Canadian Audiologist

The Official Publication of the Canadian Academy of Audiology

Finding a Balanced Chi

Published March 11th, 2015

Rex Banks, AuD, Reg. CASLPO

This next edition of "Striking the Right Balance" focuses on Tai Chi. Tai Chi is a martial art which uses graceful flowing movements and postures. Veda (www.vestibular.org) defines Tai Chi as movements which combine physical movement, breathing techniques, and cognitive tools to strengthen the body, relax the mind, and balance the flow of life force called "Chi". Participants are encouraged to visualize their own chi in order to improve their movements and focus.

McGibbon et. al. studied older adults with vestibulopathy.[1] The group received either 10 weeks of vestibular rehabilitation or Tai Chi. They found overall gait function improved in both groups but for different reasons. They reported the Tai Chi group's improvement were associated with reorganized lower extremity neuromuscular patterns, which promote a faster gait and reduced excessive hip compensation. The vestibular rehabilitation group's improvement with mechanical energy expenditures corresponded to attenuated forward trunk linear and angular movement suggesting better control of upper body motion to minimize loss of balance. They conclude because of the difference between the two groups, Tai Chi is a valuable complementary treatment for vestibular disorders.

Tai Chi has also been found to reduce the occurrence of falls. Leung et al. performed a systematic review of 13 different randomized studies and found Tai Chi was effective in improving balance of older adults and showed in the absence of other interventions.[2] Tai chi reduced falls in the non-frail elderly. Li et al. further reports the particular characteristics of Tai Chi, including control over the displacement of body mass over one's base of support, postural orientation, and range of motion (ankle, knee, and hip), might help prevent older adults from losing their balance, thereby reducing the propensity to fall and the likelihood of injury resulting from a fall.[3] This is very important as the CDC reports that falls among older adults are the leading cause of both fatal and nonfatal injuries.[4]

In the following article, Rex Banks discusses the benefits of offering a Tai Chi class at your clinic for community dwelling independent adults. He suggests on top of being a great service to your patients, it may bring in more referrals to your site as an added plus. Promoting this program with local physiotherapists, occupational therapists, and ENTs could also be of great benefit to your business.

References

1. McGibbon CA, Krebs DE, Parker SW, et al. Tai Chi and vestibular rehabilitation improve

vestibulopathic gait via different neuromuscular mechanisms: preliminary report. Bio Med Neurol 2005;5(3).
2. Leung DP, Chan CK, Tsang HW, et al. Tai Chi as an intervention to improve balance and reduce falls in older adults: A systematic and meta-analytical review. Altern Ther Health Med 2011;Jan-Feb;17(1):40-8.
3. Li F, Harmer PK, Fisher JK, and McAuley E. Tai Chi: Improving functional balance and predicting subsequent falls in older persons. Med Sci Sport Exercise 2004;36(12):2046–52.
4. Centers for Disease Control and Prevention. Falls Among Older Adults. Atlanta: Author; 2014. Available at: http://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html

---

Have you been thinking that you would like to offer something for your patients with balance disorders but are not quite sure what to do? While customized vestibular rehabilitation therapy (VRT) exercises would be optimal, that will take time and training to develop competency. Similar to tinnitus retraining therapy, customized VRT exercises is not a casual endeavor and those involved in this area have quite a specialized focus to their practice. So is there anything that is not as prescriptive as VRT that an audiologist could offer? There is and the answer might surprise you.

Tai Chi is an ancient Chinese martial art that involves a series of movements performed in a slow, focused manner and accompanied by deep breathing. It promotes self-awareness, relaxes the mind and strengthens the body.

Tai Chi is a general exercise regimen used to treat those with balance disorders because it may create a more stable stance, improve faster and smoother walking, reduce postural sway and promote greater awareness of the body and movement.[1] The movements help improve muscle strength, gait and lower extremity flexibility, and general mobility, all of which are important to maintaining balance.[2] Tai Chi exercises may be done in classes or through the use of tele-rehabilitation technology.[3]

In terms of the effectiveness of Tai Chi, it has been demonstrated to improve gait, speed and postural stability. It is recommended that Tai Chi be done in conjunction with vestibular rehabilitation as it may not improve gaze stability.[4] Tai Chi has been shown to be effective at reducing the number of falls in older adults5 and may even prevent decline in balance and gait in healthy older individuals.[6]

How to get started? Contact a local Tai Chi instructor to facilitate your class, advertise your Tai Chi poster, move those waiting room chairs to clear out an open space and you’re all set to go. You could charge a minimal amount to cover instruction costs or offer the classes on a contribution basis. Tai Chi classes may bring you new patients and foster improved relationships with the ones you have. You could also tag along on a 15 minute discussion period where participants talk about their balance issues and why they are taking the class.

Offering Tai Chi is an out of the box concept that almost any audiologist can implement in order to provide a unique and unexpected service to their patients with balance concerns.

References

1. Cronin G. Improving balance with tai chi. Portland, OR: Vestibular Disorders Association; 2015. Available at: http://vestibular.org/sites/default/files/page_files/Improving%20Balance%20With%20Tai%20Chi_2.pdf.

2. Choi JH, Moon JS, Song R, et al. Effects of sun-style tai chi exercise on physical fitness and fall prevention in fall-prone older adults. J Adv Nurs 2005;51:150–57.
3. McGibbon CA, Krebs DE, Parker SW, et al, Tai chi and vestibular rehabilitation improve vestibulopathic gait via different neuromuscular mechanisms: preliminary report. BMC Neurol 2005;5:3.
4. McGibbon CA, Krebs DE, Wolf SL, et al: Tai chi and vestibular rehabilitation effects on gaze and whole-body stability. J Vestib Res 2004;14:467–78.
5. Richerson S, Rosendale K. Does tai chi improve plantar sensory ability? A pilot study. Diabetes Technol Ther 2007;9:276–86.
6. Lin MR, Hwang HF, Wang YW, et al. Community-based tai chi and its effect on injurious falls, balance, gait, and fear of falling in older people. Phys Ther 2006;86:1189–201.