Behavioural intervention to increase physical activity among patients with coronary heart disease (CHD): randomised controlled trial

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Background: Patients with CHD often do not follow prescribed physical activity recommendations.

Aim: To assess the efficacy of behavioural intervention to increase physical activity in patients not attending structured cardiac rehabilitation programmes.

Design: Randomised controlled trial comparing 6 month multi-component behavioural change intervention (n=85) with usual care (n=71). Intervention included face-to-face individualised consultation and telephone support (for goal-setting, feedback and self-monitoring) and reminder text messages.

Setting: Two hospitals in Jordan, Middle East.

Participants: 156 patients with CHD (mean age 57.5 years; 54% male, 46% female).

Measurements: Outcomes measured at baseline and 6 months. Primary outcome was physical activity. Secondary outcomes were blood pressure, body mass index, exercise self-efficacy and health-related quality of life.

Findings: Intervention and control groups were comparable at baseline. Moderate PA significantly increased in intervention group compared with control group (mean change (SD) of frequency: 0.23 (0.87) days/week versus -.06 (0.40), duration: 15.53 (90.15) minutes/week versus -3.67 (22.60) minutes/week and intensity: 31.05 (105.98) Metabolic equivalents (METs) versus 14.68 (90.40) METs. Walking significantly increased in the intervention group compared with control group (the mean change (SD) of frequency: 3.15 (2.75) days/week versus 0.37 (1.83) days/week, duration: 150.90 (124.47) minutes/week versus 24.05(195.93) minutes/week and
Intensity: 495.12 (413.74) METs versus 14.62 (265.06) METs. Intervention participants had significantly lower blood pressure, lower body mass index, greater exercise self-efficacy and better health-related quality of life compared with controls.

**Conclusions:** Multi-component behavioural intervention increases physical activity, improves body composition and improves psychological outcomes in CHD patients not attending structured rehabilitation programmes.