

## Original Papers

# Treating Survivors of Torture and Refugee Trauma: A Preliminary Case Series Using *Qigong* and *T'ai Chi*

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### Abstract

**Objectives:** This paper seeks to explore the potential value of *qigong* and *t'ai chi* practice as a therapeutic intervention to aid in the treatment of survivors of torture and refugee trauma.

**Design:** The common effects of torture and refugee trauma are surveyed with a focus on post-traumatic stress disorder. An alternative theoretical framework for conceptualizing and healing trauma is presented. Evidence is reviewed from the scientific literature that describes how *qigong* and *t'ai chi* have been used in studies of the general population to alleviate symptoms that are also expressed in torture survivors. Observations are presented from a combined, simplified *qigong* and *t'ai chi* intervention with a convenience sample of four refugee survivors of torture.

**Results:** Preliminary observations from four cases and a review of the literature support the potential efficacy of incorporating *qigong* and *t'ai chi* into the treatment of survivors of torture and refugee trauma.

**Conclusions:** The incorporation of *qigong* and *t'ai chi* into the treatment of torture survivors, within a new framework for healing trauma, merits further investigation.

### Introduction

Torture is a global public health problem with long-lasting effects on survivors, their families, and their communities. Today, there are 9.2 million refugees and approximately 10 million asylum seekers, returned refugees, internally displaced persons, stateless persons, and others who are at high risk for human rights abuses.<sup>1</sup> Torture occurs in over 150 countries<sup>2</sup> and can be found in 5%–30% of the world's refugees and in even higher percentages in certain ethnic groups.<sup>3,4</sup> In one study at an urban primary care center, a history of torture was found in 11% of all foreign-born patients.<sup>5</sup> However, feelings of shame and fear in torture survivors often lead to underreporting.

The negative impact of torture can reduce the capacity of individuals to resettle and integrate into a new society. Although some individuals are extraordinarily resilient, others may experience enduring personality changes; additionally,

some may have neurologic damage due to head trauma that adversely affects functioning. Once routine resettlement and employment services have been provided, torture and trauma survivors may need intensive and carefully targeted additional psychologic and social services. Many survivors and their families are under extreme stress from economic burdens and the difficult process of applying for asylum, further exacerbating psychological distress and complicating the healing process.

This paper describes the psychologic therapies commonly provided to torture survivors and the potential for using *qigong* and *t'ai chi* as complementary therapies to improve outcomes.

### PTSD and Other Torture-Related Morbidities

Under modern Western phenomenology, the psychologic impact of torture often takes the form of major depressive

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disorder (MDD), post-traumatic stress disorder (PTSD), or both. PTSD and depressed mood have been shown to be independently significant effects of torture among refugees.<sup>6,7</sup> Some of the most prevalent symptoms reported among torture survivors are depressed mood (60%–66%), anxiety (38%–93%), disturbed sleep (51%–83%), and persistent pain (45%–58%).<sup>6,8</sup>

After prolonged exposure to trauma, as in the case of many torture survivors, some patients express symptoms that fall outside of a “simple” PTSD diagnosis. The diagnosis of complex PTSD has been created to accommodate such patients.<sup>9–11</sup> Complex PTSD manifests itself as somatization and alterations in the regulation of affect and impulses, attention or consciousness, self-perception and perception of the perpetrator, relations with others, and systems of meanings. Patients with complex PTSD are harder to treat due to co-occurring problems and developmental deficits.

### Current Approaches to the Treatment of PTSD

Since the traumatic experience deeply severs the capacity for interpersonal relationships, recovery must take place in the context of new relationships in order to reform this bond with the world. Stages of recovery through relationship building include establishing safety, reconstructing the trauma story, and restoring the connection between survivors and their community.<sup>12</sup>

Psychotherapies and drugs have had varying degrees of success in the treatment of PTSD. Cognitive behavioral therapy, eye movement desensitization and reprocessing, and pharmacotherapy have been used to desensitize and reprocess cognitions into clear emotional and physical plots that reformulate the traumatic experience. Psychotherapy is used to empower patients to move beyond their past trauma and live effectively in the present, which involves overcoming helplessness and regaining control of emotional responses. Recognizing emotionally arousing stimuli as being different from those of the original trauma leads to greater control over emotions. Patients must begin to try to experience healthy emotion in the context of their present lives and to recontextualize the traumatic experience, reconciling its meaning in their life memories.

Control is the antidote to helplessness, and though control over the initial trauma was not possible, some control over subsequent traumatic experiences can be developed. The sense of being an autonomous self is lost during the traumatic experience and must be regained by enhancing the sense of self-awareness, self-mastery, volition, and freedom of choice. Self-regulation practices, such as exercise, relaxation, imagery, meditation, and hypnosis, may be beneficial in regaining control and promoting the healing process. Without professional guidance, however, these activities can be potentially fraught with complications for persons with a history of trauma, as they may trigger anxiety, flashbacks, or further dissociation.<sup>13,14</sup>

### Body-Work

Body-work is a general term used to describe therapies that include massage and tissue manipulation as well as improving bodily awareness through movement. The dissociation of self from body that sometimes results from torture, along with physical sequelae such as muscle tension, con-

stricted breathing, and reduced body awareness and sensation can be addressed through body-work.<sup>15,16</sup> Dance and movement therapy are commonly used forms of body-work with survivors of torture.<sup>15,17</sup>

Sensorimotor psychotherapy is another method of involving the body in the treatment of trauma.<sup>18</sup> Many of the symptoms of PTSD can be attributed to incomplete or ineffective processing of responses to trauma at the cognitive, emotional, or physical level. Ogden and Minton<sup>18</sup> suggest that by raising bodily awareness, sensorimotor psychotherapy, in addition to the typical top-down, cognitive-behavioral approach of psychotherapy, can be an effective approach to processing unassimilated reactions to trauma from the physical or sensorimotor level.

### Complementary Approaches to the Treatment of PTSD

The popularization in the West of Eastern forms of exercise over the past few decades has led to their investigation as possible complementary therapies. A holistic treatment perspective recognizing the interrelationship and unity in the mind-body system is key to healing those affected by traumatic stress. This view is fundamental to Traditional Chinese Medicine as well as other healing traditions.<sup>19</sup> A holistic model seeks to restore overall balance within the mind-body system and views health as an ongoing process encompassing interdependent physical, psychologic, and social factors, with disease and trauma representing a disruption in the balance of the whole system.<sup>20</sup> Importantly, the body and mind are seen as interconnected, with changes to one affecting the other.

The flow of energy or life force, known as *qi* in Traditional Chinese Medicine, is fundamental to this view. Ancient Chinese physicians charted an interconnected system of channels through which *qi* circulates. It is thought that when the channels are open, energy can flow freely and unobstructed, bringing about good physical health, emotional balance, mental clarity, and a sense of wholeness. According to Traditional Chinese Medical theory, if energy flow is obstructed, corresponding physical, emotional, or mental imbalances can result and manifest as illness.<sup>19</sup>

The Western diagnosis of PTSD can be conceptualized in terms of internal disturbances of energy balance and flow. PTSD symptoms can be viewed as the result of a freezing response blocking energy flow in the person.<sup>21</sup> In order for healing to occur, these inner stores of frozen energy must be released and the natural flow of energy must be strengthened. Resolving this frozen energy can reestablish a balance within the person and a renewed flow of energy through the mind-body system, culminating in the return to a state of well-being.

Since trauma is often grounded in the body, healing should unfold through a process of restoring the body, with the healer addressing the patient's body in treatment. The dynamic balance of energy is the unifying scheme of well-being, and the proper manipulation of energy can promote healing of the mind-body system.

### *T'ai Chi* and *Qigong*

We examined findings from studies using *t'ai chi* and *qigong*, with the view that they are alike in more ways than they differ and share the potential for assisting in the treat-

ment of survivors of torture and refugee trauma. *Qigong* and *t'ai chi* share many similarities, with aspects of *qigong* appearing throughout *t'ai chi* movement sequences or forms. *T'ai chi* is a practice that developed over several centuries in China, involving a series of dance-like postures that flow into one another, integrated by mental concentration, physical balance, muscle relaxation, and relaxed breathing.<sup>22-25</sup> *T'ai chi* combines movements from martial arts with Chinese philosophy and exercises for balancing and healing the body and mind. *Qigong*, one of the core practices of Traditional Chinese Medicine, means working with or manipulating the vital energy or *qi* in the body.<sup>26</sup> *Qigong* can refer to exercises for cultivating internal or external *qi*, but in this study we refer only to the individual practice of cultivating internal *qi*. Though both *qigong* and *t'ai chi* have a meditative aspect and focus on breathing, *qigong* is known more for these qualities, and *qigong* exercises are generally easier to learn and less physically demanding. *T'ai chi* has a martial aspect missing from *qigong*, even though *t'ai chi* is not practiced primarily as a means of self-defense.

Anxious, troubled states of mind and erratic thought processes can be expressed in the body, just as problems in the body can affect mental attitudes. Many physical problems can be attributed at least partially to mental or emotional stress. Trauma, whether "complex" or not, may be the original source of persistent physical, emotional, or cognitive problems, but it is the constant repetition of this trauma in the subject's mind-body system that creates the problems that must be addressed in treatment. The slow, focused movements of *qigong* and *t'ai chi* may counteract erratic movements and thoughts by increasing awareness of and eventually releasing muscle holding patterns and their associated attitudes caused by stress, trauma, or past injuries. *Qigong* and *t'ai chi* are practiced slowly to develop sensitivity and awareness of the body as it moves through the immediate environment. By focusing on movement control, tension and muscle holding patterns can be released. Emphasis is placed upon the development of flexibility and internal energy, or *qi*, with each focused movement aiming to manipulate *qi* in a particular area of the body.

*T'ai chi* and *qigong* are now popular throughout the world and are widely practiced in a variety of settings. A 2002 national survey found that 5.1 million adults (2.5% U.S. adults) used *t'ai chi* at least once in their life and 2.6 million adults (1.3%) used *t'ai chi* in the previous year.<sup>27</sup> Practicing *t'ai chi* or *qigong* movements as meditation may provide a period of calm reflection to rebuild and maintain mental equilibrium amid the stressful conditions of the modern world.

### How *Qigong* and *T'ai Chi* Might Assist in the Treatment of PTSD and Other Torture-Related Morbidities

A *qigong* and *t'ai chi* intervention has the potential to contribute to the relief of psychologic and psychosomatic sequelae of torture at two levels. In populations of nontorture survivors, *qigong* and *t'ai chi* have been demonstrated to relieve the same symptoms that are highly prevalent in survivors of torture and, as such, have the potential to contribute to alleviating symptoms of tortured individuals. Additionally, the increase in bodily awareness and mental focus accompanying the practice of *qigong* and *t'ai chi* may aid tor-

ture survivors in processing the bodily aspects of their trauma and facilitating the healing of related psychologic disturbances. *T'ai chi* has been more popular than *qigong* in the West, which is reflected in the larger number of *t'ai chi* studies in the English-language scientific literature.

#### Psychologic

Exercise has long been demonstrated to reduce stress and improve general well-being.<sup>28</sup> In studies comparing the benefits of *t'ai chi* and exercise of varying intensity, *t'ai chi* and moderate intensity exercise have been shown to similarly reduce levels of anxiety.<sup>29,30</sup> *Qigong* and *t'ai chi* incorporate a cognitive aspect not present in most exercise, which may explain why some controlled studies have found greater benefits from *t'ai chi* or *qigong* than activities of comparable intensity.<sup>29-31</sup> Due to their low impact on the body, *qigong* and *t'ai chi* are especially useful when aerobic exercise may be too physically strenuous for the individual. Reviews of the literature show that *t'ai chi* may be an effective means of reducing stress<sup>32</sup> and is commonly used as an intervention with the elderly to promote mental awareness.<sup>33</sup>

*T'ai chi* and *qigong* have been shown to produce statistically significant improvements in psychologic well-being, including significant reductions in mood disturbance, anxiety, stress, tension, depression, anger, fatigue, confusion, and state-anxiety.<sup>34-43</sup> Improvements in perceived psychosocial status, as well as in mood state and stress, have been found following a *t'ai chi* intervention.<sup>44</sup> In a *t'ai chi* study with elderly individuals, Li et al.<sup>45</sup> found increased positive health perception, life satisfaction, positive affect, well-being, and lower levels of depression, negative affect, and psychologic distress. Also in elderly samples, Chen and Sun<sup>46</sup> found that *t'ai chi* improved anxiety scores, and Chou et al.<sup>47</sup> found a reduction of depressive symptoms with an equal reduction in complaints related to somatization, psychologic distress, difficulties with interpersonal relations, and overall poor well-being. Self-esteem has also been shown to increase with *t'ai chi* instruction.<sup>48,49</sup>

#### Cognitive

The cognitive component of *qigong* and *t'ai chi* practice is an important source of their therapeutic potential. The practice of being fully attuned to one's surroundings and aware of the present moment is often called mindfulness. Mindfulness practice can help address dissociative alterations in identity by facilitating the person's identification with their inner self rather than their physical body,<sup>50</sup> which is often a source of suffering in survivors of torture. *Qigong* and *t'ai chi* involve an essential mindfulness component, similar to meditation practice that may aid in treating the dissociation characteristic of PTSD.

#### Pain

In addition to improving mental health, *t'ai chi* has been shown to significantly decrease measures of bodily pain in both college students<sup>51</sup> and elderly women.<sup>37</sup> A mind-body intervention that included *qigong* movement therapy and relaxation response training significantly improved pain ratings in a population suffering from chronic low back pain.<sup>52</sup> A trial of the effects of *qigong* treatment, which included a

placebo cohort with a sham *qigong* master, found *qigong* training to produce transient pain reduction as well as long-term anxiety reduction in people with complex regional pain syndrome.<sup>41</sup>

### Sleep

Sleep disturbances, suffered by approximately 70% of those diagnosed with PTSD,<sup>53</sup> may also be relieved through the practice of *qigong* or *t'ai chi*. In an experiment with undergraduate women, Slater and Hunt<sup>54</sup> found a decrease in nightmares after *t'ai chi* exercise as compared to a stretching exercise control group. In a randomized clinical trial with older adults experiencing moderate sleep complaints, *t'ai chi* was shown to decrease sleep disturbances and increase subjective sleep quality, while a low-impact exercise program did neither.<sup>55</sup>

### Possible physiologic mechanisms

*T'ai chi* has been shown to acutely decrease sympathetic nervous system activity, as measured by cardiac pre-ejection period.<sup>56</sup> Both *qigong* and *t'ai chi* have been shown to reduce cortisol levels, possibly implicating the hypothalamic–pituitary–adrenal axis in *t'ai chi*- or *qigong*-induced stress and anxiety reduction.<sup>31,41</sup> *T'ai chi* studies using electroencephalography have shown significant changes in  $\alpha$  and  $\theta$  brain-wave activity associated with increased positive mood tests, not present in an exercise control.<sup>34,47</sup>

### Convenience Sample Case Series

Over a 1-year period, four refugee survivors of torture being treated at a Boston area torture treatment center participated in simplified *qigong* and *t'ai chi* sessions 10–15 minutes prior to and after 1-hour psychotherapy sessions with a psychiatrist (M.A.G.) trained in *qigong* and Wu style *t'ai chi*. Inclusion criteria were that the clients met DSM-IV TR criteria for PTSD and MDD as well as the United Nations definition for victims of torture and that they reported somatization and were willing to participate in the intervention and practice at home.<sup>58,59</sup> The exercises were basic *qigong* and *t'ai chi* movements involving breath monitoring, grounding, weight-shifting, circular motions of the arms, and centering. Clients were asked to practice the exercises at home daily and reported doing so three to four times per week in addition to weekly practice during psychotherapy sessions. The study sample clients originated from countries in Central Africa, the Middle East, Southeast Asia, and Eastern Europe.

Clients reported looking forward to the sessions and finding them calming and relaxing. The sessions were found to facilitate subsequent psychotherapy sessions, with a decrease in hypervigilance and increase in introspection observed during psychotherapy. Additionally, there was a decrease in psychosomatic complaints. Clients reported feeling more attuned to their bodies and an overall improvement in physical, emotional, and spiritual well-being. While patients were able to reduce antidepressant and sleep medications, this could be due to psychotherapy or the natural course of their disease. There were no reported adverse events or complications related to the *qigong* or *t'ai chi*.

#### Case 1

A 30-year-old Tibetan man was forced to leave Tibet after his family was threatened and he was imprisoned and tor-

tured for distributing recordings of the Dalai Llama and materials promoting Tibetan liberation. In addition to PTSD and MDD, this client suffered from sleep disturbances, nightmares, decreased energy, and feelings of despondency and helplessness. He underwent psychotherapy and pharmacotherapy for nearly a year, combined with a simplified *qigong* and *t'ai chi* regimen with related relaxation and breathing exercises. He reported enjoying the exercises and finding them relaxing. Additionally, he claimed that the exercises helped him learn to calm himself and increase his control over preventing external stimuli from triggering re-experiencing episodes.

#### Case 2

A 44-year-old man from Lebanon was arrested and imprisoned in Syria for 7 months, undergoing interrogation and torture. In addition to PTSD and MDD, this client struggled with affect lability, nightmares, flashbacks, ruminating, hypervigilance, and anxiety. He was seen for nearly 2 years and was treated with psychotherapy and pharmacotherapy. During his second year of therapy, he practiced a simplified *qigong* and *t'ai chi* regimen with related relaxation and breathing exercises weekly in conjunction with psychotherapy sessions. He reported that the exercises had a calming effect on him. He also reported a marked improvement in back and neck pain at the site of a torture-related injury where he often experienced pain in response to stressful psychologic stimuli.

#### Case 3

After becoming involved with political demonstrations, a 23-year-old woman from Belarus was arrested by secret police, handcuffed, beaten, threatened, and humiliated. Presenting with PTSD and MDD, this client was treated with pharmacotherapy and psychotherapy for nearly a year in addition to participating in guided *qigong* and *t'ai chi* practice and related relaxation and breathing exercises. She showed slow signs of improvement, with a decrease in flashbacks, less reported anxiety and stress, and an improvement in mood. She was open to trying the exercises and, even though she found them strange at first, came to enjoy the guided practice before and after psychotherapy sessions.

#### Case 4

After becoming politically active, a 47-year-old man from the Democratic Republic of the Congo was arrested and subject to psychologic and physical torture, including being beaten, stretched, and sexually humiliated. This client presented with PTSD and MDD and underwent psychotherapy and pharmacotherapy in addition to practicing a simplified *qigong* and *t'ai chi* regimen with related relaxation and breathing exercises. He reported greatly enjoying the exercises, finding them to be soothing and helpful for managing his anxiety.

### Proposed Research Based on Above Case Series

The sample size and informal methods used in this case series cannot support broad conclusions on the efficacy of *qigong* or *t'ai chi* in treating survivors of torture, and the positive outcomes associated with each case cannot be solely at-



tributed to *qigong* or *t'ai chi*, as the patients all underwent simultaneous pharmacotherapy and psychotherapy. This case series does indicate, however, that *qigong* and *t'ai chi* merit further investigation as interventions that torture survivors from a range of cultural and ethnic backgrounds suffering from PTSD and MDD might enjoy and find therapeutically helpful. We are in the process of evaluating the therapeutic potential of *qigong* and *t'ai chi* as an adjunct to psychotherapy and pharmacotherapy for treating refugee survivors of torture initially with a single-arm, mixed-methods study measuring pre- and postintervention mental health and bodily pain outcomes as well as gathering qualitative data from semistructured interviews.

### Conclusions

Torture is perpetrated widely and has devastating consequences for the tortured person as a whole. The sequelae of torture are most prominently expressed as PTSD, which can be conceptualized as a freezing response in the mind-body system disrupting internal energy flow and equilibrium in the torture survivor. *Qigong* and *t'ai chi* are traditionally seen as methods of cultivating and balancing the flow of internal energy and, as therapeutic interventions, presents a means of involving the body and mind in the process of healing trauma. Reviews of the literature indicate that *qigong* and *t'ai chi* effectively provide relief for many physical and psychologic ailments in the general population, including those that also are suffered by survivors of torture. Clinical observations from integrating *qigong* and *t'ai chi* with psychotherapy and psychopharmacology for treating four refugee survivors of torture show promise for the safety and efficacy of this type of intervention. Further research examining the therapeutic potential of *qigong* and *t'ai chi* as holistic additions to the treatment of torture survivors is suggested.

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