A longitudinal study on the effects of a workplace exercise intervention - a field experiment in China

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Aims: To assess the effects of a workplace exercise intervention on employees’ physical activity and work-related outcomes in China.

Design: A field experiment with repeated measures: 2(groups: experimental and wait-list control group) X 3(tests: baseline vs. 12 weeks vs. 52 weeks after) X 3(outcomes: physical activity, job performance and sickness absence).

Setting & Participants: Office employees (51% male, 49% female, age range 21-40 years, 90% university graduates) from a single large organisation were assigned to experimental (Guangzhou worksite, n=196) or control group (Beijing worksite, n=86). A control group was assigned to a waiting list and received the intervention three months after Guangzhou.

Measurements: The intervention involved 10-minutes of worksite Tai Chi Qigong exercise, twice a day for 12 weeks. Self-reported data were collected at baseline, 12 weeks and 52 weeks on physical activity level (International Physical Activity Questionnaire: IPAQ, short form), job performance (WHO Health and Work Performance Questionnaire: HPQ) and sickness absence (Work Ability Index: WAI).

Findings: Significant increases in physical activity levels were found in experimental group immediately after intervention (T=3924, p<.05, r=-.17). Increases in physical activity levels were found in both groups one year after the intervention than at baseline (experimental: T=2129, p<.0167, r=-.25; comparison: T=294.5, p<.0167, r=-.31). Effects on work-related outcomes were not significant.