Comment on Draft Report on Pain Management Best Practices: Updates, Gaps, Inconsistencies, and Recommendations by Josie Weaver, Healer Within Foundation

ADD QIGONG AS A BEST PRACTICE

The Draft Report contains 12 references to the term Tai Chi in the context of integrative practices used as interventions for chronic pain. As a global consideration, Qigong can also be added to best practices for acute and chronic pain management, because by definition Tai Chi is a moving form of Qigong. Therefore, Qigong forms and practices, like Tai Chi forms and practices, also belong to the category of exercise called Moving Meditation (MM) which consists of conscious and intentional movement or body positioning, a focus on breathing, and a cleared or calm state of mind resulting in deep states of relaxation [1]. In terms of definitions, both comprise meditative and intentional movement, Asian-style martial arts traditions and rituals, meditation, and a comprehensive sense massage that is both gross tactile-haptic (as in the case with exteroception and self-massage) and also fine sensory "massage" that can be tied to the action of mechanoreceptors for movement and blood pressure, for example [2]. Both Qigong and Tai Chi are traditionally practiced as separate systems for regulating attention through meditative aspects, conditioning the body through mindful submaximal movement, and providing a way of knowing the self [2]. More importantly, however, the functional equivalence of Qigong and Tai Chi provides a useful way to analyze RCT studies and consider the aggregate findings to pertain to both practices. In this way, the studies on Tai Chi and Qigong show evidence that they are proven effective for various types of health conditions [3], including pain [4, 5, 6, 7, 8].

As MM practices, Tai Chi and Qigong can together be regarded "as a complex, multicomponent intervention that integrates numerous physical, cognitive, and ritualistic components." [9]. In this way, a Tai Chi and Qigong intervention thus involves the whole person (body, mind, and spirit), and can potentially be useful in acknowledging and strengthening the patients' roles in their own healing processes and thus help with chronic pain management. This can promote self-management in a relatively safe and cost-effective way. While the current body of research addressing therapeutic effects grows and evolves, there is sufficient evidence to warrant authoritative clinical practice recommendations and justification for further study. The mechanisms by which Tai Chi and Qigong work have been explored in growing numbers of studies that have yielded promising results [2, 9] and the following are examples. The practice of a well-known form of Qigong (Baduanjin) has been shown to promote self-management and improve sleep quality in patients with musculoskeletal pain and chronic diseases [7]. Tai Chi posture and movement practices, for example, have been shown to reduce and manage pain [8]. Other mechanisms also being studied are the meditative focus of Tai Chi and Qigong, which has been referred to in the literature as attentional awareness (the skill of directing one's focus) and interoception, the felt sense of the body's physiologic condition which has been linked to the perception of pain [2, 10]. Both of these can be developed over time through Tai Chi and Qigong, MM practice. The evidence that assessing changes in aspects of interoceptive awareness in patients with pain indicates that interoception skill is useful in structuring and evaluating mind-body interventions with pain patients [10]. A trial by Wayne and colleagues also showed that interoceptive awareness achieved using postural exercises alleviated neck pain [11].

Having a relaxed and meditative focus while moving includes interoceptive and exteroceptive awareness that elicits the relaxation response [2]. Tai Chi has been shown to reduce oxidative stress in the body and has significant beneficial effects on the autonomic nervous system [12]. In fact, deep relaxation may be the most significant aspect of practice that pain patients can experience regardless of the specifics of their condition. The relaxation response and its associated beneficial states of the vagus nerve elicit feelings of safety, a requirement for learning and change, according to Steven Porges, developer of polyvagal theory. Dr. Porges developed the theory of the dynamic nature of the vagus nerve and its ties to many systems in the body, especially the stress response. In a recent review of the systems involved in chronic diffuse pain and gastrointestinal disorder associated with trauma, Porges and Kolacz show "the potential for the autonomic nervous system to be the basis for the organization and synthesis of observations made by physicians, mental health practitioners, and neuroscientists to piece together the mechanisms that link traumatic experiences, threat-related nervous system function, and multiple somatic disorders" [13]. By extension, using MM modalities that elicit the relaxation response thus involve the vagus nerve, and this can help people manage their chronic pain [14].

SPECIFIC COMMENTS

The following are specific comments with section and page references.

Draft Report Overview, p.1: Multidisciplinary bullet. Sub-Bullet Restorative movement therapies: add "moving meditation, including qigong and tai chi." Sub-Bullet Complementary and integrative health: add "qigong." Sub-Bullet Behavioral health/psychological interventions: add "mindfulness".

2.3 Restorative Therapies, p. 20: Add a section for Meditative Movement Therapies. **Meditative Movement (MM)** practices such as Qigong and Tai Chi can be used to preserve and restore function through creating an attentive and safe practice that explores movement aspects such as range of motion while cultivating relaxation to accelerate healing [15].

Gap 1, Recommendation 1b, p. 22: Add qigong: "...movement-based modalities, including tai chi, qigong..."

2.5 Behavioral Health Approaches, pp.26-27: Add a new paragraph on Meditative Movement therapies: **Meditative Movement (MM)** practices such as Qigong and Tai Chi can be used to help a patient change lifestyle and behavior choices over time as awareness of behavior patterns become clearer to and accepted by the pain patient. This is a key component of the biopsychosocial model of care for patients. An example includes developing an ability to attend to pain with detachment such that pain is experienced "directly" as an event occurring in time and space. With practice, this ability to direct awareness can build trust in the validity of experience and eventually shift decision-making to be more beneficial and supportive of a condition [2, 10].

2.5.2 Chronic Pain Patients with Mental Health and Substance Use Comorbidities Gap 3, Recommendation 3b. p.30. Add qigong: "...relaxation therapies, meditation, tai chi, qigong)."

2.6 Complementary and Integrative Health, pp.31-32: Paragraph 1: Add qigong: "...meditative movement therapies (e.g., yoga, tai chi, qigong),..." Paragraph 2: Add qigong to list of hands-on manipulative techniques since qigong includes self-massage: "...hands-on manipulative techniques (e.g. osteopathic or chiropractic manipulation, massage therapy, qigong self-massage),... Paragraph 2: Add qigong: "...mindfulness, yoga, tai chi, qigong, biofeedback, art and music..." Qigong self-massage is a mindful tracking of experience as done through sensing surfaces as under the feet especially during slow shifting of body weight to feel pressure at support points. A sense of pressure and temperature is also featured in exercises that involve the sense of exteroception featured in the light stroking, touching, holding or tapping parts of the body featured in many practices that develop attentional skills and sensitivity [2].

Tai Chi and Qigong. [p.33] Originating from the Chinese martial arts, Tai Chi is considered a form of Qigong, where Qigong is a Chinese term used to describe exercises that require focus and concentration, full body presence, breath awareness/coordination, and skill. The literal translation of "Qigong" from the Chinese is "the work of energy or vitality." The exercises of both Qigong and Tai Chi take the body into natural range of motion, and they are done slowly at submaximal effort with a meditative focus that develops attentional regulation, an ability to track awareness directly with little to no judgment or emotion. The regular practice of Qigong and Tai Chi for health improves concentration, posture, balance, range of motion, and confidence. The practices can be done as group exercise led by a live instructor or led via video. A Qigong and Tai Chi practice session for health includes meditation, breath practice, self-massage, and moving individual joints, limbs, and the spine. The slow movements, attentional focus, breath regulation, and coordination in Tai Chi and Qigong practice create a mind-body exercise that has been found to develop and maintain function of bodily systems [2, 3], and studies show they help manage pain [4, 5, 6, 7, 8].

Gaps and Recommendations, Gap 1. Recommendation 1a, p. 33: add qigong: "...spirituality, yoga, tai chi, and qigong, ..."

2.7.2 Older Adults, p. 35: Add: Recommendation 1d: Educate physicians, older adults, and health providers on evidence-based non-pharmacologic health approaches that include tai chi and qigong for falls avoidance and cognitive decline.

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