

## **A Randomized, Wait-list Controlled Trial of a Qigong Intervention Program on Telomerase Activity and Psychological Stress in Abused Chinese Women**

A. Tiwari, CLW Chan, RTH Ho, GSW Tsao, W Deng, AWL Hong,  
DYT Fong, HYK Yuk, JLC Ma.

### Abstract:

**OBJECTIVES:** To evaluate the effects of a qigong intervention program on (primary objective) telomerase activity and (secondary objectives) pro-inflammation cytokines, perceived stress, perceived coping, and depressive symptoms in Chinese women with a history of intimate partner violence.

**HYPOTHESES TO BE TESTED:** Abused Chinese women in the intervention group will have higher levels of telomerase activity and perceived coping, and lower levels of pro-inflammation cytokines, perceived stress, and depressive symptoms, on completion of a qigong intervention program, compared to abused Chinese women in the wait-list control group.

**DESIGN and SUBJECTS:** A randomized, wait-list controlled design with intervention and wait-list control groups. A total of 240 Chinese women, aged 18 or older, assessed to be abused by an intimate partner in the preceding year or longer will be recruited.

**STUDY INSTRUMENTS:** Chinese version of the Abuse Assessment Screen, Revised Conflict Tactics Scales, Perceived Stress Scale, Perceived Coping Scale, Beck Depression Inventory version II, and demographic questionnaire.

**INTERVENTION:** A qigong intervention program consisting of: (i) a 2-hr group qigong training twice a week for 6 weeks; (ii) weekly group follow-up of a 1-hour group qigong exercise for 4 months; and (iii) self-practice of qigong exercise for 30 minutes each day throughout the intervention period lasting 5.5 months.

**MAIN OUTCOME MEASURES:** Primary: Telomerase activity. Secondary: pro-inflammation cytokines, perceived stress, perceived coping, and depressive symptoms.

**DATA ANALYSIS:** Regression analysis to assess group differences in telomerase activity post-intervention. T-test to assess change in telomerase level from baseline to post-intervention.

**EXPECTED RESULTS:** Qigong exercise may be used to buffer the effect of psychological stress in abused Chinese women.

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