

Effects of a Telephone-Delivered Multiple Health Behavior Change Intervention (CanChange) on Health and Behavioral Outcomes in Survivors of Colorectal Cancer: A Randomized Controlled Trial

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Abstract

Purpose Colorectal cancer survivors are at risk for poor health outcomes because of unhealthy lifestyles, but few studies have developed translatable health behavior change interventions. This study aimed to determine the effects of a telephone-delivered multiple health behavior change intervention (CanChange) on health and behavioral outcomes among colorectal cancer survivors.

Methods In this two-group randomized controlled trial, 410 colorectal cancer survivors were randomly assigned to the health coaching intervention (11 theory-based telephone-delivered health coaching sessions delivered over 6 months focusing on physical activity, weight management, dietary habits, alcohol, and smoking) or usual care. Assessment of primary (ie, physical activity [Godin Leisure Time Index], health-related quality of life [HRQoL; Short Form-36], and cancer-related fatigue [Functional Assessment of Chronic Illness Therapy Fatigue Scale]) and secondary outcomes (ie, body mass index [kg/m^2], diet and alcohol intake [Food Frequency Questionnaire], and smoking) were conducted at baseline and 6 and 12 months.

Results At 12 months, significant intervention effects were observed for moderate physical activity (28.5 minutes; $P = .003$), body mass index ($-0.9 \text{ kg}/\text{m}^2$; $P = .001$), energy from total

fat (-7.0% ; $P = .006$), and energy from saturated fat (-2.8% ; $P = .016$). A significant intervention effect was reported for vegetable intake (0.4 servings per day; $P = .001$) at 6 months. No significant group differences were found at 6 or 12 months for HRQoL, cancer-related fatigue, fruit, fiber, or alcohol intake, or smoking.

Conclusion The CanChange intervention was effective for improving physical activity, dietary habits, and body mass index in colorectal cancer survivors. The intervention is translatable through existing telephone cancer support and information services in Australia and other countries.