Statistical Analysis Plan

Excerpt from section 17.0 of the Study Protocol, which was last approved by the University of Central Florida Institutional Review Board on February 26, 2025.

Study Title: *"Optimizing a technology-based body and mind intervention to prevent falls and reduce health disparities in low-income populations."*

Short Title: *"Optimizing a Technology-based Body and Mind Intervention"*

IRB ID: *STUDY00003260*

NCT Number: *NCT05778604*

We aim to examine differences in balance, fall risk, physical activity, negative self-perception on aging, exercise adherence and the proportion of shifting in fall risk appraisal after program completion, follow up 3-months and 6-months between older adults (Oas) in the PEER intervention and OAs in AC condition. The Chi-square test and the t-test will be used to analyze the categorical data and continuous data, respectively to compare outcomes between OAs participating in the PEER intervention and OAs participating in the AC condition. The longitudinal linear mixed models will be used to test for between-group differences with respect to the primary and secondary outcome measures from all follow-up assessment visits. Whenever feasible, models may be adjusted for the covariates, including age, gender, perceived general health, and the number of falls in the past six months prior to the baseline, which is considered as relevant to the outcomes. Furthermore, we will form a 4x4 table. The standard 4x4 table analysis will be performed, either use a Chi-square test or exact test, depending on the actual counts observed in the 4x4 table. BBT and short FES-I scores will be collected in four planned visit time points. All data analyses will be performed with SAS version 9.4 for Windows (SAS Institute Inc.). An alpha level of 0.05 will be used in all analyses.