

Cancer rehabilitation: The efficacy of recovery monitoring

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With over 12 million cancer survivors in the United States alone, enhancing recovery and mitigating long-term and late effects of cancer treatment are paramount to enhance quality of life and reducing fatigue, which is the most common and disturbing side effect of cancer.

Objectives: The purpose was to test the effects of the Cancer Fitness Fundamentals exercise (CFF) program (CFF) and Restwise recovery system awareness on fatigue, aerobic capacity, muscle strength, flexibility, balance, and quality of life.

Design: Sixty(60) cancer survivors consented to participate in a 12-week intervention and were randomly assigned to either CFF or CFF + Restwise. Restwise is an online athlete recovery assessment tool designed to help athletes avoid overtraining. The program requires users to input daily physiological, psychological and performance ratings. Restwise compiles the data and provides a daily recovery score individualized with guidance and recommendations to modify an optimal training load.

Methods: Pre- and post-test measures included 6-minute walk, arm reach, single-leg-stance and PROMIS-29 measures.

Results: All subjects improved on physical fitness outcome measures ($p < 0.05$). The CFF+Restwise group demonstrated significantly greater improvements than CFF on 6-minute walk ($p < 0.03$), leg and arm strength ($p < 0.01$), balance ($p < 0.02$), fatigue ($p = 0.005$), physical function ($p = 0.002$), depression ($p < 0.25$) and social role ($p = 0.014$).

Conclusion: While exercise is known to reduce fatigue, the combination of exercise and recovery awareness appears to improve fatigue in cancer survivors better than exercise alone. Restwise may help cancer survivors appreciate the benefits of exercise by reducing fatigue and improving physical fitness and quality of life.

Biography

Anna L. Schwartz Ph.D., FNP, FAAN earned her doctoral degree from University of Utah in 1997. Her program of research focuses on exercise rehabilitation for cancer survivors. She is the author of *Cancer Fitness: Exercise program for patients and survivors* (Simon & Schuster 2004) and has over 80 peer-reviewed publications. She serves on review committees for National Institutes of Health, numerous journals, is a member of the American Cancer Society Executive Board on Nutrition and Physical Activity for cancer prevention and survivorship, and is an advisor to the Y-USA and LIVESTRONG.

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