

Physical Activity Support Mechanisms

Introduction

This section presents details about the five mechanisms we used to support participants in their efforts to increase physical activity:

- Personal planning session
- Telephone support
- Group workshops
- Newsletters
- Activity logs

As noted above, CHAMPS is a client-centered, self-management program. A PA counselor is assigned to each participant and bears responsibility for the long-term interaction between the participant and the program, but participants make personal choices about their physical activities and goals. The support mechanisms are designed to encourage participants to find personally meaningful goals and to provide motivation, encouragement, and reinforcement for successful changes in activity, no matter how slow the progress. Participants are only required to attend the personal planning session, to receive telephone calls, and to complete activity logs (for two weeks of every month). PA counselors strongly encourage participants to attend the initial workshops that cover exercise safety and getting started; other workshops are optional based on their interest.

Physical Activity Support Mechanism: Personal Planning Session

Purpose

- To enroll and randomize participants into intervention and wait-list control group.
- To discuss participants' needs, concerns, and preferences based on their readiness to increase their level of physical activity
- To establish a relationship between the physical activity counselors and participants
- To motivate participants to attend the first workshop and to discuss details of the program
- To individualize initial plans based on discussion of participants' needs, concerns, and preferences
- To set an initial short-term goal for participants based on their readiness to increase their level of physical activity
- To briefly review two exercise booklets that are given to participants

Program Folders for Counselors

Participants were assigned to specific PA counselors based on their medical needs and schedules. Participants with complicated medical histories (conditions other than controlled hypertension or arthritis) were assigned to the exercise physiologist for activity support.

Program folders were assembled for all participants, which helped the PA counselors provide personal support to each participant. Each folder included participants’:

- Screening and demographic information
- Photo
- Completed physical activity questionnaire
- Functional fitness assessment results
- Baseline activity log
- Signed informed consent
- Physician contact information

Preparing for the Personal Planning Session

Prior to each session, PA counselors reviewed and summarized participants’ completed medical history questionnaires and the results of the functional fitness assessments. Counselors also determined participants’ contraindications to exercise, discussed concerns with the staff nurse and exercise physiologist, and selected appropriate handouts for participants.

Resources available to PA counselors included: a nursing drug guide and exercise guidelines for individuals with various diseases, handouts and materials in a portable file folder brought by the counselor to the session, a private space with a table, two chairs, and enough room to demonstrate stretching exercises.

NOTE: Another good resource for program staff is *ACSM’s Exercise Management for Persons with Chronic Diseases and Disabilities*, Second Edition¹¹

Planning Session Agenda

The planning session focused on the following topics:

1) *Defining roles and responsibilities.* Each PA counselor and participant discussed a partnership agreement which described each of their roles and responsibilities. These included maintaining monthly telephone contact, keeping activity logs, and completing 6- and 12-month assessments (questionnaires and functional fitness testing).

2) *Review timeline.* PA counselors scheduled the first telephone appointment, distributed a flyer for the first workshop, and reviewed the commitment to the program including completion of a 12-month assessment.

3) *Review functional fitness assessment results.* PA counselors explained the individual variability of testing results, i.e., the time to complete the chair stands could vary if they were feeling better on one day versus another day. They also explored participants’ feelings about the tests and whether there were any areas of physical functioning they were interested in focusing on during their program.

¹¹ ACSM’s exercise management for persons with chronic diseases and disabilities (2nd ed.) Champaign, Illinois: Human Kinetics (2003).

4) *Review completed activity logs.* PA counselors reviewed and discussed with participants the activity logs that they completed for two weeks prior to the appointment. They also reviewed the work effort scale and activity log tip sheet again.

See Appendix 9, Activity Log, and Appendix 10, Activity Log Tips

5) *Discuss the physical activity plan.* The PA counselor and participant discussed many factors as they worked together to develop a reasonable plan to increase (or to at least think about increasing) the participant's physical activity. Depending on the PA counselor's background and the individual's needs, the counselor served as a resource and helped provide information for the participant to determine his/her own plan. At times, PA counselors recommended additional follow-up with the staff exercise physiologist or personal physician.

6) *Readiness to change and preferences for different activities.* Depending on participants' readiness to change, PA counselors discussed participants' interests, barriers, and options. When participants were not ready to start a new physical activity, PA counselors asked questions about participants' barriers and discussed with them the pros and cons of changing their current level of physical activity. Participants were encouraged to come up with their own reasons for possibly increasing activity sometime in the near future. When discussing preferences for exercise, PA counselors always discussed safety issues around those exercises.

- *Home- versus class-based options for exercise.* PA counselors had lists of community sites that offered physical activity classes for seniors. Both class-based and home-based possibilities were explored; they discussed factors such as preference for group versus individual options, location, costs, schedules, and safety concerns.
- *Goal setting.* If participants seemed ready to begin a new activity, PA counselors discussed current guidelines for endurance, strength, flexibility, and balance. They also discussed an appropriate, step-by-step way to increase physical activity (start light, slowly increase). Participants were asked to think about the overall goal that they wanted to reach by the end of the year and about the small steps they would take to reach that goal.
- *Education around exercise and safety.* PA counselors distributed and reviewed two exercise booklets: *Exercise and Your Heart: A Guide to Physical Activity* (American Heart Association 1993) and *Pep Up Your Life* (American Association of Retired Persons 1994).
- When it was appropriate, staff members also provided handouts including tips developed by the staff nurse on topics such as exercising safely and taking precautions with certain chronic conditions.
- PA counselors explained the importance of moderation, demonstrated the "talk test," showed some modifications of exercises in one of the books, and discussed the "perceived exertion scale."¹²
- PA counselors reviewed a Behavioral Contract designed to help participants come up with a self-selected goal for the following week.
- *Self-monitoring.* Participants were asked to fill out activity logs for at least two weeks out of each month. The forms were designed to provide information to PA counselors for use in telephone support and to function as a feedback mechanism for participants. Staff members

¹² Borg, G. A. V. (1982). Psychophysical bases of perceived exertion. *Medicine and Science in Sports and Exercise*, 14, 377-381.

mailed to participants each month the logs, a stamped, addressed return envelope, and a newsletter.

At the end of the session, PA counselors scheduled a follow-up telephone appointment. They also encouraged participants to sign up for the first workshop about exercise basics, including safety.

NOTE: The materials given to participants were the most relevant and economical available at the time. These materials were given to provide some "self-help" in a written format. Currently, we recommend having the participants obtain the free book: *Exercise: A Guide from the National Institute on Aging*¹³ which is available in English and Spanish.

A Recommendation for Future Programs

The CHAMPS PA counselors recommend that future programs include a follow-up session with high-risk participants and with those not ready to begin exercising. Because the initial session covers so much material, a follow-up session to review key safety issues or concerns, practice more of the self-monitoring skills, and address more thoroughly any special needs for higher risk individuals might be useful. For those not ready to begin exercising, additional one-on-one sessions would have allowed more time to work on behavioral strategies to help participants transition to a point of readiness.

Physical Activity Support Mechanism: Telephone Support

Purpose

- To provide support, motivation, and follow-up for all participants
- To acknowledge participants' readiness to change and adopt appropriate strategies
- To help participants take the steps to reach their goals
- To develop strategies to overcome barriers
- To discuss with participants changes in their medical condition and how these changes can affect physical activity planning

Details

Telephone calling also utilized techniques of "motivational interviewing." As mentioned earlier, this is an approach that acknowledges a person's readiness to change, is nonjudgmental, and encourages participants to make their own choices regarding the next steps in their physical activity planning and the strategies they use for overcoming barriers.

Generally, participants reported that telephone support is an effective strategy for encouraging the development of a regular physical activity program. To accommodate busy schedules, we noted participants' preferred times for receiving phone calls in each participant's folder during the planning session. Sometimes participants were called after business hours. In some cases, phone appointments were scheduled in advance.

Prior to calling, PA counselors reviewed participants' activity logs, notes from their personal planning session (including medical concerns), and notes from previous telephone calls.

¹³ Available from <http://www.nia.nih.gov/exercisebook/>

Structure of Telephone-Based Motivational Support Sessions

Telephone calls followed a general outline, which changed as participants neared the end of the one-year program to focus on relapse prevention and ways to continue being physically active after the program support ended.

See Appendix 11, Telephone Follow-up Form

PA counselors began phone calls with open-ended questions about participants’ physical activity program and overall health and well-being. They listened reflectively to participants’ comments, probed for information about why their individual activity plan may or may not be working for them, and provided positive reinforcement for accomplishments.

Other Topics Discussed by PA counselors

Medical Concerns. PA counselors queried participants about any changes in their medical conditions and about signs and symptoms of exercise intolerance such as new or increased pain related to exercise. (NOTE: Participants brought up a wide range of medical concerns from increased joint pain with strengthening exercises to chest pain with walking). Depending on the PA counselor’s background some situations included:

- Participant should talk to a physician regarding his/her medical concerns.
- Staff exercise physiologist could discuss some questions/concerns regarding a participant’s exercise program. For instance, if a participant felt that certain exercises aggravated his/her arthritis, they could discuss the situation such as the type of arthritis, what exercises the person was doing, and potential modifications that could be tried or whether certain exercises should be avoided (such as during a flare-up of rheumatoid arthritis).
- At times, staff could obtain permission from those with medical concerns related to their exercise program to have the exercise physiologist, nurse, and/or geriatrician work with a participant’s physician for additional recommendations.

Goals, Barriers, and Motivation. PA counselors discussed participants’ recent physical activity based on their returned activity logs. Additionally, they discussed barriers to participants’ activity program and ways to overcome them. Participants were encouraged to problem solve and come up with their own strategies to overcome barriers. When participants were unable to solve their activity problems, PA counselors asked permission to offer solutions that “worked for others,” and then offered participants a menu of options. Other topics included:

- Strategies to resume activity after a medical or personal interruption
- Goal-setting for the following month
- Arrangements for follow-up phone calls and workshop attendance

NOTE: Participants discussed a wide variety of situations with PA counselors. Illness, surgery, and deaths of friends or family members were both major barriers and sometimes major motivators to exercising.

Frequency of Phone Calls

<i>Event</i>	<i>Frequency</i>
Initial telephone call	One time, 1-2 weeks after personal planning session
Months 1-3	Every two weeks
Months 4-12	Monthly

Physical Activity Support Mechanism: Group Workshops

Purpose

- To teach the basics of exercise safety
- To provide information about health and wellness topics using a step-by-step approach, practical experience, and examples of others in the group (modeling)
- To have participants try different types of physical activities under supervision, with staff making appropriate corrections and suggestions
- To have participants practice self-management techniques for overcoming barriers
- To build self-efficacy and provide group support

Format

We conducted 10 monthly workshops formatted as small groups. The workshops provided participants with information about and practical tips on how to do various exercises and how to safely increase physical activity level. The workshops also provided participants with opportunities to exchange ideas with each other.

NOTE: Although the workshops were optional, we strongly encouraged participants to attend the initial workshops.

Specific Workshop Topics & Descriptions of Demonstrations

We present here a brief summary of each of the 10 workshops.

Workshop #1: EXERCISE BASICS	
Goal: To teach basics rules of exercising safely	
Content	Practical Lessons Using Demonstrations and Practice
<ol style="list-style-type: none"> 1. Normal responses to exercise and signs and symptoms of doing “too much” exercise 2. Contraindicated movements 3. Introduction to the different types of exercises (endurance, strength, flexibility, and balance) and their benefits 	<ol style="list-style-type: none"> 1. How to use the rating of perceived effort scale (RPE) and talk test 2. How to do seated/ standing, marching, and arm movements for warm up, cardiorespiratory fitness, and cool down 3. Flexibility exercises <p>Note: Participants met in small groups to discuss overcoming barriers and setting goals.</p>

Workshop #2: STRENGTH AND POSTURE	
Goal: To educate participants about building strength and improving posture	
Content	Practical Lessons Using Demonstrations and Practice
<ol style="list-style-type: none"> 1. How to identify personal motivators 2. Problem solving 3. Importance of posture 4. Benefits of strength training 5. Current recommendations for strength training 6. Key safety issues 	<ol style="list-style-type: none"> 1. Proper posture for sitting, standing, lifting, and carrying objects 2. Strengthening exercises using resistance bands and/or dumbbells 3. Stretching exercises (review from workshop #1) <p>Note: Participants met in small groups to identify personal motivators and practice problem solving.</p>

Workshop #3: WALKING AND HEART RATE CLINIC	
Goal: To practice walking at a safe rate and have fun outdoors.	
(This workshop was held at a local sports track)	
Content	Practical Lessons Using Demonstrations and Practice
<ol style="list-style-type: none"> 1. How to measure heart rate and calculate target heart rate 2. The influence of medications, pacemakers, etc. on heart rate 3. Walking safely (environmental hazards, footwear, etc.) 	<ol style="list-style-type: none"> 1. How to use the rating of perceived effort scale (RPE) and talk test 2. How to measure and calculate heart rate 3. How to properly warm-up and stretch 4. Walking on the track for cardio-respiratory fitness 5. Cool down and post-exercise stretches

Workshop #4: FITNESS FAIR	
Goal: To introduce participants to a wide range of community physical activity classes for older adults	
Content	Practical Lessons Using Demonstrations and Practice
<ol style="list-style-type: none"> 1. Benefits of participating in fitness classes in the community 2. Finding the right class with concerns for cost, location, intensity level, schedule, and format 3. Classes represented included: gentle aerobics, water aerobics, general conditioning, yoga 	<ol style="list-style-type: none"> 1. Several class leaders invited class members to perform typical exercises to demonstrate the nature of the class. 2. CHAMPS participants were invited to try some of the exercises

Workshop #5: IMPROVING BALANCE & PREVENTING FALLS	
Goal: To educate participants about exercises that promote balance and coordination and increase awareness of other factors associated with fall prevention	
Content	Practical Lessons Using Demonstrations and Practice
<ol style="list-style-type: none"> 1. Body mechanics related to balance and fall prevention 2. Facts on falling 3. A Tai chi guest instructor discussed the benefits of tai chi. 4. Staff presented a slide show on factors related to falls 	<ol style="list-style-type: none"> 1. Lower body strength exercises 2. Feet/ankle range of motion exercises 3. Balance and coordination exercises 4. What to do if you fall 5. Tai chi movements 6. How to get safely down to and up from the floor

Workshop #6: FINDING TIME & MOTIVATION FOR PHYSICAL ACTIVITY	
Goal: To help participants evaluate how to fit appropriate physical activity into their daily lives	
Content	Practical Lessons Using Demonstrations and Practice
<ol style="list-style-type: none"> 1. Reframing and considering other points of view to overcoming common barriers 2. Various “tools” to motivate oneself to maintain or increase physical activity 	<ol style="list-style-type: none"> 1. 24 hour personal time study of sedentary and active behavior 2. Participants considered other points of view for overcoming common barriers 3. Participants made a physical activity contract for the next week 4. Participants practiced stretching exercises during “stretch break”

Workshop #7: MAINTAINING/ACHIEVING HEALTHY DIET & BODY WEIGHT	
Goal: to educate participants on healthy approaches to weight management	
Content	Practical Lessons
<ol style="list-style-type: none"> 1. Healthy approaches to losing, gaining, and maintaining body weight 2. Relationship between diet, exercise, and weight control 3. Nutritional needs of older adults 4. Reading food labels 	<ol style="list-style-type: none"> 1. A game comparing food labels 2. A group discussion to identify two personal eating modifications that would lead to a healthier diet

Workshop #8: MANAGING YOUR STRESS RESPONSE

Goal: to help participants identify and manage their responses to stressors

Content	Practical Lessons
<ol style="list-style-type: none"> 1. Physical responses to stress 2. Methods to modify the stress response 	<ol style="list-style-type: none"> 1. 10 minute stretch break 2. Relaxation exercises 3. Note: Participants met in small groups so that they could discuss their personal stressors based on homework assignments.

Workshop #9: EXERCISE OPTIONS & PROGRESSION

Goal: to help participants develop strategies for incorporating regular physical activity into their daily lives and progressing toward individual goals.

Content	Practical Lessons
<ol style="list-style-type: none"> 1. Ways to adapt exercise routines to meet personal needs and to keep exercise safe including proper body mechanics and effort level 2. Relationship of person’s current exercise program vs. optimal program for reaching personal goals 3. Ways to progress and to continue developing exercise program 	<ol style="list-style-type: none"> 1. Identify correct and incorrect exercise techniques including body alignment in an assortment of exercise videos 2. Follow and adapt for oneself the exercises shown in various exercise videos 3. Try some basic folk dancing steps (guest instructor)

Workshop #10: YEAR 1 UPDATE & REVIEW OF PERFORMANCE SCORES

Goal: to discuss individual results and present aggregate findings at the end of the program year.

Content	Practical Lessons
<ol style="list-style-type: none"> 1. A review of Year 1 CHAMPS program and options for Year 2 2. Interpretation of individual data summaries from baseline, 6-month, and 1-year functional fitness assessments 3. Research findings that were presented at various conferences in a poster format 	<ol style="list-style-type: none"> 1. Reviewed functional fitness assessment summaries in relation to their own physical activity regimen

Physical Activity Support Mechanism: Monthly Newsletters

Purpose

- To provide participants with the latest information about physical activity
- To reinforce information provided during workshops
- To remind participants of workshop dates and topics, upcoming program events, and/or related presentations at the medical group
- To keep participants interested in the program and their own physical activity and help them feel part of an organized program
- To motivate participants with stories of individual participants' successes and challenges

Details

The newsletters were sent out by mail each month with the activity log. This monthly mailing provided regular contact with the participants. Staff members often added brief hand-written notes to the newsletter. In addition to the above, the newsletters' content included myth busters and tips of the month about exercise and health. We endeavored to make the newsletter understandable to participants with a range of reading levels. To this end, the format included pictures, logos, cartoons, large print and plain font styles, and also was printed with high contrast (black text on very light colored paper) and limited to two sides of one page.

See Appendix 12: Sample Newsletter

Physical Activity Support Mechanism: Activity Logs

Purpose

- To enable participants to self-monitor their physical activities
- To help participants set personal goals
- To facilitate PA counselors' telephone support discussions with participants about their goals and their progress in achieving their goals

Details

Participants recorded their physical activities in logs during one 2-week period each month. The initial (baseline) log was completed prior to the personal planning session. During the planning session, PA counselors reviewed the first log for accuracy. During the year, logs were mailed to participants each month along with the newsletter, workshop announcements, and a cover letter with personal notes.

See Appendix 9, Activity Log, and Appendix 10, Activity Log Tips

Use of Activity Logs by PA Counselors

- Activity logs were used during telephone support calls to compare participants' current and past levels of activity and to discuss with participants their success in meeting their goals for that time period.

- Prior to mailing the blank logs, PA counselors usually wrote motivational notes on the logs of participants who were difficult to reach by phone or who seemed to need some additional support.

Challenges of Using Activity Logs

PA counselors found that it was often difficult for participants to quantify the amount of physical activity they performed. For example, many participants reported that they were “busy” all day and regarded as “physical” some sedentary activities such as “driving the car to the supermarket.” Also, a few participants did not fill out the logs and/or did not return them in a timely manner. In these cases the information was collected by phone.

NOTE: Although some participants felt that completing activity logs was a burdensome task, others reported that the logs provided motivation to stay active.¹⁴

¹⁴ Gillis, D. E., Grossman, M. D., McLellan, B. Y., King, A. K., & Stewart, A. L. (2002). Participant's evaluations of program components of a physical activity promotion program for seniors (CHAMPS II). *Journal of Aging and Physical Activity*, 3, 336-353.
