

Abstract

Physical inactivity has been found to be closely linked to the onset and perpetuation of depressive symptoms. The aim of this pilot randomized controlled trial (RCT) was to examine the feasibility and effectiveness of a 2-week group lifestyle-integrated exercise, namely Zero-time Exercise (ZTE_x), for the management of depressive symptoms in Chinese adults in the general population. A total of 23 inactive, depressed adults (mean age = 34.09 years, SD = 11.74; 18 females, 5 males) were recruited and randomly assigned to the ZTE_x group or the Waitlist (WL) group. Participants in the ZTE_x group were invited to attend two 2-hour training sessions and asked to practice ZTE_x daily throughout the 3-week intervention period. The primary outcome measure was the 9-item Patient Health Questionnaire (PHQ-9). PHQ-9 scores were shown to be significantly lower in the ZTE_x group than the WL group's with a large effect size at 1-week post-intervention (ES = 1.10, $p = 0.05$). No significant between-group differences were observed in the secondary outcome measures except for anxiety scores and fatigue scores which were found significantly lower in the ZTE_x group. With respect to EMA assessment, the total number of responses reported after physically active episodes were higher than those after sedentary episodes. In conclusion, the brief, simple and lifestyle-integrated ZTE_x was shown to be highly acceptable and effective in reducing severity of depressive symptoms in inactive people with moderate level of depression. Moderator analysis controlling expectancy effect could be explored in the future.

Trial registration number: ClinicalTrials.gov, #NCT03811327

Keywords: Zero-time Exercise, life-style integrated exercise, behavioral activation, depression, physical activity, sedentary behavior