

Comparing PROMIS® Tools and FACT-G in a Randomized Digital Health Coaching Trial of Cancer Survivors

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BACKGROUND:

- Cancer survivorship is multifaceted, with survivors living longer due to treatment advancements.
- Lifestyle factors play a critical role in survivors' quality of life.
- The Comprehensive Outcomes for After Cancer Health (COACH) study is a multicenter trial assessing the feasibility of a 12-week digital health coaching (texts, email, and phone) intervention on lifestyle factors for individuals within 1 year of primary treatment completion (NCT05349227).

RESEARCH DESIGN:

- The study used a randomized wait-list control design with a 6-month intervention period.

OBJECTIVE OF THIS ANALYSIS:

- The objective was to compare the performance of three Patient-Reported Outcomes Measurement Information System (PROMIS®) tools to Functional Assessment of Cancer Therapy – General (FACT-G) subscales in a primarily Midwestern sample of breast cancer survivors to guide future measure selection.

ANALYSIS:

- Descriptive statistics and t-tests of 3- and 6-month change scores were conducted for a single site recruiting Midwestern breast cancer survivors.

RESULTS:

- Participants were mostly female adults (n=97, 99.0%) and White (n=92, 93.9%), all of whom were non-Hispanic (N=98, 100.0%), with a mean age of 54.7 years (SD=11.3).

FUNDING: The COACH study is supported by grants from Daiichi Sankyo, Gilead Sciences & GSK to Pack Health, A Quest Diagnostics Company.

PROMIS® tools may serve as a valid, shorter alternative to FACT-G for assessing physical function, anxiety and depression.

Table 1. Number of Items and Average Completion Times for FACT-G and PROMIS® Tools by Time.

	FACT-G (27 items)	PROMIS® PF (10 items)	PROMIS® Anxiety (8 items)	PROMIS® Depression (8 items)
Timepoint	Average (SD)	Average (SD)	Average (SD)	Average (SD)
Baseline	3.62 min (4.13)	1.16 min (0.44)	0.69 min (0.44)	0.48 min (0.26)
3-Month	2.49 min (1.22)	1.27 min (0.94)	0.62 min (0.32)	0.67 min (0.67)
6-Month	2.30 min (1.38)	1.24 min (0.87)	0.69 min (0.56)	0.48 min (0.43)

min: minutes; PF: physical function; SD: standard deviation

Figure 1. PROMIS® Physical Function T-Scores and FACT-G Functional Well-Being Average Scores by Time.

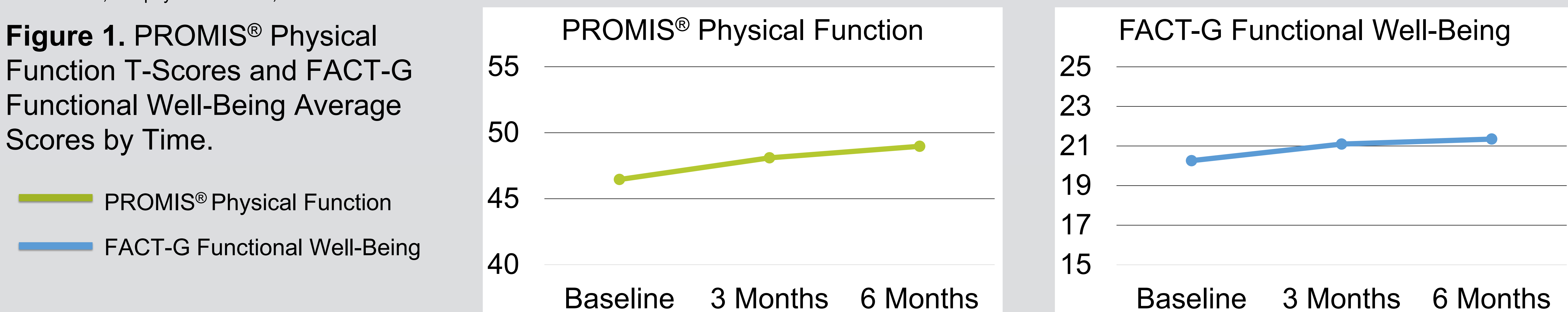


Table 2. Correlations and Changes Over Time Between PROMIS® Physical Function and FACT-G Functional Well-Being.

Tools Compared	Baseline Correlation	Baseline - 3 Mo Change (SD)	Correlation	3 - 6 Month Change (SD)	Correlation
PROMIS® PF and FACT-G FWB	r = .595 p < .001	1.26 (3.97) 0.49 (3.57)	r = .267 p = .018	0.43 (5.02) 0.14 (3.21)	r = .424 p < .001

FWB: functional well-being; Mo: month; PF: physical function; SD: standard deviation

Figure 2. PROMIS® Anxiety and Depression T-Scores and FACT-G Emotional Well-Being Average Scores by Time.

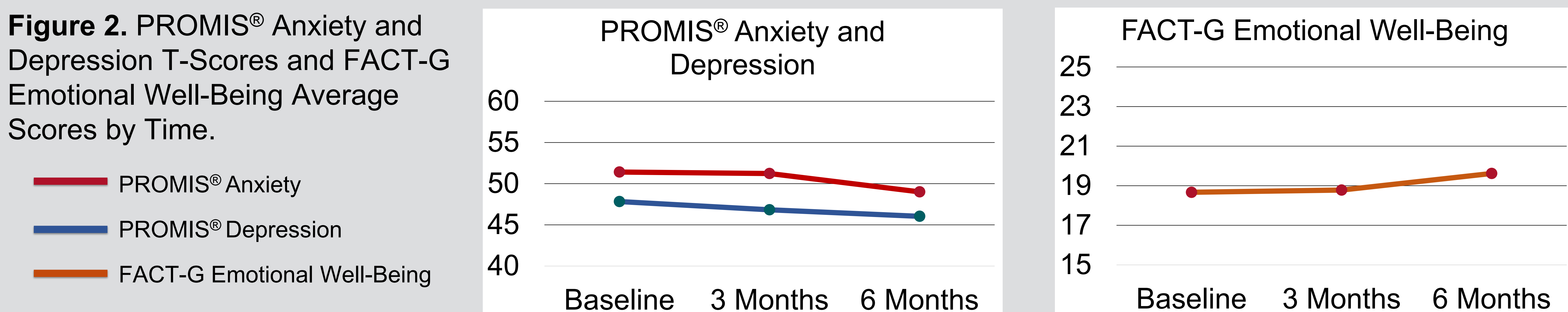


Table 3. Correlations and Changes Over Time Between PROMIS® Anxiety and Depression Tools and FACT-G Emotional Well-Being.

Tools Compared	Baseline Correlation	Baseline - 3 Mo Change (SD)	Correlation	3 - 6 Month Change (SD)	Correlation
PROMIS® Anxiety and FACT-G EWB	r = -.747 p < .001	0.16 (8.38) -0.02 (3.11)	r = -.235 p = .036	-2.38 (8.34) 0.79 (2.61)	r = -.529 p < .001
PROMIS® Depression and FACT-G EWB	r = -.551 p < .001	-0.56 (7.22) -0.02 (3.11)	r = -.278 p = .012	-0.92 (5.48) 0.79 (2.61)	r = -.466 p < .001

EWB: emotional well-being; Mo: month; SD: standard deviation

CONCLUSION:

- At baseline, 3- and 6-months, each of the three PROMIS® tools averaged shorter completion times than the FACT-G tool.
- Significant correlations were identified between average T-scores of the PROMIS® Physical Function tool and average scores of the FACT-G Functional Well-Being scale (positive) and between the PROMIS® Anxiety and Depression tools and FACT-G Emotional Well-Being scale (negative) at baseline, 3- and 6-month timepoints.
- Findings suggest PROMIS® Anxiety, Depression and Physical Function tools may be used in place of the FACT-G for breast cancer survivor populations when tools with lower number of items are desired.