



CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Name(s) Divya Siddarth	Project Number S0426
Project Title Mood and Other Health Benefits of Yoga, Tai Chi, and Aerobic Exercise	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This study investigated differences in mood, fatigue, sleep, and mental health measures among middle-aged and older adults who participated in community-based classes - either mind-body exercise, such as yoga and Tai Chi, or aerobic exercise.</p> <p>Methods/Materials Forty-two participants (mean age 64.6 (SD = 13.6) years) were recruited, 20 who routinely participated in a yoga or Tai Chi class and 22 who routinely participated in an aerobic exercise class. In addition to demographic data, mood, general health functioning, sleep, and pain levels were assessed for all participants, using standardized instruments. The two groups were compared on all outcome measures using unpaired t-tests. Regression analyses were used to ascertain the impact of duration and frequency of the class on the outcome measures.</p> <p>Results The yoga/Tai Chi group performed better in all outcome measures compared to the aerobic exercise group. Participants in yoga/Tai Chi classes had significantly greater levels of Vitality and lower levels of Tension, Depression, Anger, Confusion, and Fatigue ($p=.0001-.04$). Further, they showed significantly higher Mental Health Composite Summary scores ($p=.0001$), and less sleep problems ($p=.008$), compared to the aerobic exercise group. Physical Health Composite Summary scores ($p=.3$) and pain levels ($p=.7$) were not significantly different between the two groups. Length or duration of class did not significantly impact reported mood, sleep, and mental health measures.</p> <p>Conclusions/Discussion This study shows that participation in mind-body exercise is associated with improved mood, mental health functioning, and better sleep in older adults compared to aerobic exercise. It is remarkable that the mind-body exercise group performed better on all mental health measures, even in a relatively small sample, thus underscoring the significant health benefits that can be obtained in an aging population by participating in such activities.</p>	
Summary Statement Older adults who participated in yoga/Tai Chi classes reported significantly better mood, mental health, and sleep compared to participants of similar age in aerobic exercise classes.	
Help Received Dr. Lavretsky from the UCLA Department of Psychiatry helped with selecting and obtaining the instruments used in the study.	