Healthy Moves for Aging Well
Evidence-based In-Home Physical Activity Program for Frail Older Adults
NCOA Model Health Program

Program approved by NCOA

Year Program First Implemented in Community Settings: 2002

Program Synopsis

- General description of program
  - *Healthy Moves for Aging Well (Healthy Moves)* is a simple and safe evidence-based physical activity program designed to enhance health outcomes for frail, high-risk, and diverse older adults receiving services in the home. The program utilizes care managers from community-based care management agencies to teach the program’s exercises to their older clients in their home. At their regularly scheduled visits, care managers enroll clients into the program by assessing their ability and readiness to participate safely and by using motivational interviewing techniques to engage each client in setting a goal.

- Program goal
  - The goal of *Healthy Moves* is to help older frail adults maximize their independence by building strength, increasing flexibility, and helping to reduce the risk of falls.

- Reasoning behind the program design and elements
  - Physical activity for older adults has tremendous benefits and is recognized as one of the most powerful health promotion interventions to improve seniors’ ability to function and remain independent in the face of active health problems.
  - The *Surgeon General’s Report on Physical Activity and Health* (Center for Disease Control, 1996) concluded that Americans of all ages can substantially improve their health and quality of life by including moderate amounts of physical activity in their daily lives.
  - While many physiological changes are encountered in the body as people age, there is a growing body of evidence that weakened muscles, restricted movements, and stiff joints are not a normal part of aging for those who stay physically active.
  - To date, few if any programs have been developed and evaluated that apply important research findings to in-home physical activity for older adults living in the community, especially very frail seniors. Care management programs have generally not addressed physical activity as part of their formal assessment and care planning, largely as no clear and safe prescription for the frail was available.
  - *Healthy Moves* was developed for the geriatric care management setting because in-home providers are natural vehicles for distributing health tools to the most high-risk seniors. With the right training and
tools, care managers can enhance their scope of work by teaching their clients the Healthy Moves exercises at their visits.

- **Target population**
  - Frail, sedentary older adults enrolled in community-based care management programs
  - Need assistance with 2 to 4 activities of daily living (ADLs)
  - Willingness to participate at home (motivation)
  - Attendance in adult day health does not exclude participation if client still benefits from enhanced physical activity
  - Caregiver in the home not required but permissible
  - If client lives alone or has no caregiver available, s/he must have ability to stand unassisted in order to exercise alone safely
  - Cognitive status sufficient to follow directions

- **Essential program components and activities**
  - Care managers partner with motivational volunteer coaches from the community and/or local universities to assess the physical condition of their clients, engage them to participate, teach a variety of safe exercises, and encourage continuation by monitoring their progress.
  - The Healthy Moves program is an integrated model consisting of two evidence-based components:
    1. **Physical Activity Component**: modeled and adapted from the Senior Fitness Test work of Rikli and Jones (1999)
      - 5 simple and safe seated and standing in-home exercises
        - Seated: arm curls, seated step-in-place, ankle point and flex
        - Standing: chair stand and standing step-in-place
    2. **Behavior Change Component**: lifestyle change counseling method called Brief Negotiation developed by Prochaska and DiClemente (1983)
      - Utilizes the Stages of Change model, goal setting techniques, and a readiness ruler from 0 to 10 (higher numbers indicate greater readiness to change) for assessing a client’s readiness to change
      - An innovative approach for increasing older adults’ intrinsic motivation for making and sustaining changes in physical activity

- **Length/Timeframe of program**
  - Guidelines concerning the number of repetitions per movement are distributed to all participating clients and they are encouraged by their care managers and motivational phone coaches to do the movements three to five days per week, multiple times per day.
  - For care managers, only a 15 minute session is needed with each client to encourage their identification of personal goals needed to be motivated to incorporate the movements into their daily routines.
  - Motivational phone coaches contact the clients weekly or bi-weekly for a three month period to reinforce new behavior change.

- **Desired outcomes**
• Improve levels of physical activity in frail elders enrolled in care management programs
• Improve fitness, strength, confidence, and independence
• Reduce depression, pain, number of falls, and fear of falling
• Implement a program that is highly satisfying to participants
• Increase knowledge among older adult adults of the benefits of physical activity
• Raise awareness among care management professionals about the value of increasing levels of physical activity in their clients’ lives
• Strengthen and advance geriatric care management practice by training care managers in principles of behavior change and helping them to apply these principles in motivating clients to enhance the level of physical activity in their daily lives

• Measures and evaluation activities
  o To measure changes in health outcomes and functional performance, the program incorporates a pre-test and three month post-test using a simplified version of the validated Senior Fitness Test (Rikli & Jones, 1999). Tests include the Arm Curl to test upper body strength, the Chair Stand to test lower body strength, and the Step-in-Place to measure endurance, balance, and physical stamina. The tests are modified to meet the needs of very frail older adults (i.e. instead of a 3lb or 5lb weight, weaker clients are encouraged to use an 8oz soup can to perform the Arm Curl test).
  o Care managers measure changes in the level of pain, depression, fear of falling, number of falls, and fall injuries. The clients verbalize how ready they are to increase their physical activity and choose a goal they would like to achieve by becoming more active.
  o After 3 months of participation with regular monitoring by phone via volunteer coaches, the clients are reassessed. The new data is compared to the baseline data to measure goal achievement and any improvement in the client’s mental and physical well-being as a result of their involvement in the exercise program. Six months from baseline, clients are asked if they are still performing the exercises regularly and progress is documented.

Health Outcomes and Evidence Supporting Health Outcomes

• In a 2002-2004 pilot project of Healthy Moves, care managers succeeded in engaging very frail older adults with multiple functional losses and chronic conditions in adopting and continuing in-home exercises. After six months of participation, 76% continued to participate in regular exercise (Wieckowski & Simmons, 2006).
• In the 2004-2008 demonstration project of Healthy Moves, participants demonstrated a statistically significant reduction in number of falls when compared to baseline, as well as improvement in both upper and lower body strength as indicated by progress in the Arm Curl and Step-in-Place tests. Participants also reported a decrease in depression and pain (Yan, Wilber, Wieckowski, & Simmons, 2009).

Program Costs/Resource Requirements

  o Behavior Change Educator: $1,000 to $1,500/day for training session
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- Fitness Expert: $400 to $1,000/day for training session
  - $50/hour for mentoring/follow-up
- Client Materials/Handouts: $3/participant
- Stop Watch: $9/care manager
- Counter (optional): $7/care manager
- 8oz or 15oz soup can: Free from client’s pantry (use to perform arm curls)
- Healthy Moves video (optional): $75/care management organization

www.picf.org/landing_pages/22,3.html

Note: The ideal Behavior Change Educator should have significant expertise in lifestyle change counseling and in Brief Negotiation methods. In addition to appropriate credentials as a mental health professional with a health background, psychologist or nurse, the expert must have training, experience and acknowledgment by other experts as qualified to provide this consulting. This requires a search for an available consultant who has skills to provide group education as well as individual and team telephone consultation as challenges arise in the course of the program.

To contact potential Brief Negotiation trainers in your area, visit the following website: http://www.motivationalinterview.org. This site provides resources for those seeking information on Motivational Interviewing and Behavior Change Counseling. It includes general information about the approach, as well as links, training resources, and information on reprints and recent research. The trainers come from diverse backgrounds, and their central interest is in improving the quality and effectiveness of counseling and consultations given to clients about behavior change. When selecting trainers, be sure they are seasoned presenters per references and have some knowledge of physical activity and behavior change specifically for the older population.

References


Yan, T., Wilber, K., Wieckowski, J., & Simmons, W. J. (2009). Results from the Healthy
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