Chinese Health Qigong - "Baduanjin" for

patients with chronic pain

Mr. Kino Lam, Occupational Therapist I, AHNH



Health Qigong – Baduanjin (The Eight Section Brocades):

In the regimen of Traditional Chinese Medicine (TCM), qigong has long been regarded as a form of "mind-body" intervention, which simultaneously exercises the "mind" and the "body" for treating various chronic diseases and promoting healthy life (Tsang, Cheung, & Lak, 2002). Baduanjin (八段錦) or the Eight Section Brocades is one of the four standardized health qigong established from The Health Qigong Administration Center of China under the State Sport General Administration of China (國家體育總局健身氣功管理中心). It is increasingly used to promote the biopsychosocial health by boosting self-healing ability and also attenuating negative emotion.



Evidence-based practice for pain relief:

Lansinger and others (2007) carried out a prospective, randomized control study on 122 patients with long-term and nonspecific neck pain. Results revealed significant improvement immediately after treatment and this was maintained at the 6- and 12-month follow-ups in 5 of 8 outcome variables: average neck pain in the most recent week, current neck pain (with exception for immediately after treatment period), neck pain diary, Neck Disability Index (NDI), and cervical range of motion in rotation. Therefore treatments including supervised qigong are recommended for persons with long-term nonspecific neck pain to reduce pain and disability. The effect could be combination of slow movements with breathing exercises and concentration results in relaxation. Qigong could decrease stress, which is regarded as an important factor for the origin of neck pain.

Creamer and others (2000) conducted a pilot study adopting a package including education, relaxation, and Qi-gong movement therapy weekly for 8 weeks to subjects with Fibromyalgia (FM). This pilot study confirms that a package of non-pharmacological treatment with Qi-gong can be effectively administered to groups of patients with FM. The improvements include a range of outcome measures such as pain threshold, fatigue, function and mood etc. The element of Qi-gong could offer an opportunity of experiencing the awareness of balance, breathing, and posture, which encourages the participants to overcome fear of movement as a pain-producing activity. It in-turn promotes an agentic (active) approach to chronic pain management.

Biopsychosocial effects of health-qigong:

It is always tempting to separate a pain experience into biological and psychological components. However, biology and psychology are interactive and influence each other. For instance, the cortical recognition of a given stimulus into recognition of pain could be shaped by many other factors such as the psychology of the person, for instance, attitudes, beliefs, mood states (anxiety) and stress response etc. The literature suggested that qigong can affect human physiology via the neuroendocrine system and thus help reducing pain, fatigue and insomnia. Some theories of the bio-psycho-social effects of Qigong such as neurophysiologic theories - the amine and endorphin hypotheses, may explain some of its positive effect on chronic pain problems.

Amine theory:

Positive psychological functioning is related to the decrease of the stress-related hormone "cortisol". Excessive amounts of stress hormones such as "cortisol" can have a harmful impact on both psychological and physical health. Findings supported that short-term practice of qigong could stabilize psychological and physical functions through neuroendocrine modulation. It enhances parasympathetic tone and reduction of sympathetic activity leading to a reduction of blood pressure, levels of noradrenaline, adrenaline, adrenocorticotropic hormone (ACTH), cortisol, anxiety and the overall stress level.

Endorphin theory:

Endorphin is found to be associated with a reduction of anxiety, pessimistic emotions, and pain modulation with its morphine-like properties. Schwarz and Kindermann (1992) found that - endorphin and ACTH are secreted simultaneously during exercise, and accompanied by a delayed release of cortisol. Qigong may also deepen the brain activity to a meditative and relaxation state, which then reduces anxiety and negative mood states. Qigong seems to regulate anxiety arousal by both stimulating brain waves and B-endorphin activities.

Conclusion:

Given the complex nature of chronic pain, its management is unfortunately often bedeviled by attempts to deal with high degree of overlap between the psychiatric and physical diagnosis. Health Qigong Baduanjin – because of its potential therapeutic effects over a range of bio-psychosocial diseases or disorders, that can be considered as an alternative therapy to relieve the increasing demand of non-pharmacological modalities in achieving biopsychosocial health for those suffering from chronic pain in the general population.

References:

- (1) Astin JA. Berman BM. Bausell B. Lee WL. Hochberg M. Forys KL. (2003) The efficacy of mindfulness meditation plus Qigong movement therapy in the treatment of fibromyalgia: a randomized controlled trial. Journal of Rheumatology. 30(10):2257-62.
- (2) Higucchi Y. Endocrine and immune response during qigong meditation. J Int Soc Life Info Sci 1996;14:278–281.
- (3) Jones BM. Changes in cytokine production in healthy subjects practicing *Guolin qigong*: A pilot study. BMC Complement Altern Med 2001;1:8.
- (4) Kielhofner, G. (1992). Conceptual Foundations of Occupational Therapy. Philadelphia: Davis.
- (5) Lee MS. Qi therapy as an intervention to reduce chronic pain and to enhance mood in elderly subjects: A pilot study. Am J Chin Med 2001;29:237–245.

- (6) Lee MS, Hong SS, Lim HJ, et al. Retrospective survey on therapeutic efficacy of qigong in Korea. Am J Chin Med 2003;31:809–815.
- (7) Lee MS, Kim BG, Huh HJ, et al. Effects of qi-training on blood pressure, heart rate and respiration rate. Clin Physiol 2000;20:173–176.
- (8) Lee MS, Huh HJ, Kim BG, et al. Psychoneuroimmunological effects of qi-therapy: Preliminary study on the changes of level of anxiety, mood, cortisol and melatonin and cellular function of neutrophil and natural killer cells. Stress Health 2001;17:17–24.
- (9) Lee MS, Hong SS, Lim HJ, et al. Retrospective survey on therapeutic efficacy of *qigong* in Korea. Am J Chin Med 2003;31:809–815.
- (10) Lee MS, Kang CW, Lim HJ, Lee MS. Effects of *qi*-training on anxiety and plasma concentrations of cortisol, ACTH, and aldosterone: A randomized placebo-controlled pilot study. Stress Health 2004;20:243–248.
- (11) Lee SW, Taylor R, Kielhofner G, Fisher G. Theory Use in Practice: A National Survey of Therapists Who Use the Model of Human Occupation. The American Journal of Occupational Therapy 2008 Jan; 62(1):106-17.
- (12) Lindforts P, Lundberg U. Is low cortisol release an indicator of positive health? Stress Health 2002;18:152–160.
- (13) McKinney CH, Antoni MH, Kumar M, et al. Effects of guided imagery and music (GIM) therapy on mood and cortisol in healthy adults. Health Psychol 1997;16:390–400.
- (14) Minegishi Y, Watanabe T, Kobayashi T, et al. Influences of Wujijinggong on blood serotonin and B-endorphin concentrations. J Int Soc Life Info Sci 1998;16:42–45.
- (15) Schwarz L, Kindermann W. Changes in B-endorphin levels in response to aerobic and anaerobic training. Sports Med 1992;13:25–36.
- (16) Van Huet, H., Innes, E. and Stancliffe, R. (2013), Occupational therapists perspectives of factors influencing chronic pain management. Australian Occupational Therapy Journal, 60: 56–65. doi: 10.1111/1440-1630.12011