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# Point in Time the FitSTEPS for Life Exercise Program Improves Quality of Life of Persons with Cancer

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# Point in Time the FitSTEPS for Life Exercise Program Improves Quality of Life of Persons with Cancer



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## Introduction

Exercise has demonstrated beneficial physical and psychological effects and improved quality of life (QOL) for persons with cancer. Most studies have been limited to early stage disease, focused on women with breast cancer, and been conducted over time frames of 6-12 weeks. It is not clear how soon the benefits of exercise are evident. The purpose of this study was to establish a point in time that exercise influences QOL in cancer survivors.

## Materials and methods

Bandura's Social Cognitive Theory was used to guide this longitudinal, quasi-experimental study. Over a one-year period, physicians referred 1,272 persons with cancer to participate in an individualized program of exercise at one of 14 community centers. Exercise was prescribed and monitored by specially trained staff using evidence-based policies and procedures. The SF-8 Health Survey, 1-Week Recall was used to assess QOL. Data collection took place at baseline, 1, 2, 3, 6, 9, and 12-months.

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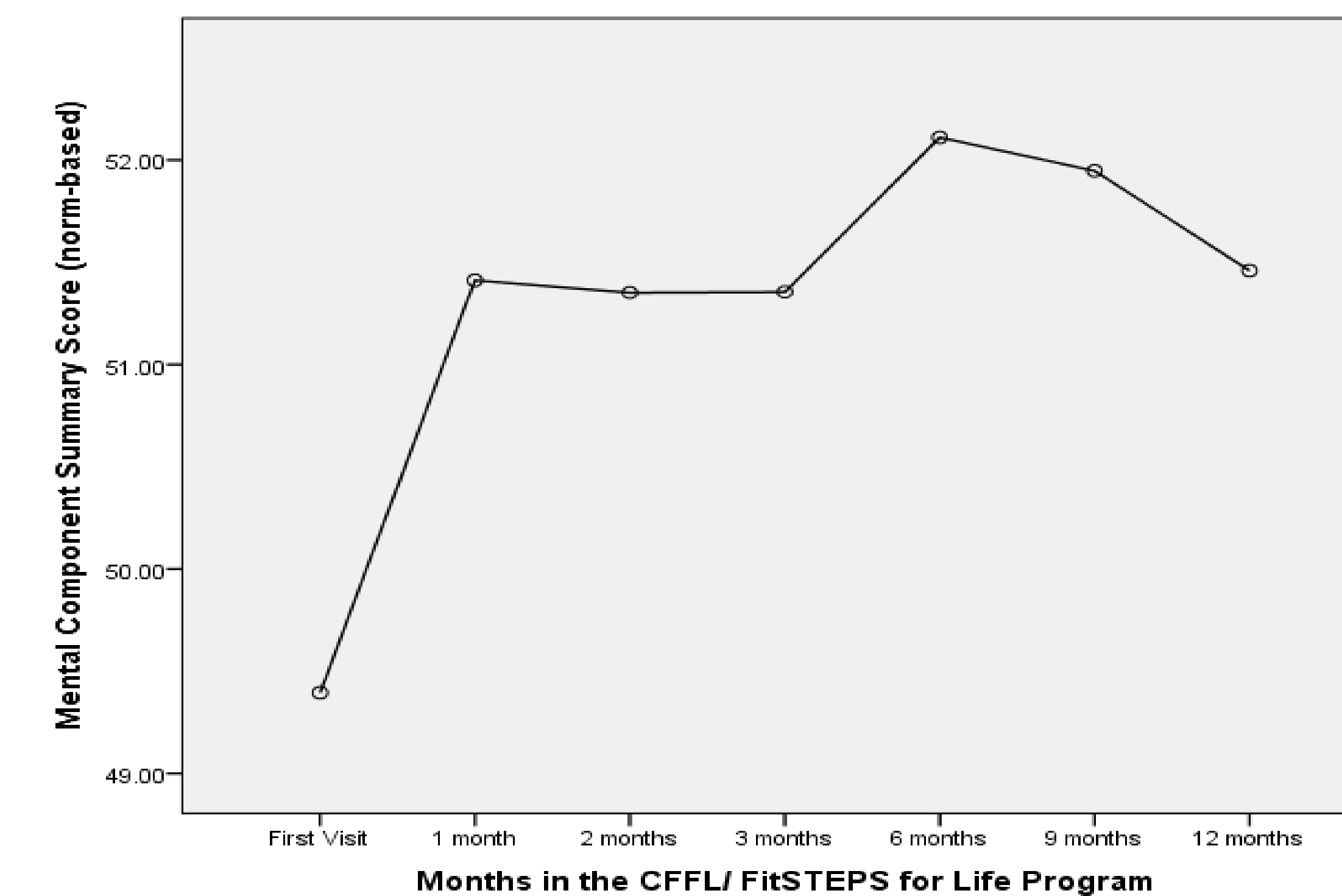
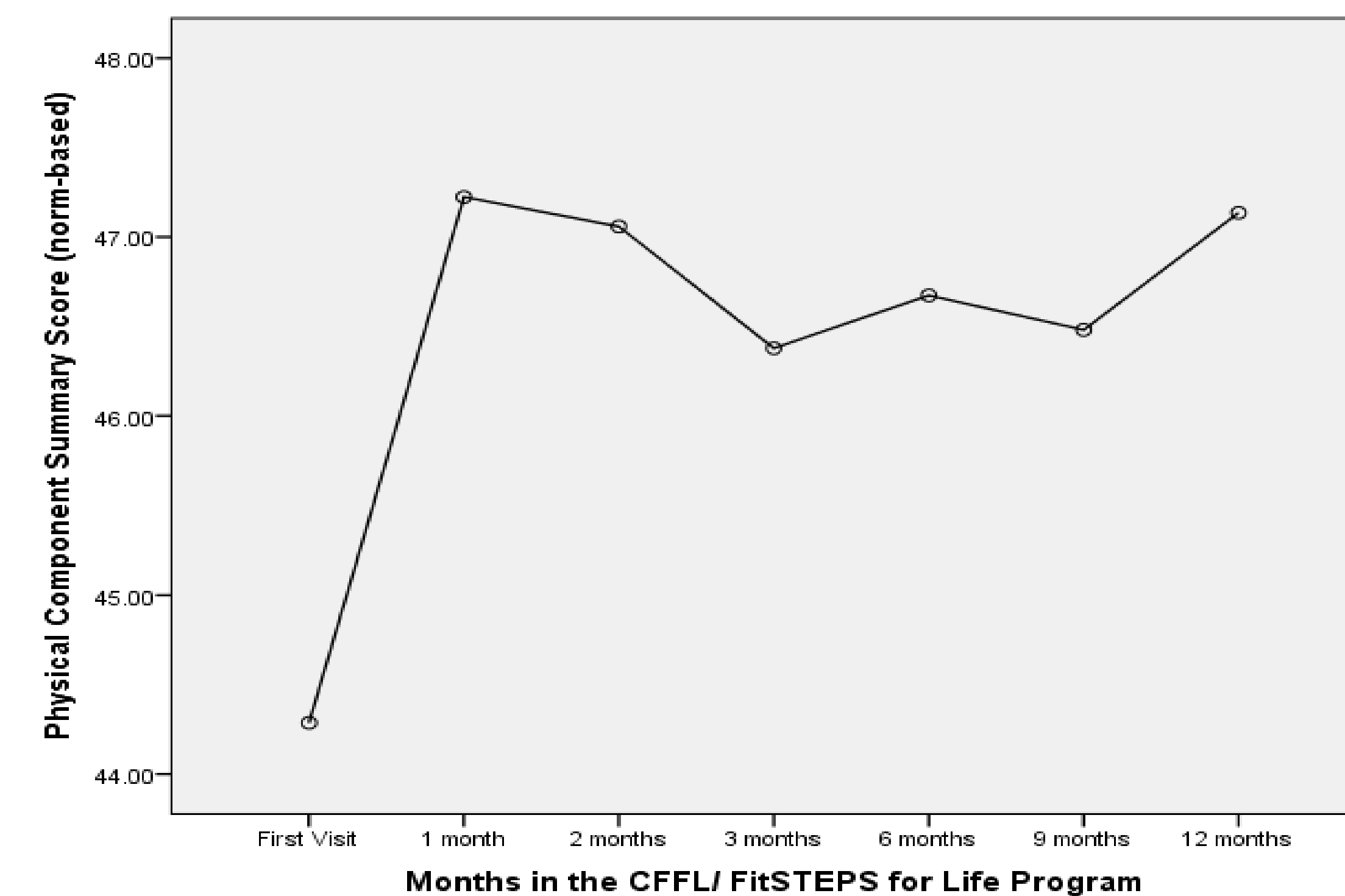
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## Results

Over a one-year period, 1,272 patients were referred to the FSFL program and came for an initial evaluation and consultation. Of those, 1017 (80%) elected to participate in the program. The demographic profiles of those agreeing to participate and those refusing were similar. There were no significant differences between the groups on gender, race, ethnicity, marital status, activity level, education, financial status.

- Those refusing to participate were more likely to have children under the age of 18 living at home (chi square = 6.42,  $p < .01$ ) and were more likely to be employed (chi square = 33.21,  $p < .01$ ).
- Of the 1,019 agreeing to participate, all cancer types were represented; the majority of participants had breast (50%), prostate (6%), colorectal (7%), lymphoma (6%), or lung (5%).
- Persons at all stages (I = 22%; II = 22%; III = 15%; IV = 11%; unknown = 30%) participated in the program.
- Nearly 70% of participants had one or more co-morbid conditions (e.g. heart disease, diabetes, arthritis) and 9% required an assistive device (walker, cane, or wheelchair) for mobility.
- Twenty nine percent were actively receiving cancer treatment (radiation and/or chemotherapy).
- Attrition was observed at various data collection points with the largest percentage withdrawing the first month.



## Conclusions

This research suggests the effectiveness of a long-term community-based program of individualized exercise improves QOL for persons with all types and stages of cancer in the initial month of participation. Improvements appear to be sustainable for an extended time.

Results from this longitudinal study suggest that improvements in QOL occur within the first month of the exercise program. The advances include greater mental and physical scores using the SF-8 instruments. Based on previous research by Holmes et al.,<sup>1</sup> Irwin et al.,<sup>2</sup> and Myerhardt et al.<sup>3</sup> it is possible the program will also maximize survival time, though this was not a measured outcome in this study. Results of this study extend the current research supporting exercise for cancer patients<sup>4-6</sup> to include those with more advanced stage cancers and co-morbidities.

Results of this study also have implications for practice and health policy. Health care providers caring for persons with cancer are advised to refer patients to exercise programs and to encourage patients to be active throughout all phases of cancer treatment and beyond. When possible, referral to a program specializing in exercise for cancer survivors is recommended. Health policy change is needed to require financial support for persons with cancer to exercise in a supervised setting. The evidence suggests exercise is safe and effective for all cancer survivors, regardless of type, stage, or co-morbidities. It is time to incorporate exercise as a standard of care for every cancer survivor.