

Rationale and design of the Rockford CHIP, a community-based coronary risk reduction program: results of a pilot phase

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Abstract

PURPOSE:

While residential lifestyle intervention programs have demonstrated coronary risk reduction through education, diet, and exercise, this pilot study was designed to assess the feasibility of a community-based lifestyle intervention program that is both affordable and effective in facilitating better lifestyle choices and health habits and thus effecting indicators of better clinical outcomes.

MATERIALS AND METHODS:

A 40-h educational curriculum, delivered over a 30-day period with clinical and nutritional assessments before and after, was offered through the SwedishAmerican Center for Complementary Medicine to the general public. The participants were instructed to exercise 30 min/day and to embrace a more optimal diet (ad libitum) of largely unrefined plant foods high in complex carbohydrates and fiber, yet quite low in fat (<15%), animal protein, sugar, and salt, and virtually free of cholesterol.

RESULTS:

Of the 250 enrollees, 242 "graduated" (78 men and 164 women; almost all Caucasian; mean age 54 +/- 12 years). They had coronary artery disease (CAD) (12%), diabetes (16%), hypertension (55%), most were overweight (88%), and the majority (79%) had low-density lipoprotein (LDL) levels ≥ 100 mg%. At 4 weeks, stratified analyses of total cholesterol (TC), LDL, triglycerides (TG), blood glucose, blood pressure, and weight showed that those at highest risk also had the greatest improvements. Depending on baseline levels, TC means dropped 10-23% in men and 6-13% in women. At the same time, LDL means declined 5-30% in men and 6-14% in women. In TG, the

biggest drop (48%) was found in men who at baseline were in the highest risk category (in women, the biggest TG drop was 32%).

CONCLUSION:

Community-based intervention strategies can be successfully and affordably utilized to lower coronary risk factor levels in a self-selected, free-living population. The true test, however, will be to what extent social infrastructures can be modified and alumni activities sustained to facilitate long-term adherence and sustained benefits.