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Practice Notes

Training Community Health Workers to Support Families of Children With Disabilities: Lessons Learned and Practical Recommendations

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Community health workers provide important services to support public health outcomes, particularly in low-income and low-resource settings. This practice note describes the training and supervision of community health workers for a program that aims to provide community-based support to families of children with disabilities in Lusaka, Zambia. Faculty from the United States partnered with a local organization to develop a multiday experiential training for supervisors, who then provided this training to volunteers in the community. An evaluation of supervisors and community health workers revealed that supervisors and community health workers gained significant knowledge and skills to work with children with disabilities. However, the attitude scales about children with disabilities did not show such robust change for the community health workers. A key challenge for this project was timing, as the training was completed just before COVID-19, leading to program implementation delays. Successes included increasing supervisor and community health workers' knowledge and skills in working with children with disabilities. This training highlighted the importance of local partners who could provide additional context for the community's needs and ongoing supervision for the community health workers to maintain program fidelity. This practice note adds to the limited knowledge base on developing additional support and services for children with disabilities and their families.

Keywords: disability; community health workers; community partnerships; outcome evaluation; training; access to care; community–academic partnership

There is a well-documented need for additional health care providers globally, with severe shortages noted especially in low- and middle-income countries. Sub-Saharan Africa faces a critical health care workforce gap (Haakenstad et al., 2022), including the need for allied health professionals. Community health workers (CHWs) provide essential health, education, and outreach services, particularly in under-resourced settings where access to health care services

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is limited (Perry et al., 2014). CHWs live in their service communities and receive specific training to provide outreach services, often to underserved populations without adequate health care services (World Health Organization [WHO], 2021).

The Kusamala (meaning "to care for" in the local Nyanja language) program, developed through a partnership between Minnesota faculty and a non-governmental organization, provides individual and family-level support through home visiting and community-based activities (Hearst et al., 2022). This program developed knowledge and skills in a volunteer CHW workforce to provide home visits to families of children with disabilities (CwDs) in Lusaka, Zambia. In this practice note, we share insights from training and supporting CHWs, emphasizing lessons learned, challenges, successes, and practical recommendations.

TRAINING STRATEGIES

Kusamala interprofessional faculty created a training of trainers (ToT) curriculum (see Table 1). A local stakeholder group of community partners reviewed and validated supervisor training materials before initiating training. These partners included a variety of health and social protection professionals well respected in the community for their knowledge and expertise. This partner group was instrumental in developing the content, identifying essential training topics, establishing the cultural context, and reviewing the manual to confirm linguistic accuracy. Two faculty members (JB and PR) and a local physiotherapist, previously trained as a supervisor through Kusamala, delivered the supervisor training in a 7-day workshop over 2 weeks in November 2019.

Supervisor training relied on implementing interactive workshops focused on experience-based learning. The training included structured simulations, group discussions, role-plays supporting adult learning, and strategies to train the CHWs. CHW training material mirrored those of supervisors, although at a lower reading level, and included pictures to demonstrate essential content. The overall course content for the CHWs was similar to the supervisor training, but the duration was 5 days in December 2019. Supervisors tailored training materials to the CHW's needs, focusing on critical learning outcomes, hands-on experiences, and visual aids presented through the experiential learning delivery model. Once CHWs completed their training, they received regular supervision, including weekly meetings and a joint home visit monthly.

A pre-post-ToT evaluation design examined the knowledge and attitudes of supervisors and CHWs. The faculty team developed the knowledge measure to evaluate learning objectives with 25 items, scored as either correct or incorrect. To evaluate attitude changes, the team modified Morin et al.'s (2019) Attitudes Toward Intellectual Disability Questionnaire–Short Form, making some changes to reflect the local context. This evaluation considered two subscales: the rights of people with disabilities and the causes of disability.

Training results showed that supervisors and CHWs showed improved knowledge with mean scores of 12.2 prior to the intervention and 14.1 following the intervention. For CHWs, they had increases in their knowledge scores with 9.4 and 12.6 as the respective pre-post-test mean score correct. Attitude changes were mixed. For the attitude scales, the only change was for supervisors, demonstrating greater acknowledgment of the rights of people with disabilities following training, with mean scores of 4.2 prior to intervention and 3.6 after intervention, with lower scores reflecting a positive change. In contrast, the 22 CHWs who completed the attitude scales did not demonstrate any significant changes on either attitude subscale.

CHALLENGES FACED

We faced several challenges in this project. Due to varied literacy levels, we tailored CHW training materials for our participants. For example, the CHW manual included more pictures to represent skills and used plain language. Supervisors provided feedback, and the manuals were vetted by interested parties. Second, supervisor and CHW training occurred in November and December 2019, respectively, before the COVID-19 pandemic led to shutdowns beginning in March 2020. After completing training, the initial plan was to introduce trained CHWs to a new family on a slow but consistent schedule of adding approximately one family each month until the CHWs reached their manageable caseloads of 10 to 20 families each. With the pandemic, Kusamala was unable to continue adding families to the CHW's caseloads as intended. The pandemic led to delays and additional considerations in implementing a family intervention program for children often at high risk of developing complications from COVID-19. Program staff prioritized following governmental recommendations for shutdowns and social distancing, which contributed to a slow and wavering program start. In addition, CHWs could not quickly apply their training in their work with families.

SUCCESSES

This ToT effectively increased knowledge for supervisors and CHWs. Supervisors who completed the training were from various professions and worked with CwD

TABLE 1
Training Schedule

Day and topics	*Sample objectives* *By the end of the module, the participant will:*	*Activities*	*Outcome assessment*
Day 1 Introduction to Disability Attitudes, Myths, Beliefs Developing Norms for Communication	1. Identify definitions of disability 2. Describe negative or harmful beliefs about the causes of disability that they have encountered, and which may be reinforced by laws or policies in the country 3. Identify stereotypical words and terms that should be avoided when describing CwD 4. Develop a list of person first language that the group will use when describing and working with CwD in health care facilities, communities, and families	Lecture Small and large group role plays	Attitudes scale
Day 2 Stigma Stereotypes and Myths	1. Explain why stigma happens 2. Discuss examples of stigma from their own health facilities and communities 3. Develop personal ethical framework via a code of conduct 4. Identify harmful beliefs regarding disability	Discussion Small and large group role plays	Knowledge quiz Attitudes scale Code of conduct
Day 3 Infant and Child Development Disability and Timely Referral	1. Describe normal developmental milestones for infants and children from birth through the age of 5 years 2. Recognize variations from normal growth and development 3. Describe common disabilities in children 4. Identify red flags that would indicate the need for referral to the local clinic 5. Demonstrated specific skills needed for assessing children who might require referral to the local clinic	Lecture Bingo	Knowledge quiz Neonatal Jaundice check off
Day 4 Positioning Facilitating Function Communication	1. An understanding of how to position CwD in order to prevent complications, optimize function and encourage participation 2. Describe techniques and activities that can be used to facilitate physical development 3. Demonstrate techniques and activities to use with CwD in order to increase participation 4. Identified basic communication strategies for CwD	Lecture Small group discussion Case studies with hands-on practice and role plays	Knowledge quiz
Day 5 Feeding and Nutrition Dressing, Bathing, and Toileting Play	1. Describe and explain the importance of facilitating independence in everyday activities for children and adolescents with disabilities 2. Demonstrate basic techniques for safe feeding with CwD 3. Describe common adaptations for daily living skills in the areas of dressing, toileting, and bathing 4. Help CWD to enjoy types of play that promote her communication, movements, social and emotional skills, and learning	Lecture Discussion Small group role plays	Knowledge quiz Play idea for CWD
Day 6 Challenging Behaviors Household Chores Equipment Working with Parents	1. List resources for acquiring equipment for children with physical disabilities 2. Verbalize appropriate ways for working with caregivers and their child with disabilities in the home environment	Lecture Discussion	Knowledge quiz
Day 7 Tools for Training Being a Supervisor	Demonstrate how to use the home care checklist	Lecture Discussion	Completion of supervisor forms

and their families. This program potentially offered more specific disability considerations, leading to increased supervisor test scores. CHW's knowledge also increased, as it is plausible that this material was the first training they received on disability. In this training, CHWs developed the knowledge and skills to provide basic services to support families with CwD. To support ongoing learning and knowledge retention, faculty participants provided two online question and answer sessions, to both supervisors and CHWs, following primary training.

LESSONS LEARNED

CHW training requires adaptability, involving local partners, and continuous support for CHWs. Regarding the adapted attitudes scale (Morin et al., 2019), supervisors only showed changes on one scale, rights of persons with disabilities. In using this scale, developed in a high-income and high-resource country (Canada), some items may not transfer well to this context. The study team did not evaluate this measure or the changes made to determine the psychometric properties of this scale in this context. Second, this project is only possible with local partners who could make recommendations on training and adapting the content to the specific needs of this community. Third, this program requires ongoing supervision between the health professional supervisors and CHWs. With this support, the program maintains fidelity.

IMPLICATIONS FOR PRACTICE

When developing CHW training and mentoring programs, it is vital to develop context-specific training that focuses on local needs. A critical practice recommendation is to include local subject matter experts to identify training topics and review training materials to confirm they meet the community conditions. A second practice recommendation is that trainers should develop workshops using adult learning theory in mind, focusing on experiential learning that is engaging, practical, and interactive. Finally, once CHWs receive the content training, they should continue to receive ongoing supervision and mentoring from their supervisors to ensure that CHWs follow best practices. When researching outcomes, it is also essential to incorporate assessments that evaluate training outcomes and fit the local context, particularly using questionnaires developed in different contexts.

CHWs are an innovative way to address professional shortages in serving CwDs and their families, particularly in low- and middle-income country settings. Continued investments in CHW training and support have the potential to create significant health improvements in under-resourced communities, often for individuals who have difficulty accessing affordable care due to structural and financial burdens.

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