with ID may not be able to access the appropriate health and education services either because of the inaccessibility of the services needed or the unaffordable cost of specialized medication and transportation services (Thompson et al., 2009).

Recommendations

Thus, this study suggests that empowerment in schooling is vital to families feeling empowered regarding their children's health and education; this indicates progress toward inclusion within educational settings. Both short-term and long-term strategies for effective rehabilitation programs that are aimed at benefiting children with ID and their families, highlighting sustainability as key for ongoing support, should be designed. There should be responsible governmental organizations that work with people with intellectual disabilities and their families to improve their quality of life. The government, NGOs, and local authorities ought to prioritize resource allocation for marginalized groups, such as people with ID. It also calls for policy responses that emphasize early intervention and the use of community-based rehabilitation to enable children with ID to improve their level of functioning, with a specific focus on ensuring participation and inclusion in education and getting healthcare access. Extensive consultations should be made to adapt the CBR model to the socio-economic context of developing countries, including Ethiopia.

CRediT authorship contribution statement

Mengistu Debele: Formal analysis, Investigation, Resources, Data Curation, visualization **Alemu Beyecha:** Writing—Original Draft, Writing—Review & Editing

Declaration of competing interests

The authors declare that there is no conflict of interest.

Ethical approval

The Research and Ethical Review Board of the Institute of Education and Behavioral Science approved the ethical clearance of the work. Ref. IEBSRCS/017/017.

Data availability statement

Data will be made available on request.

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