

# Older Adults Receptive to Try Lifestyle Changes

BY SHERRY BOSCHERT

San Francisco Bureau

SAN FRANCISCO — A surprisingly high 85% of older adults with hypertension, hyperglycemia, or hyperlipidemia reported engaging in lifestyle modifications, such as diet change or exercise, in a longitudinal study of 666 people, Eleanor M. Simonsick, Ph.D., said at the annual meeting of the Gerontological Society of America.

Patients who reported voluntary lifestyle modification generally weighed less, had less obesity, and exercised more than patients who denied lifestyle modification. The two groups did not differ, however, in measures of disease such as blood pressure, fasting glucose measurements, hemoglobin A<sub>1c</sub> values, and cholesterol levels, with the possible exception of triglyceride levels, reported Dr. Simonsick, an epidemiologist at the National Institute on Aging, Baltimore, and her associates.

"In terms of their specific conditions, it would appear that additional guidance is required" for voluntary lifestyle modification to improve health, she added.

On the plus side, the results refute the common notion that patients aren't interested in lifestyle modification, a misconception that dissuades many physicians from bringing up the subject, some surveys suggest. "I think that we should have more confidence in the patient pop-

ulation, that they may actually be receptive to lifestyle modification," Dr. Simonsick said.

The study analyzed data from the Baltimore Longitudinal Study of Aging (BLSA), which performs 3-day examinations and surveys of participants every 1-4 years, depending on their age. Participants make the trip to Baltimore for these visits, so the study is skewed toward healthier, more highly educated adults, she acknowledged. The study's results are not representative of the general population, and probably represent the most positive outcomes one might expect to see in terms of adoption rates and effects from lifestyle modification, she said.

Patients in this analysis of coding visits during 2004 to 2007 had a mean age of 68 years. Half were women, 29% were black, and a majority had more than a college education. Overall, 47% of participants reported being diagnosed with hypertension, 19% said they had been told they had either diabetes or high glucose levels, 56% said they had been diagnosed with hyperglycemia, and 23% had none of the above.

Among those with hypertension, 83% reported voluntary lifestyle modification, "which is a much higher number than we had expected," Dr. Simonsick said. Of those who made lifestyle modifications, 90% were taking antihypertensive medication, compared with 91% who did not change their lifestyle.

The obesity rate in hypertensive patients was 31% with lifestyle modification and 65% without, a significant difference. There were no major differences between these groups in systolic or diastolic blood pressures—126/67 mm Hg in the lifestyle modification group, compared with 127/69 mm Hg in the others.

Among those with hyperglycemia, 85% reported lifestyle modification, and these patients were significantly more likely to be on medication (48% vs. 22% of non-lifestyle modifiers). Fasting glucose levels were slightly higher in the lifestyle modification group than in other patients, but hemoglobin A<sub>1c</sub> values were 6% in both groups.

The higher medication use and higher fasting glucose levels in the lifestyle modification group may be caused by a higher rate of diabetes rather than just hyperglycemia, compared with the non-lifestyle modification group, but the data couldn't show that explicitly, she said.

Among those with hyperlipidemia, 85% reported lifestyle modification, and 62% of these people were taking medication, compared with 54% of non-lifestyle modifiers (a nonsignificant difference).

Obesity rates were 26% in the lifestyle modifiers and 50% in non-lifestyle. Triglyceride levels also were significantly different between groups, measuring 116 mg/dL in patients who pursued lifestyle modification, compared with 133 mg/dL in those who didn't. ■

## Tai Chi Improved Cognitive Function in Older, Healthy Adults

BY SHERRY BOSCHERT

San Francisco Bureau

SAN FRANCISCO — The Eastern exercise, tai chi, improved a measure of cognitive function in a year-long, randomized, controlled study of 132 healthy older adults.

This is the first study to document mental improvements resulting from tai chi, Ruth E. Taylor-Piliae, Ph.D., said in a poster presentation at the annual meeting of the Gerontological Society of America.

Compared with baseline, those who did Western-type exercise had greater improvement after 6 months in upper body flexibility, gaining 4 cm on the back-scratch test; the tai chi and control groups gained 1 cm. But those who did tai chi had greater improvement in balance, adding 7 seconds to a single-leg stance test, compared with baseline; the Western exercise group added 4 seconds, and the control group added 1 second.

The tai chi group also had greater improvement in one of three measures of cognitive function, reported Dr. Taylor-Piliae of the University of Arizona, Tucson, and her associates. Most of the improvements remained after an additional 6 months of doing the same exercise.

Cognitive function was measured by tests of semantic fluency (animal naming) and digit span recall (forward and backward). Results on the digits-backward test, which is thought to assess attention, concentration, and mental tracking, improved in the tai chi group. The tai chi group's score went up an average of 0.6 points, while the average score in the Western exercise group went down by 0.7 and the control

group's score went down by 0.1.

The study randomized sedentary adults with an average age of 69 years to a two-phase program of tai chi or Western exercise, or to a control group that received an attention-control intervention. For the first 6 months, participants in the two exercise groups exercised for 45 minutes five times per week, twice in a class and three times at home. During the second 6 months, they did one classroom-based and three home-based exercise sessions per week.

The tai chi group learned the Yang-style 24-posture short form of tai chi. The Western exercise group did a combination of exercises for aerobic endurance, flexibility, and strength.

The intention-to-treat analysis of results included all participants—37 in the tai chi group, 39 in the Western exercise group, and 56 in the control group. Six-month assessments were available for 28 people in the tai chi group, 36 in the Western exercise group, and 51 in the control group. The 1-year follow-up assessed 26 patients in the tai chi group and 34 in the Western exercise group. ■

### Tai Chi Can Improve Cognitive Function



Average Change in Score on Digits-Backward Test

Note: Based on a 6-month follow-up.  
Source: Dr. Taylor-Piliae

## Age-Related Loss of Peripheral Vision Increases Risk of Falls

BY HEIDI SPLETE

Senior Writer

Peripheral visual field loss significantly increased the risk of falling in older adults, according to data from 2,375 community-dwelling adults aged 65 to 84 years.

Poor vision has been implicated in falls in previous studies, and many interventions to prevent falls in the elderly have included vision assessments. But few studies have examined the specific types of vision loss that contribute most to the risk of falling, according to the Salisbury Eye Evaluation (SEE) study.

Ellen E. Freeman, Ph.D., of the Wilmer Eye Institute at Johns Hopkins University in Baltimore, Md., and her colleagues tested the vision of community-dwelling elderly SEE participants and then prospectively collected their reports of falls for up to 20 months. The average follow-up period was 17 months (*Invest. Ophthalmol. Vis. Sci.* 2007;48:4445-50).

At least 4 months of follow-up data were available for 2,312 participants, of whom 680 (29%) reported at least one fall during the follow-up period.

Total visual field loss was the only visual element that significantly increased the risk of falling. For every 10% loss in visual field, the participants were 8% more likely to fall after adjusting for demographic and health variables. When visual field loss was broken down into central and peripheral, only peripheral visual field loss remained significantly associated with fall risk (participants were 6% more likely to fall). Central

visual field loss was associated with increased fall risk but did not reach statistical significance. The researchers were not able to determine whether the upper or lower peripheral visual field was more important.

Neither visual acuity nor contrast sensitivity was significantly associated with increased fall risk. Nonvision variables that were independently associated with fall risk when combined with total visual field loss included poor balance, depression, sedative use, a history of stroke, Parkinson's disease, or arthritis, and being white and female.

The circumstances of the first reported falls were available for 743 participants. Of these, 50% said they were performing a "mildly displacing" activity such as standing or walking, compared with 46% who said that they were reaching, bending, or stepping (a "moderately displacing" activity) when the falls occurred. And 4% reported that the falls occurred during a "markedly displacing" activity such as climbing or participating in sports. The proportion of individuals in the study who had at least one fall in the study was consistent with findings in other community-based studies, according to the researchers.

"Visual field reduction is most likely related to the risk of falls, at least in part, through its effects on postural stability and the ability to maneuver around objects," they wrote. "Persons with such deficits may benefit from mobility training to navigate the environment more safely and reduce the risk of falling."

The researchers had no financial conflicts to disclose. ■