

Qi Gong: A physical Intervention (Complementary Therapies)

Article by Salma Tanveer
BSN-MSN in Nursing, Texila American University, Pakistan
E-mail: salmatanveer81@gmail.com

Abstract

The word Qi means “breath of life”, Chinese explained it as life energy in human body. It has been evolved as central concept in Chinese medicine as a life force and flow on energy which is essential to sustain human health and life. Qi,” a person’s vital energy force that circulates in the body through channels, supposed to be produced by visualization and affirmation. Due to limitations and side effects of conventional medical treatment, patients are increasingly utilizing complementary therapies. However, evidence for the safety and efficacy of qi-gong treatments is limited. The purpose of the current review was to investigate evidence for the role of Qigong in supportive care. Literature review is conducted using the search engines, Pubmed, Google scholar, Springer Link and CINHYL. Only scientific published articles were retrieved from the year 2001-2016. The effects of qigong on physical and psychosocial outcomes were examined in 28 studies and the effects on biomedical outcomes were examined in 15 studies. RCTs with larger sample sizes reflected positive results for the role of qigong in improving mood and fatigue parameters, fibromyalgia, cancer, diabetes mellitus, Arthritis, Parkinson’s disease and reducing inflammation. Moreover, qigong exercise in combination with conventional methods had significant improvement in immune function. Hence, Qigong has encouraging results in many of the progressive and poor prognosis diseases, hence, utilization of Qigong by the health care providers should be supported in quality improvisation.

Introduction

The term qigong is composed of two words: ‘qi’ means energy flow and ‘gong’ means skill or achievement (Li, Chen, & Mo, 2002). The history of qi-gong dates back to about 5000 years. There were many terms given to such kind of exercise before, like *xing-qi* (promoting the circulation of qi), *fu-qi* (taking qi), *dao-yin* (guiding the energy flow), *tui-na* (exhaling and inhaling), *zuo-chan* (sitting in meditation), *yang-shen* (nourishing the spirit) and *jing-zuo* (sitting still) (Ehling, 2001). It was not until 1953, when Liu Gui-zheng published a paper entitled "*Practice On Qigong Therapy*", that the term qi-gong was adopted widely as a formal name for this type of exercise (Chen, & Yeung, 2002).. Qi-gong is thought to have originated as a form of "remedy dancing" created for healing and health preservation purposes.

Qigong has become a popular form of complementary and alternative medicine. Proponents of qigong recommend it for a wide range of conditions, symptoms and situations, including stress management, hypertension, chronic pain, depression, insomnia, cardiac rehabilitation, immune function and for enhancing the quality of life (QOL) of cancer patients (Astin et al., 2003; Chen et al., 2006; Chen et al., 2008; Chen, & Yeung, 2002; Li, Chen, & Mo, 2002). Qigong has been practiced for many years in the East to improve health, prevent disease and prolong life (Ernst, Pittler, Wider, & Boddy, 2008). There are numerous distinct forms of qigong which can be categorized into two main groups, internal qigong and external qigong. Internal qigong refers to a physical and mental training method for the cultivation of oneself to achieve optimal health in both mind and body. Internal qigong is similar to tai chi but its main differences are coordination of different breathing patterns and meditation (Lee, Pittler, & Ernst, 2009). External qigong refers to a treatment where qigong practitioners direct or emit their qi-energy to the patient with the intention to clear qi-blockages or balance the flow of qi within that patient (Lee, Pittler, & Ernst, 2007).. Qigong has its underpinnings in Eastern medicine and philosophy. So far, it has not been explained

scientifically and, from a scientific point of view, it must seem biologically implausible. Despite the absence of a scientific basis, qigong has been submitted to numerous clinical trials and several systematic reviews of these data have recently been published. Unfortunately their conclusions are far from uniform.

The aim of this overview is to critically evaluate all systemic reviews of qigong as a treatment of any condition or symptom.

Methodology

Electronic literature searches were carried out using Medline, Embase, Amed, CINHALL, the Cochrane Library, Pubmed as well as six Korean medical databases and Chinese databases without restrictions of time. Key words of the research were 'qigong', 'complementary therapies', 'external qigong', 'internal qigong' and 'nursing implications' both literature reviews and experimental study designs were analyzed. Abstracts of the retrieved researches were inspected to meet the inclusion criteria. Reviews were defined as systematic if they included an explicit and repeatable methods section describing the search strategy and explicit inclusion/exclusion criteria.

To be included, systematic reviews had to be concerned specifically with the effectiveness of qigong and include evidence from controlled clinical trials. Systematic reviews evaluating qigong together with tai chi or other alternative therapy without evaluating the two approaches separately were excluded. Systematic reviews which evaluated the effects of qigong on healthy people and systematic reviews which included mixed populations such as healthy and medical conditions were excluded. Searches generated 61 articles out of which 28 articles met inclusion criteria (Figure 1, Table 1). The systematic reviews had been published from 2004 to 2016.

Results

Bone density

Resistance training and other weight bearing exercises are known to increase bone formation (Conn et al., 2008) and have been recommended for post-menopausal women for that purpose. Interestingly, most Qigong practices involve no resistance and only minimal weight bearing (such as gentle knee bends). Qigong has positive effects on bone health. Bone mineral density increased for women following Qigong exercises as compared to no-exercise controls (Chen, Yeh & Lee, 2006).

Cardiopulmonary and cancer

Seven studies reported favorable cardiovascular and pulmonary outcomes. Participants in this grouping of studies were generally older adults (mean age=61.02) and inclusion criteria varied from history of disease to reported sedentary behavior. Measures of cardiopulmonary function were representative of cardiopulmonary fitness and cardiovascular disease risk and included blood pressure, heart rate, ejection fraction rates, blood lipids, 6-minute walk distance, ventilatory function, and body mass index (BMI). One of the most consistent findings was the significant reduction in blood pressure reported in multiple studies, especially when Qigong (Lee et al., 2004; Lee et al., 2003) were compared to inactive control groups such as usual care, educational classes, or wait-list controls. Other indicators of cardiac health have been evaluated such as reduced heart rate is reported (Channer, 1996; Thomas, 2005). These reported changes suggest that Qigong may affect sympathetic and parasympathetic systems. Participants with a history of heart failure reported significant improvements in the incremental shuttle walk following qigong intervention implemented in two studies incorporating inactive control groups (Yeh, 2004).

Women treated for breast cancer achieved significantly increased distances in the 6-minute walk test in response to Qigong (Fouladbakhsh & Stommel, 2010).

Parkinson's disease

In this small (n=11 in each arm of study) cross-over study of patients with Parkinson's disease, participants practiced Qigong for 7 weeks reported significantly improved 6-minute walk test (Burini, 2006).

Obesity

Qigong has demonstrated a greater reduction in BMI as compared to an exercise control group in two studies (Cheung et al., 2005, Wolf et al., 2006) but this difference was not significant.

Physical function

Decreased physical activity is related to declining physical function in all populations and that decline is compounded by the natural process of aging (Freemont, 2007). Changes in physical function were assessed in many studies. Most of the studies were conducted with older adults (i.e., studies in which mean age = 55 years or older) and several recruited specifically for participants with chronic pain (e.g., osteoarthritis, neck pain, or fibromyalgia). Studies showed better overall changes in physical activity levels are also included (Lansinger et al., 2007; Gatts & Woollacott, 2006; Galantino, 2005)

Falling

Fear of falling is reported with the psychological outcomes. Outcomes related to falls such as balance, fall rates, and improved strength and flexibility were reported in extensive literature after practicing qigong (Choi, Moon, & Song, 2005; Tsang et al., 2007; Wang et al., 2005)

Quality of life

Quality of life (QOL) outcomes were reported in many articles. QOL is a broad ranging concept derived in a complex process from measures of a person's perceived physical health, psychological state, personal beliefs, social relationships and relationship to relevant features of one's environment (W.H.O, 2002). Studies showed that a wide range of participants (including healthy adults, patients with cancer, post-stroke, arthritis, etc.) at least one of the components of QOL was reported to be significantly improved by Qigong compared to inactive or active control groups (Tsang et al., 2003; Tsang et al., 2006). Interestingly, one study was of short duration (6 weeks) conducted with patients with traumatic brain injury which shows improvement in coping and muscular dystrophy (Gemmell & Leathem, 2006).

Self-efficacy

Self-efficacy is the confidence a person feels in performing one or several behaviors and the perceived ability to overcome the barriers associated with the performance of those behaviors (Glanz, Rimer, & Viswanath, 2008). Although this is not a health outcome itself, it is often associated directly with health behaviors and benefits (e.g., falls self-efficacy associated with reduced falls), or with psychological health. Significant improvements in this outcome were reported. Self-efficacy was generally assessed in the RCTs as a secondary outcome and reflected the "problem" area under investigation, such as falls self-efficacy (i.e., feeling confident that one will not fall) or efficacy to manage a disease (arthritis, fibromyalgia) or symptom (pain). Self-efficacy for falls was significantly increased as a result of participation in qigong (Li, Fisher Harmer & McAuley 2005; Hammond & Freeman, 2006).

Autoimmune

1 month qigong practice reported improvements in a number of immune-related blood markers, including total number of leukocytes, number of eosinophils, and number and percentage of monocytes as compared to usual care (Yang et al., 2007).

Discussion

This overview shows that a number of systematic reviews of qigong have been published. All of the systematic reviews have been published recently which indicates that the scientific interest in qigong is growing. The conclusions of the systematic reviews tended to be positive or equivocal. The major effects of qigong was on cardiopulmonary and hypertension. On contrary to this these studies were based on poor quality primary data. Moreover, hypertension is readily, and reliably, treatable and we doubt that the effect size of qigong is larger than that of antihypertensive drugs. The literature search included, English, Chinese and Korean databases, and was comprehensive. Yet this cannot be absolutely certain to have located all relevant articles from the databases. There was a minimal evidence for obesity and effects on immune system. Many of the important details from primary studies have been picked up and reported effectively in the article. Finally, publication bias can lead to an underrepresentation of negative results. The phenomenon could also be important for the publication of systematic reviews. The quality of the included systematic reviews was mixed but most of the quality of primary studies included was poor with the most frequent limitations of the primary studies are small sample size and lack of proper control group. Until there were a high quality clinical trial of qigong, it would be unwise to draw firm conclusions about its effectiveness. Even rigorous systematic reviews can be misleading if they are based on biased primary data.

Conclusion

A compelling body of research suggests the growing body of qigong studies. The evidence suggests that a wide range of health benefits accrue in response to these meditative movement forms, some consistently so, and some with limitations in the findings thus far. In conclusion, several systematic reviews of qigong for a wide range of conditions have recently been published. Most of these systematic reviews were not conclusive and all were based on poor quality clinical trials. Given these important caveats, it would be unwise to draw firm conclusions about the effectiveness of qigong. Our overview does, however, suggest that this area merits further rigorous research.

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