

The Remedial Use of Tai Chi in Hospital

The Royal Hallamshire hospital in Sheffield is the first hospital trust in the UK, if not in the world, to use Tai Chi for vestibular/balance rehabilitation.

Tai Chi Chuan is a Chinese martial art and exercise system developed by a Taoist (1) monk called Chang San-Feng during the Yuan Dynasty of the fourteenth century. Its aim is to strengthen the body, increase energy levels, develop correct body posture and to increase mental concentration of the novice Taoist disciples. This will help sustain long and difficult meditative practices, as well as provide for their self-protection.

It has been used for centuries in China as a health exercise to maintain mobility, suppleness and mental alertness. Handed down via several families who made various changes to the movements whilst retaining the original principles, such modifications resulted in what are known as the five traditional family styles of Wu Chian Chuan, Chen, Yang, Sun and Hau. The style used in vestibular/balance rehabilitation at the Royal Hallamshire hospital is the Wu Chian Chuan.

Tai Chi consists of a series of postures with specific transitional movements making one sequential smooth movement. The movements are slow and quiet. The body weight is carried alternately on one leg then the other, with a corresponding alternate straightening and bending of each leg in a carefully balanced and continuous rhythm under sustained effort. The arm and upper body movements are made with minimal muscle tension, the arms out-stretching and withdrawing in co-ordination with the leg and body movements in continuous flowing patterns. This smooth movement encourages relaxation, a natural, slow, deep breathing rhythm and mental concentration. The unusual concentration involved in performing a long, complicated movement accurately and without pause may produce feelings of relaxation and mental well-being.

(1) An alternative spelling is Daoist
(2) An alternative spelling is Qigong

Tai Chi interests researchers because of its reputation among the Chinese as a therapeutic exercise routine, suitable for the aged and those with chronic disease. Several research studies have shown improvements in the balance of the elderly who have experienced falls.

In our study at the Royal Hallamshire, a combination of Tai Chi Chuan and Chi Kung (2) (a series of individual exercises that conform to the principles of Tai Chi Chuan and are sometimes used as 'warm-ups' before the practice of Tai Chi Chuan) proved most effective. The combination of both these exercise systems allows specific applications: allowing greater exercise concentration for particular muscle groups, and the ability to alter intensity, pace and the manipulation of balance in line with the patient's own natural balance characteristics. The patients are not encouraged to be out of balance and then learn to correct the deliberately induced imbalance as this may compound the learnt balance difficulties; they retrain and develop the natural inherent balance. Any subsequent improvement in this will inspire confidence and lessen the anxiety associated with imbalance difficulties.

Although our audit project has shown improvements in balance and psychological outcomes, long-term follow-ups are needed. These will help determine the time-related effects of the intervention compared to those who did not continue after the initial phase of rehabilitation.

The co-operation between the consultants, the medical physicist, the audiology technicians, the stress management personnel and the Tai Chi teacher is ongoing and allows for a free exchange of information, close supervision and appropriate intervention in line with best practice for the patient. This was demonstrated by the identification of various problems experienced by patients during practice that required referral to other medical treatments.