

ABSTRACT

Treatment for prostate cancer (PC) has several adverse side effects. Evidence has shown exercise can mitigate some of these; however, many men with PC do not currently meet recommended exercise guidelines. The PC Supportive Care Program Exercise Clinic (PCSC-EC) is a multicenter exercise counseling clinic designed to assist with behavior change and increase exercise levels of men with PC through individual exercise counseling sessions. **PURPOSE:** To evaluate the process and effect of the PCSC-EC on physical function (PF). **METHODS:** A single-group program evaluation design used chart reviews of enrolled participants from June 2018 to May 2022. PCSC-EC program includes one education session and five one-on-one counseling sessions at baseline, 1-, 3-, 6- and 12- months. Process evaluation components using a priori criteria targets included: 1) attendance ($\geq 60\%$ at each time point (TP)), 2) session timing ($\geq 75\%$ occurred at planned TP), and 3) attrition ($<30\%$ at all TP). Attendance was calculated as the percentage of total visits attended out of the total visits booked at each TP. Attrition was calculated as the number lost to follow-up at each TP out of the total number of participants at each TP. PF was assessed by the Short Physical Performance Battery chair test and scored 0-4 (worst to optimal). Change in PF from 0- to 3- and 6- months were calculated with paired t-tests. **RESULTS:** A total of 577 men enrolled in the PCSC-EC. Attendance ($\geq 60\%$) of each clinic visit was: education = 82%, baseline = 92%, 3 months = 90%, 6 months = 89%, and 12 months = 89%. Sessions that were attended on time ($\geq 75\%$) by TP were: 1 month = 86%, 3 months = 78%, 6 months = 68%, and 12 months = 74%. Attrition ($<30\%$) of each TP was education = 23%, baseline = 12%, 1 month = 18%, 3 months = 25%, and 6 months = 21%. There was a significant increase in PF levels from baseline to 3 months (mean = -0.203, SD= 1.22, 95% CI: -0.356, -0.051, p = 0.009), and baseline to 6 months (mean = -0.272, SD = 0.983, 95% CI: -0.419, -0.124, p < 0.001). **CONCLUSION:** Attendance and attrition criteria were met, along with session timing at 1- and 3-months, but not at 6- and 12-month visits. The PCSC-EC demonstrated significant improvements in PF at 3- and 6- months. These findings will help inform future adaptations to the PCSC-EC for men with PC in a real-world setting.

INTRODUCTION

- Prostate cancer is the most prevalent male cancer in Canada¹. Adverse **treatment-related side effects** include fatigue and changes in body composition, which **negatively affect quality of life** and physical function².
- Aerobic and resistance training** are both safe and effective strategies for mitigating and **reducing adverse side effects**^{3,4}.
- Exercise counseling** has been shown to be an **effective** approach to enhance the adoption and maintenance of **exercise behavior** in men with prostate cancer⁵.
- The **Prostate Cancer Supportive Care Exercise Clinic** (PCSC-EC) aims to increase the adoption of exercise in men diagnosed with prostate.
- Evaluation of exercise programs outside of the research setting is important to evaluate **effectiveness, inform reproducibility and promote implementation, in the effort to translate research into practice.**

PURPOSE

- To **evaluate** the fidelity of delivery and changes in physical function in a 12-month exercise counseling program for men diagnosed with prostate cancer.

REFERENCES: 1. Burstein HJ et al. *J Oncol Prac* 2010;6(5):243-246; 2. Hojan K et al. *Acta Oncologica* 2013;52(2):319-326; 3. Henry NL et al. *Breast Cancer Res and Treat* 2008;111(2):365-372; 4. Irwin ML et al. *J Clin Oncol* 2015;33(10):1104.

METHODS

- A **single-group program evaluation design** using chart reviews of men enrolled in the PCSC-EC from June 2018 to May 2022

Figure 1. PCSC Exercise Clinic Visit Protocol (*some clinics were delivered virtually between May 2020 - May 2022)

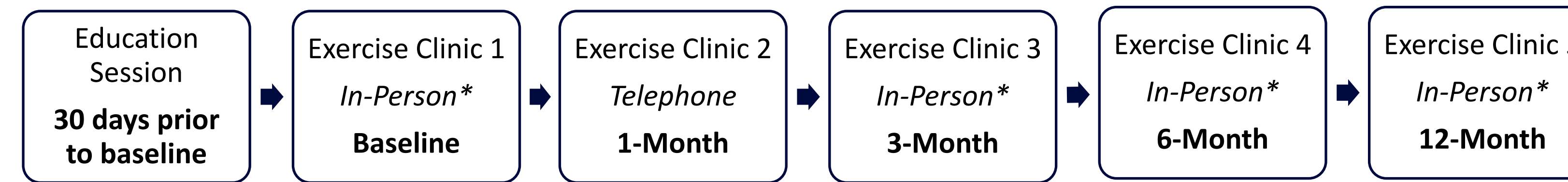


Table 1. A Priori Criteria Targets, Outcome Measures and Calculations to Assess Fidelity of Delivery

A Priori Criteria Target / Outcome Measures	Calculation
Attendance	$\geq 60\%$ at each time point
Session Timing	$\geq 75\%$ occurred at planned time point
Attrition	$< 30\%$ at all time points
Physical Function	Timed 5 chair stands (s) Scored 0 - 4 (worse to optimal) (SPPB)

RESULTS

- Total of **577 men** enrolled in the PCSC-EC program from June 2018 to May 2022.

Figure 2. PCSC Flow Diagram

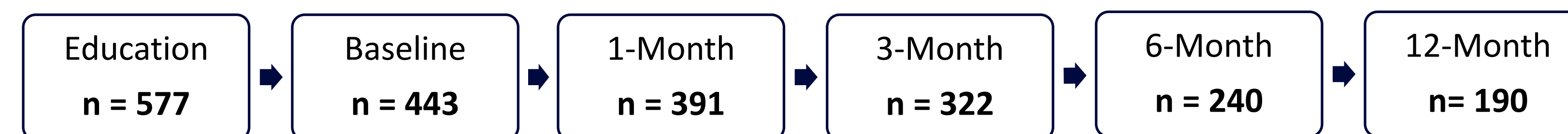
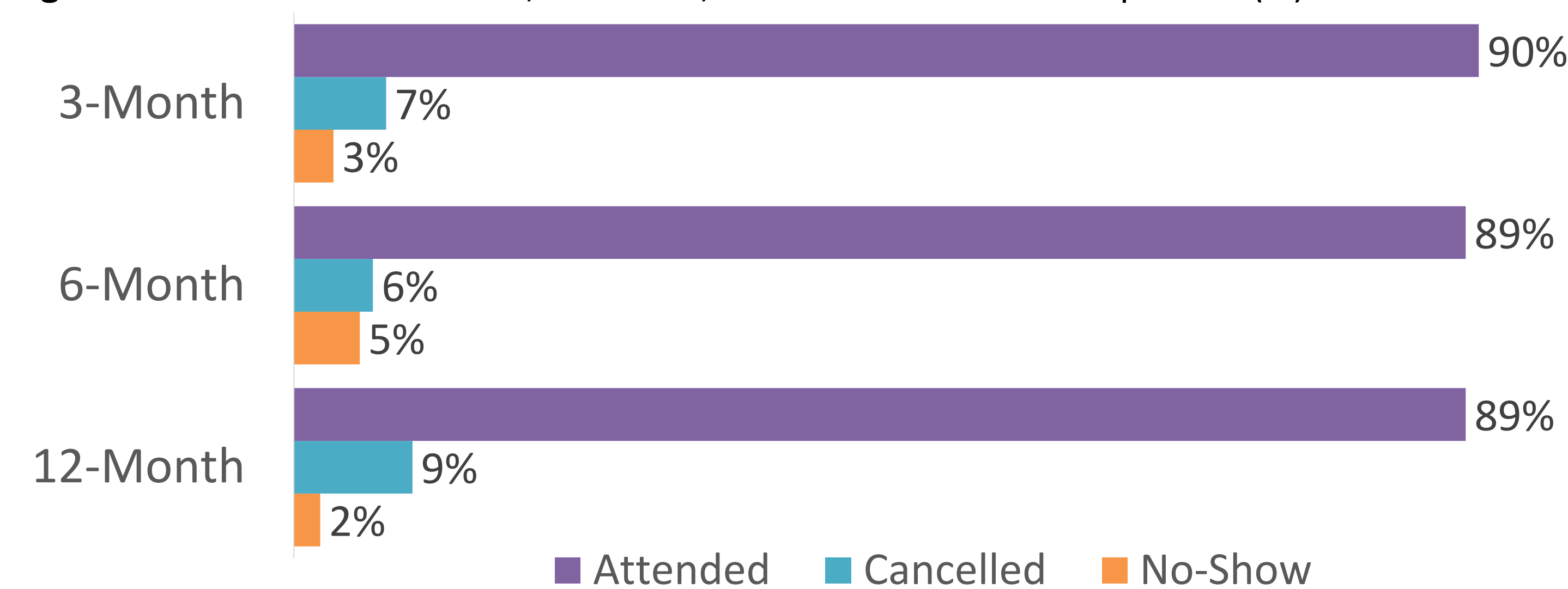


Table 2. Results of Fidelity Criteria (Attendance, Session Timing, Attrition)

Attendance			Session Timing			Attrition		
Timeline	%	A priori?	Timeline	%	A priori?	Timeline	%	A priori?
Education	82	Yes	NA			Education	23	Yes
Baseline	92	Yes	1-Month	86	Yes	Baseline	12	Yes
3-Month	90	Yes	3-Month	78	Yes	3-Month	18	Yes
6-Month	89	Yes	6-Month	68	No	6-Month	25	Yes
12-Month	89	Yes	12-Month	74	No	12-Month	21	Yes

Figure 3. Attendance: attended, cancelled, no-show at various timepoints. (%)



RESULTS

Figure 4. Fidelity of Session Timing (%)

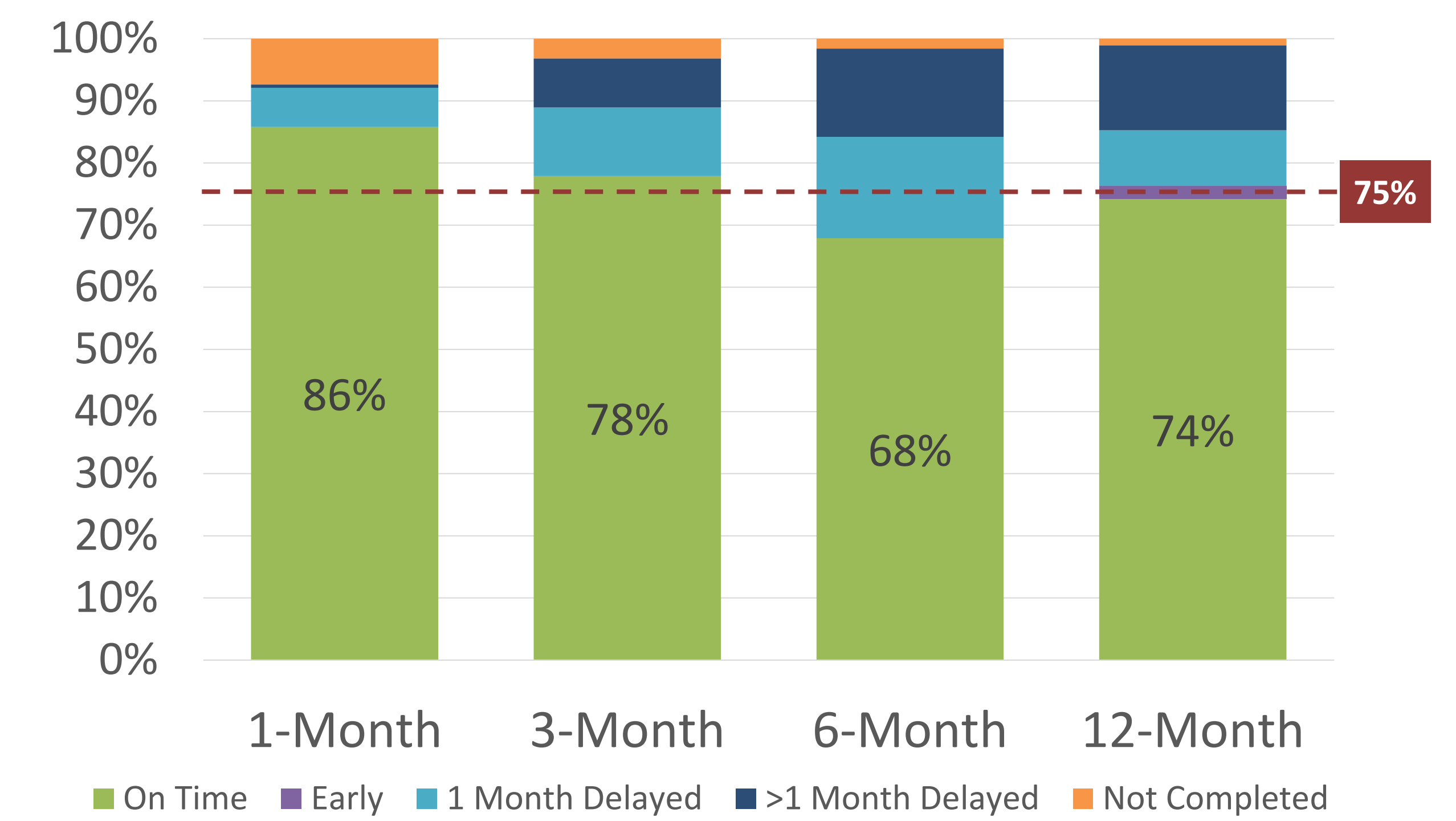
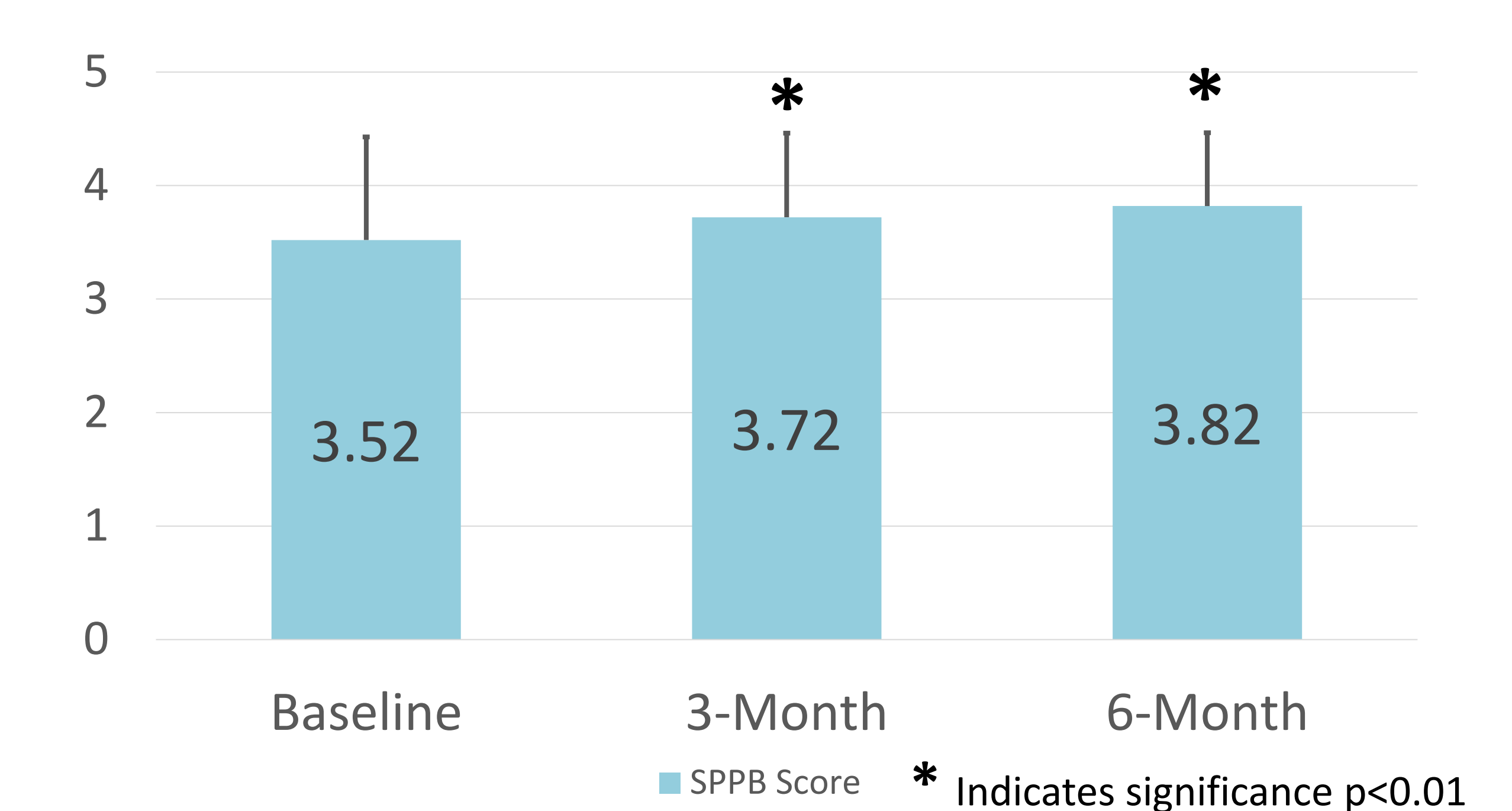


Figure 5. Change in Physical Function (SPPB score: 0 - 4)



CONCLUSIONS

- Overall the PCSC-ED has good fidelity of the program delivery
- Attendance** is high ($>60\%$) and **attrition** is low ($<30\%$); meeting fidelity criteria
- Planned session timing** ($>75\%$) was met for 1-month and 3-month appointments but was slightly lower for 6- and 12-months; but attrition was low indicating these appointments did occur but more flexibility in appointment timing was necessary.
- The program also was effective at significantly improving **physical function**.
- Findings will help inform continued future adaptations to the PCSC-EC for men with prostate cancer to optimize care delivery in a real-world setting.

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