STATISICAL ANALYSIS PLAN:

Be-Active Study – Increasing Physical Activity for Cancer Survivors

NCT05376293

Analyses conducted 10/1/2024

The statistical analyses for this study were conducted using mixed-effects models to evaluate the impact of the program on various physical activity and psychological outcomes. The primary outcomes analyzed included self-reported moderate-to-vigorous physical activity (MVPA), total MVPA, and bouted MVPA over time.

For each outcome, mixed-effects models were employed, incorporating random intercepts for participants to account for the repeated measures design of the study. These models included fixed effects for time points, treatment arms, and their interaction, as well as baseline values of each outcome to control for initial differences across groups. Additional covariates such as age, BMI, weight, sex, education, racial/ethnic minority status, maintenance therapy, days since treatment completion, and daily wear time (for accelerometer-based outcomes) were also included. The primary interest was in the interaction between treatment arms and time points, which was used to evaluate whether changes in physical activity differed between the two groups (Energize! and Newsletter) at each time point (baseline, 3 months, and 6 months).

Post hoc pairwise comparisons of estimated marginal means (EMMs) were conducted to assess changes from baseline to 3 months and baseline to 6 months within each randomization group. Bonferroni corrections were applied to adjust for multiple comparisons.