

Official Title: The Effects of Simplified 10-step Tai-chi Programme  
on the Motor Performance and Fall Prevention of Community-  
dwelling Older People With Dementia: a Pilot Cluster Randomized  
Control Trial

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**The effects of a simplified 10-step Tai-chi programme on the motor performance and fall prevention of community-dwelling older people with dementia (PWD):  
A pilot cluster RCT study**

**Statistical Analysis**

SPSS will be used for data analysis. Descriptive statistics will be generated for the demographic data. Normality assumptions for the variables will be checked. The paired t-test or Wilcoxon's signed rank test will be used to examine any significant difference in outcome measurements in the experimental group before and after the implementation of the combined intervention. Student's T-test or the Mann-Whitney U test will be used to examine any significant differences between the control and experimental groups in terms of the outcome variables. For categorical and dichotomous outcome variables, a  $\chi^2$  test will be used to identify any significant differences between the groups. A p-value < 0.05 will be considered statistically significant. Mixed effect modelling (MEM) will be further used to measure changes in the outcome measures after intervention with respect to its baseline, and to see the effectiveness of the intervention. Multiple imputations will be adopted to manage missing data.

All interviews will be transcribed and analyzed by content analysis so as to understand participants', caregivers' and the Tai-chi instructor's opinions about the intervention. Coding will occur independently by two members of the research team. Differences in coding between the independent coders will be resolved through discussion between the coders