

Title of Intervention and Website: Lifestyle and structured interventions to increase physical activity and cardio-respiratory fitness

Intervention Strategies: Individual Education, Group Education, Environments and Policies

Purpose of the Intervention: To improve physical fitness, cardio-respiratory fitness, and reduce cardiovascular disease risk factors by increasing exercise and making lifestyle changes

Population: Sedentary adult men and women

Setting: Community-based

Partners: None mentioned

Intervention Description:

Participants were randomized into two groups: structured exercise group or lifestyle group. Both groups received 6 months of intensive intervention and 18 months of maintenance intervention.

- Individual Education: *Structured Exercise Group*: individual supervised sessions were offered five days a week for six months at a fitness center. Participants were initially encouraged to start with three meetings and work up to five meetings a week. After three weeks of initial instruction participants were encouraged to identify activities that they most enjoyed and individualized their programs among all the activities available at the fitness center. *Lifestyle Group*: Facilitators worked with participants using a problem solving approach to discuss cognitive and behavioral strategies to help them initiate, adopt, and maintain physical activity. Participants were given an intervention manual tailored for their level of readiness.
- Group Education: *Lifestyle Group*: Participants met in small groups for an hour one night a week for the first 16 weeks. Participants learned cognitive and behavioral strategies found to be 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.
- Environments and Policies: Participants in the structured exercise group were provided free membership to a state of the art fitness center

Theory: Social cognitive theory; Stages of Change

Resources Required:

- Staff/Volunteers: group meeting facilitators and personal trainers
- Training: not mentioned
- Technology: computer and printer
- Space: class room and gym space
- Budget: not mentioned
- Intervention: fitness club memberships, educational materials, and calendars
- Evaluation: 7 day physical activity recall survey, treadmill, access to laboratory tests and statistical software

Evaluation:

- Design: Randomized control trial
- Methods and Measures: Physical activity was assessed by the 7-day physical activity recall and peak oxygen consumption by maximal exercise treadmill test. Secondary outcomes were plasma lipid and lipoprotein cholesterol concentrations, blood pressure, and body composition. All measures were obtained at baseline, and at 6 and 24 months.

Outcomes:

- Short Term Impact: not mentioned
- Long Term Impact: Both the lifestyle and structured exercise group produced significant beneficial changes in physical activity, cardio-respiratory fitness, blood pressure, and percentage of body fat.

Maintenance: All participants received monthly activity calendars, quarterly newsletters on current activities and research findings on the importance of physical activity. *Structured Exercise Group:* for a maintenance period of 18 weeks the group met quarterly for group meetings and activities. *Lifestyle Group:* participants met bi-weekly in groups for a maintenance period of 8 weeks.

Lessons Learned: Health care professionals who were counseling their patients about physical activity could provide options beyond traditional fitness center-based recommendations since there were no significant changes between the lifestyle and structured exercise group. Counseling patients to fit moderate-intensity activity into daily life may have significant health benefits and could aid public health efforts to reduce the prevalence of sedentary lifestyles.

Citation(s):

Dunn AL, Marcus BH, Kampert JB, Garcia ME, Kohl HW, 3rd, Blair SN. Comparison of lifestyle and structured interventions to increase physical activity and cardiorespiratory fitness: a randomized trial. *Jama* 1999;281(4):327-34.