

Qigong

Background/Definition

The word *qi* is often translated as “vital energy” and *gong* as “training” (Wu et al., 1999) or “discipline” (Chan et al., 2012). Considered a form of Traditional Chinese Medicine (TCM), qigong is a system of techniques to influence or cultivate the flow of *qi* within the body in order to attain and/or maintain mental and physical health.

These techniques include the adjustment of body postures, breathing, and mental states (Chen, 2004). A distinction is made between internal and external qigong; the former refers to self-training and practice and the latter refers to a healing process in which a qigong practitioner who has mastered the art direct their *qi* to a patient (Lee, Pittler, & Ernst, 2007).

Early forms of qigong are considered a part of the historical foundation of TCM (Jahnke, R., Larkey, L., Rogers, C., Etnier, J., & Lin, F., 2010). The history of qigong traces back thousands of years, and it recently survived the Cultural Revolutions in China during the 1960s and 1970s when traditional practices like qigong were targeted for eradication (Gale Encyclopedia of Medicine, 2002).

Beijing, China hosted the First World Conference for Academic Exchange of Medical Qigong in 1988. Two years later, in Berkeley, California, the First International Congress of Qigong took place. During the next couple decades an increasing number of Americans adopted the practice. In China, it is estimated that 60 million people practice qigong every day (Gale Encyclopedia of Medicine, 2002).

Theory

TCM posits the existence of *qi*, the vital energy that flows through all things and the entire universe (Astin et. al, 2003). Every living thing inherits a certain amount of *qi*, and it is also acquired through eating and breathing. The balance or imbalance of our physical, mental and emotional states also affects the flow of *qi* throughout the body (Gale Encyclopedia of Medicine, 2002).

Within the body are “meridians,” channels through which *qi* travels, and practicing qigong is intended to establish a balanced flow of energy through these channels (Schmitz-Hübsch et al., 2006).

Lee, Chen, et al. (2007) discuss possible mechanisms of action in regard to qigong treatment specifically for cancer, although these suggestions may hold merit for other ailments as well. These include the possibilities that qigong leads to 1) improvement of immune function, 2) increased microcirculatory function and 3) an augmentation of pain threshold in conjunction with relaxation effects.

Procedure

Qigong practice uses a combination of physical postures and exercises, breathing techniques, and a conscious engagement of the mind to enhance the flow of qi. (Jahnke, Larkey, et. al. 2010).

Practitioners employ any number qigong exercises depending on the tradition and task at hand, and generally – as mentioned briefly above – these techniques fall into two categories: external qigong and internal qigong. The former is performed by trained practitioners directing their *qi* into the patient as a means of treatment. The latter is a self-directed practice by the individual as a way of working with the *qi* in one's own body to improve health and vitality (Chan, Wang, Ho, et. al. 2012).

Qigong training and verification vary depending on geographical location. In China, qigong is regulated much more heavily than in the U.S. Some examples of qigong organizations in the U.S. include: National Qigong Association, American Tai Chi and Qigong Association, Qigong Association of America, The Qigong Institute, The Chi Center, and many more.

Training and certification is offered through many of these organizations as well as by individuals who have mastered the practice and developed their own training programs. Training usually involves an experiential hours requirement complete with thorough testing of the theory and application of the practice. In the U.S., there are currently no national standards for qigong certification.

Review

A growing base of studies have reported varying levels of positive health outcomes involving qigong practice in a variety of areas including depression, pain management, osteoarthritis, asthma, cancer, and blood pressure (Jahnke, Larkey, et. al. 2010; Jones 2001; Lee, Myung-Suk, et al. 2003; Oh, Butow, et. al. 2011; Tsang, Mok, et. al. 2003; Wu, Bandilla, et. al. 1999).

In a critical review of the effects of medical qigong on quality of life, immune function, and survival in cancer patients by Byeongsang, Butow, et. al. (2011) the authors reported overall “encouraging” results for these health outcomes. In this review, randomized controlled trials with large sample sizes did show promising results, however the authors also note that many of the other reviewed studies had methodological limitations and small sample sizes. They recommended further research to improve methodologies and to better identify medical qigong as an active healing factor.

Jones (2001) ran one of the few studies examining changes in biological variables as a measure of possible qigong healing efficacy. This study focused on levels of cytokine-secreting cells, which are regulators of immunity, and on blood cortisol levels. This study didn't use qigong healers (external qigong) with patients, but trained participants in qigong technique and had them perform the movements, breathing, etc. themselves. While cortisol levels decreased and concomitant changes were observed in measures of

cytokines, the author acknowledges small sample size and a lack of control group and randomization as limiting factors to the generalizability of the results.

In a study on qigong treatment for complex regional pain syndrome, Wu, Bandilla, et. al. (1999) used a placebo control group to control for nonspecific treatment effects and ultimately found a reduction in transient pain and long-term anxiety in the experimental group. Future studies that eliminate or at least attempt to mitigate confounding variables (i.e. increased self-regulatory skill among qigong participants) are suggested, as is the use of qigong as an intervention for clinical disorders that are more responsive to psychological intervention. In fact, in one study psychological stabilization is suggested as a causal effect of qigong in the reduction of symptoms of hypertension (Lee, Myung-Suk, et al., 2003).

Another preliminary study focused on qigong therapy for the elderly, specifically as an alternative psychosocial intervention (Tsang, Mok, et. al., 2003). While the overall effects were not statistically significant in terms of generalization measures, the authors expressed confidence that a longer intervention period would yield significant results. They also make an important observation stating that this type of exercise intervention may be most beneficial to Chinese elderly since it is more “culturally relevant” than any Western technique (i.e. aerobics), the distinction of which could help with treatment compliance and overall outcome. They caution that no evidence currently exists to support this suggestion and add that future studies should be done to address this possibility.

While health benefits have been preliminarily reported in the above studies, a group of studies also yielded independently inconclusive results and strongly advised for the need for further research with improved methodologies (Astin, Berman, et. al., 2003; Chen, Kevin, et. al., 2008; Guo, Zhou, et. al., 2008; Lee, Chen, et. al., 2009; Lee, Pittler, Ernst 2007; Lee, Pittler, Ernst, 2009; Soo Lee, Chen, et. al., 2007; Xin, Miller, Brown, 2007).

In an independent review of energy healing studies funded by NCCAM, authors identified one study that examined external qigong and osteoarthritis (Chen, Kevin, et. al. 2008) as analyzing the data in a misleading way (Ernst, Edward, Seip, 2011). This study was the first randomized controlled trial of external qigong therapy for treatment of osteoarthritis, and although Chen, Kevin, et al., (2008) reported some positive effects in the data, they also acknowledged that overall the data was inconclusive. Stark differences in efficacy outcomes were measured between the two qigong healers and the authors highlight this as one methodological difficulty in qigong studies of this nature. They suggest rigorous future clinical studies to identify qigong healer efficacy levels. Other limitations of this study included: a small sample size, short treatment period, testing only two healers, and limited data on confounding variables such as reliable reporting of usage of other medications.

A systematic review by Soo Lee, Chen, et. al. (2007) of qigong as a palliative/supportive cancer care examined nine controlled studies, most of which the authors reported as being of poor methodological quality. The authors note that no large scale randomized

controlled trial studies exist in this arena of qigong research. Furthermore, they raise the point that it remains very difficult to use an appropriate placebo control for qigong treatment studies, making reports of efficacy outcomes unclear. They conclude that this group of clinical studies does not support efficacy claims of qigong for this type of care.

Xin, Miller and Brown (2007) performed a qualitative review on the role of qigong in the management of diabetes by searching for studies undertaken between 1980 and 2007. Eleven such studies fit their inclusion criteria. The data as a whole indicated positive effects for some metabolic risk factors of type-2 diabetes, but the authors caution that lack of control groups, short treatment periods, small sample sizes and lack of reporting of confounding variables limit the strength of the data. Suggestions for future studies include controlling or assessing for medication effects and isolating the effects of qigong amidst other concurrent treatment effects.

Studies of self-practice qigong treatment for essential hypertension have also been subjected to meta-review (Guo, Zhou, et. al. 2008). Nine studies qualified for the meta-analysis, representing 908 total cases. Systolic blood pressure and diastolic blood pressure were the main outcome measures and the review found that self-practice qigong treatment proved more effective in decreasing blood pressure than non-treatment controls, however it was not more effective than active control groups. The authors offer important suggestions for protocol improvements including (among others) 1) controlling for exercise as a confounding variable 2) data collection on treatment adherence 3) blinding the outcome assessment and 4) choosing an appropriate qigong method for a specific ailment (this also implies performing studies that attempt to elucidate which type of qigong practice might be most beneficial for certain illnesses).

Lee, Pittler & Ernst (2007, 2009) performed two systematic reviews, one for external qigong and another for internal qigong, both aimed at treatment effects on pain conditions. In the 2007 review of randomized clinical trials of external qigong for pain conditions the authors reported “encouraging” results, although they acknowledge that the small number of trials and total sample size do not warrant any convincing conclusions. In their 2009 systematic review of internal qigong for pain conditions the authors are even less convinced, noting that the collective existing data does not suggest this treatment is an effective modality for pain management.

Overall, the mixed results illustrate that isolating qigong as a causal therapeutic factor remains difficult to demonstrate (Xin, Miller, Brown, 2007; Guo, Zhou, et al., 2008).

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