Official Title: Enhancing physical activity levels of community-dwelling older people with frailty through an exercise intervention with or without a wearable activity tracker (WAT)-based intervention: a feasibility and pilot study

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Approved by the Human Subjects Ethics Sub-committee of The Hong Kong Polytechnic University on 13/04/2018

Statistical Analysis:

SPSS version 23.0 will be used to analyse the data. Descriptive statistics will be generated for the demographic data and feasibility tests. The baseline characteristics of the participants in the two groups from the six community centres will be compared using unpaired t test for the continuous variables, a chi-square test for the categorical variables, and the Mann–Whitney U test for the ordinal variables. Normality assumptions for the variables will be examined by a K-S test. The group attendance and drop-out rate of the participants in the study groups will be reported. An intention-to-treat analysis will be adopted. An independent sample Student's t-test or Mann-Whitney U test will be used to examine differences between the control and experimental groups in the outcome variables. For categorical and dichotomous outcome variables, an χ^2 test will be used to test differences between the groups. If significant differences between the groups at baseline have been identified, these data will be treated as covariates and adjusted for as needed. A p-value of < 0.05 will be considered statistically significant. ANOVA will be used to measure the effectiveness of the intervention. If the data were non-normal, Friedman's test will be used instead. Post-hoc within-group comparisons will be done using paired t-tests or Wilcoxon's signed rank test, and Bonferroni adjustments will be made.

Content analysis will be used to analyse the interview data. All audio-taped interviews will be transcribed into Cantonese by the RA and the transcriptions will be checked for accuracy by two members of the research team before the analysis.