

Tai Chi Improves Sleep Quality Using Meta-analysis

Full Summary

Using meta-analysis, researchers found that tai chi had significantly large positive effects on sleep quality when compared to groups receiving exercise, health education or cognitive behavioral therapy. Meta-analysis is a strong technique that examines data from a number of independent studies to determine overall trends. In this case studies that identified Yang 8 or Yang 24 as interventions were analyzed. The meta-analysis demonstrated that sleep quality was significantly better than control groups that did not receive any alternate intervention.

After searching English and Chinese databases, researchers identified 1463 studies. After removing duplicate studies and those not meeting selection criteria, they identified 20 studies with a total of 1,703 participants with an average age of 58 years. The studies included 878 women and 498 men.

The effects of tai chi in 15 studies were significantly better for a Pittsburgh Sleep Quality Index than other studies using exercise or health education as the comparison group. There was an exception in two studies that used cognitive behavioral treatment and had results similar to tai chi.

Yang 8 and 24 significantly improved sleep quality using the Pittsburgh Sleep Index. Although all studies used tai chi, only 7 of 11 described the tai chi used as either Yang 8 or Yang 24. To assess the different effects of types of tai chi, researchers included studies that compared the effects of tai chi to participants who did not receive hypnotics or other interventions of interest. Both types of tai chi had significantly better sleep quality than the comparison studies. The sizes of the effects on sleep were larger for Yang 24 than Yang 8. The analyses of the effects of different types of tai chi had small sample sizes that may limit the generalizability of the findings.

A study with participants unaware of the tai chi group assignment would increase the scientific quality of all of the studies. However this is not possible because finding participants who are not knowledgeable about tai chi is extremely difficult, especially in China.

Researchers were not able to find significant differences in the effect of tai chi between participants with and without medical conditions. They were not able to assess the influence of age and degree of sleep difficulty or sleep disorders on the effects of tai chi.

Li, H, Chen, J. et al. (2020). The effects of tai chi for improving sleep quality: A systematic review and meta-analysis. *Journal of Affective Disorders*, 274, 1102-1112.

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