

The Power of Exhaling: The Benefits of Tai Chi in the Workplace

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Submitted to Professor J. Weissman

Project Seminar, Spring 2012

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Breathe..... and exhale. Now do it again but this time have your eyes closed and when you exhale say “aaahhh” and breathe through your nose and out your nose. Repeat several more times focusing on the internal movement of your breath and exhale. Blink your eyes open, reintroducing light back into your soul. How did you feel before you started this exercise? How did you feel after breathing? After exhaling? Hopefully you felt your body beginning to relax and de-stress. This is the breathing technique used throughout the world in tai chi practice. Through utilization of this breathing technique and variations of meditative exercises with coordination of slow gentle flowing movement, we are able to help ourselves relax and cultivate Qi (chi). Qi is what aids in the healing process and bring us to a state of well-being.

My research is designed to show how tai chi, when engaged in by employees, will improve their overall health, increase productivity, and lead to better attendance at work. This will have a positive and direct effect on the cost of health insurance fees for both employee and employer. At the very least, tai chi should be part of corporate Employee Assistance Program (EAP) offerings. To gain further insight, it will be important to understanding the benefits of tai chi, including who will benefit and why participate in tai chi rather than yoga or other alternatives.

To help understand this level of health and how it is achieved, it is necessary to understand tai chi and its rich historical origin; this will help individuals to comprehend the breadth of this “ancient Chinese secret” filled with powers still not fully comprehensible and documented. Researching tai chi history has led me in circles. As John R. Little and Curtis F. Wong, editors of *Ultimate Guide to Tai Chi: The best of inside Kung-Fu* state, “The history of tai chi chuan is at best fragmented” (x). As I have learned through my studies of tai chi, supported by co-authors Petra & Toyo Kobayashi, the five families are Sun, Yang, Wu, Peking, and Chen. Chen style tai chi being the originator; dates between the years of 1597-1664. It has been passed down through generations, without written notation until recently, and dates back even further somewhere between the years of 1368-1644 (18). Therefore one could believe there will be at least five different correct answers because of the lack of formal documentation. Even through my experience I have heard variations regarding which family was the founder, what tai chi (chuan) means and the definition of qi.

What is known is tai chi dates back to around “more than 300 years ago in the late Ming and early Qing dynasties of China. Tai Chi, has many meanings such as, ‘supreme ultimate’ (boxing) and Chuan, meaning ‘fist’” (Wolf 886). Another definition describes it “as an “internal” martial art which cultivates the flow and balance of the practitioner’s qi (vital energy)” (Birdee et al. 969). The Chinese masters realized when engaging slowly in tai chi they were able to feel this internal flow of qi and began to see improvement in their health. Tai Chi has Chinese roots as a practice of martial arts as well as healing traditions. It is this qi that is still so foreign to many westerners who are now becoming more aware of it. Below is an explanation of qi, to help further understand tai chi and qigong.

The Chinese call life energy Qi (pronounced chee). The character for Qi is also the character for air or breath. QiGong (pronounced chee kung and often spelled Chi Gong) means “*breath work*” or “*energy exercise*” (Douglas, *The Complete* 6). There are about 7,000 QiGong exercises in the Chinese Medica (the bible of Chinese Medicine). Tai Chi is a moving form of QiGong. There are sitting and lying forms of QiGong, but all Tai Chi is done standing and moving (6).

It is this qi that we cultivate during the practice of tai chi that has the ability to heal and move throughout our mind-body experience. According to Birdee, et al. there is “growing body of evidence for clinical effectiveness, little is known about those who practice...and for what reason” (969). It is the clinical evidence that has me searching for answers as to who is participating? Who benefits? What the benefits are of tai chi? Why tai chi? Why tai chi in the workplace?

Further research revealed additional information. The affects of tai chi have been studied for many years but it’s the recent studies that have been showing how tai chi improves balance, longevity, flexibility and range of motion. We have learned how it helps in the healing of many illnesses such as, diabetes, heart disease, arthritis and stress, and stress related illnesses. Additionally, they show who is participating and how they benefits.

An analysis was conducted utilizing “cross-sectional data from the 2002 National Health Interview Survey (NHIS) Alternative Medicine Supplement. There were estimates of 2.5 million tai chi and .5 million qigong users. The survey was to “identify populations and medical conditions that warrant further research” (Birdee et al. 970). Sociodemographics such as health status, health behaviors, weight, age, sex, practice of yoga and other mind-body techniques were among the health factors that were further surveyed from 2002 NHIS because of the covariates

(970). The participants ranged in age from 18 to 65, men and women of all races, and household income from below \$20,000 to over \$65,000. The subjects lived throughout the United States, with education levels that were less than college to more than college. Health conditions included varying degrees of smokers and non smokers and alcohol intake from non users to heavy usage. Medical conditions were collapsed for analysis in multiple categories;

(1) musculoskeletal (arthritis, rheumatoid arthritis, gout, lupus, fibromyalgia, joint pain); (2) severe sprains in the last year; (3) mental health (depression, anxiety); (4) asthma; (5) chronic obstructive pulmonary disease (chronic bronchitis, emphysema); (6) cardiovascular (myocardial infarction, coronary heart disease, angina, congestive heart failure, other heart condition); (7) hypertension; and (8) neurologic (seizure, stroke, Parkinson's, multiple sclerosis, neuropathy) (Birdee et al. 970).

The results showed definite trends in tai chi users. There was a slightly higher percentage of women than men - just over 56% versus just over 43% respectively. A significant number of participants were Caucasian at approximately 76% versus the least being Asian at approximately 8%. The highest percentages of users were 50-64 years old at 24% and less than 30 years old at 23%. The least number of users were 65 years or older at 15% (Birdee et al. 971). For an exercise program that has always been viewed as one primarily for seniors these numbers are refreshing. Additional results revealed the users with less than college education to participate at 55%, 81% were nonsmokers and 53% intake light alcohol with 93% stating their health status between good and excellent (971).

Below is a breakdown on medical conditions as shared by Birdee et al. (971), and charted:

Table 1. Characteristics of Study Population by Tai Chi and Qigong Use (%):

Musculoskeletal	57.9 %
Mental health	20%
Asthma	16.2%
Hypertension	18.7%
Severe Sprain	15%
Cardiovascular	11.4%

From the NHIS analysis we are able to begin to see that a broad range of individuals nationally are practicing tai chi, however Birdee et al. reminds us that there now needs to be some evidence of the benefits. In the analysis he was able to see the growth in popularity in the United States and learned that the “findings suggest the potential need to investigate tai chi and qigong practice among individuals who have musculoskeletal conditions and asthma.” “Musculoskeletal conditions, severe sprains, and asthma were associated with tai chi and qigong (TCQ) use, but it is unknown whether these conditions led to the use or were a result of TCQ use. Despite a large percentage of respondents reporting the importance of TCQ practice for health maintenance, only a quarter disclosed their practice to their medical professional” (971).

Birdee et al. lets us know during their research the one thing that was determined was that there were positive benefits for “balance and postural control, osteoarthritis, rheumatoid arthritis, and osteoporosis” (971). But further research is required as the data is outdated, conducted by use of questionnaire, and did not get details as to the specifics of tai chi form used, the duration, teacher, frequency or school. The analysis merely let us know that further in-depth study is encouraged in order to gain more insight into the benefits and the extent of those benefits. Regardless of the lack of data this analysis was the “first report and most current information available on the characteristics of TCQ users based on a national survey” (972).

Birdee et al. went as far as to layout expectations of the much anticipated research showing:

developed, patterns of TCQ use should inform future studies. The practice of TCQ for musculoskeletal and pulmonary conditions, as well as for preventive health and health maintenance, should be explored. TCQ like other mind-body practices, are complex interventions with multiple components. Research designs need to be sensitive to this complexity employing a variety of methodologies. The therapeutic role of TCQ will only be defined by thoughtful and rigorous research evaluating the feasibility, efficacy, cost, and safety of these practices (972).

It is apparent from the above NHIS Survey results that everyone is able to participate regardless of their nationality, ethnicity, health, sex, age; even individuals in wheelchairs can take part. I have taught students who were unable to stand for a long period of time or were just out of surgery and have witnessed participants improve in range of motion and balance. Children of all ages and seniors are also able to receive rewards from engaging in tai chi practice. It is gentle enough for those who have injuries or are recovering from surgery. It is important to always consult your physician before engaging in any form of exercise. And yes, tai chi is a form of exercise. Even the Mayo Clinic Staff, in an article on the Mayo Clinic website, supports, “more forms are gentle and suitable for everyone...so you can practice tai chi regardless of your age or physical ability...emphasizes techniques over strength...is low impact” (Mayo Clinic Staff 1).

According to The Arthritis Foundations’ website, tai chi offers many benefits. “Recent studies have found...can improve balance, reduce stress and offer arthritis pain relief (DiLonardo). Dr. Paul Lam, a 30 year tai chi instructor from Australia developed a Tai Chi program specifically for The Arthritis Foundation. The 12 step form for the program “uses gentle

Sun-style Tai Chi routines that are safe, easy to learn and suitable for every fitness level” (DiLonardo). I had the opportunity to learn this form and definitely see the ease in learning and doing in comparison to other forms such as the 24 Yang, 108 Yang, Square Foot, and 52 Sun Styles. The 12 Step classes meet twice weekly for an hour and a DVD is available for step-by-step instructions for home use which makes for great reinforcement (DiLonardo).

In an article on The Arthritis Foundation website, the author shares that a recent study conducted by Tufts Medical Center in Boston “found that tai chi can specifically reduce the pain and physical impairment of people with severe knee osteoarthritis (AO)” (DiLonardo). Additionally supporting this, a randomized controlled trial utilized 40 individuals with a mean age of 65 years with symptomatic tibiofemoral OA (Wang et al. “Tai Chi” 1545). The “participants were randomly assigned in a 60 minute class of Tai Chi (10 modified forms from classical Yang style) or Attention Control (wellness education and stretching) twice-weekly for 12 weeks” (1545). The primary results showed, compared to the controls, patients assigned to “Tai Chi arm exhibited a significant decrease in knee pain as measured by the [Western Ontario and McMaster Universities OA] (WOMAC) pain scale, compared to Attention Control” (1549). The conclusion is “Tai Chi reduces pain and improves physical function, self-efficacy, depression and health-related quality of life for knee OA” (1545). The secondary outcome was measured at 24 weeks and 48 weeks. There were improvements more so seen from “tai chi participants than Attention Control during this time but not significantly “measured” (1550).

Improvements were found not only by physicians but also by the participants. Through discussions, Wang et al. shares that there were also “significant benefits in the measures of depression and self-efficacy that appeared durable for participants who continued to practice tai chi beyond the 12 week intervention period. Thus, in this first long term follow-up trial of tai chi

for knee OA, the tai chi group seems to have developed a general sense of well being, suggesting that there may be synergy between the physical and mental components of this discipline. These findings are promising because there are few efficacious long-lasting treatments for knee OA” (1550-1551).

The trial is reported having “75% improvement of WOMAC pain over baseline and 72% improvement of WOMAC function over baseline” for the Tai Chi group (1551). There is a “theory from eastern and western literature for the improvement...synergy between its physical and mental components likely plays a major role” (1552). They also allude to possible enhancement of cardiovascular, muscular strength, balance, coordination, and physical function benefits, bringing reduced joint pain (1552). Nonetheless, improvement has been measured and further studies are suggested to replicate the results from this study to “deepen our understanding of this therapeutic modality” (1552).

The Mayo Clinic Staffs’ article on the Mayo Clinic website reinforces the above study’s benefits of tai chi further adding tai chi improves sleep quality, lowering blood pressure, improves cardiovascular fitness in older adults, and increases energy, endurance and agility” (2).

Jahnke et al. conducted a comprehensive review utilizing peer reviewed journals from the years of 1993-2007. They looked at the results for health benefits of qigong and tai chi interventions, from random controlled trials (RCTs) (1) concluding: There is significant results demonstrating consistent benefits in RCTs, showing “similarity and equivalence of Qigong and Tai Chi” and its benefits (1). Therefore participating in one or both will prove to be beneficial to our health.

The research compiled by Jahnke et al. included 6410 participants ranging from healthy to specific risk factors or diagnosis of disease including arthritis, heart disease, hypertension,

osteoporosis, fall risk determined by age and sedentary lifestyle or poor physical function and balance, depression, neck pain, sleep complaints, chronic disease, and traumatic brain injury (TBI). Reviews included 13 countries most of which came from the USA but also included some countries such as China, Australia, New Zealand, Sweden, Korea, and Great Britain were among those included (6). Additionally included were “163 different physiological and psychological health outcomes” (6) such as: bone density, cardiopulmonary effects, physical function, falls, balance and related risk factors, quality of life, self-efficacy, patient reported outcomes, psychological symptoms, and immune and inflammation related responses (6-7).

Highlighted conclusions of Jahnke et al. research based on participants engaging in tai chi and/or qigong over an active exercise groups showed anxiety decreased significantly. Depressions showed improvements over inactive control (reading newspaper). There was significant improvement of mood and improvement in stress with participants with osteoarthritis with use of both Tai Chi and hydrotherapy (12).

It is clear from this information shared by Jahnke et al., Wang et al. and the Mayo Clinic that there is significant evidence of overall health improvements from participants engaging in tai chi. It is also clear that further studies need to be conducted as research is in the infancy compared to the age of existence of tai chi.

My personal experience certainly seems to support the above findings by Jahnke and Wang et al. About ten years ago I was experiencing a lot of sickness involving chronic nasal infections, the inability to eat any foods or even drink water, loss of energy, pain throughout my body due to Lupus and pain in my hip area, impacting my ability to move. I also had back pain and stiffness issues stemming from a car accident injury about seventeen years earlier. In a conversation with my cousin, a yoga instructor in Colorado for over twenty years, she suggested

I find a good tai chi instructor. She told me that tai chi was going to be the next ‘big’ thing in exercise and I would benefit from it. It is something everyone can do (Mendelson, Conversation 2002). About six weeks later an adult education flyer arrived. Browsing through the brochure I noticed tai chi as an offering for a six week session in my school district. This was when my healing began.

As I continued my tai chi studies over the past 10 years I have seen my energy level increase a bit; I was sleeping better and could breathe easier. I had become more flexible, had increased balance, and appeared calmer and experienced decreased anxiety. The pain in my hip was decreasing and I was not getting sick as often. I was able to ease many aches and pains in my abdominal area and other parts of my body. Additionally, I found I was less tensed and when in stressful situations I was able to relax with more ease. People who knew me would comment that I seemed calmer. Having this new level of calmness and decreased stress and pain, I have been able to achieve more contentment and happiness in my life, as I am able to “go with the flow.” Jahnke and Wang et al. refer to this as improved health and well-being.

The breathing exercise at the beginning of this paper only took a few minutes and you were able to begin feeling the positive effects of what we can do for ourselves. Tai Chi has become a passion of mine and now has more significance than I expected when first starting out. Imagine if we focus more on our health and the simplicity of such an exercise; imagine the results it would have on our life and those around us. If we have better health through tai chi then perhaps employees would be happier and have increased attendance at work. It is important to take time out for ourselves, for even just 5 minutes daily. We owe it to ourselves.

“Lyubomirsky, King and Diener, (2005) developed a convincing argument based on a meta-analysis (statistical method to summarize and review quantitative research) that, “happy

people are likely to acquire favorable life circumstances, as well as being happier because of those favorable circumstances” (Lyubomirsky et al., as cited in Heinz & Judge, 2006 5). Additionally, Barbara Frederickson, PhD. is a well known leader in the area of Positive Psychology. She states:

Positivity’s mental openness fertilizes just the sort of creative and integrative thinking that hard-to-find solutions and compromises are made of...when we think broadly we discover and build new skills, new alliances, and new resilience- which make us better prepared to handle future adversity. Even mild positive emotions, experienced regularly, set people on discernable trajectories of growth, making them better off next season than they are today (Frederickson 2008).

Frederickson additionally mentions that positivity is a feature of moments not of permanency and experiences it individually but also collectively. This is “because positive emotions – even in hues far milder...fundamentally-change our biochemistry and our worldview. In time, they can even change who we are - helping us become better versions of ourselves” (Frederickson 2008). This theory would then support the possibility that if employees’ health and wellbeing increases positively due to engaging in tai chi, then employees might be healthier and emotionally happier. Additionally, they would need less medical assistance and prescription medication and companies that offer medical benefits might see a decrease in the insurance fees as those fees are determined by an agent’s analysis of those participating employees’ and dependents’ illnesses and their severity. It’s interesting how our emotions and mood can be improved or changed through surrounding ourselves with positivity; just imagine mixing that with tai chi practice and seeing how peoples’ health will improve.

In a phone interview with Diane Gold, who has been teaching tai chi for thirty years, she states that there are many other human illnesses that would benefit from tai chi practice. These individuals are in a wide sector, not just in a “workplace” or typical company as most would think of. She refers to this other wide sector as “corporate.” She continued stating a list to further define corporate tai chi. The following is her list to consider: “students in pre-school through 12th grade of high school, college and universities, and residents in hospitals, nursing homes, prison, government personnel, military groups out of combat, social clubs and religious group affiliations, community groups, corporations (factory/office), volunteer groups, alumni groups, family daily life, gatherings and reunions” (Gold Interview 2012) and any other individual or group that comes to mind. Ms. Gold explained corporate tai chi is virtually any group of people in their place of work and not limited to the workplace meaning a company or business (Gold Interview 2012).

Through past experience I learned that even massage therapists and physical therapists take tai chi classes to help them personally in their practice for treating patients so they do not injure or stress their bodies by helping others. If more people studied tai chi our society would be healthier and corporations would save money. This notion of saving money will be looked at later in this paper.

The fact that tai chi has been able to be a factor in the healing and prevention process is wonderful but it is the level of stress that employees’ experience that has me wondering how many employees recognize they are stressed. If companies are aware of the stress level and the negative outcomes, why don’t they offer support, especially by way of tai chi?

In an online article about workplace stress relief on Forbes.com, the author shares results from the American Psychological Associations’ (APA) 2006 random national survey of over

2000 participants that “59% said work was a leading source of stress and 47% said they were concerned about stress in their lives” (Van Dusen). Just three years later in 2009 it was reported by in a fact sheet by Psychologically Healthy Workplace Program that “69% of employees report that work is a significant source of stress” (APA 1). Even with such high percentage of employee stress, small to mid-sized companies do not have programs to support and guide employees to find balance in their lives. Sue Peterson, a manager of the publishing companies Healthy Learning and Coaches Choice expresses, it’s because “companies don’t look at the long-term result....If they spent a little in the long run, they’ll save money and have more productive employees, happier employees. It’s a good investment” (Van Dusen).

Tevis Gale, the president of Balance Integration, which is a corporation that offers various on-site services to companies to aid in “balance and creativity in and out of work,” expressed that fees can range in the low hundreds and as much as \$10,000 based on companies’ goals (Van Dusen). It was shared by Van Dusen that one of Balance Integrations’ clients is AOL Media Networks which offers a one hour yoga class in the conference room at 6pm which fits into the work schedule of Beth Superfin, the senior manager. Superfin states, “If I don’t have a break to go to the gym, I get very thrown off...It would impact my stress level, anxiety, focus, and overall I think my well-being” (Van Dusen). I too feel the same way about tai chi. I actually at times will go to a quiet spot or bathroom just to take a few moments to relax and de-stress through a few minutes of tai chi.

Here are some facts from the APA Fact Sheet as published on the American Psychological Association Practice Organization website PowerPoint in 2010 as reported by Psychologically Healthy Workplace Program:

*In 2009, 69% of employees report work is a significant source of stress

(APA 1).

*47% employees feel tense or stressed out during the workday (APA 1).

*In 2009, 51% of employees said the employees were less productive at work as a result of stress (APA 1).

*The Bureau of Labor Statistics in 2001 stated, 25 days is the “median number of days employees away from work as a result of anxiety, stress, and related disorders” (APA 1).

*Rosch in 2001, \$300 billion a year is the cost to the U.S. industry due to absenteeism, turnover, diminished productivity and medical, legal and insurance costs (APA 1).

*As reported by the Centers for Diseases Control and Prevention in 2003, “The costs of chronic diseases make up more than 75% of the \$2 trillion health care costs in the U.S. and 70% of all deaths in the U.S. are due to chronic disease (APA 4).

*Stewart, Ricci, Chee, & Morganstein, in 2003 reported “Productivity losses related to personal and family health problems cost U.S. employers \$1,685 per employee a year, or \$225.8 billion annually (APA 4).

*In 2008 the Agency for Healthcare Research and Quality reported, 156 million visits were made to doctors’ offices, clinics and hospital outpatient departments for mental health problems in 2005. Which made “it one of the top three reasons why Americans seek medical treatment” (APA 5).

*Kessler et al., in 2006, mood disorders are estimated to cost more than \$50 billion per year in lost productivity and result in 321.2 million lost workdays (APA 5).

*In 2000 Employers Health Coalition reports that the lost productivity due to presenteeism is almost 7.5 times great than the lost to absenteeism (APA 6).

These statistical facts are astounding and this is just a small portion of what was shared by the Psychologically Healthy Workplace Program fact sheet supplied by the APA. Seeing how stress affects ones health and further impacts work productivity and knowing the powers of tai chi makes it seem like the “best practice” for corporations is to institute or at least offer tai chi in the course of the workday. It might make for a stronger argument to look at the “bottom dollar.” Again, we can view the fact sheet supplied by Psychologically Healthy Workplace Program shared:

*TowersWatson in a 2009/2010 report, companies with the most effective health and productivity programs achieved 11% more revenue per employee, delivered 28% higher shareholder returns and had lower medical trends and fewer absences per employee (APA 7).

*In 2005 Chapman in a meta-evaluation of 56 peer reviewed journal articles on worksite health promotion programs shows an average 26.8% reduction in sick leave absenteeism, an average 26.1% reduction in health costs, an average 32% reduction in workers’ compensation and disability management claims costs and an average \$5.81 savings for every dollar invested (APA 7).

*Bassi, Ludwing, McMurrer, & Van Buren in 2000, Companies that invest more than average in employee training outperform the market by 45% and have

returns that are 86% higher than those companies that spend less than average (APA 6).

Additionally, in a pilot study to assess the feasibility of the “physical and mental health, reducing work related stress, and improving work productivity among older nurses in a hospital setting,” (Palumbo et al. 54) two groups were used. One group received tai chi classes once a week while the control group did not receive classes. Palumbo et al. states the following analysis and results:

The tai chi group took no unscheduled time-off hours, whereas, the control group was absent 49 hours during the study period. There was also a 3% increase in work productivity and significant improvement in functional reach...compared to the control group. Other outcomes were not statistically significant...This pilot study demonstrates the feasibility of tai chi with older female workers as a cost effective wellness option in the workplace; implications were also addressed (Palumbo et al. 54).

Another study conducted in 2009 looked at the “effects of a workplace Tai Chi (TC) intervention on musculoskeletal fitness and psychological well-being among female university employees who are computer users. This study involved fifty-two participants enrolled in a class conducted on campus by a professional TC practitioner during the lunch hour. There were “two 50 minute TC classes per week for 12 consecutive weeks” (Tamima et al. 331). The following was stated by Tamima et al.:

RESULTS: There were significant positive results in several areas including resting heart rate, waist circumference and hand grip strength. Results showed that the TC program was effective in improving musculoskeletal fitness and

psychological well-being. CONCLUSION: Significant improvements in physiological and psychological measures were observed, even at the large class sizes tested...suggesting that TC has considerable potential as an economic, effective and convenient workplace intervention (331).

In a third study by Yong Wang et al., 30 college students looked at the effects of tai chi on the students' physical and mental health over the course of 3 months. The students participated in tai chi exercise twice weekly for one hour and the results were reported as follows: (453)

College students may benefit from regular practice of Tai Chi. As it may be helpful in mediating emotional and psychological stresses that accompany the life experiences of graduate and undergraduate students. Colleges and universities might consider offering Tai Chi classes as a component of their ongoing physical activity programs available to students (Wang et al. 458).

The three studies above and the statistical facts from Psychologically Healthy Workplace Program clearly show there are benefits for employers to offer training and health and wellness programs to employees. Additionally, they should consider having employees engage in tai chi in the workplace and corporate and students as well. It brings me to answering why tai chi and why in the workplace, but will continue my search further.

In a study conducted by Lee et al. which was published in *The Journal of Alternative and Complementary Medicine* November 8, 2011, the original study was financially supported by The Hong Kong Polytechnic University through the Areas of Excellence Scheme (665-668). It was designed to “encourage trunk, upper limb, and some lower limb movements” (665). The study was conducted sitting, standing moving only the upper, and traditionally using the entire

upper and lower body. Specially designed form of 12-form sitting tai chi routine was based off of the Yang long form. The “oxygen costs” (levels) were recorded from all three positions at timed intervals (665). In all three positions the oxygen levels (energy) were measured and showed “that sitting t’ai chi is a low-intensity exercise, which is in line with the findings of other studies...energy expenditure increased from the sitting to the standing position” (665).

Health care costs according to Kurec in a 2008 published article stated, “health care costs have risen about twice the inflation rate, roughly 7 percent. Total spending in 2007 was \$2.3 trillion dollars or about \$7600 per person. It is estimated that these expenses will continue to climb and will almost double in the next ten years to over \$4 trillion” (E-1). Kurec additionally shares that “unscheduled absences due to illness or injuries can put a tremendous strain on any workforce. In a 2006 survey by Human Resources Management, the absenteeism rate was about 2.5 percent, costing as much as \$850,000 a year for some of those companies survey” (E-1). Even more alarming, “the largest group at retirement is the baby-boomers placing an even bigger burden on the health care system” (E-1). According to Mr. Dilday, a tai chi practitioner for over 20 years and chiropractor for over 25 years quoting “the Centers for Disease Control and Prevention (CDC), physically active individuals incur \$865 less each year in healthcare costs than inactive people” as reported in 2010” (“Workplace Wellness”).

Even more staggering is that “each employee costs an organization about \$35,000 per year in health related expenses. This not only includes the \$13,000 of direct costs for things such as health care plan coverage, but also a more substantial \$21,000 in indirect costs such as lost productivity and absenteeism. The good news is that 50-87% of health care costs are considered to be related to behavior and lifestyle choices” as convincingly reported by Dilday in a newsletter article from InjuryFree” (“Wellness Programs”).

Kurec explains employee wellness programs are one approach companies across the country have implemented. Cost savings are being realized as much as “\$3 saved for every \$1 spent,” for such companies as: “Wisconsin School District, Providence Everett Medical Center, city of Mesa, Arizona, Travelers Corporation, Reynolds Electrical & Engineering Co, DuPont” (E-3). Further expressing that because of HIPAA privacy employees’ health information is protected. Corporate cannot demand unhealthy practices to cease nor may a company insist employees are required to participate in wellness programs, however it is up to each individual company to offer programs and determine which ones and which ones are most beneficial for health and cost effectiveness. It was also shared that classes of tai chi should be among those offered to promote health or reduce stress (E-5).

The fact that there is documented evidence showing the financial success of wellness programs and tai chi has shown its many effective uses in being an aid of healing. Thus, companies could and should offer tai chi in some capacity to their employees. Below we will see what human resource managers have to say and what companies are offering as far as wellness programs and if tai chi is part of their offering. The information shared thus far has not been surprising as to the healing benefits of tai chi and who chooses to participate in tai chi. It certainly has me wondering if companies are offering tai chi to their employees and if it is on-site or off-site. According to McCarthy, who conducted research in Australia regarding employee well-being convincingly states,

well-being is associated with a range of positive outcomes such as reduced stress and improved productivity...the study was to assess the awareness of Australian Human Resources Managers of a broader range of concepts related to well-being and the nature and prevalence of well-being programs in Australian

organizations...3471 Human Resource professional in Australia of whom 319 responded to the online survey...findings indicate...Human Resource professionals offer a range of seniors related to emotional, intellectual, social and physical well-being, but only a minority include services related and to spiritual well-being...Most respondents consider that the benefits of well-being programs outweigh the cost (181).

Additionally, the study determined that “wellness programs was linked to reduce stress levels, lower absenteeism, higher job satisfaction and increase productivity” (McCarthy 181). Well-being programs as explained by McCarthy are, focused on “physical health, focusing either on modifying behaviors which may contribute to the development of health issues e.g. weight control, exercise and fitness, giving up smoking, stress management, or on managing existing conditions e.g. type 2 diabetes or heart disease” (182).

The World Health Organization (WHO) in 1948 defined health and, “included not only physical, but also mental and social well-being” (183). McCarthy further shares a definition of optimal health; “a dynamic balance of physical emotional, social, spiritual and intellectual health (183).” She also expressed that Australians have a “growing interest in well-being” (183). Below is a breakdown of how organizations are promoting well-being ranking from highest to lowest (McCarthy 186-187):

Emotional Well-being	81.8%
Intellectual (mental)	81.5%
Social Well-being (Involved gathers, flex work hours, diversity policy)	80%
Physical Well-being (Involved smoking, flu injections, gym facility, gym memberships, walking, jogging, or swimming)	67.1%

Management Practices (ie. Coaching)	40.8%
Mentoring	40.1%
Spiritual Well-being (Religious observances, quiet room, yoga, tai chi)	31.3%

About 46% of the respondents “believed that the benefits of having a well-being program in place exceeded the costs” 8.7% believed the costs to outweigh the benefits. In conclusion, despite spiritual well-being (187) programs being the least interesting among Australian organizations it is believed that “real business benefits” are due to the offering of well-being programs. She further states it would be “useful to compare the impact of different well-being programs to determine the criteria which lead to effectiveness in particular contexts, to explore the importance of linking well-being with organizational strategy and to evaluate alternative ways of measuring impact” (191).

In yet another article recently published in *The Journal of Alternative and Complementary Medicine* in November of 2011, a pilot program was conducted at a Complementary and Alternative Medicine (CAM) Wellness Clinic at a Major Military Hospital to examine the feasibility of a weekly on-site CAM and to describe with the employee use and perceived benefits. The participants were “hospital nurses, physicians, clinicians, support staff, and administrators who used the walk-in clinic one day a week during the times of 8 am and 2 pm” (Duncan et al. 809). According to Duncan et al., the conclusive evaluation suggests “a hospital-based wellness clinic based on CAM principles and modalities is feasible, well-utilized, and perceived by most participants to have positive health benefits related to stress reduction at work, improved mood and sleep, and lifestyle” (809).

Other companies reported incorporating yoga, tai chi or meditative experiences on-site or off-site corporate according to an article posted on Azure Training and Development website, include IBM and Minter Ellison who took part in the program which mixes “Eastern philosophies and Western science to combat everyday workplace pressures” (Switzer 1). In another article, in *The Sun Herald* also found on Azures’ website it was shared that the Parliament of Victoria has also used their workplace wellness “management strategy involving a one-day or three-day intensive yoga/tai chi/meditation/martial arts retreat where they learn how to reduce stress, increase self-awareness and combat workplace pressures” (Switzer 1).

Yet in another reporting news source listed on Azure’s website, it was additionally reported by Azure’s chief executive Michael Patishman that the Department of Infrastructure had also used the services offering courses to improve stress management skills and wellbeing of staff. He states, there had been “rises of 14 per cent in productivity, 10 per cent in physical wellbeing and 15 per cent in mental wellbeing...corporations were becoming more open-minded about their role in improving the health and happiness of staff” (Cogdon 1). Cogdon continued to share results from a survey, “found poor employee health and absenteeism costs businesses \$7 billion annually” (1).

Bill Douglas who is the founder of the international World Tai Chi and Qigong Day (WTCQD) has brought tai chi classes, workshops, and presentations to various schools and corporations including: Healthy Kids Program, Kansas City, Kansas, National Council on Aging, the Parkinson’s Foundation’s national Conference, the National Catholic Youth Conference, National Institute of Health’s first scheduled Mind-Body Week, ALS Association, Sprint Corporation, and Hallmark, Inc just to name a few (Dougals, SMARTaichi).

We have seen that there are companies as well as individual practitioners in the United States and outside of the USA that are successfully bringing tai chi practice to employees; some even report reductions in overall cost and usage to the employer, as well as improved attendance and health of the employee. This is something companies need to carefully look at and consider the benefits to corporate. Just think of the possibilities available by including tai chi in the workplace. My hope is to actually see tai chi being utilized on a daily basis for even as little as 5-10 minutes.

In conclusion, we have seen that tai chi has the ability to heal many conditions. People of all ages, abilities, and culturally diverse backgrounds are enjoying the positive effects of tai chi. We have also learned that corporate is considering tai chi as an offering as it touches companies' main concerns of healthcare costs and productivity. This old ancient Chinese secret is slowly being discovered and embraced more and more as additional studies, trials, and experiments are being conducted. As this gentle giant heals what ails us from the inside out we will see more companies and organizations in corporate encouraging employees to participate in on-site or off-site locations offering tai chi. For those of us who have embraced tai chi, we understand the depths of what we can do for ourselves in utilizing one aspect of Eastern Medical Alternatives in conjunction with Western Science. The yin and yang will be balanced through Qi that is cultivated even as we sit with others around us who have no idea that we are de-stressing and achieving a higher level of peace, serenity, and health simply through the "The Power of Exhaling."

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