

Can Digital Interventions Provide Similar Supports for Exercise as Face-to-Face Interventions?

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INTRODUCTION

Previous exploration of intermittent exercise programming delivered to cancer survivors via a face-to-face (FTF) format has lasting psychosocial benefits up to a year. One explanation for these findings may be in the support network developed in FTF exercise programs. In 2020, COVID 19 offered an opportunity to explore whether exercise programming delivered in a digital format could replicate similar outcomes.

PURPOSE

The purpose of this pilot study is to describe the psychosocial outcomes of cancer survivors who participated in multiple years, comparing outcomes from a digital format to a FTF format the year prior.

METHODS

- This comparative case study describes 3 female cancer survivors who participated in exercise programming for at least 2 years.
- Students engaged with participants for 6-8 weeks FTF or in digital format using Collaborate or Zoom platforms.
- Psychosocial measures were compared pre-post programming between year 1 FTF and year 2 digital.
- **Psychosocial Measures:** Self-Efficacy for Exercise (SEE), Quality of life Functional Assessment of Cancer Therapy-General (FACT-G), and Exercise Benefits/Barriers Scale (EBBS – Barriers only)

Table 1: Participant Characteristics (all data from start of year 1)

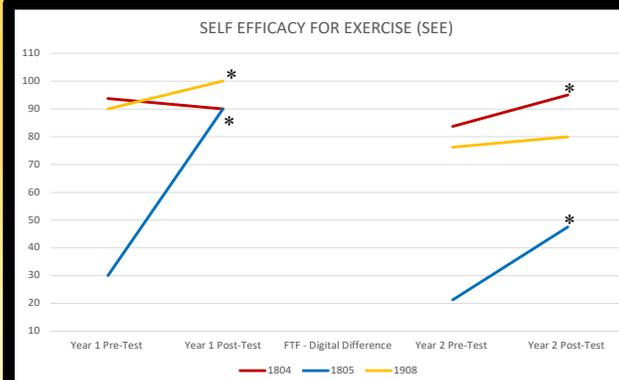
	1804	1805	1908
Cancer Type	BRCA	CML	BRCA
Age	48	60	65
Years Since Dx	1.5	7	13
Treatments Received	S/C/R	C	S/R/B
Active Tx Yr1/Yr2	N/N	Y/N	N/N

*S: Surgery; C: Chemotherapy; R: Radiation therapy; B: Biologics

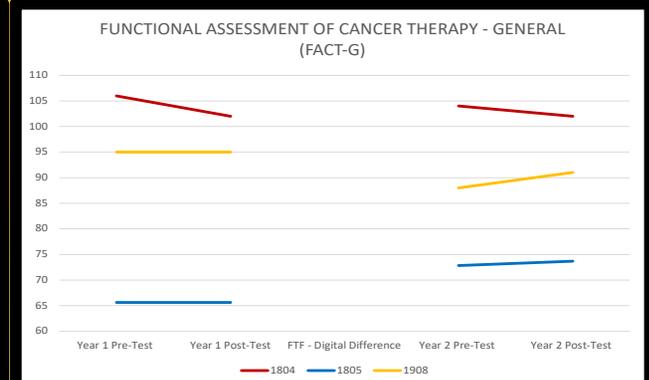
References:

- ¹Alt, CA & Zalewski, KR, Psychosocial and physical outcomes in cancer survivors following multi-year structured physical activity programming: Case series Poster at WPTA, Wisconsin Dells, WI. October 4, 2018.
²Santarossa, S, Kane, D, Senn, CY, & Woodruff, SJ. Exploring the role of in-person components for online health behavior change interventions: Can a digital person-to-person component suffice? Journal of Medical Internet Research. (2018) 20:4, 1-11.

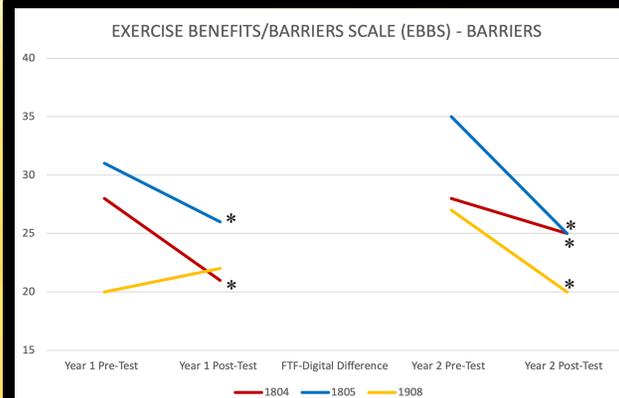
RESULTS



Graph 1: Self Efficacy for Exercise (%)



Graph 2: Functional Assessment of Cancer Therapy - General



Graph 3: Exercise Benefits/Barriers Scale (Barriers)

		Self-Efficacy for Exercise (%)	FACT-G (Total Score)	Exercise Benefits/Barriers Scale (Barriers)
1804	Pre FTF	93.75	106	28
	Post FTF	90	102	21*
	Pre Digital	83.75	104	28
	Post Digital	95*	102	25*
1805	Pre FTF	30	65.6	31
	Post FTF	90*	65.6	26*
	Pre Digital	21.25	72.83	35
	Post Digital	47.5*	73.67	23*
1908	Pre FTF	90	95	20
	Post FTF	100*	95	22
	Pre Digital	76.3	88	27
	Post Digital	80	91	20*

Table 2: FTF to Digital Comparison

* = Met MCID

DISCUSSION

Psychosocial outcomes of an exercise program appear similar whether the program is delivered FTF or digitally. This suggests human supported digital platforms could be a viable option for those with barriers to FTF access. Psychosocial limitations/barriers to behavior change are an important part of success of an exercise program intervention and thus must be addressed. The ability to address these barriers in either FTF or digital formats may increase options available to providers.

CONCLUSION/CLINICAL RELEVANCE

This research describes an opportunity for use of digital programs to address psychosocial limitations/barriers to exercise participation.