Qigong and Related Researches

Yao Qiang Xu
Doctor of Osteopathy
DO(MP), DCMOEB, M.A., B.Sc..
AMS Medical & Rehabilitation Centre
Outline

- Overview of Qigong;
- Baduanjin health oriented Qigong;
- Qigong and related researches;
- Qigong’s breathing technique — Diaphragmatic Breathing;
- Show and practice: Baduanjin Qigong;
- Osteopath and COPD.
History of Qigong

- The origins of Qigong go back to prehistoric times, and these types of practices were not called Qigong. It was called Dao Yin and Nei Kung.
  - Dao Yin means Leading and Guiding because the postures lead and guide the Qi or energy through the body for different purposes.
  - Nei Kung means internal work or internal exercises.

- Over the years there have been a vast number of Qigong systems that have been developed and practiced, and many of them have been passed down and enjoyed by each generation of practitioners.

- Today Qigong practice has spread beyond the borders of China and many people in the world are discovering the benefits that Qigong practice has to offer.
What is Qigong?

- In Traditional Chinese Medicine, Qigong purportedly allows individuals to cultivate the natural force or energy (“Qi”);

- Qigong incorporate a range of simple movements (repeated and often flowing in nature), or postures (standing or sitting) and include a focused state of relaxed awareness and a variety of breathing techniques that accompany the movements or postures;

- From the perspective of Western science, Qigong practices activate naturally occurring physiological and psychological mechanisms of self-repair and health recovery.
Types of Qigong

There are thousands forms of Qigong in china. Based on the goals and methods of practice:

- **Medical Qigong**: These are exercises that are specifically practiced to address a specific imbalance or disharmony in the body. The application and selection of the practice of Medical Qigong requires training and skill. This is really a part of Traditional Chinese Medicine.

- **Martial Qigong**: These are exercises that are practiced for a specific purpose but the aim is not to cure disease but instead to gain some sort of ability through training. This could be something like Iron Palm, Iron Shirt, or being able to generate more power in strikes and kicks.

- **Health oriented Qigong**: These are practices that are well rounded. They work many different aspects of the body in a holistic fashion with the goal of creating better health, strengthening the entire system, and increasing well being.
Baduanjin qigong is one of the most common forms of Chinese Qigong. The name of the form generally refers to it was broken down into eight sections/eight separate exercises, each of which focuses on a different physical area.

- Baduanjin Qigong incorporate a wide range of physical movements, including slow, flowing, gentle body movement and dance-like motions;

- Baduanjin Qigong incorporate the purposeful regulation of breath, mind and activities coordinated with the regulation of the body, through the deeply focused and relaxed states;

- Baduanjin Qigong emphasis on the abdominal breathing.
Benefit of Baduanjin Qigong

Anyone can enrich their lives by adding Baduanjin Qigong to their daily routine, regardless of ability, age, belief system or life circumstances.

- **Children** learning to channel their energy and develop increased concentration;
- **Office workers** learning Qigong to reduce stress;
- **Seniors** participating in gentle movements to enhance balance and their quality of life;
- **Caregivers** embracing a practice to develop their ability to help others;
Characters of Baduanjin Qigong Practice

- **Space conditions:** can be practice indoor (at home, office) or outdoors.

- **Time is short:** the length of time can be adjusted freely, usually select items or full exercise within 5 to 15 minutes.

- **Most economical:** no aids or equipment, just need wear loose clothing.

- **Easy to learn:** simple action.

- **Easy to promotion:** slow gentle movements, suit for young and old ages, can be practice in person or group.
Researches in Qigong
Well-Being (SWB) was defined by Deiner, as the general evaluation of one’s quality of life.

The results demonstrated that Qigong exercises have beneficial effects for the participants on a range of psychological measures of well-being and mental health among practitioners in compare with non-exercisers, including: anxiety, aggressive, obsessive-compulsive, interpersonal sensitivity, somatization disorder, depression, phobic and well-being.
These studies showed that practising Qigong not only could be as a complementary therapy or rehabilitative program, and strengthen their health, but was also a coping strategy for them to regain an active control and the sense of security in their health.
Qigong and COPD

Effectiveness of a Tai chi Qigong program in promoting health-related quality of life and perceived social support in chronic obstructive pulmonary disease clients. (Chan AW, et al, 2010)

Tai chi Qigong improves lung functions and activity tolerance in COPD clients: A single blind, randomized controlled trial. (Chan AW, et al; 2011)


Conclusion:
1. Promote health outcomes with respect to patients' perception of their respiratory symptoms;
2. Decrease disturbances to their physical activities;
3. Be able to improve respiratory functions and activity tolerance level in COPD patients;
4. Qigong has sustaining effects in improving the physiological health and is a useful and appropriate exercise for COPD patients.
COPD and Diaphragm

- Patients with COPD frequently have a reduction of diaphragmatic mobility and enhancing the activity of chest wall respiratory muscles as a compensatory mechanism. (Iwasawa T, et al, 2002; Iwasawa T, et al, 2008; De Andrade AD, et al, 2005)

- Both a reduction in diaphragmatic mobility and a higher activity of chest wall respiratory muscles are associated with increased dyspnea and exercise intolerance. (Breslin EH, et al, 1990; Paulin E, et al, 2007)
Diaphragm
Character of Diaphragmatic Breathing

- Strengthen the diaphragm;
- More efficacy, use less effort and energy to breathe, reducing chest wall respiratory muscle activity;
- Decrease the work of breathing, decrease the energy cost of breathing, decrease the contribution of rib cage muscles and dyspnea;
- Give the internal organs a gentle massage. Pushes the abdominal organs down and forward.
Diaphragmatic Breathing
Exercise with Diaphragmatic Breathing Style

The principal aim of designed COPD exercise should be to improve abdominal motion while reducing chest wall respiratory muscle activity.
Show and Practice:

Baduanjin Qigong
Another complementary and alternative medicine (CAM) way to treatment COPD patients
— Osteopath

- Increase exercise capacity;
- Improve oxygen tension, pulse oxymetry, total lung capacity and residual volume.
Signs and Symptoms of COPD

- Ongoing Cough;
- Sputum production/mucus production;
- Shortness of Breath;
- Tiredness or fatigue;
- Wheezing.

Almost all these signs and symptoms related with airway narrowing and mucus production, which mostly due to the autonomic dysfunction.
Autonomic Dysfunction and COPD


- 40% -60% of chronic bronchitis patients have autonomic dysfunction, manifested as parasympathetic hyperactivity and sympathetic suppression.

- Parasympathetic hyperactivity and sympathetic suppression will lead to airway narrowing, mucus production, swelling or mucus accumulating in the airways. This will worse the symptom of COPD.
The spinal dislocation can lead the narrowing and deformation of cervical and thoracic intervertebral foramen, which will direct hurt the paravertebral sympathetic preganglionic fiber, and **led to autonomic dysfunction**.
**PARASYMPATHETIC NERVES**

*“Rest and digest”*

- Constrict pupils
- Stimulate saliva
- Slow heartbeat
- Constrict airways
- Stimulate activity of stomach
- Inhibit release of glucose; stimulate gallbladder
- Stimulate activity of intestines
- Contract bladder
- Promote erection of genitals

**SYMPATHETIC NERVES**

*“Fight or flight”*

- Dilate pupils
- Inhibit salivation
- Increase heartbeat
- Relax airways
- Inhibit activity of stomach
- Stimulate release of glucose; inhibit gallbladder
- Inhibit activity of intestines
- Secrete epinephrine and norepinephrine
- Relax bladder
- Promote ejaculation and vaginal contraction

Figure 45-20 Biological Science, 2/e © 2005 Pearson Prentice Hall, Inc.
Osteopathic manipulative treatment effectiveness in severe chronic obstructive pulmonary disease: A pilot study

Ercole Zanotti\textsuperscript{a,*}, Pasqualino Berardinelli\textsuperscript{b}, Catiuscia Bizzarri\textsuperscript{a}, Andrea Civardi\textsuperscript{c}, Andrea Manstretta\textsuperscript{c}, Sabina Rossetti\textsuperscript{c}, Claudio Fracchia\textsuperscript{a}

Design: Comparing the effects of the combination of pulmonary rehabilitation and OMT compared with pulmonary rehabilitation (PR) in patients with severely impaired COPD.

Conclusions: This study suggests that OMT + PR may improve exercise capacity and reduce RV in severely impaired COPD patients with respect to PR alone.
Research in Osteopath and COPD

The influence of osteopathic manipulative therapy in the management of patients with chronic obstructive lung disease.


Result showed a statistical significant improvements in oxygen tension, pulse oxymetry, total lung capacity and residual volume in patients with COPD who underwent osteopathic manipulative treatment (OMT).
Future....

Qigong, Osteopath, Well-being, and COPD...


