

Title of Intervention: Project Active

Intervention Strategies: Group Education, Individual Education, Supportive Relationships

Purpose of the Intervention: To improve physical activity, cardiorespiratory fitness and cardiovascular disease risk factors

Population: Sedentary adults

Setting: Dallas, Texas; community-based, home-based

Partners: The Cooper Institute

Intervention Description: Participants in both groups received 6 months of intensive intervention

- **Group Education:** Participants randomized to the structured exercise group attended group aerobic classes. Participants randomized to the lifestyle group met in small groups to learn cognitive and behavioral strategies related to physical activity behavior. Group meetings consisted of a variety of activities that included a mall walk, orienteering, volleyball and a life-size board game designed to reinforce cognitive and behavioral skills.
- **Individual Education:** Participants randomized to the structured exercise group attended individual supervised sessions, set physical activity goals, monitored their physical activity with help from a group leader and individualized their programs among all activities available at the center. Participants randomized to the lifestyle group were advised to exercise most days of the week in a way uniquely adapted to each person's lifestyle. Participants were assessed on Stages of Change each month. They were given an intervention manual tailored for their level of readiness along with weekly home assignments aimed at enhancing behavioral skills and problem solving. Both groups received a monthly activities calendar and a quarterly newsletter on the benefits of activity and research findings related to physical activity.
- **Supportive Relationships:** Participants randomized to the structured exercise group received verbal reinforcement from group leaders. Participants were contacted and encouraged to return to a regular schedule of exercise when they failed to attend at least one session per week.

Theory: Social Cognitive Theory, Stages of Change Model

Resources Required:

- **Staff/Volunteers:** Exercise physiologist, nutritionist, clinical psychologist, health educator, trained staff to gather measurements, research staff to analyze results, group facilitators
- **Training:** Not mentioned
- **Technology:** Computer-based exercise logging system
- **Space:** Space for weekly classes
- **Budget:** The overall cost was \$33,778.53 for the lifestyle intervention and \$130,123.41 for the structured intervention. At 6 months, the costs were \$46.53 per participant per month for the lifestyle intervention and \$190.24 per participant per month for the structured intervention. At 24 months, the costs were \$17.15 per month for lifestyle and \$49.31 per month for structured.
- **Intervention:** Motivational readiness manuals, lifestyle manuals, mail reminders, postage for reminder cards, health club membership, pedometer, monthly activities calendar, quarterly newsletters, weekly home assignments
- **Evaluation:** Medical history questionnaires, telephones, cholesterol and lipid testing equipment, blood pressure equipment, scale, stadiometer, body fat analyzer, database and data management, Stages of Change assessment

Evaluation:

- **Design:** Randomized clinical trial
- **Methods and Measures:**
 - 7-Day Physical Activity Recall and peak oxygen consumption by a maximal exercise treadmill test were used to assess physical activity

- Plasma lipid and lipoprotein cholesterol concentrations, blood pressure, body composition by skin fold measurements, height and weight were measured
- Medical history questionnaires
- Stage of change was assessed monthly in the lifestyle group

Outcomes:

- Short Term Impact: Both groups had significantly increased their physical activity and cardiorespiratory fitness at 6 months and 24 months. At 6 months, the structured exercise group had increased their cardiorespiratory fitness significantly more than the lifestyle group. At 6 months, both groups had similar significant improvements for ratio of total cholesterol level to high-density lipoprotein cholesterol level, systolic and diastolic blood pressure and percentage body fat. At 24 months, there were no significant differences between groups.
- Long Term Impact: Not measured

Maintenance: Eighteen months of maintenance intervention activities were provided.

Lessons Learned: The principal finding from this study is that both the lifestyle physical activity and the structured exercise program interventions produced significant and comparable beneficial changes in physical activity, cardiorespiratory fitness, blood pressure and percentage of body fat for the group of previously sedentary healthy adults. The results of this study also demonstrate that the lifestyle intervention is as effective as the structured exercise program and is more cost-effective in achieving the desired outcomes among healthy sedentary adults.

Citation(s):

Dunn, A. L., B. H. Marcus, et al. (1997). "Reduction in cardiovascular disease risk factors: 6-month results from Project Active." *Prev Med* 26(6): 883-92.

Dunn, A. L., M. E. Garcia, et al. (1998). "Six-month physical activity and fitness changes in Project Active, a randomized trial." *Med Sci Sports Exerc* 30(7): 1076-83.

Dunn, A. L., B. Marcus, et al. (1999). "Comparison of Lifestyle and Structured Interventions to Increase Physical Activity and Cardiorespiratory Fitness: A Randomized Trial." *JAMA* 281(4): 327-334.

Sevick, M. A., A. L. Dunn, et al. (2000). "Cost-effectiveness of lifestyle and structured exercise interventions in sedentary adults: results of project ACTIVE." *Am J Prev Med* 19(1): 1-8.

Smolander, J., S. N. Blair, H. W. Kohl. (2000). "Work Ability, Physical Activity, and Cardiorespiratory Fitness: 2-year Results From Project Active." *JOEM* 42(9): 906-910.