

**Title of Intervention:** Change of Heart

**Intervention Strategies:** Provider Education, Individual Education, Supportive Relationships

**Purpose of the Intervention:** To modify risk factors for cardiovascular disease

**Population:** Participants between 18 and 69 years of age at increased risk of coronary heart disease, primary care nurses

**Setting:** Large primary care practices within the South Thames region of the United Kingdom; health care facility-based

**Partners:** Family Health Services Authorities, Department of General Practice at St. George's Hospital Medical School, Health Education Authority Primary Care Unit

**Intervention Description:**

- **Provider Education:** One nurse from each intervention health care facility was trained in the new form of counseling. Nurses were trained by a multidisciplinary team with input from psychologists, primary care providers and experts in smoking cessation and exercise. Training included two and a half days on counseling and a half-day on study protocol. Nurses were trained to recognize stage of change and were given resources to enable and encourage change.
- **Supportive Relationships:** Trained nurses invited patients to two to three counseling sessions depending on the number of risk factors. Patients were counseled to reduce dietary fat intake, increase consumption of fruit and vegetables, stop smoking and increase physical activity. Smoking counseling was supported by nicotine replacement therapy when appropriate. The nurse contacted the patient by telephone in order to encourage behavior change.
- **Individual Education:** Intervention participants were given individualized advice. The order in which risk factors were addressed was determined after negotiation between the nurse and patient.

**Theory:** Stages of Change Model

**Resources Required:**

- **Staff/Volunteers:** Trained practice nurses, multidisciplinary training team (psychologists, primary care providers and experts in smoking cessation and exercise)
- **Training:** Not mentioned
- **Technology:** Not mentioned
- **Space:** Training space, counseling space
- **Budget:** Practices were paid for two hours of nurse time per week throughout the intervention
- **Intervention:** Manual for teaching nurses, nicotine replacement therapy
- **Evaluation:** Scale, measuring tape, blood sample for lipid profile, blood pressure cuff, physical-activity measure, family history, questionnaires for dietary fat and exercise self-efficacy, records of patient contacts and targets for advice, Fagerstrom Test for Nicotine Dependence

**Evaluation:**

- **Design:** Cluster randomized controlled trial
- **Methods and Measures:**
  - All general practitioners and practice nurses completed a questionnaire to assess attitudes to cardiovascular health promotion
  - Patients underwent physical assessments including height, weight, BMI, cholesterol, smoking status, cigarette consumption, brief physical activity measure, blood pressure, family history
  - Patients completed questionnaires assessing readiness related to smoking, dietary fat intake and physical activity
  - Likelihood of succeeding in behavior change was tested by measuring self-efficacy
  - Fagerstrom Test for Nicotine Dependence

**Outcomes:**

- Short Term Impact: Positive trends were found for dietary fat intake, regular exercise and cigarettes smoked per day at 4 and 12 months. Systolic blood pressure was reduced to a greater extent in the intervention group at 4 but not at 12 months.
- Long Term Impact: Not measured

**Maintenance:** A refresher course was given to nurses after six months.

**Lessons Learned:** The behavioral counseling was relatively brief and was incorporated into routine general practice activity in hopes of making the results generalizable to a variety of primary care settings. The study was successful in its primary aim of showing that brief counseling on the basis of the systematic application of behavioral principals is more effective in stimulating lifestyle modification than is the conventional counseling and advice provided in general practice.

**Citation(s):**

Steptoe, A., S. Doherty, et al. (1999). "Behavioural counseling in general practice for the promotion of healthy behavior among adults at increased risk of coronary heart disease: randomized trial." *BMJ* 319(7215): 943-7; discussion 947-8.

Hilton, S. (1999). "Promotion of healthy behaviour among adults at increased risk of coronary heart disease in general practice: methodology and baseline data from the Change of Heart study." *Health Education Journal* 58: 3-16.