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Adaptation of an evidence-based intervention for disability prevention, implemented by community health workers serving ethnic minority elders

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Abstract

Introduction—Changing demographics have created substantial unmet needs for mental health and physical disability services for immigrant and racial/ethnic minority elders. Workforce shortages can be reduced by task-shifting to community health workers (CHWs) who speak the same language and share the culture of these elders. Yet, implementation of interventions offered by CHWs requires adaptations of content and delivery, ideally under clinical supervision.

Objective—To culturally adapt two evidence-based interventions, offered in community settings, to address mental health and physical disability prevention for diverse minority elders.

Methods—We followed the Castro-Barrera stepped model for cultural adaptation of two evidence-based interventions into one combined program of disability management and prevention delivered by CHWs. We used feedback from key stakeholders, including four clinical supervisors, 16 CHWs, 17 exercise trainers and 153 participants, collected at three time points to further adapt the intervention to a diverse population of elders.

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Author Contributions: The senior author MA and IFB, had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. MA and IFB conceived of and designed the study. MA was the principal investigator of the trial. ZR, MA, WF, IFB, and CKC developed the intervention adaptation and coordinated the supervision process. IFB, MA, EK, PdC and JZD analyzed the data and contributed to the interpretation of data. IFB, PdC, EK, JZD and MA wrote the first draft of the report. WF, JZD, ZR, JW, MA revised the report for important intellectual content.

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Results—Adaptations for administration by CHWs/exercise trainers included: systematization of supervision process, increased flexibility in sessions offered per participants' needs, inclusion of self-care content, modification of materials to better reflect elders' daily life experiences, and greater focus on patient engagement in care. Areas for additional adaptation included enhancing examples with culturally relevant metaphors, incorporating visual aids, and training CHWs in the importance of building trust.

Conclusion—This study identifies key aspects of the cultural adaptation process that facilitates broader cultural sensitivity of service delivery by CHWs to diverse elders in community settings.

Keywords

Cultural adaptation; evidence-based interventions; Community Health Workers; elder population; minority

Introduction and Objective

A recent Institute of Medicine Report (1) highlighted that U.S. elders, particularly racial/ethnic minorities, face tremendous challenges in receiving care for mental illness and disability prevention. Cultural adaptations of evidence-based interventions are necessary to appropriately respond to the unique needs of a growing racial/ethnic minority elder population (2). Cultural adaptation is defined as the process of systematically modifying an evidence-based intervention to be congruent with the language, values, beliefs, and context corresponding to clients' cultural background (3). Several models for cultural adaptations have been set forth, with four main steps in the systematic process: gathering information, designing and testing the preliminary adaptation, refinement, and testing the adaptation in a final trial (2). Culturally adapted treatments seem to be more efficacious that non-adapted ones (4), although evidence remains mixed (5).

Addressing treatment disparities among racial/ethnic minority elders requires novel solutions, including expanding provider supply, improving coordination between mental and physical health services, and increasing outreach to screen older adults in clinics and community-based programs. To address provider shortages in primary and mental health care (6), organizations are increasingly employing community health workers (CHWs), paraprofessional staff uniquely positioned to build trust and address barriers to care among underserved communities (7). CHWs can deliver psychoeducation interventions, (8). CHW programs have proven effective in providing health knowledge, increasing health care utilization, changing health behavior, and improving health status. CHWs, along with Exercise Trainers (ETs), can address both mental and physical disability concerns and reduce public health burdens (9). However, task shifting from clinical providers to CHWs requires tailoring evidence-based interventions and adaptation that follows a systematic process (10).

The current paper describes the adaptation of two evidence-based interventions, "Comparing Strategies to Reduce Stress and Depression" (CERED) and "Increased Velocity Exercise Specific to Task" to create Positive Minds-Strong Bodies (PMSB). PMSB is an integrated and culturally-responsive mental health and physical disability management and prevention

program, delivered by CHWs and ETs to racial/ethnic minority and immigrant elders in community settings. The Positive Minds component includes 10 one-hour individual sessions adapted from cognitive therapy and behavioral activation, and dedicated time for psychoeducation, mindfulness, and developing a self-care plan. The Strong Bodies component is a three-times per week exercise training program provided over 12–14 weeks. Our therapeutic model for the combined PMSB seeks to enhance participant ability to cope with stressors linked to poor mood and improve functional restoration by increasing mobility. There is evidence that treatment for mood conditions can reduce physical disability (11–13) and that treatment of functional limitations can improve symptoms of depression (14, 15), both considered risk factors for disability(16). The combination of treating mood symptoms plus functionally-oriented physical exercises is an alternative care model for preventing disability(17).

Methods

This study is part of a randomized clinical trial that evaluated the acceptability, feasibility, and effectiveness of the PMSB intervention [ClinicalTrials.gov Identifier: NCT02317432]. The adaptation process occurred between May 2015 and March 2019. The trial was approved by the institutional review boards for Massachusetts General Hospital/Partners HealthCare and New York University (MGH: 2019P001292/ NYU: i14–01903). All participants provided informed consent.

Participants, CHWs, and ETs

Eligible participants were aged 60 and over, fluent in English, Spanish, Cantonese, or Mandarin, had mild-to-severe anxiety or depression symptoms [scored 5+ on either the Patient Health Questionnaire (PHQ-9; (18), the Generalized Anxiety Disorder 7-item Scale (GAD-7; (19), or the Geriatric Depression Scale (GDS-15) (20)] and minor-to-moderate physical disability (scored between 3 and 11 on the Short Physical Performance Battery). Potential participants were excluded if they disclosed substance use disorders; were receiving mental health treatment; lacked capacity to consent; were homebound; had a neuro-musculoskeletal impairment; or their physician did not provide medical clearance for exercise; for more details, see (17). A total of 307 participants were recruited in Massachusetts, New York, Florida, and Puerto Rico; 153 were randomized to receive the PMSB intervention. PMSB sessions were held at recruitment sites, in participants' homes, or by phone (Positive Minds [PM] part only). While all PM sessions were one-on-one, Strong Bodies (SB) sessions often involved 2–3 participants. A total of 17 ETs and 16 CHWs from different ethnic backgrounds (Latinx, African American and Chinese) were recruited, trained and ethnically matched with participants to provide the combined program.

Adaptation Process for delivery by CHWs and ETs to a diverse elder population

The following section organizes the cultural adaptation process following Barrera and Castro's framework: 1) information gathering, 2) preliminary adaptation design, 3) preliminary adaptation tests, 4) adaptation refinement, and 5) testing of the cultural adaptation in a randomized trial and participant feedback gathering (10).

Stage 1: Information Gathering—We gathered published information on existing cognitive-based therapies for elders, physical exercise and disability prevention programs, adaptation of evidence-based treatments delivered by non-clinical staff (e.g., CHWs), and factors related to engagement for minority and immigrant elders.

Stage 2: Preliminary Adaptation Design—After selecting effective and appropriate interventions for our target population, we adapted and developed the PM and SB manuals ensuring that materials were appropriate for delivery by CHWs and ETs with basic training in mental health. We also ensured that materials were at the 6th grade reading level and accessible for elders. Next, we collected feedback from the research team after reviewing the original manual, including four clinical supervisors from different ethnic backgrounds, and key members of the community (CBO staff members involved in the trial).

Stages 3 & 4: Preliminary Adaptation Test and Adaptation Refinement—We pilot tested the PMSB intervention with 28 elders over the first four months. Pilot participants had milder symptoms or were already receiving psychotherapy services, and thereby excluded from the formal trial. Training for CHWs and ETs involved two intensive days of workshops on core intervention elements and delivery strategies, followed by four months of role plays and pilot cases. After the pilot phase, we collected feedback from supervisors, CHWs and ETs to inform further adaptations.

Stage 5: Clinical trial and gathering feedback—CHWs and ETs delivered the intervention in a randomized controlled trial. At the end of the trial, CHWs, ET and supervisors completed final questionnaires to identify successful and challenging aspects of the interventions and the obstacles they and their participants faced (17). All responses were reviewed with CHWs, ETs, and supervisors in an open discussion with the first author. Participants were also asked open-ended questions during their 12-month follow-up phone interview: 1) *What did you find most/least helpful about the CHW/ET?* 2) *What did you think of the areas covered in the sessions? Were there other subjects/areas you would have liked to have discussed?* 3) *Do you have any comments or suggestions about the CHW or exercise sessions?* and 4) *Do you feel that the program helped you? How?* Responses from 153 intervention participants were transcribed and translated from Spanish and Chinese to English, and back-translated by two bilingual investigators for quality assurance. We only selected quotes related to adaptation and used surface-level qualitative analyses to provide a descriptive summary of the responses (21). The process involved ongoing discussions between three co-authors. After the PMSB trial ended, we incorporated CHW and participant feedback into a final manual. Table 1a in the Supplemental Digital Content depicts the adaptation process and main components.

Results

Stage 1: Information Gathering

From the interventions found for minority elders (22–24), we chose the CERED program (25, 26) as it was developed and culturally adapted by members of our team and had proven effectiveness in improving depressive symptoms among Latinxs (25, 27). It consists of six

sessions focused on identifying and correcting negative cognitions and promoting behavioral activation, motivational interviewing to remain in care, and developing supportive relationships. Sessions are delivered by licensed clinicians following a collaborative approach, tailoring contents to client needs in a structured format. Literature review highlighted the importance of addressing logistical constraints (e.g. transportation and weather) and fear and mistrust to improve elder engagement (28, 29). We found only two models for adapting evidence-based interventions for CHW delivery, describing systematizing training and supervision (30, 31).

For physical health, we chose InVEST (32), which has been shown to improve physical functioning among elders (33). InVEST consists of a series of ten physical exercises that activate most major muscle groups conducted while wearing a weighted vest. Resistance progresses in 2% body weight increments. A total of three sets of 10 repetitions each are performed, emphasizing a task-specific movement pattern (e.g. rising from a chair), promoting functionality. The intervention is delivered in 36 small-group sessions (two to five people) within a 12-week period, three days a week (non-consecutive) in a gym of an outpatient rehabilitation center under the direction of a certified ET (32).

Next, we added strategies to engage elders to the training of CHWs and to tackle stigma and improve trust, major barriers to receiving treatment (34, 35).

Stage 2: Preliminary Adaptation Design

The combined CERED and InVEST program, named PMSB, was aimed at promoting mental and physical health. To address stakeholder feedback, we included psychoeducation about managing anxiety and used the GAD-7 to assess symptoms, expanded information on assertive communication (36–38), and augmented from two to three behavioral activation sessions (e.g. positive activities that improve mood and reduce anxiety). Given feedback and prior research (39, 40), we included one session on healthy diet and sleep hygiene, using materials adapted from the National Institutes of Health and the Centers for Disease Control (41–44).

The PM manual, which was originally in English and Spanish, was fully translated to simplified Chinese by professional services at Memorial Sloan Kettering and reviewed and back-translated by an external consultant. Staff members from the Chinese Golden Age Center, an agency serving a large diverse Chinese population in Boston, helped finalize linguistic inconsistencies and needed cultural adaptations. The cultural adaptation included surface structural changes (2) such as language revisions and name changes in the different vignettes to be culturally consonant with African American and Chinese participants. For instance, African American clinical supervisors and community leaders recommended increasing the mention of spiritual practices, and “being more involved in your faith community” as suggested behavioral activation activities.

Overall, the PM program was expanded from six to ten manualized sessions with the option of two boosters, to reinforce self-care strategies. The participant workbook was expanded to be consistent with manual adaptation. Visual aids were added depicting elders engaging in common activities, to illustrate components presented. We structured formal two-day

webinars covering core components, including cultural adaptations and psychoeducation components relevant to elders, such as sleep, physical activity, nutrition, and communication skills.

At the beginning of the training process, CHWs were assigned a licensed clinical supervisor from the same racial/ethnic background for 1.5 hours of weekly group supervision. Upon supervisors' approval, CHWs started with two pilot cases before moving to trial cases. Supervisors listened to all roleplay, pilot sessions tapes, and the first two cases. After that, supervisors listened to a random 15% of cases for quality control and fidelity checking. Adaptations to the InVEST intervention mostly involved the delivery process including the sequence of exercise, and location of sessions (senior centers or CBOs). Because some ETs were not proficient in Spanish or Chinese or were not certified, we increased monitoring and intensity of supervision to weekly instead of biweekly. Physical exercises sessions were monitored for quality control in two ways: weekly supervision calls to discuss cases and questions about program administration and fidelity checks of a random 15% of all of the sessions that were videotaped, reviewed and scored. Supervision tasks were conducted by one of the co-authors with experience in exercise physiology and rehabilitation. We adapted our goals to achieve a total of 36 sessions within a period of 14 rather than 12 weeks. However, none of the exercise sets were modified.

Stages 3 & 4: Preliminary Adaptation Test and Adaptation Refinement

Several changes were implemented in the PM manual after the pilot phase: changing the session order, editing certain scripts (e.g. reducing language on mental health and focusing on well-being and obtaining support) and modifying examples (e.g. replacing playing tennis to going for a walk as an example of behavioral activation) to be aligned with elders' experiences. We also revised the session order to start with behavioral and cognitive components, and to better consolidate the core components. CHW scripts were edited to prompt more dialogue and to match elders' life experiences and session's goals. We simplified cognitive exercises to limit the number of new concepts for elders with lower learning capacity. Finally, because elders commonly brought up issues with interpersonal conflict, we created a session to practice effective communication skills, by condensing the last two sessions to maintain 10–12 total. After receiving feedback from supervisors and CHWs identifying challenges in engaging participants in behavioral and cognitive changes, we delivered three extra trainings. Two focused on reinforcing cognitive restructuring and motivational interviewing skills delivered by the research team and a third on sleep hygiene interventions for elders, delivered by an external expert in the field of insomnia.

The main challenge in the SB pilot was adequate attendance, due to participant transportation issues, challenging weather (hurricane Maria impacted one of the sites during the trial and winter storms affected another site), unexpected health issues that required rest; and limited ET availability. These external barriers required the research team to be more flexible with total dose, re-defining session completion to 25–36 sessions within 14 weeks. Due the shortage of multilingual ETs, CHWs were also trained to provide the SB intervention, as it allowed participants to have SB and PM sessions sequentially. To ensure

implementation of the refined version of the PM manual, we re-trained CHWs and supervisors to highlight all changes of the version.

Stage 5: Clinical Trial and Feedback Gathering

The PMSB intervention was delivered by CHWs and ETs in CBOs to eligible participants in the PMSB clinical trial (17). After collecting feedback from CHWs, ETs and participants, we made final changes. Overall, the PM intervention changed in five areas: 1) addition of "notes for CHWs" instructions, that emphasized elders' engagement and cultural accommodations; 2) increasing adaptation of psychoeducation content to better target the Chinese population, such as expanded assertive communication practice (see Table 2 for details); 3) inclusion of the cognitive behavioral therapy triangle (feelings, thoughts, and behaviors) in each session; 4) incorporating mindfulness practices; and 5) adding attendance at SB sessions as part of behavioral activation activities and home practice and including information about upcoming session content, to integrate the program. Additionally, we enlarged the text size in the workbook and added blank pages for participant's notes. Table 2 depicts the overall changes to the PM intervention.

ETs highlighted the importance of adapting routines for participants with comorbid conditions and varying fitness levels. To reduce transportation barriers, we recorded a video to guide participants through SB sessions. ETs or trained CHWs made home visits to train participants on how to use the recorder and complete video exercises. We also created a practice log for participants to fill in and bring to in-person sessions.

Participant's feedback evaluation—Qualitative analysis of participant responses after the trial elucidated three aspects of the adaptation process: 1) cultural and language adaptations, 2) perspectives on working with CHWs, and 3) program sustainability. Half of participants believed that the intervention was helpful as "activity is good for all elders" and because it reduced isolation by allowing them to communicate with "someone who shows interest in talking." Having someone to help them navigate through problems was reported as particularly important (see quotes in the Supplemental Digital Content). Further, the intervention allowed participants to "try new approaches to improve their health". Concerns on language translation were not raised among participants.

Second, an overwhelming majority of elders reported that they enjoyed interacting with CHWs. Many participants described trust and mutual respect as the first step in establishing a therapeutic relationship, which facilitated participant skill building. Others talked about CHWs being more attentive than their usual providers. Lastly, some elders reported that the program should be expanded, as the 10–12 sessions did not allow them to work through ongoing or future problems.

Discussion and Conclusion

Barrera and Castro's adaptation model guided us in the process of combining two interventions into one effective program for disability management and prevention among racial/ethnic minority elders. This process is innovative for three main reasons: first, few studies have described successfully adapting a clinician-led intervention to be delivered by

CHWs. Second, it involves adaptation for primarily racial/ethnic and linguistic minority elders; and third, it exemplifies how the program can be implemented in low-resourced CBOs. However, we confronted limitations, including the attrition of ETs throughout the research study and turn-over of CHWs in the CBOs. We detail the logistical challenges of implementing the PMSB program elsewhere (45).

The first level of adaptation focused on simplifying materials and increasing supervision to ensure that PMSB was delivered with competence and fidelity. Barnett and colleagues (46) reported that scaling-up evidence-based interventions delivered by CHWs requires acknowledging the strategies needed to train and support CHWs, including a higher level of support through ongoing supervision compared to mental health clinicians (46). We addressed these points by adding additional vignettes (47), simplifying the language in the manual, and providing weekly individual supervision.

The second level of adaptation involved a revision of the whole program to achieve cultural relevance for elders from different racial/ethnic groups. Per Castro and colleagues' model (48), cultural relevance is achieved when content and materials are applicable to participants' lives. In our study, this included efforts to continuously question the process of content delivery and feedback in the adaptation process without changing the core components. It involved ongoing reflection, discussions, and refinement to balance the needed changes for specific cultural groups. For instance, relative to other groups, Chinese participants reported more challenges in practicing assertive communication and conflict resolution. This is consistent with research finding that conflict avoidance is common in East Asia (49), and assertiveness is often lower in East Asians compared to whites in the U.S. (50). Chinese culture emphasizes that communication is based on status and hierarchy within a social structure or group. Additionally, many Chinese immigrant elders lack communication resources due to cultural and language barriers, and as a result, their power is compromised as the authority within their family and community (51). Acculturation gaps have been shown to influence the development of mood disorders (52). Following Chinese clinical supervisors' feedback and literature resources, the research team increased assertive communication psychoeducation and practice, as it may increase elders' capacity to manage conflicts with their children or grandchildren who are likely to be more acculturated. Additionally, it may help elders communicate their needs more effectively with health providers. Expanding conflict resolution strategies and role play techniques was a positive way to respond to issues around communication-style cultural fit, while providing more practice all participants. Similarly, including religious service attendance as an example of behavioral activation was one way we integrated cultural norms of spirituality and religious practice among African Americans (53).

A major adaptation was training CHWs to also provide the SB intervention in addition to PM. We undertook this change mid-trial with no observed negative effects on the exercise routine. Offering PMSB by one staff member can positively impact participants, given the evidence for patient-centered integrated care and accommodations to a participant's schedule.

Beyond optimizing resources through a CHW model (54) the resulting PMSB program allows for overcoming significant mental health service barriers, such as lack of access, mental health stigma, and perceived discrimination among elders. PMSB addresses stigma through cultural and linguistic matching, building trusting/caring relationships between the CHWs/ETs and participants. The program is provided in settings where elders feel comfortable and that they can easily access. Our finding that participants emphasized trust with the CHWs/ETs was key to engagement and positive outcomes is consistent with prior research highlighting the importance of trusting relationships with providers to increase access and retention for racial/ethnic minority elders (46, 55, 56).

Our study possesses many strengths including being the first intervention adaptation for racial/ethnic minority elders focused on disability management and prevention. Next, employing CHWs that were culturally and linguistically matched with participants might have contributed to high acceptability. However, further quantitative research would be needed to isolate potential direct effects of cultural and linguistic matching. Furthermore, home practice completion data was not collected, limiting the reliability of acceptability outcomes. It should be included in further trials.

Results from the clinical trial showed that PMSB was effective, resulting in a significant improvement in functioning and mental health outcomes in minority elders (17). Most participants (83%) found the intervention to be culturally consonant, linguistically adequate, and beneficial to their health. The PM adaptations were associated with high satisfaction (79% of participants stated being *very satisfied* with the program) and high treatment retention (77.6% did 6+sessions). The low compliance with SB (53.4% participation of 19+ SB sessions) and ET's feedback suggested the need for further modifications, such as a video of the sessions for participants encountering barriers. Participants also requested a maintenance phase to continue with the program after the 6-months. These changes led to a refined PMSB manual, tested with an additional 11 participants as part of a pilot trial and that is currently moving to the implementation phase (Table 3). Researchers, clinicians, healthcare organizations and CBOs interested in intervention adaptation can benefit from this description of the process of shaping an effective and well-accepted intervention for disability management and prevention among racial/ethnic minority elders (17).

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Highlights

What is the primary question addressed by this study?

The current paper describes the process of adapting and creating an integrated mental health and physical disability management and prevention program for racial/ethnic minority elders.

What is the main finding of this study?

Successful adaptation was done through simplifying materials, expanding content targeted for elders, increasing cultural consonance, and thorough supervision for community health workers delivering the intervention. The program was perceived to be linguistically adequate, beneficial for health and mental health, and particularly valuable given the trusting relationship elders developed with community health workers.

What is the meaning of the finding?

Community-based interventions delivered by paraprofessionals is a feasible avenue to address barriers in psychiatric care for racial/ethnic minority elders, such as access, stigma, and providers mistrust.

Table 1.

Overall changes to Positive Minds intervention from original CERED intervention

General remarks	Decision to avoid sessions at participant's home Addition of reminder call before session Addition of questions at each session on: 1) motivation to change, 2) confidence in making changes, and 3) barriers to changes More instructions for the Community Health Worker (CHW), including examples of scripts Integration of the Strong Bodies intervention as part of the behavioral activation strategies Greater variety of breathing exercises and inclusion of mindfulness exercises Addition of follow-up call 2 weeks after session 10 to see how self-care plan is working	
Session 1	Longer session to get to know participant (1.5-hour session) Emphasis on establishing rapport, asking more questions about current and past situation Focusing on engagement between CHW and participant Changes in psychoeducation and anxiety for easier understanding Emphasis on registering participant's understanding of their symptoms	
Session 2	Clarification of differences between thoughts and feelings	
Session 4	Cultural adaptation of the devil and the angel example to "good friend" and "bad friend" More examples	
Session 6	New example for thoughts evaluation	
Session 7	Communication skills expanded to two sessions	Effective communication skills Speaker-Listener technique practice: speaker component & assertive communication More role-plays and practice to improve participant's understanding
Session 8		Importance of communication Speaker-Listener technique practice: listener component
Session 9	Expansion of psychoeducation component New exercises and handouts for patient to review	
Session 10	1.5-hour session Former session 9 and 10 condensed Reorganized self-care plan for easier understanding Table of program strategies to summarize and review the intervention "Certification of completion" provided to increase awareness and motivation	

Table 2.

Adaptations for ethnically diverse population

Chinese population	**African American Population**	**Latino Population***
1. Depression and anxiety concepts modified to "wellbeing" 2. Translation of "Unhelpful thoughts" to Chinese changed to "worrying thoughts or excessive worrying thoughts" 3. Change to Chinese names in the examples 4. Examples of pleasurable activities culturally adapted to Chinese population, such as gardening, tai chi, and mah jong 5. Effective communication skills were expanded to two sessions to give more time to explore communication issues and practice of the learned skills including role play on expressing emotions	1. Inclusion of spiritual practices and faith-related community activities as potential activities for behavioral activation 2. Changes in names 3. Revision of all the scripts and materials to ensure non-discriminatory language	1. Semantic instead of numeric anchors to level of motivation for change 2. *Personalismo:* Community Health Worker shares a little bit of their background when introducing themselves 3. Inclusion of common cultural proverbs i.e. "It is better to prevent than lament." Use this proverb to illustrate the importance of having a self-care plan. "Do not leave for tomorrow what you can do today." Use this proverb to illustrate the importance of self-monitoring of depression symptoms.

*Adaptations for Latino population were incorporated already for the CERED intervention (26)

Table 3.

Main content of the Positive Minds - Strong Bodies program

Positive Minds		**Strong Bodies**
Individual session with a Community Health Worker (CHW) Option to do by phone or in-person at local community center 10 one-hour sessions completed over a 6-month period Accommodates to person's schedule and culture		Group session (3–5 elders) with an exercise trainer or CHW In-person at local community center 36 sessions, 3 times per week for 12–14 weeks (considered complete after 25 sessions)
Session 1	Program overview Depression & anxiety: Causes, effects, treatments Relaxation breathing Behavioral activation	• Emphasized building resistance or power training for functional activities • Series of exercises conducted while wearing a weighted vest • Resistance progresses in 2% body weight increments • Instructional video of exercises for at-home practice • Integrated in PM intervention as part of the behavioral activation strategies and home practice • Quick conversation and questions following motivational interviewing techniques to increase engagement
Session 2	Introduction to Cognitive Behavioral Therapy triangle Behavioral activation and self-management	
Session 3	Self-management/ behavioral activation Mindfulness and barriers to change	
Session 4	Noticing unhelpful thoughts: Watching yourself think	
Session 5	Cognitive restructuring: Overcoming unhelpful thoughts Thought stoppers, changing the tune	
Session 6	Cognitive restructuring: Evaluation strategies	
Session 7	Healthy habits strategies: Sleep, drug use, nutrition, and exercise	
Session 8	Communication skills	
Session 9	Reviewing strategies and creating self-care plan	
Session 10	Reviewing self-care plan, certification and farewell	