

A pilot study: 12-week exercise intervention for cancer survivors; the impact on diet quality and anthropometric measures

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Introduction: Obesity is a major contributing factor to chronic disease development and cancer reoccurrence. However, there is limited data on the impact of programs on dietary practices and anthropometric measures of cancer survivors.

Objectives: To assess the effect of a 12-week group exercise program on diet quality and anthropometric measures.

Methods: Adult cancer survivors (n = 35) were recruited to participate in a 12-week exercise program. Assessments at baseline and at 12-weeks measured anthropometric measures, handgrip strength (an index of muscle function and protein status), physical fitness, and lifestyle factors.

Results: Retention rate was 71% (n=25), all participants were female. Mean BMI was $31.4 \text{ kg/m}^2 \pm 7.1$. Mean waist circumference was 104.0 ± 13.5 cm. Participants rated their frequency of consuming a balanced diet as “fairly often” (4 on a 5-point scale from almost never to almost always) and on average often eating an excess of two of 4 choices to limit assessed (sugar, or, salt, or animal fats, or junk food). At 12 weeks there was a small but statistically significant reduction in mean weight (1.2 ± 1.9 kg), and waist circumference (5.1 ± 5.1 cm). Handgrip strength increased from a mean health benefit rating of good to very good. Participants additionally reported that they reduced their consumption of excessed foods by one choice.

Conclusion: A 12-week exercise intervention has a small but statistically significant impact on some dietary measures. Cancer survivors perceive their diets to be balanced, however they report consuming some foods in excess and the majority were not in a healthy weight range. Studies exploring the long-term impact of exercise on nutritional outcomes and further exploration into the dietary intake of cancer survivors are required.

Significance: Exploring outcomes beyond diet such as grip strength and anthropometric measures can be used by Registered Dietitians to improve health of cancer survivors.