



Promoting Vitality and Well-being

How *Taoist Tai Chi*® Arts Impact Health
and Reduce Stress on Public Health Services

Canadian Health Questionnaire Detailed Report, 2016

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Promoting Vitality and Well-being

How *Taoist Tai Chi*® Arts Impact Health and Reduce Stress on Public Health Services

I. Introduction

A. Fung Loy Kok Institute of Taoism

1. Who we are – a charitable organization open to all

Fung Loy Kok Institute of Taoism is a volunteer-based charitable, not-for-profit organization with locations in 26 countries. We have more than 40,000 participants worldwide including 12,000 in Canada. We bring together people of different languages and cultures in a worldwide community focused on helping them improve their physical, mental and spiritual well-being.

At every location, people from all ages, backgrounds and walks of life learn, train and practice together. They have diverse reasons and motivations for their involvement, ranging from a simple enjoyment of the Taoist Tai Chi® practice, to an interest in the health benefits, to a spiritual path, to the rewards of participation in a friendly atmosphere and supportive community.

All are welcome and encouraged to participate as they choose.

2. What we bring to the community

The values that lie at the heart of our organization reflect the Taoist tradition. Volunteering and helping others are part of this path. Participants are encouraged to volunteer when they can and contribute in any number of ways.

Our instructors are dedicated and accredited volunteers assigned by instruction committees who set and maintain teaching standards. Our organization has a depth of knowledge founded on 47 years' experience and study of Taoist arts and an understanding of anatomy and physiology.

We value our relationships with the communities where we are active. We often provide instruction to organizations that can benefit from the Taoist Tai Chi® arts, including care-providers, and community centres serving seniors and people with disabilities.

We offer a Canada-wide infrastructure to administer, support and teach tai chi classes at over 400 locations across Canada, plus regular programs of longer duration.

3. Master Moy Lin Shin, founder

Master Moy Lin Shin, a Taoist monk, dedicated his life to alleviating suffering by helping others cultivate themselves through the Taoist arts. In 1970, he immigrated to Canada where he immediately began teaching Taoist Tai Chi® arts. Recognizing their great benefits, Master Moy wanted to make these arts available to all who wished to learn. Today, inspired by this vision, the

Fung Loy Kok Board of Directors along with many dedicated volunteers continue to make these arts available in communities around the world.

In 1998, Master Moy passed away, leaving the organization a clear direction and a powerful foundation. In a spirit of learning and working together, his students have continued to develop these teachings in order to share them with others. As Master Moy envisioned, these arts will continue to flourish for generations to come.

4. We practice Taoist Tai Chi® arts

The ancient Chinese believed that true health comes when body, mind and spirit work together in harmony. Taoist Tai Chi® arts grew out of this tradition and are a way to develop a body that is strong, yet supple, balanced and energetic, a mind that is calm and clear, yet creative and dynamic, and a spirit that is light and peaceful, yet resilient.

Master Moy synthesized a powerful system for cultivating body, mind and spirit based on training he received from respected teachers in China and Hong Kong. While there are many styles of tai chi, we practice the Taoist Tai Chi® arts developed and taught by Master Moy Lin Shin.

Taoist Tai Chi® arts involve deep stretching with a full range of motion and continuous turning of the spine. On the physical level, the Taoist Tai Chi® arts exercise the entire physiology, including muscular, skeletal, and circulatory systems, as well as tendons, joints, connective tissue and organs. Focused concentration during practice is designed to help the mind return to stillness, clarity and wisdom.

Working on these movements under the guidance of an accredited instructor contributes to better balance and posture, increased strength and flexibility, improved circulation, calmness and peace of mind. Rather than depending on tension and the development of hard muscle tissue, Taoist Tai Chi® arts develop a body that is relaxed and strong at the deepest levels. The gentle internal movements are balanced throughout the body and have a calming effect on the mind.

B. Study Purpose

As governments struggle with mounting health costs, Fung Loy Kok Institute of Taoism wanted to capture some of the specific ways in which Taoist Tai Chi® practice impacts the use of public health services.

We administered a questionnaire with over 6,000 of our 12,000 participants across Canada responding. Taoist Tai Chi® arts participants report reductions in their use of public health services and improvements in their health in key areas such as balance and mobility that would result in reduced future use of healthcare services.

“We knew anecdotally from classes that such benefits exist, but this unprecedented survey drew many responses and is very heartening and important for policy makers to contemplate,” says Marsha Eberhardt, President of the Board.

“While the survey results emphasise the usual health benefits of fitness, these are significant because Taoist Tai Chi® arts is a gentle form of training that can be done by anyone. While very helpful to

young people, it has a significant appeal to elderly people who might not otherwise be exercising or moving much.”

The data provide a compelling snapshot of ways in which practice of Taoist Tai Chi® arts can improve individual health and, as a result, collectively reduce impact on public health services. The individual stories are powerful, and pulled together they provide a more complete picture of how Taoist Tai Chi® arts contribute to our communities.

For example, we learned that:

- 8 out of 10 participants experience health improvements within a year of starting Taoist Tai Chi® practice;
- the positive impact on aging in terms of reported improvement in daily life rises significantly as age group increases; and
- among respondents reporting an impact on their mental health, more than half cite improved mood and increased energy.

The high response rate and exceptional openness of our participants in the stories they shared is the foundation of this report. Each section summarizes statistical data, adds quotes from respondents, and includes some information on Canadian health issues. More detailed data tables are located at the end of the report.

C. Study Methodology

The self-administered questionnaire was completed in a paper format, anonymously and voluntarily by participants regardless of their duration of practice. The data collection period was completed between July and October of 2016.

The data was entered regionally by volunteers into a national database. The data was checked for internal consistency, including duplicate and inconsistent entries, then analyzed. The questionnaire was designed to allow respondents to share as much of their experience of the practice of Taoist Tai Chi® arts as possible. Not all respondents answered all questions and many questions allowed for multiple responses.

II. Participants and Respondents

A. Participant Demographics

We compared the total number of participants in Canada (12,000) with the number of participants responding to the health questionnaire (6,000) for age and gender. The percentages were consistent and demonstrated that the information collected from the study represented the participants in Canada.

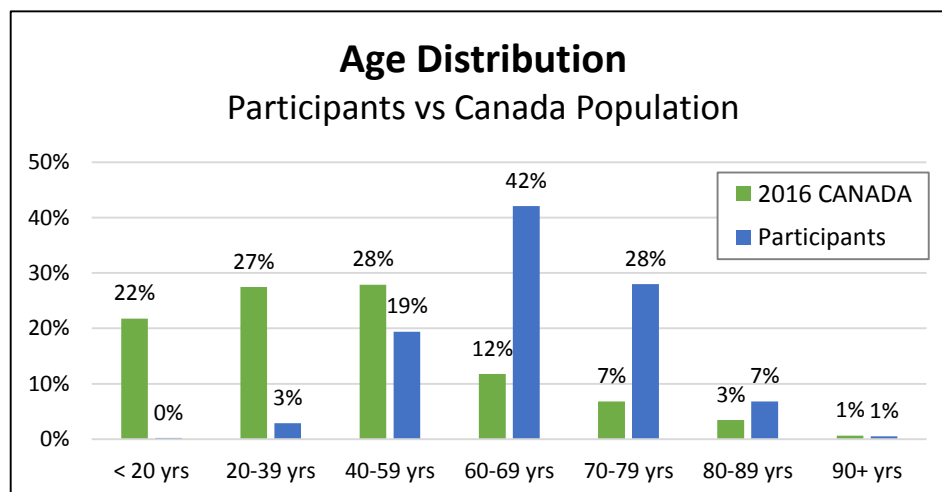
We also compared the total number of participants in Canada (12,000) with age and gender statistics from the 2016 Canadian census. In general, the Canadian participants are older and more are female than the entire population of Canada.

Within Canada, 70% of participants are between 60 and 79 years of age, and only 3% of participants are under 40 years of age. By comparison, the total Canadian population has a median age of 40.6 years.

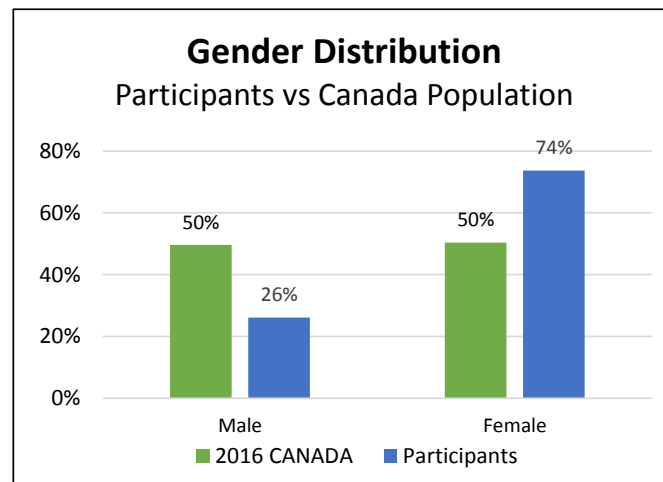
Population		2016 CANADA*	Participants**
		36,286,000	12,000
Age Ranges	< 20 years	22%	0%
	20 - 39 years	27%	3%
	40 - 59 years	28%	19%
	60 - 69 years	12%	42%
	70 - 79 years	7%	28%
	80 - 89 years	3%	7%
	90+ years	1%	1%

* Statistics Canada. *Table 051-0001 - Estimates of population, by age group and sex for July 1, 2016, Canada, provinces and territories*

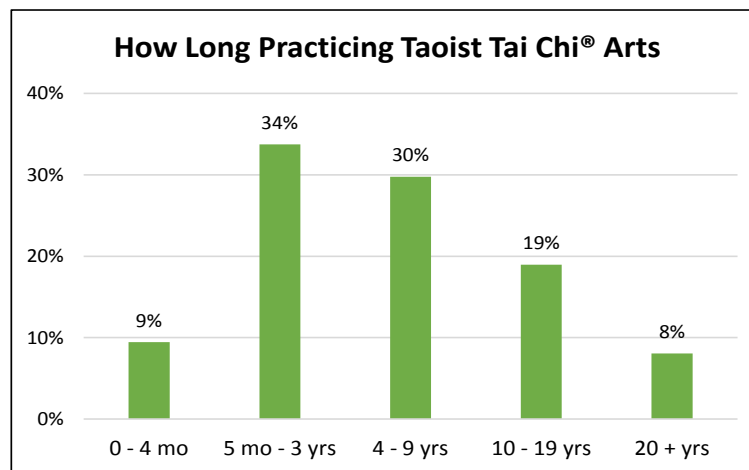
** Participant Database, Canada, July 2016



The Canadian population is very close to 50:50 male and female, however the participant population is majority (74%) female.



At the time of this study, almost one out of ten (9%) respondents to the health questionnaire started Taoist Tai Chi® practice within the previous 4 months. Almost as many (8%) had been practicing Taoist Tai Chi® arts for 20 years or more.



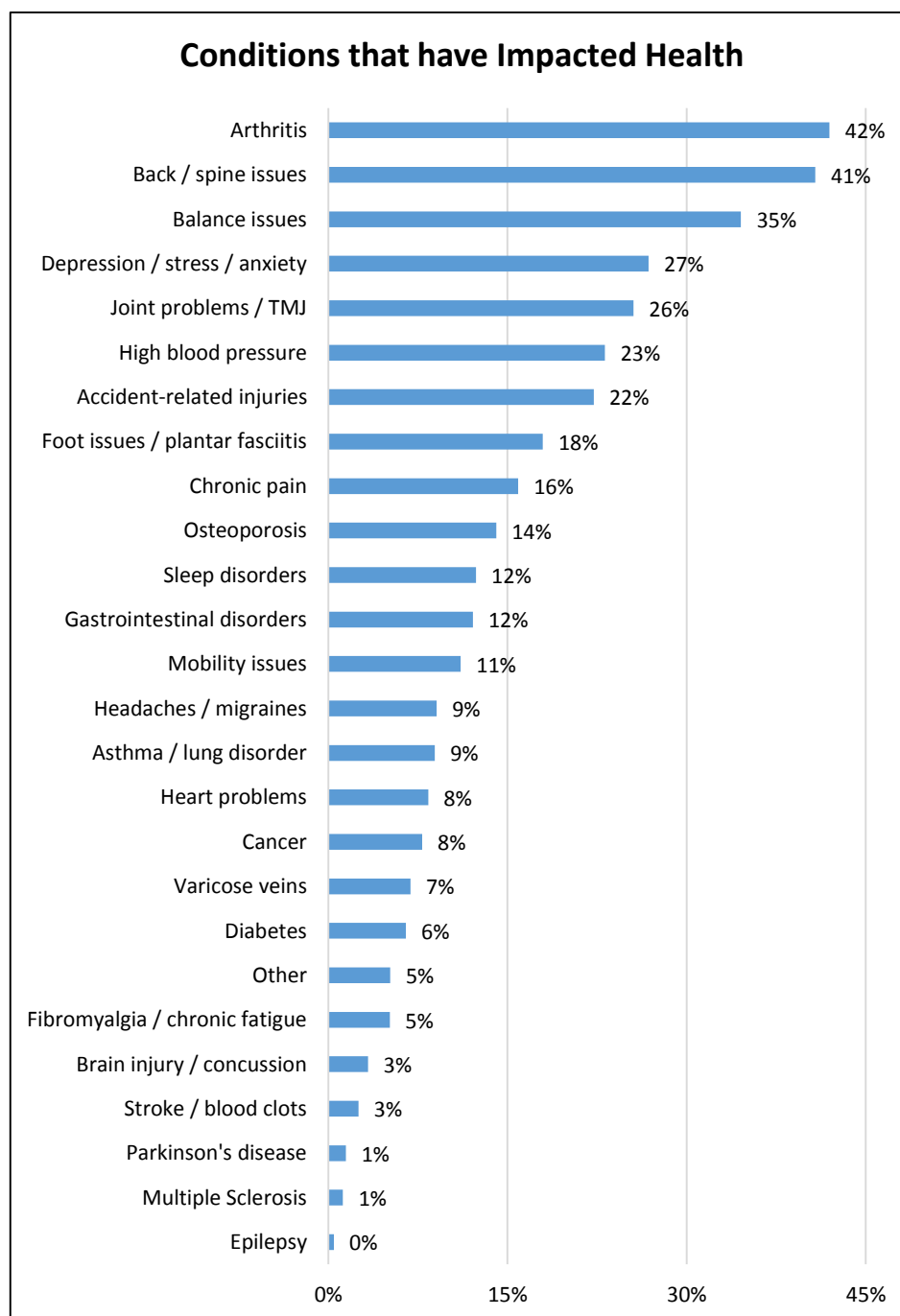
Data Table 1: How Long Practicing Taoist Tai Chi® Arts

“The regular practice of tai chi at first made me feel pleasure while moving. Pleasure is the best incentive to keep moving. And moving brings health, but it’s hard to determine just to what degree. When we act preventively, it is difficult to figure out which problems have been prevented.” (*female, age range 60-69*)

B. Conditions that have Impacted Health

Participants reported previous or current experience with a wide range of health conditions. More than 7 in 10 respondents reported their health being impacted by at least one of these conditions.

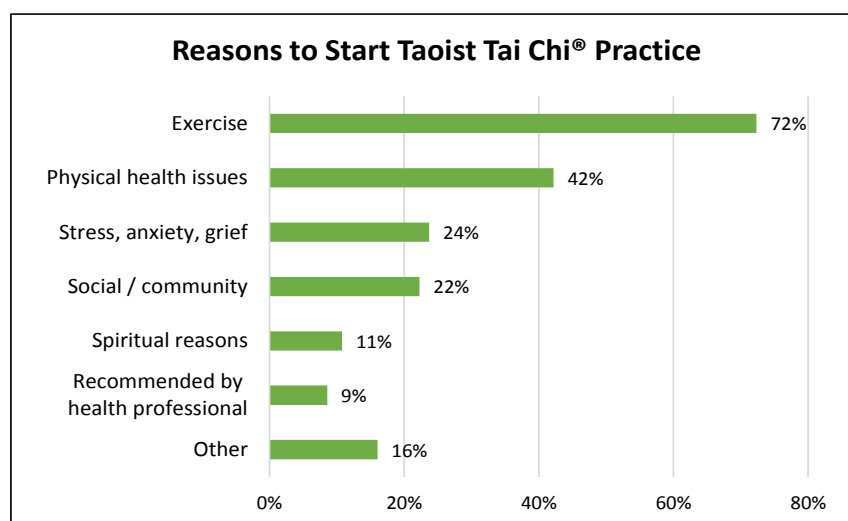
Ranking conditions in order of prevalence reveals that 3 of the top 5 issues are joint-related (arthritis, back/spine, joint problems/TMJ). Issues with balance and with depression/stress/anxiety are also among the top 5 conditions reported.



Data Table 2: Conditions that have Impacted Health

III. Starting Taoist Tai Chi® Practice

A. Reasons We Started



Data Table 3: Reasons to Start Taoist Tai Chi® Practice

“Tai chi affects my entire life and outlook on days ahead as I progress into a senior age group. The future is full of possibilities due to the freedom of mobility that I enjoy (benefit from) with the practice of tai chi.” (*male, age group 40-59*)

“This is the best decision of my life that I joined tai chi. I enjoy the health benefits as well as social, and emotional. I have more pain free days and am able to keep up with active grandchildren. Thank you.” (*female, age group 70-79*)

Tests of statistical significance revealed that participants who were recommended to start tai chi by a health professional were very highly more likely to report a health impact from one of eight specific conditions.

	Total Respondents	Recommended by a Health Professional
Base – Respondents	6234	527
Back / spine issues	41%	51%
Arthritis	42%	49%
Balance issues	35%	46%
Chronic pain	16%	28%
Mobility issues	11%	20%
Fibromyalgia / chronic fatigue	5%	11%
Brain injury / concussion	3%	6%
Parkinson's disease	1%	6%

For example, 35% of respondents reported balance issues, but among those who started at the suggestion of a health professional, 46% reported balance issues.

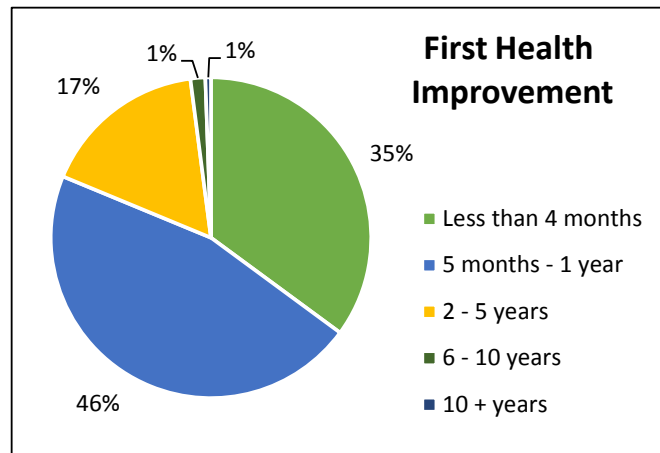
“My doctor and chiropractor are firm believers in tai chi. They have always encouraged me to keep practicing the art. It has changed my life for the better.” (*female, age group 60-69*)

“My GP recommended that I practice the form by doing the tai chi set every day.” (*female, age group 60-69*)

B. Early Practice Benefits

1. Realizing improvements in health

Participants were asked how soon they began to realize health improvements after starting Taoist Tai Chi® practice. Among participants who have experienced health improvements and report when these first occurred, more than 8 out of 10 (81%) point to the first year of practice.



Length of Time Practicing	#
less than 4 months	1807
5 months - 1 year	2377
2 - 5 years	860
6 - 10 years	77
10 + years	29
Total # responding	5150

“When I initially learned tai chi, my lower back pain completely disappeared with 6 months so I didn't need any public health services.” (*female, age group 60-69*)

“After two years of tai chi my back pain has vanished and although I still have a crushed disc I no longer have to sleep with pillows under my knees and no longer take Tylenol to sleep better. Tai chi has given me 20 years more vitality. Wow!” (*male, age group 60-69*)

“Prior to practice, suffered from chronic low back pain and debilitating episodes. Have not had an episode since month 5 of starting practice. Elimination of doctor's visits, use of meds and visits to physio.” (*male, age group 60-69*).

2. Health benefits realized in less than 4 months category

Note the number of conditions where more than 20% of new participants (< 4 months) had already noticed health improvements.

	Total
Base – Respondents < 4 months	534
Coordination	44.6%
Energy / stamina / endurance	38.6%
Posture	38.6%
Aging	35.2%
Emotional / spiritual well-being	34.6%
Depression / stress / anxiety	28.5%
Circulation	27.3%
Muscular issues	25.7%
Sleep quality	22.1%
Cognitive function	16.9%
Blood pressure	16.5%
Body image / body acceptance	16.1%
Accident-related injuries	13.3%
Relationships	9.6%
Dizziness / vertigo	8.6%
Nervous system	7.5%
Blood sugar levels	6.7%
Digestive issues	6.6%

<i>(continued)</i>	Total
Immune system	5.6%
Independent living	5.6%
Cardiac issues	4.7%
Work-related activities	4.5%
Post-operative healing	4.3%
Respiratory issues	4.3%
Hormonal balance	3.6%
Allergies	3.2%
Headaches / Migraines	3.0%
Post-operative recovery	3.0%
Sensory systems	2.8%
Cancer-related treatments	2.1%
Swelling / edema	2.1%
Other blood levels	1.5%
Recovery times	1.3%
Wound / skin healing	.7%
Need for support services	.6%
None of the above	8.2%

“When I enrolled in Sept. 2008 I was experiencing twinges in my lower back and minor pain in my right hip and the side of my right knee. I attributed it to the onset of old age since I was 80 at the time and NEVER exercised. Within 6 weeks the pains and twinges were reduced - within 9 weeks they were gone totally.” (*male, age range 80-89*)

“I was using a walker when I was introduced to tai chi - 3 weeks later I was standing and taking part in all movements.” (*female, age range 80-89*)

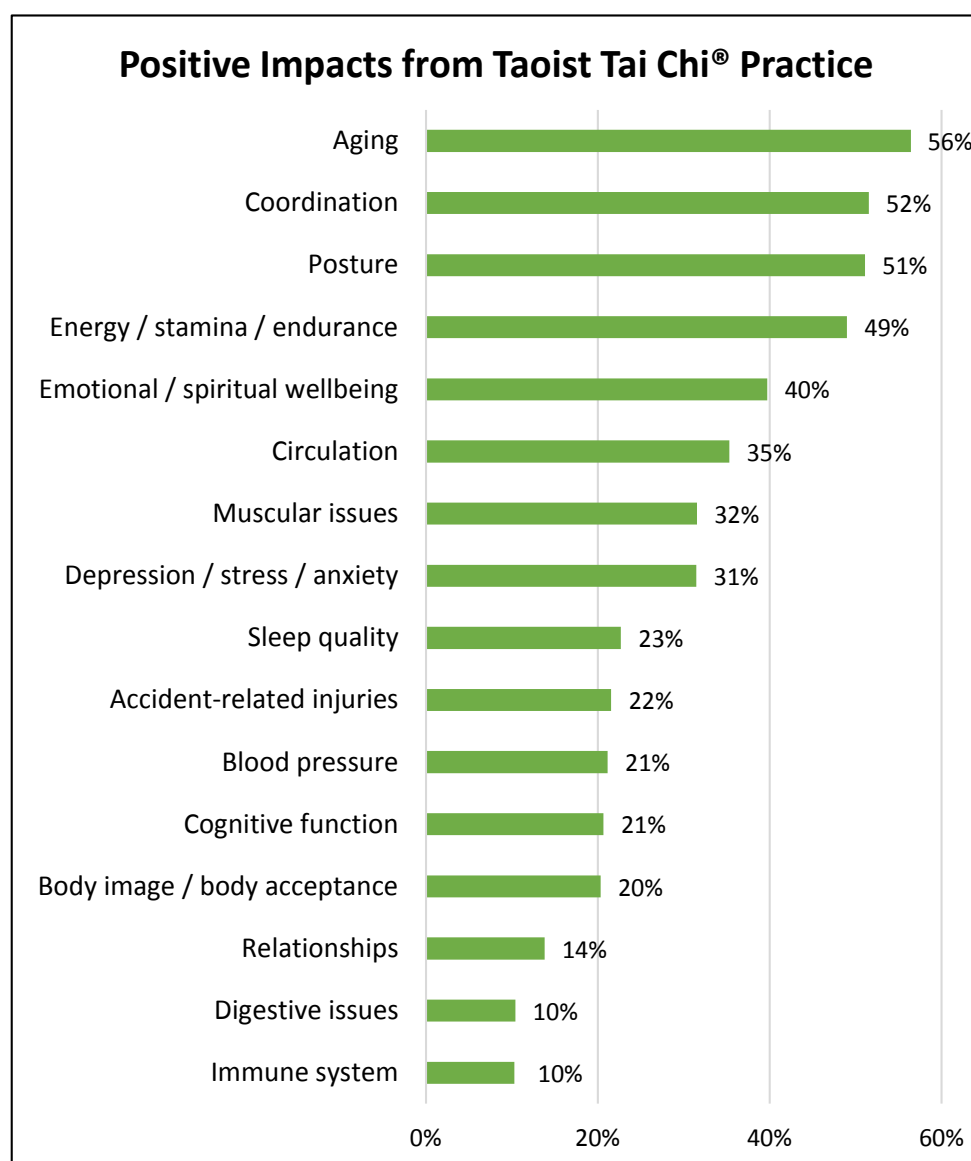
IV. Benefits of Practicing Taoist Tai Chi® Arts

A. Health and Well-being

1. Positive impacts

Participants were asked to indicate which, if any, of 35 factors related to health and well-being had improved as a result of their Taoist Tai Chi® practice. “None of the above” was also an option.

This graph shows the positive impact on 10% or more of the 6,218 participants who provided responses to this question.



Data Table 4: Positive Impacts

When we asked “has your health been impacted by any of the following conditions?”, some respondents (6%) chose None of the Above and also did not list any Other conditions.

	# (%)	Age Group				
		<40	40-59	60-69	70-79	80+
Base	6234	142	1120	2713	1729	414
None of the above	408 (6%)	8%	9%	6%	5%	7%
Other	323 (5%)	9%	5%	5%	6%	4%

“I did not come to tai chi with health problems but it is something I have loved since the first night I tried it. I believe it has had a huge impact on my aging process, keeping me young & vibrant & health conscious. It has given me a larger sense of community and the importance of helping others but at the same time being more humble. I'm very grateful to what Master Moy has handed down to us.” (*female, age group 60-69*)

“Other than tai chi helping to keep me ‘fit as a fiddle’, tai chi contributes to my seldom needing to access public health services.” (*female, age group 60-69*)

“I started Taoist Tai Chi at age 21. I'm now 57. I have been extremely healthy all my life and have had almost no need for public health apart from check-ups and the occasional infection (minor).” (*male, age group 40-59*)

“Improved general health. Improved confidence in maintaining my health despite aging, less fearful of becoming sick.” (*male, age range 60-69*)

2. Impact on daily life

a. Quality of everyday life

Factors selected by study participants were sorted into groups for analysis. The first group contains 5 factors that relate to quality of everyday life, namely aging, coordination, posture, energy, and sleep quality.

All of these factors were noted by large numbers of respondents as having shown improvement that they attributed to their practice of Taoist Tai Chi® arts.

Energy/stamina/endurance is the only factor significantly related to gender with women (51%) more likely than men (43%) to report a positive impact.

	#	%
Aging	3,509	56.4%
Coordination	3,205	51.5%
Posture	3,177	51.1%
Energy / stamina / endurance	3,047	49.0%
Sleep quality	1,412	22.7%

“My overall quality of life has improved immensely. It gave me strength in my cancer battle and dealing with my mother's dementia.” (*female, age group 60-69*)

“I’ve had very few aches and pains since doing tai chi. Better balance, coordination, focus. Only see doctor for annual checkups. At 63 my doctor says I’m in great health, and to keep up with what I’m doing.” (female, age group 60-69)

“I do not feel as ‘stressed out’. I can converse more “quietly” and with less emotions. Tai chi has given me a form of inner peace. I look forward to every class.” (male, age group 40-59)

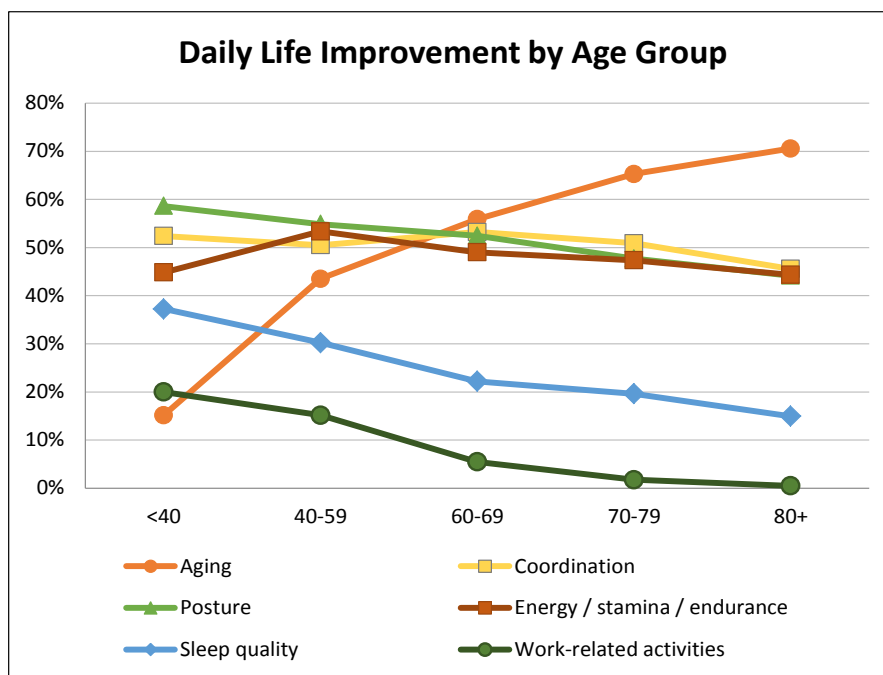
“I love the sense of community, belonging. My other activities are organized around my tai chi classes - tai chi classes structure my weeks.” (female, age group 60-69)

“Keeps me flexible enough to do all the other crazy things I like to do without as much chance of injury (xc & downhill skiing, hiking, biking).” (female, age group 70-79)

b. Improving daily life

For the factor Aging, a positive impact increases dramatically with the age group of the respondent and this is very highly statistically significant.

The other five factors show a larger impact on the younger age groups, and these impacts tend to negatively correlate with age. This is especially true for Work-related Activities and reflects our generally senior age participant population in that case.



Data Table 5: Improving Daily Life

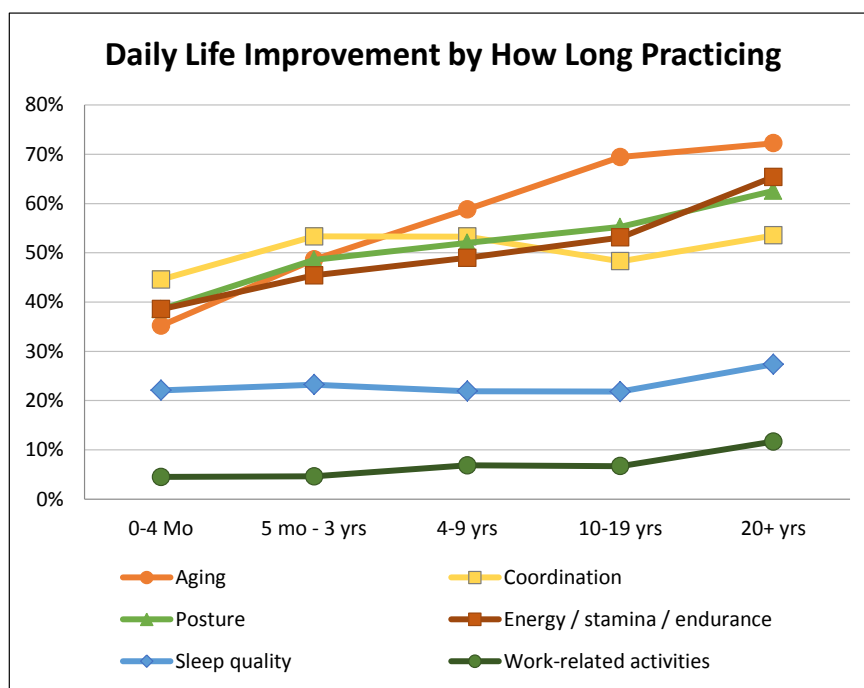
“Cognitive function, coordination and energy-resistance-stamina have been greatly improved by tai chi. I no longer take medications to lessen the spasticity in my left arm and the spasticity has disappeared. Tai chi has improved my stamina. I walk better and longer.” (male, age range 40-59)

“I seem to have FAR fewer medical problems than other people my age (85).” (female, age group 80-89)

“My practice helped me to relax, to loosen up and also helped my posture and eliminated occasional pain in the lower back.” (female, age range 60-69)

“Has kept me self-sufficient 'til 83!!!” (female, age group 80-89)

All six factors show greater impact the longer Taoist Tai Chi® arts have been practiced. For all except Sleep Quality, the relationship is very highly statistically significant. Sleep Quality is statistically significant.



Data Table 5: Improving Daily Life

“Tai chi practice has helped me stand on my two feet both in my posture and confidence.” (male, age group 40-59)

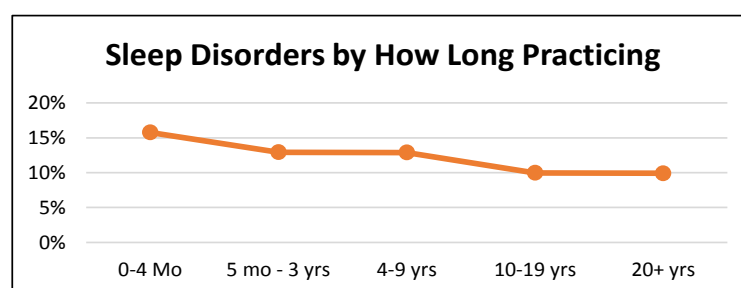
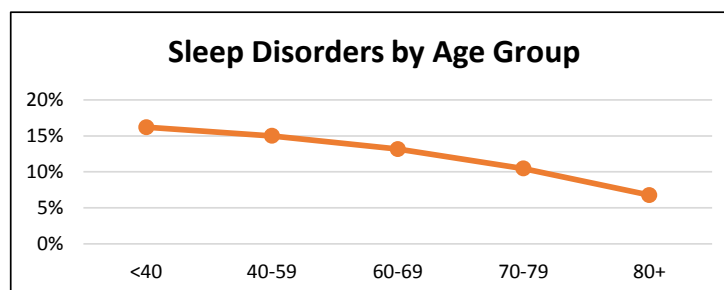
“My job is physically demanding ex: lots of ladders and steep metal stairs. Since I started tai chi I have experienced less knee pains.” (male, age group 20-39)

“Reduce pain for chronic pelvic pain syndrome. Improvement of stiffness and pain of wrist and fingers due to too much computer work. Improvement of stress.” (male, age group 40-59)

“Due to improvement to mental and physical health, I was able to increase numbers of hours working from part-time to full-time work.” (female, age group 40-59)

“I have a very physically demanding job. Over the years, I have had some back issues. Through consistent practice, I average less than 5 sick days a year and have not been off work because of back issues in the last 20 years.” (female, age group 40-59)

About one out of ten (12%) respondents report that their health has been impacted by Sleep Disorders. This percentage is higher in younger and newer participants, and decreases as both age and length of practice increase. Both relationships are highly statistically significant and very highly statistically significant with age.



Total # (%)	Age Group					Length of Time Practicing				
	<40	40-59	60-69	70-79	80+	0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
6234	142	1120	2713	1729	414	565	2074	1824	1155	495
770 (12.4%)	16.2%	15.0%	13.2%	10.5%	6.8%	15.8%	12.9%	12.9%	10.0%	9.9%

“Tai chi gives me focus and a better ability to sleep more soundly, which means less worries in every aspect of life.” (*male, age group 20-39*)

“My practice has allowed me to continue doing activities (such as mountain climbing & hiking) much longer than I would have expected. My sleep has improved dramatically, leaving me feeling more energized during the day.” (*male, age group 60-69*)

“Better sleep, more zen, less stress.” (*male, age range 40-59*)

“In October 2005, Canada’s Federal/Provincial/Territorial Ministers of Health agreed that:

As a nation, we aspire to a Canada in which every person is as healthy as they can be—physically, mentally, emotionally and spiritually.

This Declaration reflects the important role that health promotion and disease and injury prevention play in improving the health of Canadians. By working together to support prevention and promotion within and outside the health-care system, the health and well-being of all Canadians will benefit.

Promoting health and preventing diseases is everyone’s business – individual Canadians, all levels of government, communities, researchers, the non-profit sector and the private sector each have a role to play.”

A Declaration on Prevention and Promotion from Canada’s Ministers of Health and Health Promotion/Healthy Living, Sep 2010
From: www.phac-aspc.gc.ca/hp-ps/hl-mvs/declaration/index-eng.php

"In 2010, 14% of Canada's population was 65 or older. With the aging of the baby boom generation, this proportion is estimated to rise to about 25% in 2036.

The aging of Canada's population is expected to have a major impact on the country's economy, society and health care system over the next 25 to 30 years."

Canadian Medical Association, "Health and Health Care for an Aging Population", December 2013

"Research has shown that sleep duration that is too short or too long can be associated with multiple chronic conditions, including obesity, anxiety, diabetes, and cardiovascular disease. ...A significant number of adults in Canada are sleep-deprived, with almost 40 per cent of the population aged 18 and older reporting sleeping less than seven hours a night, on average, in 2012....The highest levels of inadequate sleep (compared with the average) were reported among those aged 30 to 64 years and 75 and older."

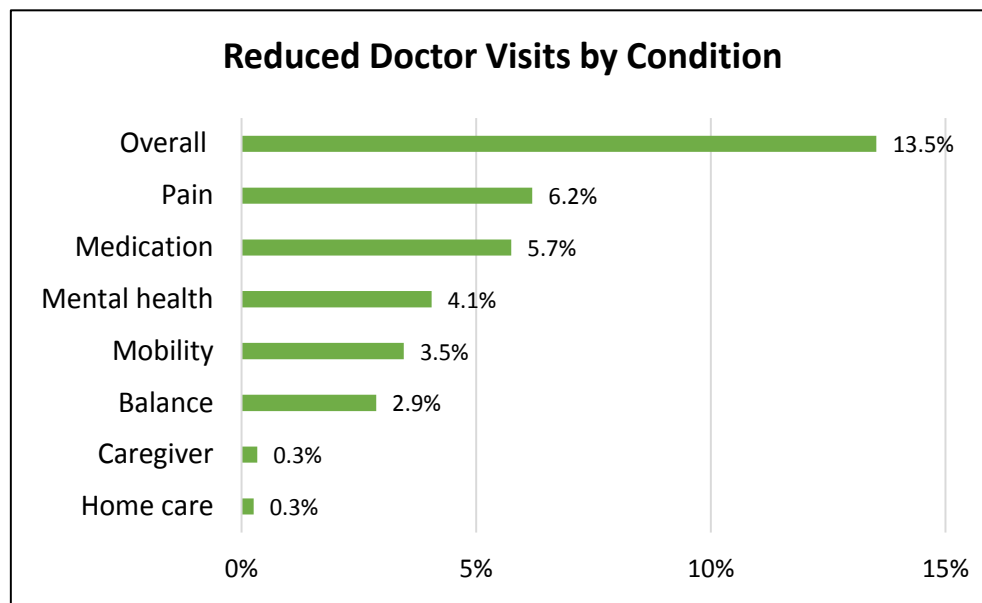
Conference Board of Canada, "Moving Ahead Making the Case for Healthy Active Living in Canada", October 2014

3. Reduction in health professional visits and use of medications

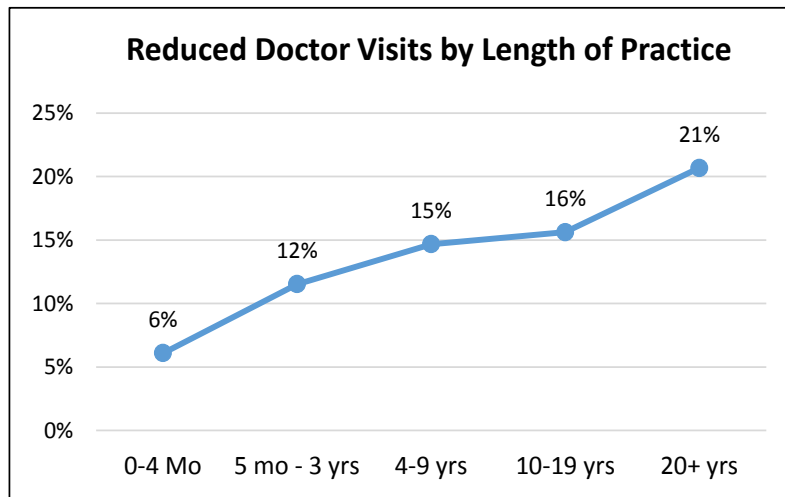
a. Impact on doctors' visits

This study looked most closely at certain health issues which often involve consultations with physicians. These include use of medications, experience of pain, balance, mobility, mental health, receiving home care and giving home care.

For participants who reported changes in any of these issues, we recorded whether reduced consultations with doctors had occurred as a result of Taoist Tai Chi® practice. A total of 841 (14%) participants reported seeing doctors less often because of their Taoist Tai Chi® practice.



Reporting fewer doctor visits increases with length of time practicing Taoist Tai Chi® arts.



	# (%)	Length of Time Practicing				
		0-4 Mo	5 mo-3 yrs	4-9 yrs	10-19 yrs	20+ yrs
Base	6246	591	2108	1860	1184	503
Total	841 (14%)	6%	12%	15%	16%	21%

"I have severe osteoarthritis in my left hip. I have been offered several cortisone shots and have declined. I am less of a burden on the acute care system because of tai chi - fewer GP visits." (*female, age group 60-69*)

"I am certain that I need to access public health services much less than I would if I didn't practice Taoist Tai Chi. When I am not diligent about regular practice, my body lets me know. At that time, I can choose to go to the doctor's or do more tai chi to make my body feel better. When I choose tai chi, I have almost always not needed [my] doctor!" (*female, age group 40-59*)

"My practice of Taoist Tai Chi arts has virtually eliminated my usage of public health services by ridding me of back pain and other transient muscular issues." (*male, age group 60-69*)

"Reduced visits to the doctor for anxiety and depression related issues. Reduced requirement for medication. Less sleep related issues. Less use of other public resources in general. Gained greater mental health and emotional resiliency." (*female, age group 40-59*)

"I use health services less now than before tai chi. I come to tai chi for pain relief instead of going to the doctors. I have chronic pain and went to the pain center for 2 years. Since starting tai chi I have not had to go to the pain center." (*female, age group 60-69*)

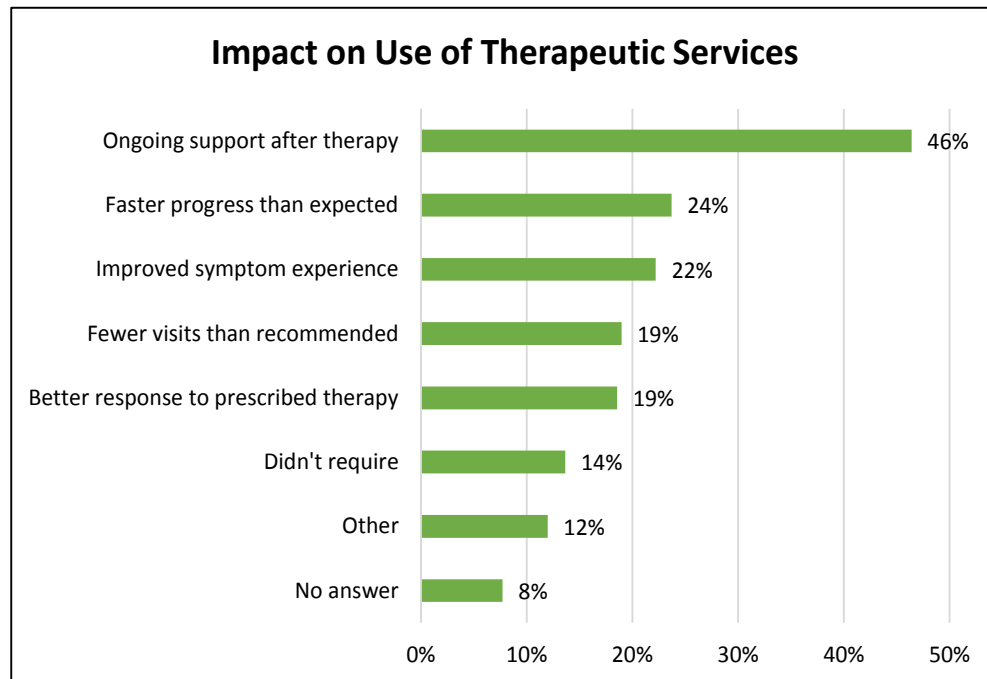
"Though, as previously mentioned, age does not automatically mean ill health, utilization of health services does increase with increasing age. Patients over 65 have more family physician visits, more hospital admissions and longer hospital stays than younger Canadians (the overall length of stay in acute inpatient care is about 1.5 times that of non-senior adults)."

Canadian Medical Association, "Health and Health Care for an Aging Population", December 2013

b. Impact on use of therapeutic services such as physiotherapy and rehabilitation

Study participants were asked specifically about their use of therapeutic services and 58% stated that they have health conditions which require access to these services.

Among the 3363 who responded in the affirmative, we asked if their Taoist Tai Chi® practice had any specific impact on their use of those services. Multiple impacts were recorded.



Data Table 6: Impact on Use of Therapeutic Services such as Physiotherapy and Rehabilitation

“Was taking physiotherapy for severe back pain but physiotherapy did not help my condition. After starting tai chi my back pain disappeared.” (male, age group 80-89)

“No visits to chiropractor in 3 years. Back spasms have pretty well gone, managed in minutes rather than days.” (male, age group 70-79)

“My chiropractor can tell when I am regularly practicing tai chi. My spine is aligned and does not have to be adjusted.” (female, age group 60-69)

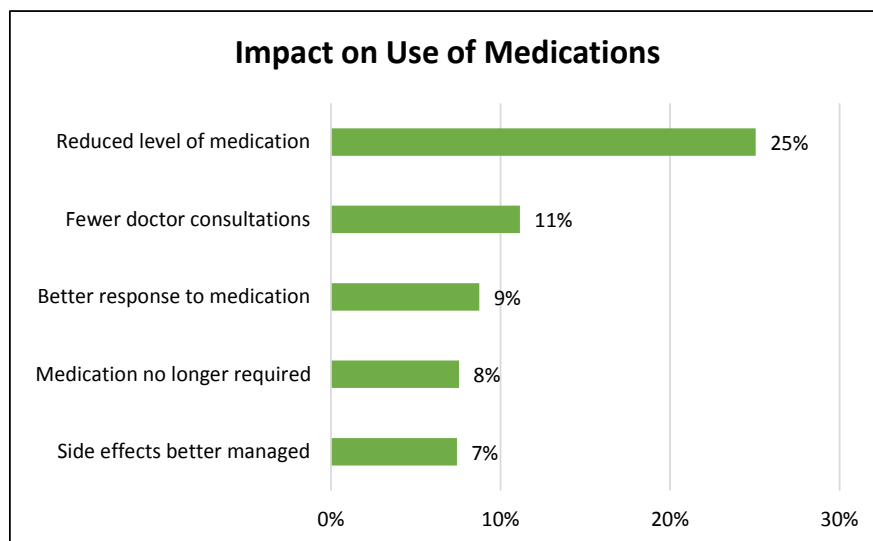
“There has been slow but progressive improvements in my spine. Starting with improved posture, elimination of hump in upper back and less "s" shape curve to my back. I have not needed to see a chiropractor for my back issues since starting Taoist Tai Chi.” (male, age group 40-59)

“Practicing Taoist Tai Chi after a bone injury made it so I didn't have to go to physio.” (female, age group 20-39)

c. Impact on use of medications

We were also interested in documenting any reduction that may have occurred in use of medications after starting Taoist Tai Chi® practice. More than half (56%) of respondents say that their health condition normally requires the use of medication.

Among those who stated that their health condition normally requires the use of medication, their practice of Taoist Tai Chi® arts has led to changes in their use of medication. One out of four (25%) state that they needed less medication, and another 8% say they no longer require medication.



Data Table 7: Impact on Use of Medications

“I do tai chi for flexibility and balance. I just keep moving. I have not taken my medication for arthritis or shoulder pain as the pain has not increased, and maybe that is because of the tai chi.” (*female, age group 80-89*)

“Tai chi has changed a lot. I started to question the relentless use of pharmaceuticals for neurological conditions. I began to see tai chi as neuroplasticity training--eventually stopped all medications and together with dietary changes and focused stress management, I am now off all drugs and feel better than I have in years.” (*female, age group 60-69*)

“Significantly reduced medication for chronic asthma.” (*female, age group 80-89*)

“Since I started tai chi I didn't have a need for anti-acid tablets or migraine tablets. I've never been bothered by sciatic nerve pain since starting tai chi. Since I started tai chi I take a much lower dose of blood pressure medication. At my annual cardiology check-up my treadmill results are not only higher than my cohort in age but the results keep improving. I notice that I can play three hours intensive table tennis without a break. My tai chi exercises have an ability to raise my heart rate more than any other activity.” (*male, age group 60-69*)

B. Impact on Balance and Mobility

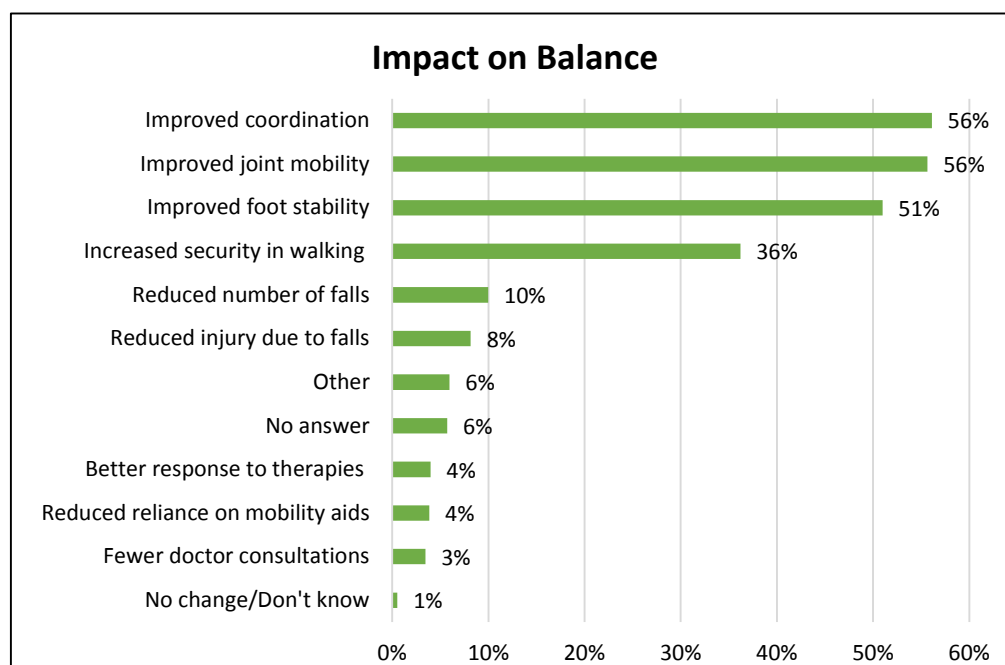
Balance and mobility are related but different health conditions and we asked questions on both issues.

1. Balance

Almost all of the study participants (96%) who answered this question stated their Taoist Tai Chi® practice has improved their balance.

	# (%)	Age Group					Length of Time Practicing				
		<40	40-59	60-69	70-79	80+	0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
Total	5420	114	947	2355	1536	363	399	1789	1643	1047	430
Yes	5196 (96%)	98%	96%	96%	96%	93%	92%	95%	96%	97%	98%

Among those who report improved balance, many manifestations of that improvement were noted. The most numerous of these involve Improved Coordination (56%), Joint Mobility (56%) and Foot Stability (51%).



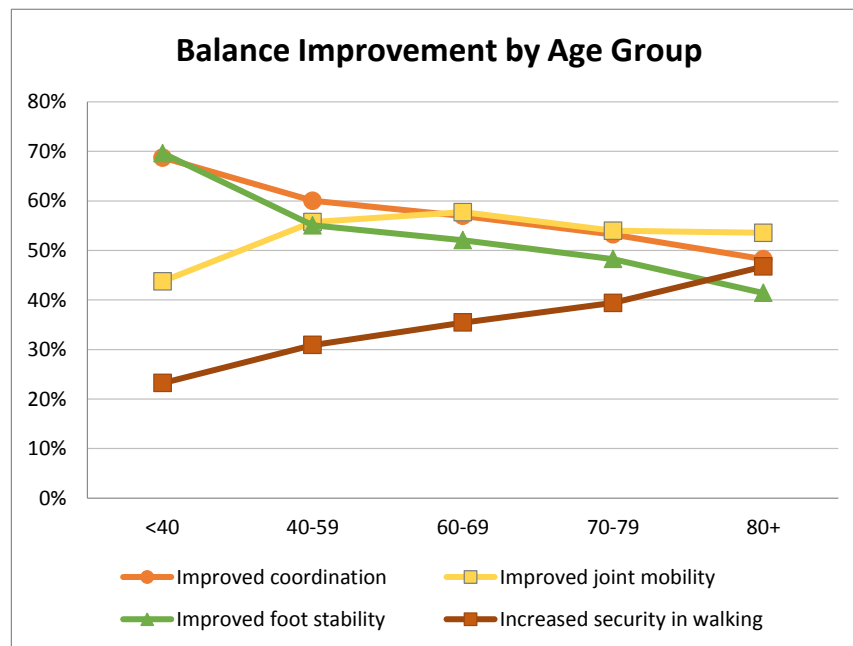
Data Table 8: Balance

“My balance is much better - I am not as unsteady on uneven ground while gardening. I feel that I sleep much better. My posture is greatly improved. I feel better in general.” (*female, age range 60-69*)

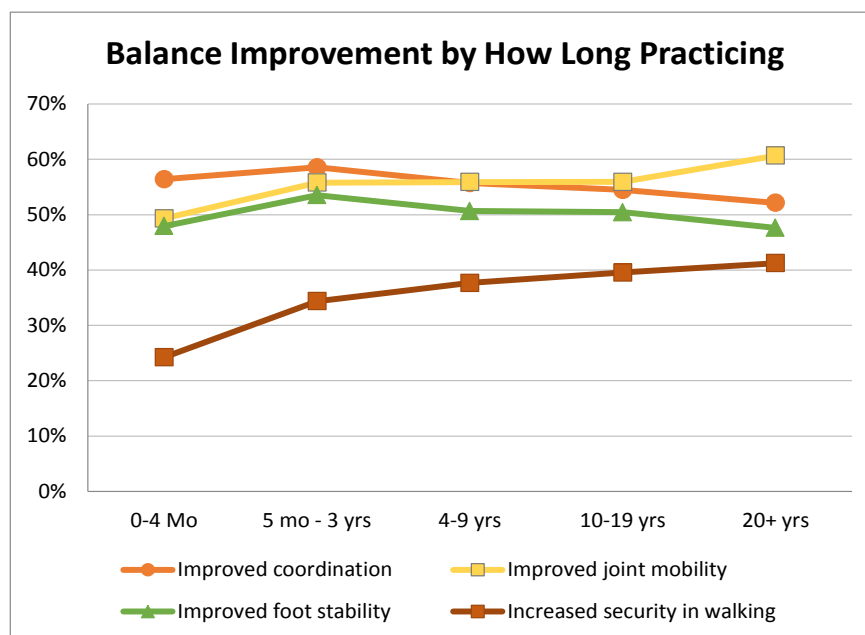
“Although people don't usually associate tai chi with young people, I have found it to be a relaxing supplement to school sports and other physical activities. It helps with my balance when I'm playing table tennis, for example, and helps with some muscles after rigorous cross-country practices.” (*male, age group under 20*)

We looked at four factors of balance improvement by age group and length of practice.

Participants reported a very highly statistically significant improvement in Improved Coordination, Improved Foot Stability and Increased Security in Walking by all age groups.



The factor Increased Security in Walking shows greater impact the longer Taoist Tai Chi® arts have been practiced and this factor was very highly statistically significant with length of practice.



Data Table 8: Balance

“My balance is better and I seldom if ever slip in winter.” (male, age group 60-69)

“I always walked a lot and I found as I got older my balance and coordination was not the best. I had no idea how tai chi would help me so much. I was at a point where I was a bit unsteady on two feet now at 88 years old I can stand on one foot. I only regret that I did not join at a younger age.” (male, age group 80-89)

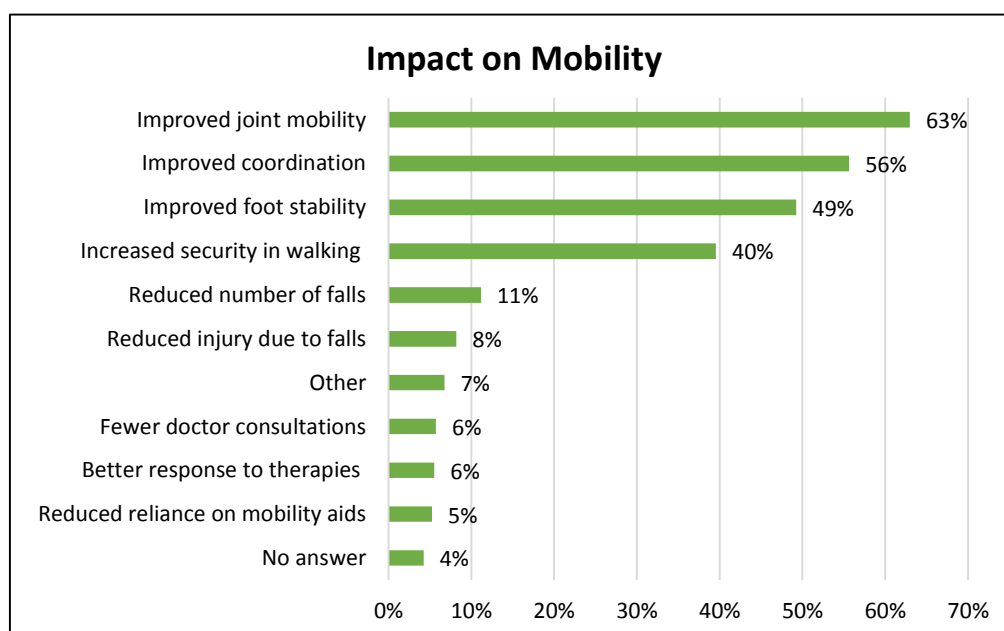
“Has improved the frequency and severity of episodes of vertigo - fewer episodes and much less severe. Has improved awareness of my feet resulting in much fewer falls up/down stairs. Has improved my overall balance.” (female, age group 40-59)

2. Mobility

Participants who reported on mobility status included a significant majority (84%) who say their mobility has improved with Taoist Tai Chi® practice.

	# (%)	Age Group					Length of Time Practicing				
		<40	40-59	60-69	70-79	80+	0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
Total	4469	93	756	1921	1278	331	332	1497	1327	853	362
Yes	3748 (84%)	73%	82%	84%	85%	86%	77%	82%	83%	88%	91%

Among those who stated their mobility has improved, almost two-thirds (63%) say they have improved joint mobility, more than half (56%) say they have improved coordination, and half (49%) report improved foot stability.



Data Table 9: Mobility

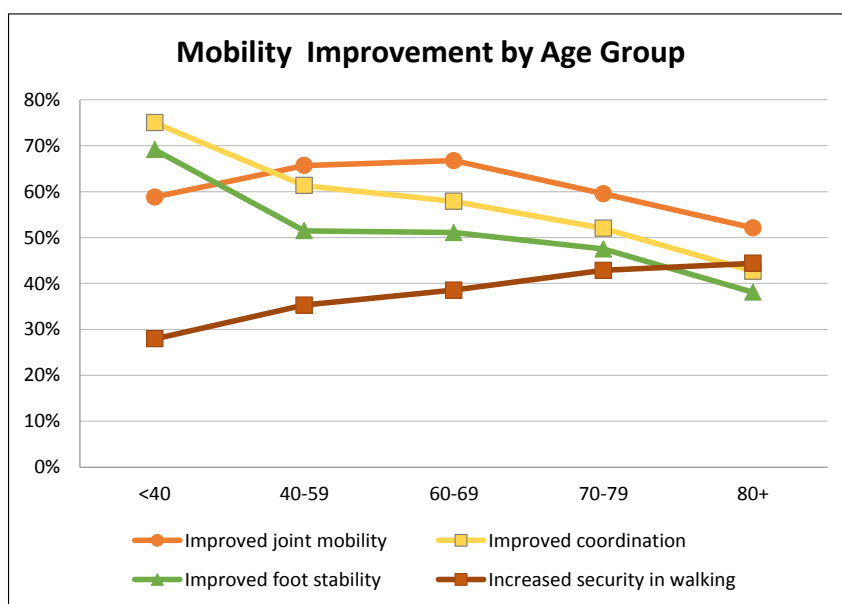
“Since doing tai chi I started in a walker, advanced to a cane - now no aids.” (female, age group 70-79)

“Tai chi has greatly improved my quality of life and quality of health. When I started, I could not stand for more than about 30 seconds without my walker. Now, on most days, I

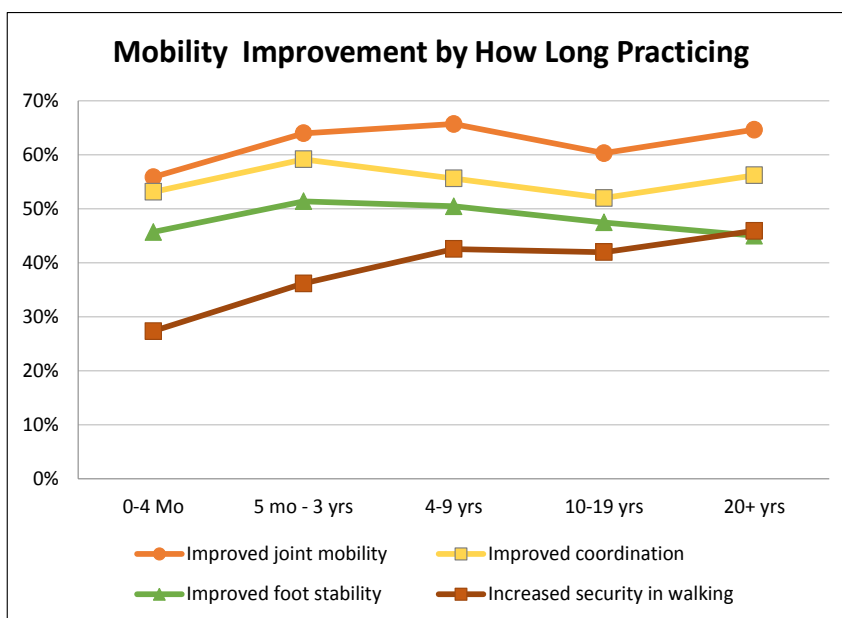
can get around without any mobility aids! I credit tai chi with giving me my life back and I will continue to do tai chi for life!” (female, age group 20-39)

We looked at four factors of mobility improvements by age groups and length of time practicing.

Participants in all age groups reported Improved Joint Mobility, Improved Coordination and Improved Foot Stability to show a very highly statistically significant impact, and Increased Security in Walking a highly statistically significant impact.



Participants reported Increased Security in Walking improvements to show a very highly statistically significant impact by length of time practicing.



Data Table 9: Mobility

“When I discovered tai chi, I was in pain from leg joints & lower back. Was using a cane sometimes & was immobile with heat and ice several times a week. Was at the point where muscles had atrophied & were getting weaker. Walking was a big effort, all walking surfaces had to be level. I could see a wheelchair in my future. After my first class, my turning movements changed & I didn't stress my back on every turn of the foot. After a year of 2-3 times a week classes, I no longer even carried a stick. After 2 years I discarded it altogether. I was using orthotics. I dispensed with these after about 2 years. Now can wear the skimpiest sandals with a small heel. Never overbalance!” (female, age group 60-69)

“It keeps me mobile. I am very thankful.” (female, age group 90+)

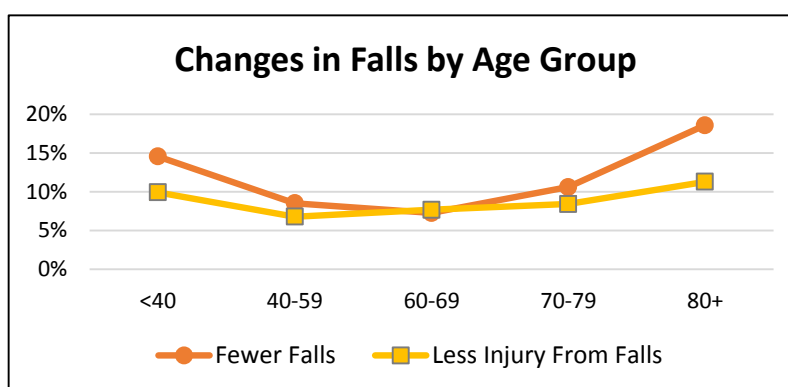
“I was born with cerebral palsy affecting walking coordination, vision. Use 2 canes and manual wheelchair for distances, shopping. I have used regular Physio since age 5. Tai chi has taught me to relax, focus, and feel more balanced mentally, physically, spiritually (via meditation) tai chi is known as meditation in motion. Without tai chi I know I would not be walking, I would be in a wheelchair full time.” (female, age group 60-69)

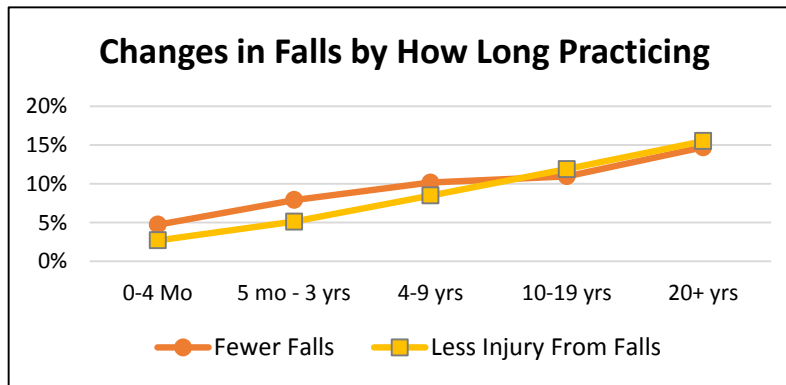
3. Impact on falls

In this study, we collected perceptions of the impact of Taoist Tai Chi® practice on falls in the context of changes in balance and in mobility. Combining changes in balance and mobility, and including all survey responses in the base, we see that 9% of study participants report fewer falls, and 8% report that falls resulted in reduced impact or injury due to their practice of the Taoist Tai Chi® arts.

Some participants reported both fewer falls and reduced impact/injury. Altogether, 865 out of our 6382 study participants (14%) reported one or both of these changes, either under balance, under mobility or both.

Both fewer falls and reduced impact of falls show statistically significant positive relationship with length of time practicing. Relationship with age is equally strong for number of falls, but weaker for reduced impact of falls.





Data Table 10: Impact on Falls

“I move differently. My weight is more evenly distributed in my feet. I turn using my whole body. When I trip or slip, I recover before I fall. My joints are stronger.” (*female, age group 60-69*)

“I recently fell. I was 76 yrs old at the time. It was dark; we were leaving the theatre & I missed the last step and fell. I was not injured - no broken bones. I walked away. I attribute my non injury at this age to learning how to "let go" which I did so quickly as I fell. Thanks Tai Chi!” (*age range 70-79*)

“I've had a couple of falls these past 2 years. I feel that tai chi has strengthened my legs and because of this, I have had no problems due to the falls. My balance is much better because of tai chi.” (*female, age group 70-79*)

“The repeated movements of tai chi – good posture have strengthened my back, help with better ankles and feet balance. I often was spared from falling in winter on compacted snow. Stretching hip muscles also helps the back.” (*female, age range 60-69*)

“Falls are the leading cause of injuries among Canadians 65 years and over. Between 20% and 30% of community-dwelling Canadian seniors experience one fall each year. Research suggests that falls are the direct cause of 95% of all hip fractures, leading to death in 20% of cases.

Falls account for 85% of seniors' injury-related hospitalizations, making this the leading cause of injury-related admissions for seniors. The average Canadian senior had to stay in hospital 10 days longer for falls than for any other cause. Falls are associated with over 1/3 of admissions to long-term care facilities after being released from the hospital.

Apart from personal suffering, loss of independence and lower quality of life, the costs of seniors' injuries to the health system are enormous - approximately \$2 billion annually is spent on direct health care costs.

Seniors who fall may limit their activities for fear of falling again. Yet by limiting activities, they are likely to lose strength and flexibility and increase their risk of falling again. Maintaining physical activity is essential if you wish to prevent falls and injury.”

Public Health Agency of Canada. “The Safe Living Guide—A guide to home safety for seniors”, 2015

C. Surgery, Injury Recovery and Pain

1. Surgery

a. Surgeries avoided

Participants were asked if they have avoided surgery as a result of their practice. Avoidance of surgery is a theme of many participant stories, and in this study 1 out of 5 who gave a response to this question reported feeling that they have avoided surgery.

Those who said yes to having avoided surgery were asked to describe the surgery that was avoided. We received 438 written responses to this question and coded them into categories as follows:

Categories of reported avoided surgeries	Number	Percentage
<i>Base – Total number responding yes</i>	438	100%
Knee replacement/other knee	138	32%
Carpal tunnel/other wrist	56	13%
Back/vertebrae/discs	42	10%
Shoulder	33	8%
Hip replacement/other hip	30	7%
Foot/ankle	7	2%
Other specific surgery	33	8%
Other improvement	58	13%
Unspecified surgery recommended & not needed	41	9%

Data Table 11: Surgeries Avoided

“Repetitive strain injury. Surgery not required because tai chi has helped both pain and mobility.” (*female, age group 40-59*)

“Torn hip ligament got better with tai chi. Surgery was cancelled.” (*female, age group 60-69*)

“Hip repair cancelled. Tai chi improved joints.” (*female, age group 70-79*)

“Cervical hernia and a torn ligament in the shoulder, the tissue has improved to the point where surgery was not necessary.” (*female, age range 40-59*)

“Knee replacement - Tai chi keeps joint swelling under control, surgery no longer necessary. HOORAY!” (*female, age group 60-69*)

“7 years ago I was supposed to have knee surgery for torn meniscus. I was scheduled for surgery but the pain had lessened so I decided not to have it. I used Don Yus, instead!” (*age group 70-79*)

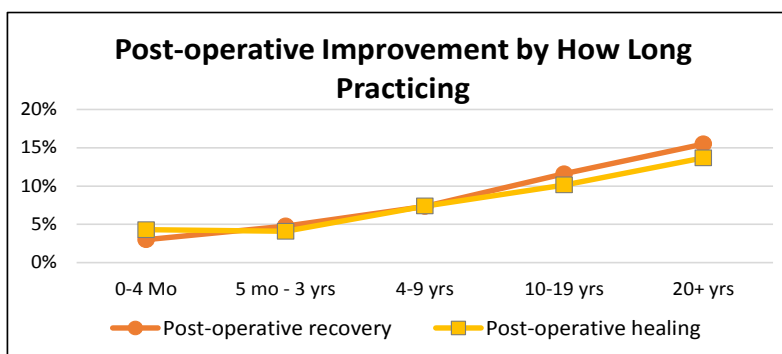
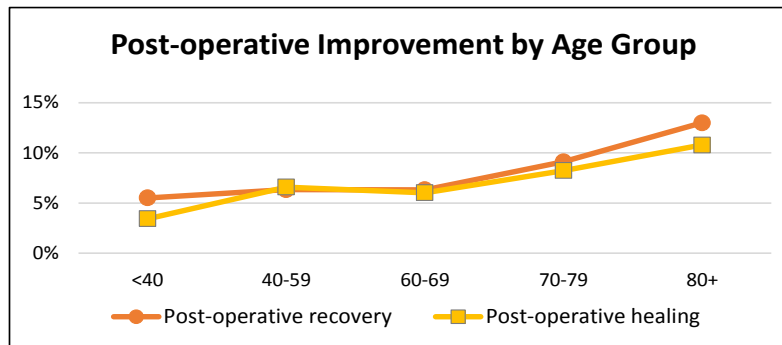
- Number of hip replacements and knee replacements went up 20% between 2010 and 2015
- Length of stay for hip typically 3 – 4 days
- For knee 50% less day surgeries and more hospital stays
- In looking at top ten surgeries by volume across Canada - second is knee replacement (average length of hospital stay is 4.7 days) and third is hip replacement (average length of hospital stay is 7.7 days)

Canadian Institute for Health Information
From: <https://www.cihi.ca/en/spending-and-health-workforce/spending/patient-cost-estimator>

b. Post-operative healing and recovery

Among the study participants, 469 stated that their Taoist Tai Chi® practice had a positive impact on Post-operative Healing and 435 participants on Post-operative Recovery.

Both factors increase with age and length of practice, but this increase may be primarily the result of increased likelihood of having experienced surgery over the passage of time.



“My recovery after total knee replacement was much easier and quicker than normal.”
(female, age group 90+)

“Decreases recovery time from joint surgery. Better recovery and response to post op exercises.” (female, age group 70-79)

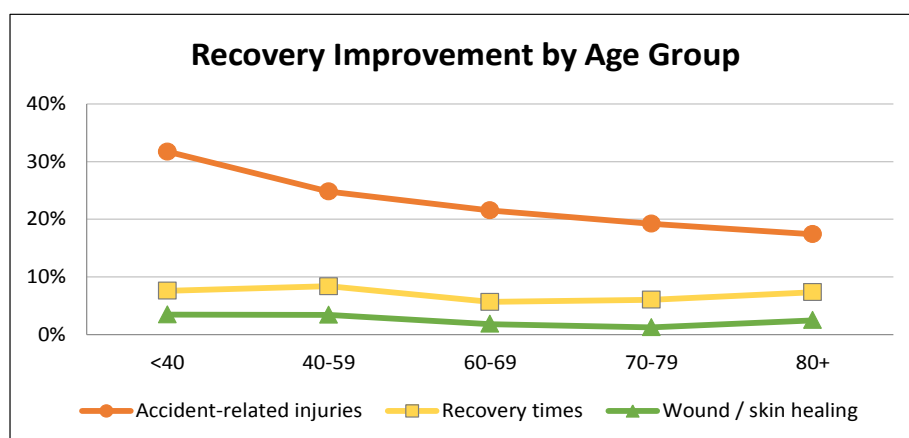
“I had open heart surgery... I did Taoist Tai Chi right up till a few days before surgery, with my surgeons OK. I attended continuing class (for part of the class) 3 weeks post op. Tai chi definitely shortened my recovery time.” (female, age group 70-79)

“Balance issues after surgery greatly improved with tai chi. After cancer surgery strength and endurance greatly improved with tai chi.” (female, age range 70-79)

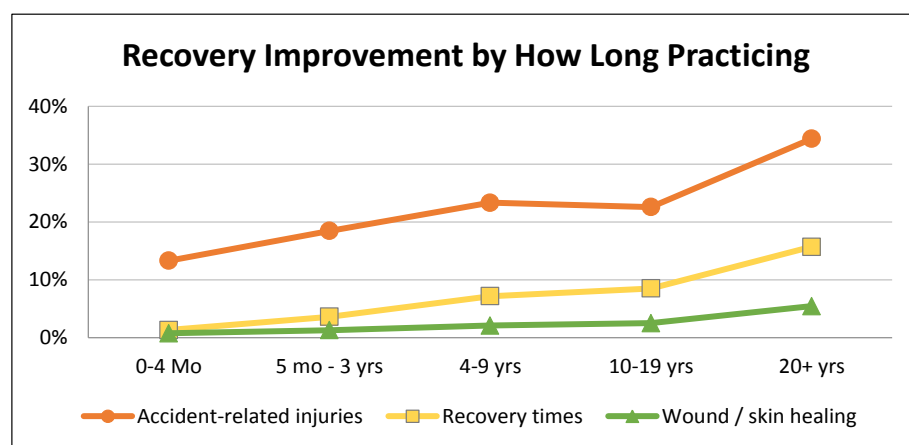
2. Healing and recovery

Another aspect of recovery is shown by the 1341 participants who reported a positive impact on Accident-related Injuries (22%), Recovery Times (6%) and Wound/skin Healing (2%).

The relationship with age is negative, and may reflect an increased likelihood younger people will join and practice Taoist Tai Chi® arts if they experience severe injuries in an accident.



These show a positive relationship that is statistically significant with length of practice.



Data Table 12: Accident-related injuries, Recovery times, Wound/skin healing

“Had a fall, tripped on a step – broke upper arm bone. I did tai chi almost immediately and my recovery has been much better than many younger people. I am now fully back at tai chi in less than 3 months.” (*female, age group 70-79*)

“Hip injury. Healing was stalled until I started tai chi. Even now if I don’t do tai chi regularly I start to limp & it hurts to walk. With tai chi the hip “clicks” into place and I can walk normally.” (*female, age group 60-69*)

“I am grateful that I found tai chi at a time in my life when I needed a miracle. I had a major back injury that threatened to leave me with chronic pain and severe mobility issues. I started tai chi to improve these issues. At first, it was really difficult – but I persisted and after about 2 years had regained full mobility or mostly full mobility and after 5 years only slight pain on occasion. I feel very fortunate that I was able to heal my body and my spirit through the practice of tai chi.” (*female, age group 60-69*)

“I had tail bone injury 20 years ago. Since doing tai chi, restriction from the tail bone injury muscle pain reduced at least 90%. Amazing.” (*female, age group 40-59*)

“The surgeons involved with my back injury and the snapping of a major quadriceps muscle are amazed at my recovery, and what I can now do. Nerve damage, concomitant to the injuries, has also partially ameliorated. Now live very close to a normal life, rather than one of an invalid. Tai chi is the ONLY therapy that has worked. Physio and O.T. were painful and non-productive.” (male, age group 70-79)

“Throughout my injury recovery and recovery from surgery, the doc was impressed that I had good muscle mass and was ‘ahead on the healing curve’. I kept telling him ‘It’s Taoist Tai Chi’.” (female, age group 40-59)

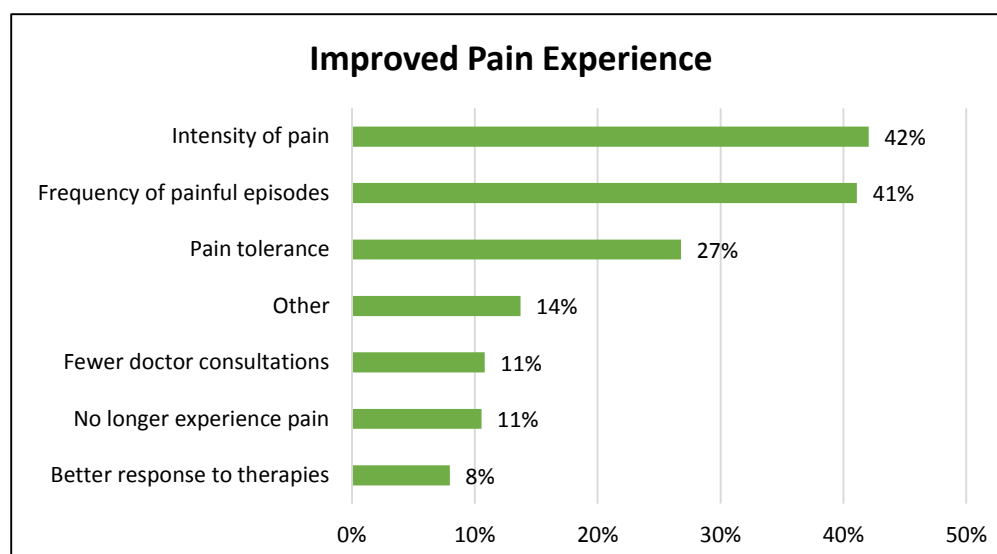
3. Pain

a. Pain control

This study explored pain control by asking specifically if participants experience pain as part of their health condition.

	# (%)	Age Group					Length of Time Practicing				
		<40	40-59	60-69	70-79	80+	0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
Total	5829	129	1050	2552	1615	376	533	1938	1703	1081	459
Yes	3579 (61%)	61%	67%	62%	58%	55%	62%	64%	61%	59%	57%

Among the respondents (61%) who stated that they deal with pain, many have found relief from some degree of pain through their practice of Taoist Tai Chi® arts. This includes those reporting reduced Intensity of Pain (42%) and reduced Frequency of Painful Episodes (41%). Some say they No Longer Experience Pain (11%).



Data Table 13: Pain Control

“Before Taoist Tai Chi, I took Tylenol 5 nights per week due to neck and shoulder pain from computer use at work. Within the Health Recovery week at Orangeville/Mono, the pain stopped. No longer need to see GP for pain (2 years later).” (female, age group 40-59)

“After having physio treatments for several months, due to whiplash, my neck and low back gave me considerable pain. I tried various exercises giving me some relief. Then I went to a beginner tai chi class finding it relaxing and my range of motion much improved, as well as balance improved. My lower back cured after several months, to this day pain has gone. A Miracle!!! I always recommend to people to try tai chi ---It has cured my health and well-being.” (female, age group 80-89)

“Thanks. Back pain gone. In a few years, my sciatica problems have been completely resolved.” (female, age range 40-59)

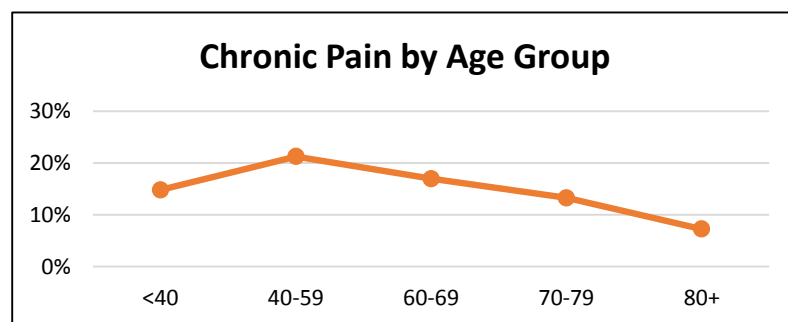
“It quickly resolved my sciatica pain after pregnancy and lumbar pain due to lordosis. As well as plantar fascia and ankle sprains. It’s calming, energizing, helps morale.” (female, age range 60-69)

b. Chronic pain

Study respondents include 16% participants who report that they have in the past or currently experience chronic pain.

The response to chronic pain is not correlated with length of practice, but is with both gender and age. The incidence of chronic pain is 13% for male and 17% for female participants.

Incidence of chronic pain peaks at 21.3% in the 40-59 age range, but diminishes to 7.2% among participants aged 80 and over.



Data Table 14: Chronic Pain

“Tai chi has allowed me to live a life that is full despite several chronic conditions. When pain is your constant companion, but is not life threatening, medical professionals can do little. They deal in easing symptoms and saving lives but tai chi addresses the quality of life. Getting a break from pain through the practice of tai chi has enabled me to work, to be a supportive spouse, to be active in my children's lives. It gives me a means to control that which is usually uncontrollable. The onward march of chronic disease and the way it can become who you are. I am not defined by pain. Tai chi practice has given me back me.” (female, age group 40-59)

“Relief from chronic back pain and frozen shoulder pain is HUGE! I had come to accept that I would have to deal with the pain and mobility restrictions the rest of my life. My flexibility (because I can actually move now) and muscle strength are greater now at age 60 than when I was 30. My hands and feet are no longer cold due to much better circulation. Every time I walk around the block, I can celebrate that I'm able to do it without debilitating back pain. I am pain free!” (female, age group 60-69)

“My shoulder was a chronic pain problem after years of sitting at a desk. It no longer bothers me and I no longer need physio for it. I do tai chi every day which wards off aches and pains. I also know how to stay balanced and how to use my feet to provide strength and stability. Thank You Master Moy!” (female, age group 60-69)

D. Mental Health

The focused concentration required to practice Taoist Tai Chi® arts occupies the mind, drawing it away from daily worries and tensions. Each step in the training is intended to help the mind return to stillness, clarity and wisdom, and the body to a balanced, relaxed and healthy state. Learning to quiet the mind, even while moving through the tai chi set, lays a foundation for integrating the principle of stillness into daily life.

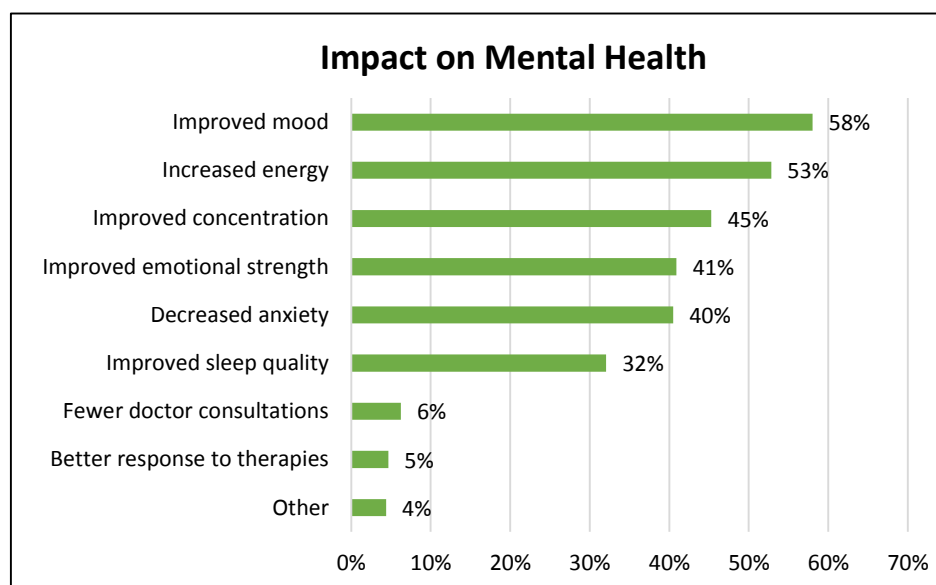
This section includes responses to questions about the impact on mental health and improvement to factors relating to mental health.

1. Impact on mental health

Study participants were asked specifically about effect of Taoist Tai Chi® arts on their mental health. Among those who responded, 86% stated there had been an effect.

	# (%)	Age Group					Length of Time Practicing				
		<40	40-59	60-69	70-79	80+	0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
Total	4675	123	936	2064	1187	289	368	1580	1360	900	383
Yes	4038 (86%)	94%	93%	88%	80%	78%	87%	86%	84%	88%	93%

Among those reporting an effect, more than half cite Improved Mood (58%), and Increased Energy (53%). More than 4 out of 10 mention Improved Concentration (45%), Improved Emotional Strength (41%) and Decreased Anxiety (40%).

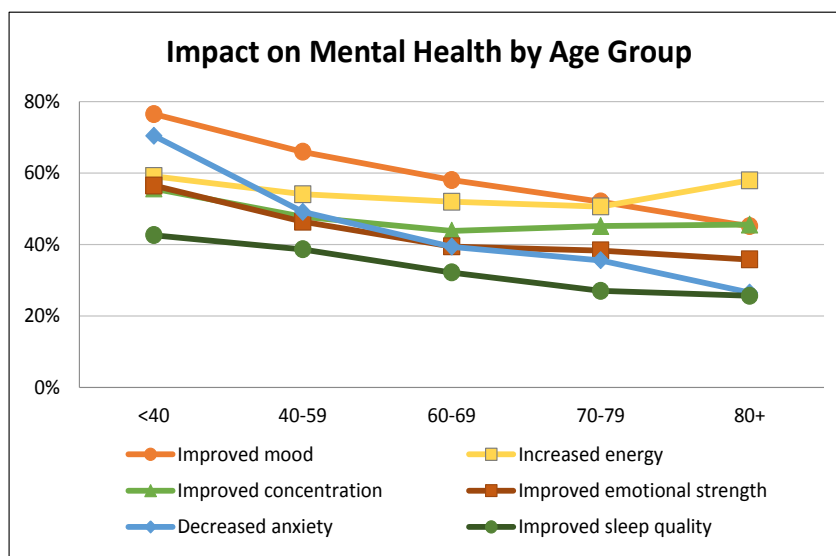


Data Table 15: Impact on Mental Health

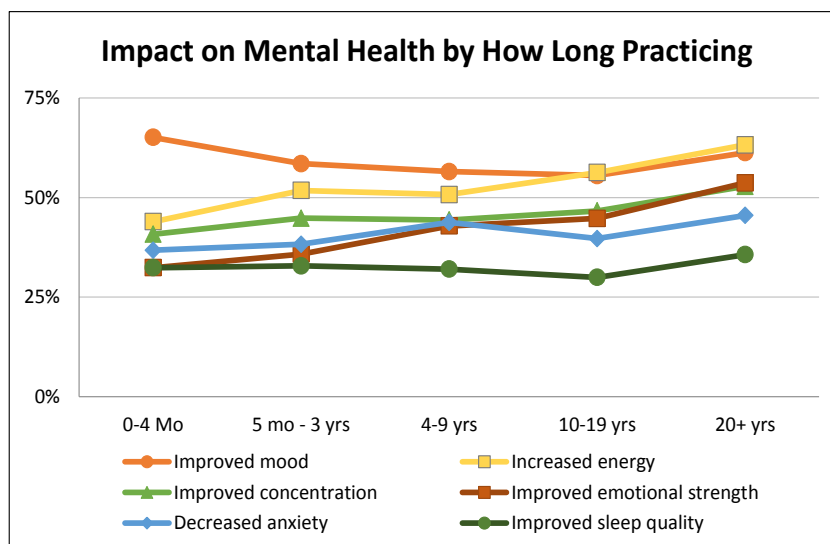
“Although tai chi has impacted my physical health significantly I think its greater gift is the emotional and spiritual stability and strength it has given me. Once depression was a familiar companion coupled with self-doubt and paranoia. 'Taming the Heart' has given me calm and peace and a clear vision towards the future.” (female, age group 60-69)

Participants reported their Taoist Tai Chi® practice has had a positive impact on six factors of mental health by age groups and length of practice.

The age group under 40 reported improvements in Improved Mood (76%) and Decreased Anxiety (70%). The factors Improved Mood, Improved Emotional Strength, Decreased Anxiety and Improved Sleep Quality showed a very statistically significant improvement by age group.



Participants reported improvement in Improved Mood (65%) within the first four months of practice. Increased Energy and Improved Emotional Strength were highly statistically significant and Decreased Anxiety was statistically significant with length of time practicing.



Data Table 15: Impact on Mental Health

“Taoist Tai Chi has helped me walk without pain of flat feet and has helped me keep my blood pressure under control, but to me the most dramatic result of doing Taoist Tai Chi is that I am no longer depressed and anxious. Conditions that hampered my life a lot for a long time. I have not needed therapy or medication for years.” (*female, age group 70-79*)

“I have inattentive-type ADHA that results in significant functional impairment affecting all aspects of my life - especially personal relationships, work, a sense of purpose, and outlook on life. For more than a decade, this training was the only thing that held me together so I didn't fall apart. In particular, Taoist Tai Chi practice helped me to direct excess/scattered energy so I could finally focus, relax, and experience quiet moments for once.” (*male, age group 20-39*)

“I have very few episodes of my illness which is chronic and incurable. My specialist is amazed at my mental health and I attribute it to my practice of tai chi. Especially in recent years there has been a huge improvement in my mental health based on psychotherapy in conjunction with the tai chi. As a result, I require far fewer hospitalizations and they are of much shorter duration than in the past.” (*female, age group 40-59*)

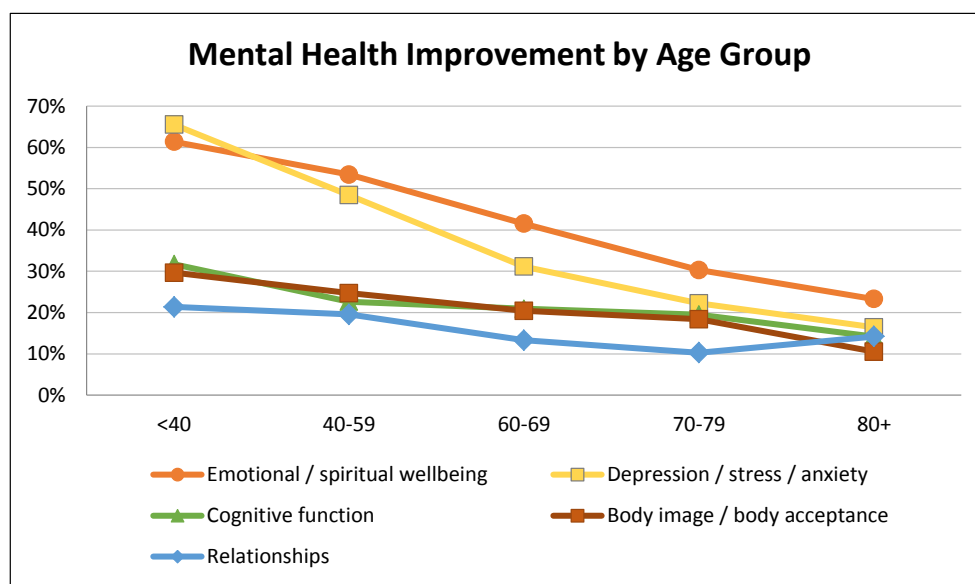
“The practice of tai chi has had a positive effect on my stress management. It is a moment of escape and relaxation which I enjoy in the present moment.” (*male, age range 40-59*)

2. Mental health improvement

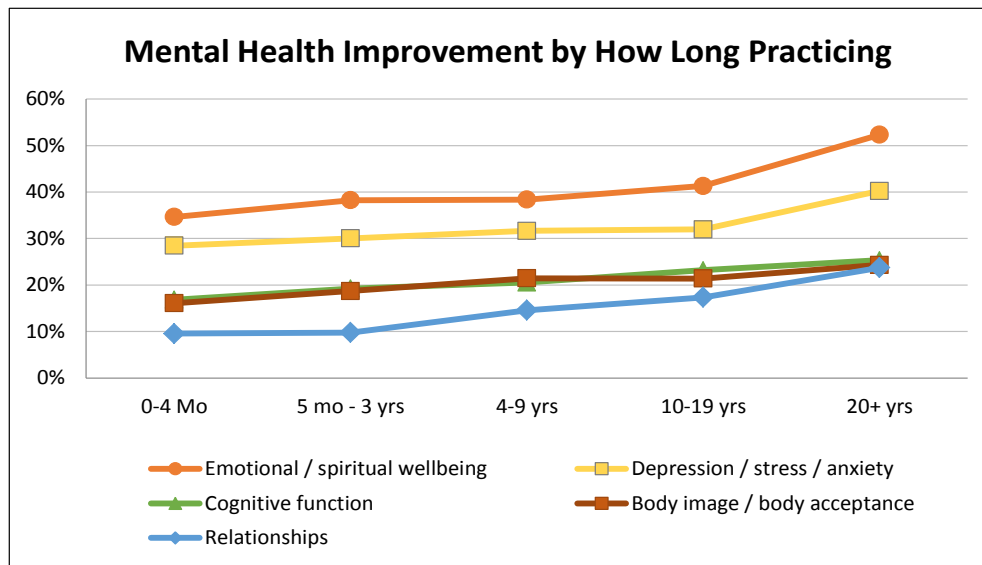
Participants reported their Taoist Tai Chi® practice has had a positive impact on 5 factors related to mental health. All five factors are very highly statistically significant according to both age and length of time practicing.

One factor, Body Image/Body Acceptance is reported more by women (22%) than by men (17%). Another factor significantly related to gender is Emotional/Spiritual well-being (37% in men, 41% in women).

Of particular interest was improvement reported by participants under 60 for the factors Depression/Stress/Anxiety and Emotional/Spiritual Well-being.



Respondents who have practiced Taoist Tai Chi® arts for 20 years or more show improvement for Emotional/Spiritual Well-being (52%) and Depression/Stress/Anxiety (40%) factors.



Data Table 16: Mental Health Improvement

“In my first year of practice I noticed how calm I was in stressful situations (at work). This has continued and increased during my practice. I experience joy and an enduring sense of well-being day to day that is certainly supported by daily Taoist arts practice. A much greater sense of body awareness which aligns with body acceptance.” (*female, age group 40-59*)

“Thanks to Taoist Tai Chi, I experienced a great emotional transformation – more stable, more confident, more balanced and feeling better about myself. I have more self-respect and more respect for others.” (*female, age range 40-59*)

“Tai chi brings me peace of mind. I feel relaxed after each class. For me what Tai Chi brings me for now is more mental than physical. I could not do without it. Excellent for balance, coordination.” (*female, age range 40-59*)

“After having suffered anxiety, depression and panic attacks for most of my life, I found that tai chi helped my concentration and I no longer feel so isolated. My general health has improved enormously.” (*female, age group 70-79*)

“When stress is unhelpful, people may feel overwhelmed or feel like they can’t possibly fix the problem. In these cases, some people avoid dealing with the original problem altogether, which may make the problem—and stress—worse. ... Over time, stress can also have a big impact on physical health. Sleep difficulties and headaches are common problems related to stress. People are also more likely to get sick when they’re experiencing a lot of stress...

Start on the inside. Practices like yoga, meditation, mindfulness, prayer, or breathing exercises can help you quiet your mind and look at problems from a calmer, more balanced point of view...

Get active. Physical activity can be a great way to reduce stress and improve your mood. Activity could be anything from taking up a new sport to walking...”

Canadian Mental Health Association (CMHA), website

"A total of at least \$14.3 billion in public expenditures went towards mental health services and supports in Canada. • The largest component of costs was pharmaceuticals followed by hospitalization. • In Canada, 7.2% of total government health expenditures go to mental health."

Mental Health Commission of Canada: "The cost of Mental Health and Substance Abuse Services in Canada", 2010

E. Community

1. Impact on social situation

Our organization places high importance on promoting social interaction among participants, which they approach through the use of tea breaks during classes and social events such as banquets.

To measure the success of these efforts, we asked a specific question about this topic and found that 80% of those responding say there has been an impact.

	# (%)	Age Group					Length of Time Practicing				
		<40	40-59	60-69	70-79	80+	0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
Total	5122	115	917	2256	1394	347	401	1659	1553	987	425
Yes	4122 (80%)	85%	84%	81%	79%	78%	73%	78%	81%	85%	88%

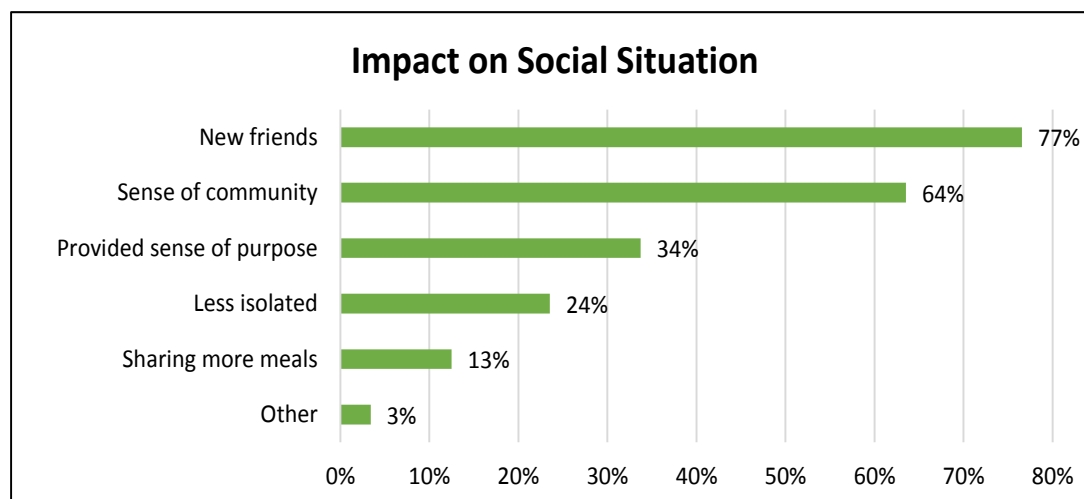
"I regained interest for community involvement. Since I have been practicing tai chi, for six years now, I have witnessed a great change in what I have become. A more tolerant person of others and myself, greater patience, a lot less anger. Especially a great inner peace, a more subtle perception of my feeling of clarity. Hearing and listening to my body. I have also developed a broader vision, capturing instant situations like a photographer. Aging with more wisdom and accepting myself as I am. From the bottom of my heart, thanks to tai chi." (male, age range 60-69)

"I joined tai chi as a healthy 83-year-old. I was interested more in the social part as I had recently lost my wife after 57 years of marriage and now having difficulty dealing with it. I had so much encouragement that now I feel like a part of another family!" (male, age group 80-89)

"The support system is super high because FLK provides many programs to motivate participants to keep going with many lessons of better quality of life. Community service oriented, think outside ourselves." (female, age group 40-59)

2. Social situation improvement

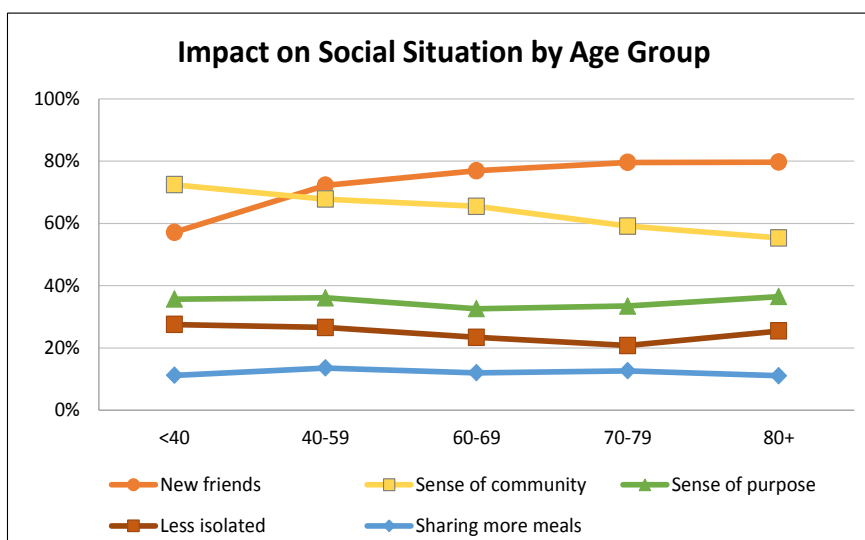
Those who cited an impact on their social situation were most likely to note that they had made New Friends (77%), and had more of a Sense of Community (64%). Other important changes were a Sense of Purpose (34%) and feeling Less Isolated (24%).



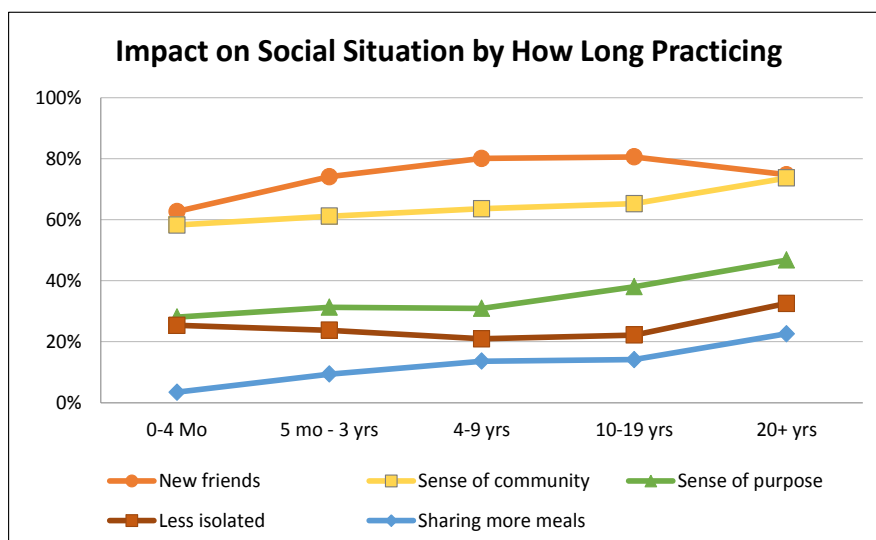
"I would say that one of the benefits that amazed me most in the practice of the Taoist arts was the impact on relationships with others in general, more harmony, less judgment, more simplicity. Apart from the physical benefits comparable to a deep massage or lymphatic drainage, the practice develops a social conscience that is developed very little elsewhere." (female, age range 60-69)

We looked at five factors of social situation improvement by age group and length of time practicing.

Participants reported New Friends and Sense of Community to show a very highly statistically significant improvement by age group.



All five factors for social situation improvement show a very highly statistically significant impact by length of time practicing.



Data Table 17: Social Situation improvement

“I had begun to be more reclusive due to depression, etc. Joining tai chi has helped me regain my self-confidence, and I don't feel like I am alone in my physical/mental issues.”
(female, age group 40-59)

“I enjoy coming to classes. I feel part of the tai chi community, made new friends, feel happier and healthier in general.” (female, age group 60-69)

“Thru the practice I have become more relaxed about things that may have once stressed me. I'm more outgoing and therefore find social situations easier. Generally feel happier.”
(female, age group 40-59)

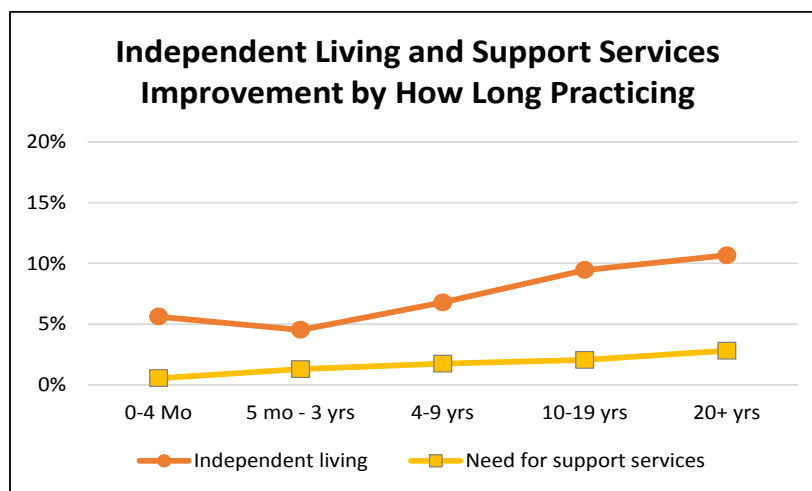
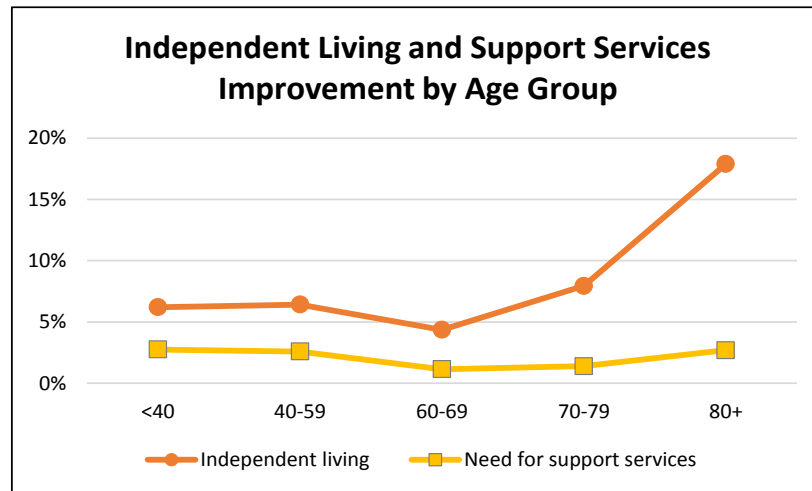
“In the twenty years I have watched many people just come to life with the friendship and sense of community (belonging) over and above the physical benefits of the practice. This is, in and of itself, satisfying to my ‘soul’.” (female, age group 70-79)

“Facilitates meeting new people. Encourages volunteering which makes me feel useful. I feel happier and I see an improvement in my inner life.” (age range 40-59)

F. Home Care and Caregivers

1. Independent living and support services

Study participants had the opportunity to indicate that their Taoist Tai Chi® practice had a positive impact on Independent Living. This factor is correlated with age and with length of time practicing. A related factor was Need for Support Services. This factor shows a weaker relationship to age and to time practicing.



Data Table 18: Independent Living and Support Services

“Taoist Tai Chi has been my only exercise since 1980. My health at age 90 is very sound. My doctor says that she wishes all her senior patients were in as good health. I practice Taoist Tai Chi every day, go to class 3 times a week, go to intensives and all day programs when they are here. I live on my own, drive my car, enjoy the concerts and volunteer my time for some of their events. I am a volunteer instructor for the Taoist Tai Chi society and also volunteer some of my time to the special events. I communicate to my children, grandson and great grandson on my laptop. My life is good. I look forward to the day and days ahead of me.” (*female, age range 90+*)

“I do not have any direct evidence that connects my tai chi practice to public health. But the fact I am also over 80 years old and still work part-time at a farm and able to hike as good as 20 years younger persons shows there is something of very significant benefit in the practice.” (*male, age range 80-89*)

“An Age-Friendly Environment:
 One of the primary goals of seniors’ policy in Canada is to promote the independence of older Canadians in their own homes and communities, avoiding costly institutionalization for as long as feasible.”
 Canadian Medical Association, “Health and Health Care for An Aging Population”, December 2013

"The majority (87%) of Canadians age 55 years and older want to live at home as long as possible. According to the 2006 Canadian census, the vast majority (93%) of seniors age 65 and older do live at home...

Though living alone may provide independence, it can affect seniors' financial status, house affordability and degree of isolation. It also has an effect on overall well-being.

Without available community supports, appropriate house, an informal caregiver or formal care, living alone may precipitate the likelihood of institutionalization...

More than forty percent (41%) of Canada's seniors are in very good or excellent health, based on their perceptions of their general and mental health, functional abilities and independence in activities of daily living...

At any given time across the country, almost 1 million Canadians are receiving home care. The majority (82%) are age 65 or older."

Healthcare in Canada: "A Focus on Seniors and Aging", 2011

2. Home care needs

The questionnaire specifically explored the need for caregiving. Very few respondents indicated that they were receiving professional home care services, and most of those needed 5 hours or less per week of professional assistance.

A somewhat larger number reported receiving home care from family members or friends; more than half requiring 5 hours or less per week.

Receiving home care services	professional		family or friends	
	#	%	#	%
Total Number responding	5709	100%	5675	100%
Yes	120	2%	162	3%

3. Changes to Home care

Respondents who indicated they received professional and/or family/friend home care were asked about changes in their requirements due to their practice of the Taoist Tai Chi® arts. Less than half of these respondents indicated changes to their home care.

Changes to home care factors:	#	%
Require fewer hours than before	31	47%
Increased strength/flexibility makes home caregiver's role less demanding such as easier transfers	22	33%
Able to do tasks that used to be performed by home caregiver	17	26%
Other	16	24%
No change in home care requirements	10	15%
No longer require assistance as before	8	12%
Reduced number of consultations with doctor	8	12%
Require more hours than before	4	6%
No answer	3	5%
<i>Base (Total Number Responding 172)</i>	<i>66</i>	<i>38%</i>

4. Caregivers

We also explored the effect of Taoist Tai Chi® practice on the caregivers in our study. Altogether, 667 respondents say they are caregivers. Most of these caregivers have experienced benefits related to caregiving since starting the practice of the Taoist Tai Chi® arts.

Improvements:	Number	Percentage
Improved emotional strength for dealing with stress of caregiving	375	56.2%
Increased strength and energy for caregiving	278	41.7%
Increased awareness of how to use my body to prevent injury while caring for another	206	30.9%
Other	81	12.1%
Reduced number of consultations with doctor	21	3.1%
Require fewer hours of professional home care	17	2.5%
Less time off work	12	1.8%
No answer	119	17.8%
Base (Total number responding 6135)	667	11.0%

“I was a caregiver for my husband who died of A.L.S. The time I spent doing tai chi really helped deal with the stress I was under.” (female, age group 70-79)

“Without tai chi I might have been looking at placing my husband in long-term care. But now I feel I can go on as a care giver (it has been 13 years) with improvement in my back problems & positive respite tai chi gives me.” (female, age group 60-69)

“I am so pleased with how I feel after each practice in tai chi. My balance, emotional and how to handle stress is unbelievable. My husband has cancer and I need to help him as much as I can - I find doing tai chi helps me focus and take care of myself. So grateful.” (female, age group 60-69)

“I've been a caregiver for 33 years. I view tai chi as health recovery for myself.” (female, age group 80-89)

“I'm not only better coordinated and much better balanced, but in a better mood and less anxious. Seven years ago my mother was diagnosed with Alzheimer's and moved to a Nursing Home. Between work, taking care of my son and my mother, I wouldn't have survived without my weekly tai chi session.” (female, age group 40-59)

“My husband has been dealing with cancer for 6 years. Tai chi has helped keep my sanity!” (female, age group 60-69)

“Gives me a ‘mental vacation’ from caregiving so I am more patient, relaxed, and refreshed. A moving meditation. Less shoulder pain from soft tissue injury. Better balance, less stiffness.” (no additional demographic information)

“As a parent of two severely autistic children tai chi has been a great help in stress reduction and sense of community outside the world of autism.” (female, age group 40-59)

“The responsibilities of informal caregivers ... can be extremely stressful for the caregiver. Nearly 17% of all informal caregivers helping seniors reported distress in their role – representing more than 24,000 distressed caregivers in Ontario and Yukon alone.”¹¹

The distress experienced by informal caregivers extended into their paid working hours. More than half of women (55%) and almost half of men (45%) providing informal care reported repercussions at their place of employment.²³ For example, caregivers reported that they had to change their work patterns or work hours, or decline promotions or job transfers to accommodate their informal caregiving responsibilities.”

Healthcare in Canada: “A Focus on Seniors and Aging”, 2011

G. Health Conditions

Taoist Tai Chi® arts help people with many chronic and serious health problems, including Multiple Sclerosis, Parkinson’s disease, stroke and brain injury, asthma, anxiety, depression, as well as the stresses of daily life.

We offer Health Recovery classes and programs at locations and centres around the world, including the Health Recovery programs at our International Centre. Taoist Tai Chi® arts have proven extremely effective as complementary therapy and many conditions have improved. For those with decreased mobility, movements can be adapted as needed.

1. Cardiovascular issues

a. Blood sugar levels/diabetes

Among the study participants, 7% reported a positive impact on their Blood Sugar Levels due to their practice of the Taoist Tai Chi® arts. There is a statistically significant difference between men and women in the study group, but not with age or time of practice.

	# (%)	Gender	
		Male	Female
Base	6218 (100%)	1542	4386
Blood sugar levels	411 (7%)	9%	6%

A similar number report having their health impacted by Diabetes, and this is significantly related to gender. The proportion of respondents impacted by Diabetes shows essentially no increase with age over the age of 40.

	# (%)	Gender		Age Group				
		Male	Female	<40	40-59	60-69	70-79	80+
Base	6234	1537	4408	142	1120	2713	1729	414
Diabetes	404 (6%)	10%	5%	3%	6%	7%	7%	6%

“My physician suggested I continue with tai chi - "Don't give it up". Type II diabetes controlled through diet and exercise.” (*male, age group 70-79*)

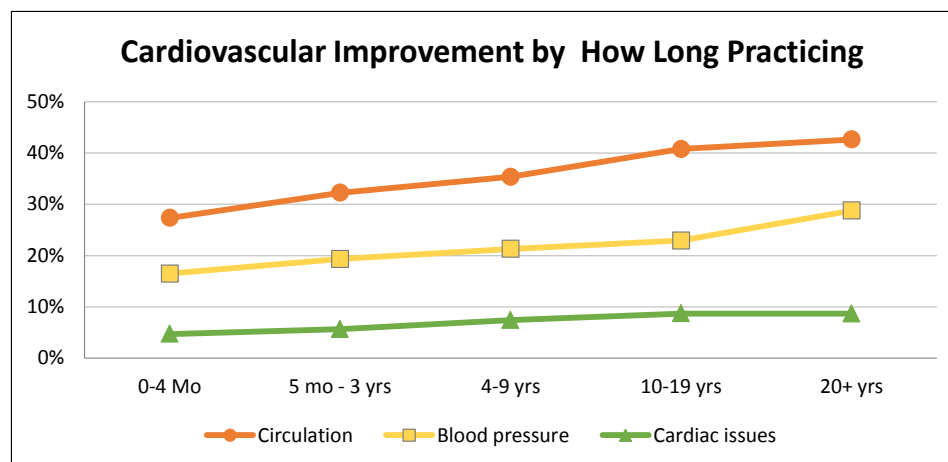
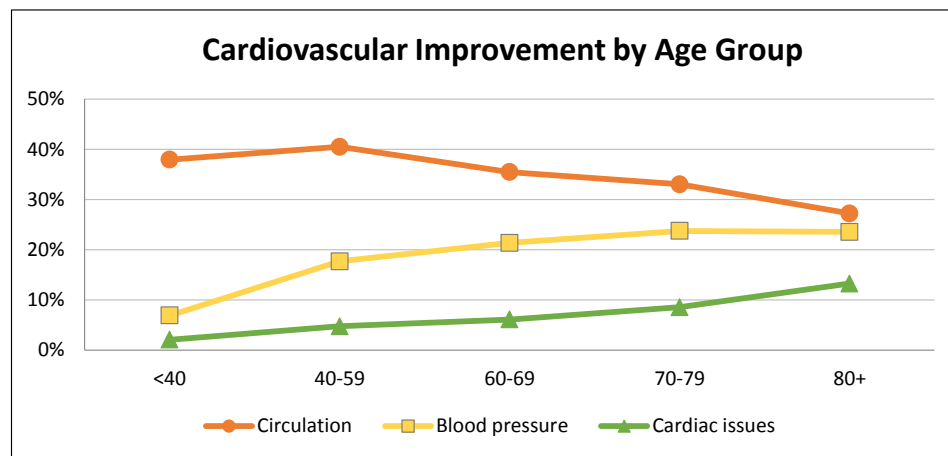
“I find after class a lot of pain has eased. Nerve damage from diabetes in feet but find a slight less pain and numbness for a couple hours after doing tai chi for 2 hours.” (*male, age group 60-69*)

“Both my family doctor and dietician are pleased with my participation to help maintain and improve my blood pressure, weight and pre-diabetes.” (*male, age range 40-59*)

b. Cardiovascular conditions

Among the study participants, 35% reported a positive impact on their Circulation and 21% had a positive impact on their Blood Pressure. Smaller numbers reported improvements with Cardiac Issues (7%) and Swelling/Edema (4%).

Circulation, Blood Pressure and Cardiac Issues were highly statistically significantly related to age group and length of practice. The condition Swelling/Edema was highly statistically significantly related to gender with 2% for men and 4% for women.



Data Table 19: Cardiovascular conditions

“The oncological surgeon likes the fact that I do tai chi. He says that it improves lymph circulation.” (*female, age group 70-79*)

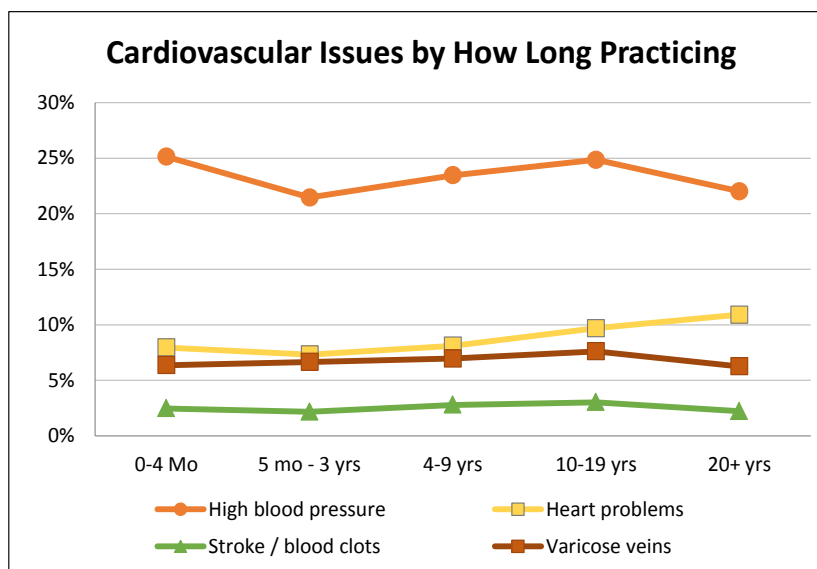
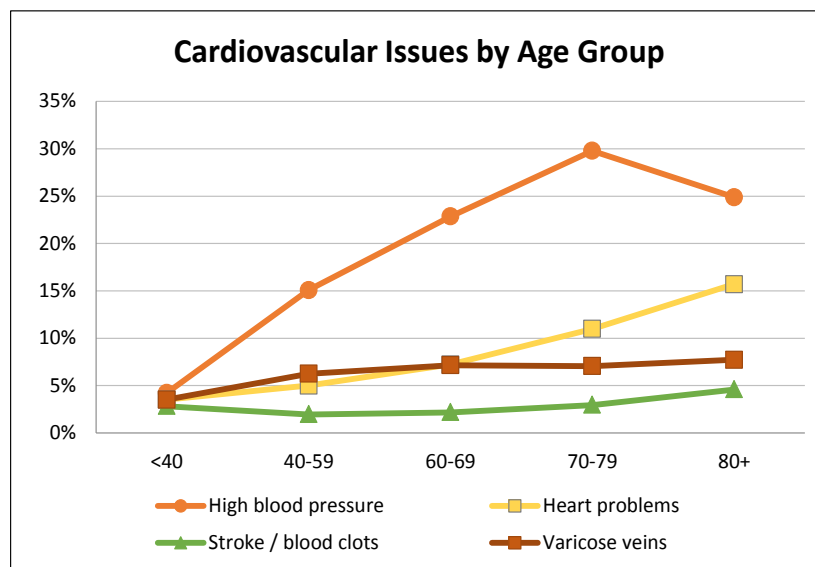
“Because of surgery I have had chronic arm issues (pain, mobility) as well as lymphedema. My mobility has increased and pain is lessened. The lymphedema in my arm is minimal providing I practice tai chi 2-3 times per week.” (*female, age group 60-69*)

“9 years ago, at age eighty I had a triple by-pass. After the operation, the surgeon told me they were concerned because of my age. ‘But when we got inside, we were surprised’, he said ‘you are in very good condition, you have to be doing something’. I told him I do tai chi, he said ‘just keep doing it’.” (*male, age group 80-89*)

“My circulation has improved to my hands and arms in general. My back is less tensed and less pain. I love that while I practice I think of nothing else!” (female, age range 60-69)

Participants who reported having a health impact from cardiovascular conditions included 23% with High Blood Pressure, 8% with Heart Problems, 7% with Varicose Veins and 3% with Stroke/Blood Clots.

All of these conditions remain stable regardless of number of years of practice. Stroke/Blood Clots and Varicose Veins show little increase with age, while High Blood Pressure and Heart Problems are significantly related to age and also to gender.



Data Table 19: Cardiovascular conditions

“Suffer from coronary artery disease and believe tai chi has helped reduce stress. I also believe it has helped with balance and flexibility. Tai chi provides a supporting community.” (male, age group 60-69)

“My use of tai chi to accelerate recovery from a stroke, started in the hospital concurrent with in- house therapies (on my own initiative). My need for out-patient therapies was greatly reduced by increasing participation in tai chi classes.” (female, age group 60-69)

“As a person used to participating in many sports and exercise activities who found being unable to continue these activities after having a stroke (left me with very poor balance). I found tai chi an excellent discipline, suited my condition. I enjoy being part of a group participating together and having similar physical problems, and being treated with enthusiasm, non-judgementally.” (female, age group 80-89)

“After my stroke, practice has greatly improved my brain function in regards to being able to process thoughts quickly, placing things in order, and some memory improvement.” (female, age group 60-69)

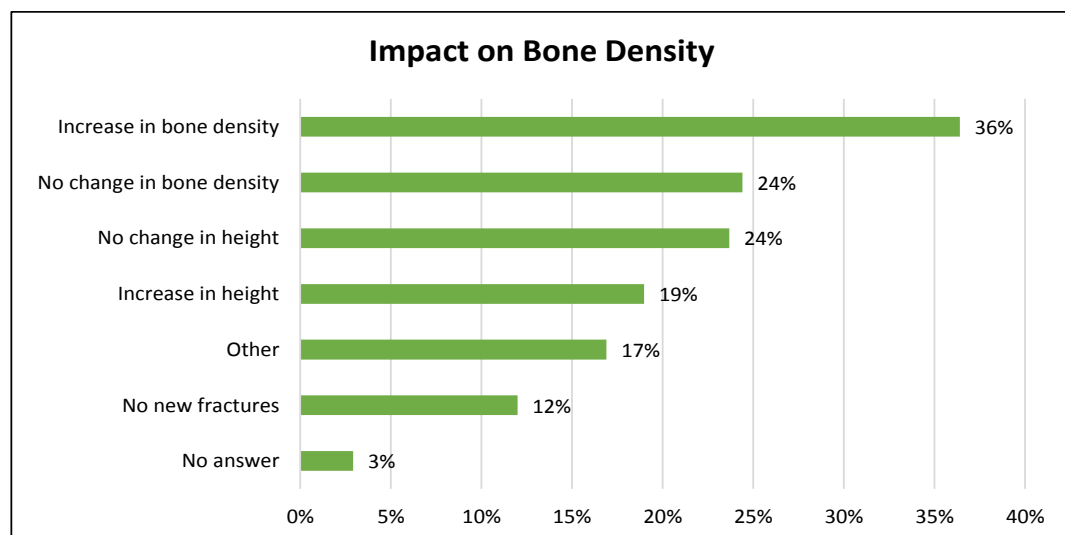
2. Bone density and osteoporosis

a. Bone density

This study included specific questions on bone density. Among those who responded, more than half reported their Taoist Tai Chi® practice has affected their bone density.

	# (%)	Age Group					Length of Time Practicing				
		<40	40-59	60-69	70-79	80+	0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
Total	1564	26	177	637	553	142	81	376	467	430	179
Yes	959 (61%)	35%	54%	60%	65%	65%	31%	46%	62%	73%	80%

Among the 959 participants who reported effects on bone density, specific effects include Increase in Bone Density and No Change in Bone Density. These are both remarkable given the progressive nature of osteopenia to osteoporosis.

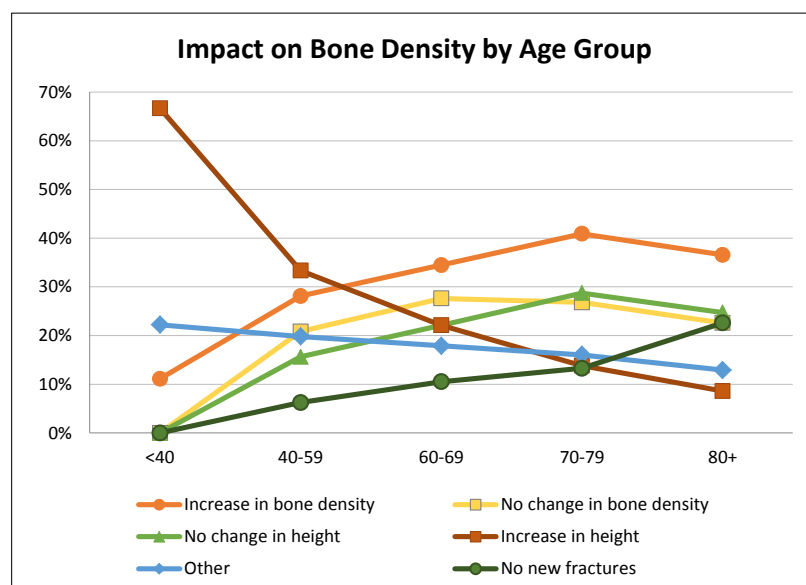


“I no longer have osteopenia - my balance is greatly improved.” (female, age range 70-79)

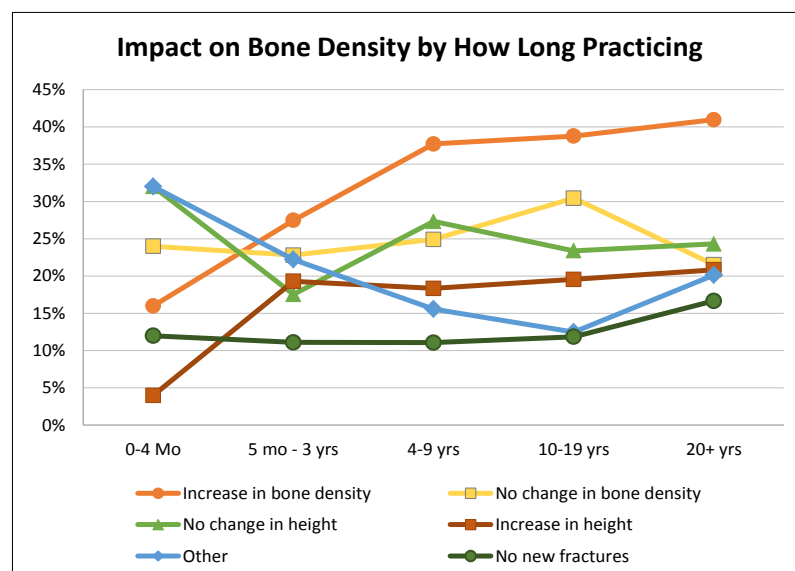
“It has helped me to keep doing all the chores necessary. Has helped me to stay mobile - getting up from floor, chairs, out of car. Was diagnosed with osteopenia 30 years ago. Has never progressed to osteoporosis.” (female, age group 80-89)

We looked at six effects that impact on bone density by age group and length of practice.

Participants reported Increase in Height to show a very highly statistically significant improvement (note: small sample size for <40 age group). The factors No Change in Height and No New Fractures show a highly statistically significant impact by age group.



Respondents who have been practicing more than 4 years reported over 35% improvement in Increase in Bone Density. This same factor showed a highly statistically significant impact by length of time practicing.



Data Table 20: Bone Density

“After breaking my arm I joined a study on bone health. I was told the practice of tai chi stabilized and/or improved bone density.” (female, age group 60-69)

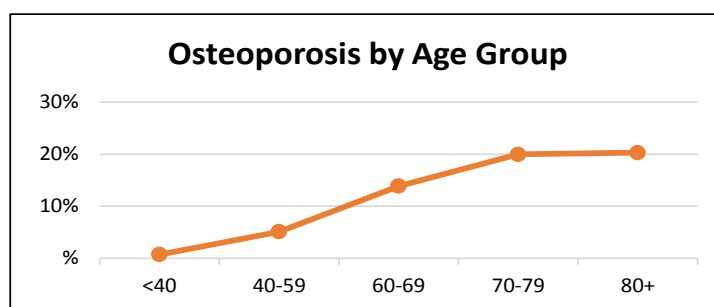
“Since I practiced tai chi my bone density increased by 45%. [My doctor] knows and recognizes tai chi as a very helpful aid and recommends it to [his] clients. Thanks.” (age group 80-89)

“Doing tai chi has changed my posture and the way I move as well as stabilizing my bone density.” (female, age group 60-69)

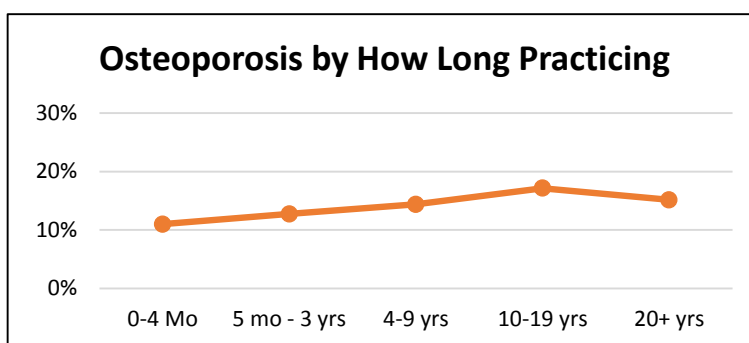
“My doctor is amazed due to my flexibility. Bone density is up by 10%. Calmness. I visit my doctor once a year for a complete check-up.” (female, age group 70-79)

b. Osteoporosis

Within the Taoist Tai Chi® arts respondents, 14% indicated that their health has been impacted by osteoporosis. This is closely related to both age and gender.



Osteoporosis is also related to years of Taoist Tai Chi® practice with less increase over years of practice than might be expected considering the age profile of respondents.



Data Table 21: Osteoporosis

“Osteoporosis - what I lost I gained back and the bone density is increasing.” (female, age group 60-69)

“Near the time I began practicing tai chi bone density tests indicated I had osteoporosis in my hips and spine. I declined medication and continued to practice tai chi, a weight bearing exercise and took a good quality natural calcium supplement. I continue to have my bone density levels tested. The bone density in both my hips and spine has improved. In fact, my

spine has moved [to] osteopenia (pre-osteoporosis) from osteoporosis. It is considered unusual to be able to add to bone density once it is lost.” (female, age group 70-79)

“Osteoporosis is a disease characterized by low bone mass and deterioration of bone tissue. This leads to increased bone fragility and risk of fracture (broken bones), particularly of the hip, spine, wrist and shoulder.

Fractures from osteoporosis are more common than heart attack, stroke and breast cancer combined.

Osteoporosis Canada, website, 2017

“We estimate the current burden of illness of osteoporosis in Canada is double (\$4.6 billion) our previous estimates (\$2.3 billion) due to improved data capture of the multiple encounters and services that accompany a fracture: emergency room, admissions to acute and step-down non-acute institutions, rehabilitation, home-assisted or long-term residency support.”

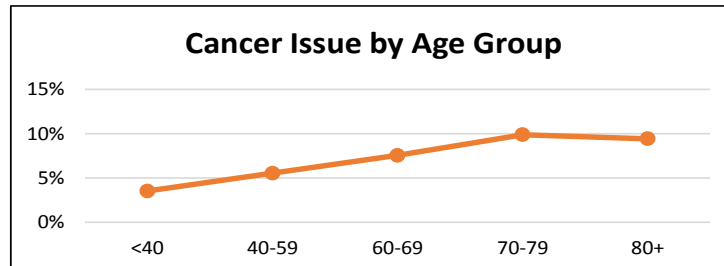
The current economic burden of illness of osteoporosis in Canada, Hopkins et al, Osteoporosis International May 2016

“Tai Chi is a very safe and effective low impact form of exercise that improves balance and reduces the risks of falls.”

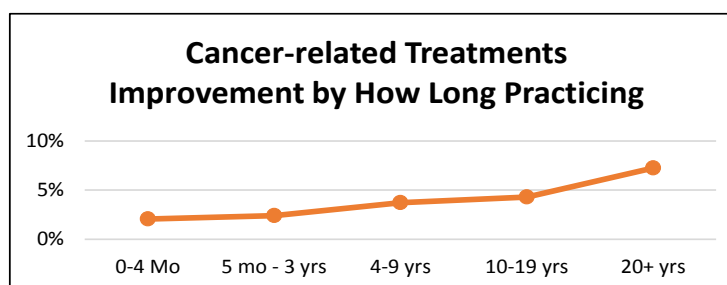
Osteoporosis Canada: *Too Fit to Fracture: Managing Osteoporosis through Exercise*, October 2014

3. Cancer

Within the Taoist Tai Chi® arts respondents, 8% reported having had a health impact from Cancer. This does increase significantly with age, but shows no relationship with gender or length of practice.



A relatively small number of participants, 4%, report a positive impact on Cancer-Related Treatment. This is not related to age or gender, but does increase significantly with length of practice.



Data Table 22: Cancer

“Tai chi really helped me recover from the negative health effects of chemotherapy and radiation by helping with balance, releasing inner tension and helping with dizziness.”
(female, age group 40-59)

“After radiation for breast cancer tai chi helped with returning range of motion in my arm. After developing lymphedema tai chi helped with lymph drainage & circulation in my left side. Being out with others helps in all aspects of retired life.” (female, age group 70-79)

“After breast cancer treatments, I started tai chi. After two weeks my body immediately felt good, my face had colour, had energy and good health. Now my body craves for tai chi. Thank you!” (female, age group 60-69)

“I am symptom free from my cancer (multiple myeloma). I do not have the bone pain others experience. My kidney function has stayed normal. I do not experience fatigue when blood levels drop. I recovered from my stem cell transplant faster than most patients. Although my immune system is compromised from the chemotherapy I received, I have not experienced any increase in illness eg: cold flu.” (female, age group 60-69)

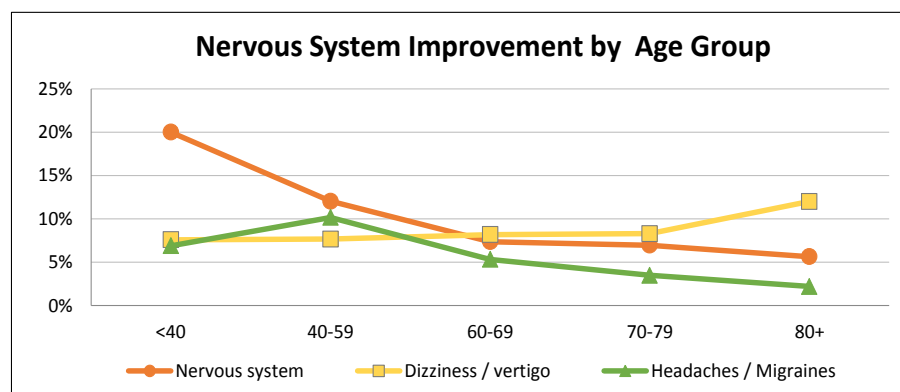
“After the cancer treatments I was very weak and had no balance. Our tai chi was the therapy I used to recover as soon as I could leave my house under my own steam. Rebuilt muscle, restored balance, helped with anxiety.” (female, age group 60-69)

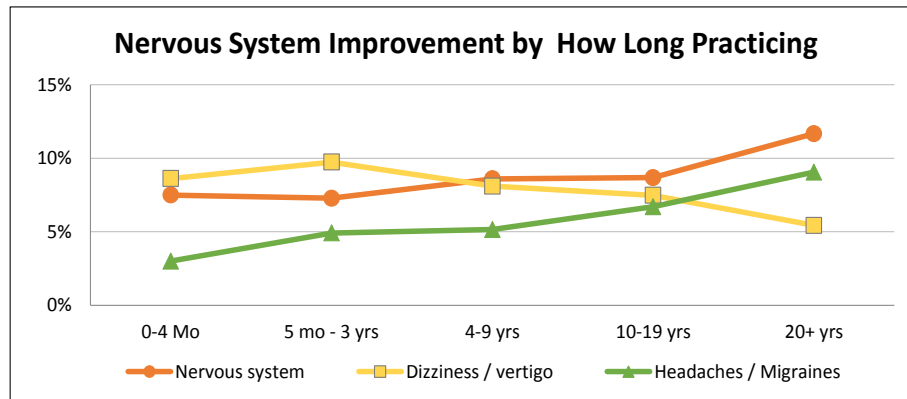
4. Nervous system

a. Nervous system, dizziness/vertigo and headaches/migraines

Participants who reported a positive impact of Taoist Tai Chi® practice related to the nervous system includes 8% citing the Nervous System in general, and 8% citing Dizziness/Vertigo and 96% citing Headaches/Migraine in particular.

Nervous System and Headaches/Migraine are significantly related to age, while Dizziness/Vertigo show no statistical relationship. Especially for Headaches/Migraine, these show a significant relationship with time practicing the Taoist Tai Chi® arts.





Data Table 23: Nervous system, Dizziness/vertigo and Headaches/migraines

“Shortly after starting tai chi the visual migraines that I was experiencing with greater intensity and frequency diminished until they disappeared after a year and a bit. A year and a half after starting tai chi the tremor I always had disappeared, and I could hold my hand still for the first time in my life. The tremor started to come back again recently due to an inability to attend tai chi regularly. It ‘stills my heart’.” (male, age group 40-59)

“I used to have to go to a chiropractor a couple times a year for headaches. Now I find that when a headache starts, I can do foundations to realign myself and my headache goes away.” (female, age group 40-59)

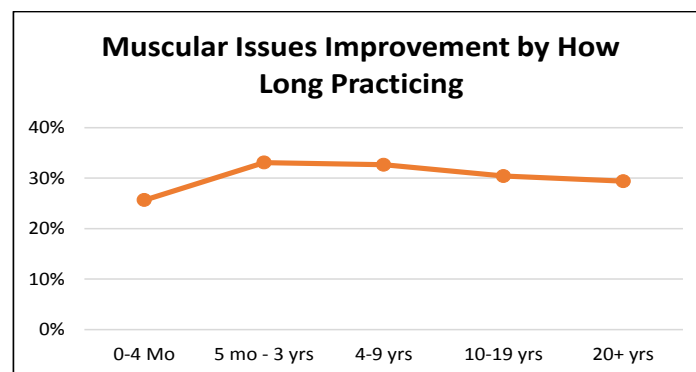
“Has deeply impacted my health and permitted me to work despite serious nerve pain.” (female, age group 40-59)

“I have a chronic inner ear balance condition that frequently causes me to be off balance and dizzy. The practice of tai chi greatly assisted my balance. I also have arthritis & the practice of tai chi greatly helps in joint mobility. I have had NO visits to doctors for these two chronic conditions since starting tai chi almost 3 years ago.” (female, age group 70-79)

5. Other issues

a. Muscular issues

One-third (32%) of study participants report that their practice of the Taoist Tai Chi® arts has had a positive impact on Muscular Issues. This impact is strongly related to length of practice, but only weakly related to age group, and not related to gender.



Data Table 24: Muscular Issues

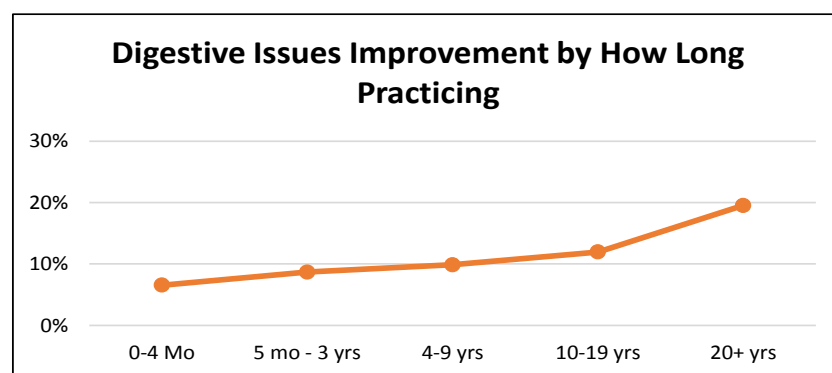
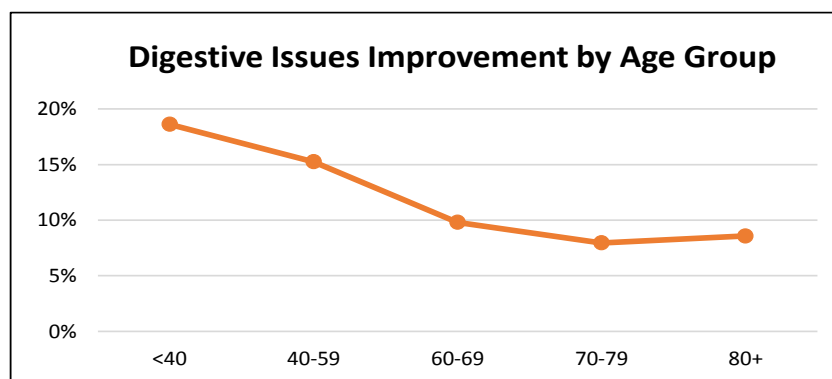
“Tai chi has definitely improved my muscle strength. Previously – my laundry room is in the basement of my two story house. I couldn't walk from the basement to 2nd floor (carrying laundry) without stopping at the first floor waiting for the pain in my legs to subside. After doing about 1 year of tai chi, no muscle problems in my legs.” (female, age group 60-69)

b. Digestive issues

More than one out of ten (12%) Taoist Tai Chi® arts participants report that they have had Gastrointestinal Disorders. This is strongly related to age and gender, but shows no relationship with length of time practicing.

	# (%)	Age Group					Gender	
		<40	40-59	60-69	70-79	80+	Male	Female
Base	6234	142	1120	2713	1729	414	1537	4408
Gastrointestinal disorders	754 (12%)	15%	15%	12%	11%	7%	8%	14%

Almost as many (10%) reported they have had improvements in Digestive Issues due to their practice of Taoist Tai Chi® arts. This is strongly related to age and to length of practice.



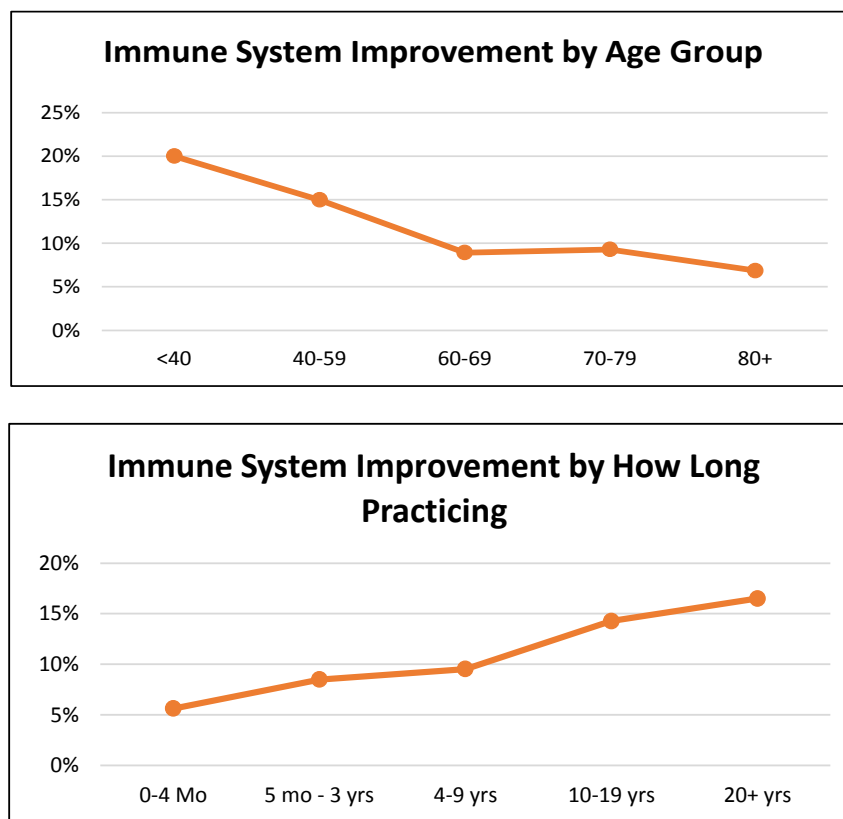
Data Table 25: Digestive Issues

“Previously required medication for food digestion, after 6 months of tai chi stopped taking medication. Previously visited doctor on a monthly basis now only visit biannually for cholesterol checks.” (male, age range 40-59)

“I have Crohn's and tai chi has helped both with pain management and digestion. I am no longer using any pain medication.” (*female, age range 40-59*)

c. Immune system

One out of ten (10%) participants reported that their Immune System has shown improvement due to their practice of the Taoist Tai Chi® arts. This is strongly related to both age and length of practice.



Data Table 26: Immune System

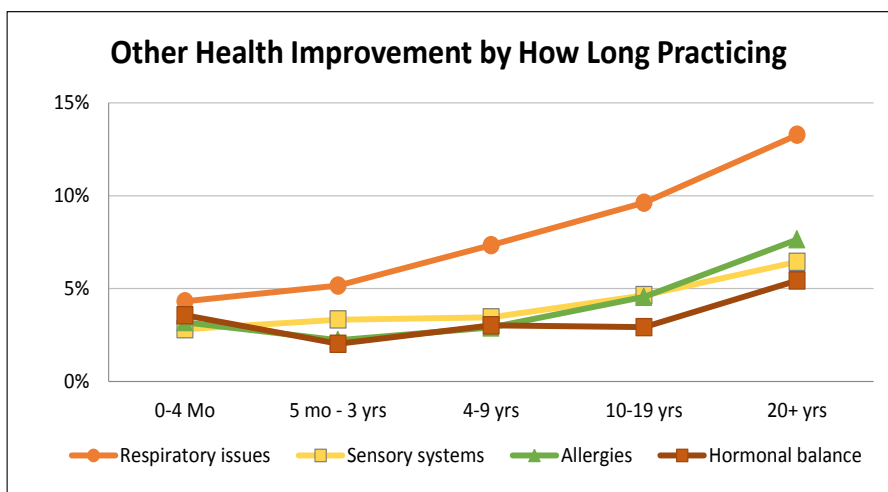
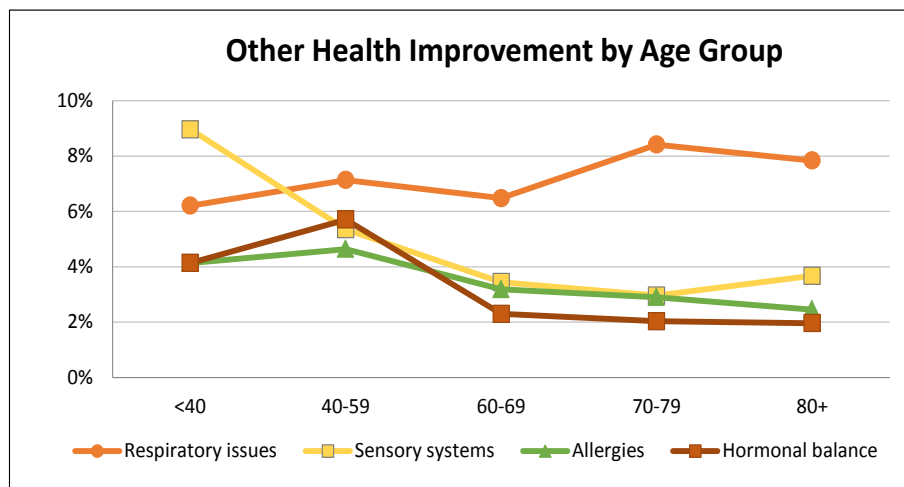
“I have experienced a drop in the number of colds. I think my immune system is better. Physically, my knee pain and neck pain have been reduced with regular Taoist Tai Chi practice. My spine turns as never before.” (*female, age group 60-69*)

“Helped me free myself of pain or moderated levels of pain in spine. Helped my immune system (HIV+) and helped make my meds more effective and lasted longer before resistance. Had pulmonary embolism twice and second time was very severe – doctors said I survived due to superior circulation.” (*male, age group 60-69*)

d. Other health improvements

Four other types of health improvements were noted by less than 10% of respondents: Respiratory Issues (452); Sensory Systems (236); Allergies (210); and Hormonal Balance (182).

All four of these health improvements are strongly related to time practicing. In addition, Sensory System improvement is strongly related to age, and Hormonal Balance improvement is strongly related to both age and to gender.



Data Table 27: Other Health Improvements

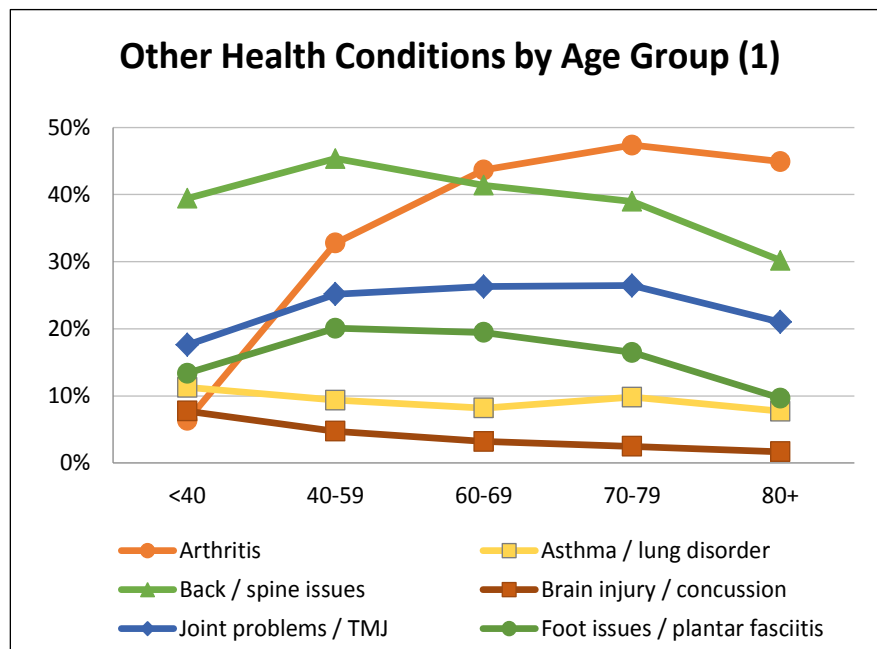
“Unilateral deafness causes balance issues which have regressed - no falls. Able to take part in activities like Nordic walking through rugged areas with confidence.” (female, age range 60-69)

“Diagnosed with Atypical Meniere's Disease. Tai Chi has been fantastic to my recovery. I do the [foundation exercises] everyday as I must recalibrate my vestibular system to maintain balance.” (female, age range 40-59)

“I have always had weak muscles in my left eye so that when I look to the right - my left eye floats back to centre. Doing Tai Chi stopped this by strengthening my eye muscles.” (female, age range 60-69)

e. Other health conditions

A variety of other health issues were indicated as associated with health impacts for respondents as follows. All of these are statistically significant for differences in age group and gender. Although the survey did not include questions on improvements in these issues, they were mentioned by participants as having improved due to their Taoist Tai Chi® practice.



Data Table 28: Other Health Conditions

Arthritis

“Has slowed progression of arthritis & delayed expected knee surgery.” (*female, age group 60-69*)

“Great improvement in the problems related to arthritis. Even hands/finger have REALLY straightened.” (*female, age group 70-79*)

“Arthritis so bad in knees 2 years ago that I had trouble walking. Inflammation is gone and I take less medication. Can now walk without cane and for longer periods.” (*female, age group 60-69*)

“Tai chi has reduced my need for medication for arthritis in my knees and has stabilized my back.” (*female, age group 40-59*)

“Several doctors I've seen have stated that Taoist Tai Chi is the best exercise I could do for balance and pain control of arthritis.” (*female, age range 80-89*)

Back/spine issues

“Without tai chi, I expect my back damage would have continued to dramatic health challenges. In my early 50's was dramatically affected and 20 years later is now completely manageable. My emotional health has been well managed through 20 years of my late husband's dramatically [failing] health.” (*female, age group 70-79*)

“Tai chi has impacted me greatly with respect to helping straighten the curvature of the spine. I have noticeably gained improvement in that area & it is visible as well (noted by husband). Very appreciative of the amazing improvement!” (female, age group 60-69)

“I also have spinal stenosis which is a narrowing of the spinal canal which was discovered on x-ray after my fall. Surgery was contemplated but not needed as my recovery from the fall was hastened by my determination to heal and my daily practice in tai chi. I did not even require physio. Through my practice I was able to regain strength, balance and coordination in good time.” (female, age group 70-79)

“In my twenties, I fell down a flight of stairs. Many injuries from base of spine to neck and shoulders - still affect my mobility to some extent. Tai chi has increased the length of time I am able to sit without severe discomfort in lower back. Also has loosened my shoulders and neck and I have no more of the shooting pains up the back of my neck and into my head that plagued me.” (female, age group 60-69)

Asthma / lung disorder

“Significantly reduced medication for chronic asthma.” (female, age range 80-89)

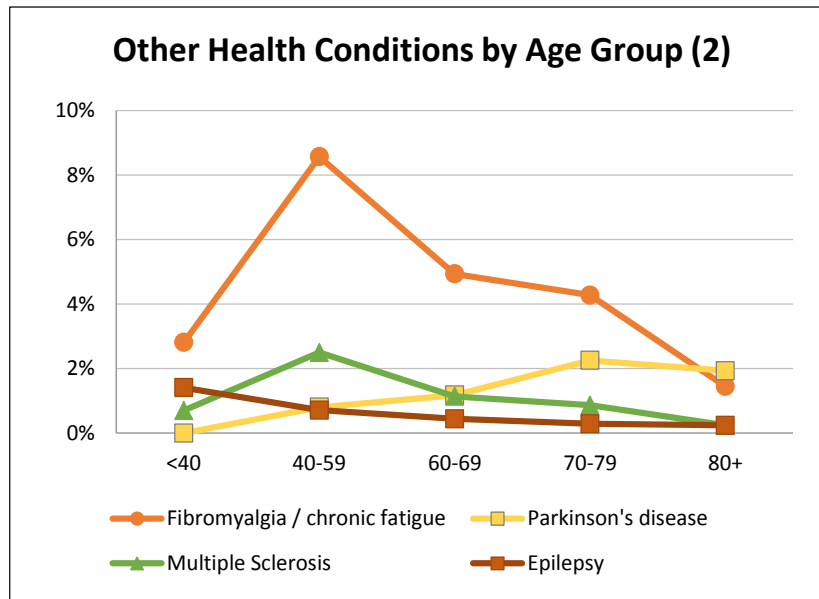
“Reduced my visits to family physician for my asthma treatments. He recognizes big improvement to my lung function. Do not have to use daily inhalers. Reduced medication expenses, improved my immunity against colds flu and other respiratory transmitted diseases.” (age range 60-69)

“I have a chronic lung condition. I am convinced tai chi has helped in the maintenance of this and allows me to live a full life.” (age range 70-79)

Foot issues/plantar fasciitis

“I was diagnosed with piriformis syndrome and had a drop foot and weakness in my left leg so couldn't put my weight on it. After 6 years of TTC [Taoist Tai Chi] I can now walk upstairs and put my full weight on my left leg.” (female, age group 60-69)

“I badly fractured my heel several years ago but with the practice of Taoist Tai Chi I am now able to walk normally and have almost full flexibility in the foot and ankle.” (female, age group 70-79)



Data Table 28: Other Health Conditions

Fibromyalgia/chronic fatigue

“When I came to Taoist Tai Chi in 1995 (Sept) with a diagnosis of fibromyalgia on top of osteoarthritis and a damaged L3, 4 & 5 due to a car accident, I was using a walking stick and could not stand erect. Medications gave me brain fog and heart palpitations and did not lessen pain. After practicing tai chi for 6 months, my pain level went from 10+ to 3 or 4 and has stayed there without pain killers or any other treatment.” (*female, age group 70-79*)

“I have much less pain, increased flexibility, better circulation, greatly improved breathing, much better balance, cognitive function improved. (no More!) I suffered from post-traumatic syndrome and manage fibromyalgia by practicing Taoist Tai Chi almost every day.” (*female, age group 60-69*)

“Considering my drug intolerance, tai chi and acupuncture help me a lot physically and psychologically to get through life with fibromyalgia.” (*age range 40-59*)

Multiple Sclerosis

“I started tai chi after I had an MS attack almost 13-14 years ago. I started walking after 2-3 months in bed and I had to do something to help myself. Tai chi came to my area. I used a walker to get around. It was a slow start but I still go to tai chi once a week and I do [it] at home when possible. I walk now with the help of a cane.” (*female, age group 60-69*)

“I feel tai chi has made a huge difference with my MS symptoms. I used to be very active but due to severe fatigue with the MS my activity had been reduced to only walking. The tai chi makes me feel like I've had a great physical workout but it doesn't fatigue me, actually gives me more energy. Balance and concentration are much improved. I highly recommend tai chi for its many health benefits especially as we age! I'm also a retired nurse.” (*female, age group 40-59*)

“My MS gives me a lot of fatigue. With regular practice of tai chi I am able to maintain a certain level of energy and able to enjoy things more.” (*female, age group 60-69*)

“Tai chi has provided a tool to work with my MS. I have a feeling of some control of my outcome with MS and definitely helps me stay more positive.” (*female, age group 40-59*)

Parkinson’s disease

“I was diagnosed with Parkinson's in October 2010. My sister saw in a magazine that tai chi was good for it. So I started in Sept. 2011. I believe it is tai chi that has kept me from progressing any faster. The doctor told me he was very pleased with the slow progression and to keep up with the stretches. I go three times a week and love it. Sometimes when I go to tai chi I am stressed. When I walk out at the end of a session I am very relaxed. It is so good for body, mind and soul.”(*age group 70-79*)

“Tai chi has given me back my independence in all areas of my life. I was diagnosed with Parkinson's Dec. 2012! Some people that met me in "health recovery" in 2012 didn't recognize me by 2015. Most days, due to tai chi, most people wouldn't know of my Parkinson’s diagnosis.” (*female, age group 70-79*)

“Diagnosed with Parkinson's 3 years ago. Tai chi has returned my mobility and balance. Neurologists visits are now done quarterly via teleconference versus monthly visits when 1st diagnosed.” (*male, age group 40-59*)

This compelling story was shared by Assunte Sciana on her health questionnaire.

“As I was walking from my car to my appointment at Branson Hospital (Thursday February 28, 1985, 9:00 am), I was wishing that I was going skiing instead. The neurologist walked into the examining room. He took one look at me and said, “You have Parkinson’s disease!”

After lunch, I went to the public library and in an old British encyclopedia read that most people with Parkinson’s disease die within 5 years.

During the next 4 years, I tried all the alternative medicines and government funded drugs on the market. For months I attended physio sessions at the Toronto Rehabilitation Centre. (After I started Taoist Tai Chi, I went back to the TRC for a follow up appointment, and I was told that I was doing too well to take further therapy. Parkinson’s is supposed to be a progressive condition.) Although I was taking only half the recommended drug dose prescribed by the neurologist, my ankles and face became swollen.

I learned about tai chi at a Parkinson’s conference in Montreal and found a Taoist Tai Chi class near my home. In May of 1989, Master Moy invited me to D’Arcy Street. For 8 years Daisy Frances and I spent 2 hours or more, 4 to 7 days a week doing mostly Don Yus and Tor Yus.

I knew after my second class at my local high school that TTC was helping me. I first became stronger emotionally and then physically. All my body circulations improved and I was and continue to be better able to tolerate my medications. The puffiness on my face and ankles decreased. When I practice more than 2 hours, my tendons and ligaments become longer and I become more flexible and taller. I have Andrew Hung and Judy Millen to thank. There are so many other people I should thank but I don’t think I have enough paper.

After I started tai chi 30 years ago, I would tell my doctors, “TTC is helping me”. They would reply, “That’s nice dear”.

The last time I saw my neurologist, Dr. Mark Guttman, he told his nurse that I had had Parkinson’s longer and was doing better than any of his patients. The word “amazing” describes my fight with Parkinson’s disease and when I hear that word, I think of all the members of Fung Loy Kok Taoist Tai Chi.” (*female, age group 70-79*)

V. What does Taoist Tai Chi® Practice Mean?

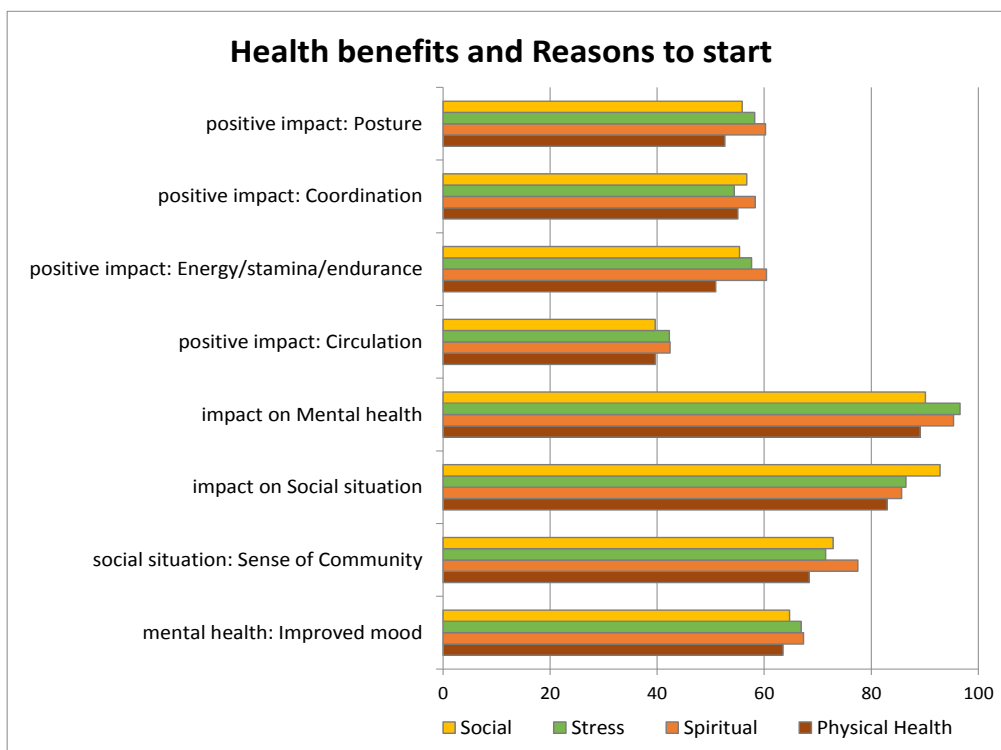
Taoist Tai Chi® arts are the teachings of Master Moy Lin Shin and one of these arts is the 108 movement set. The external movements of the body are harmonized with the gentle internal movement, engaging the whole body and producing a deep feeling of relaxation. This set is introduced in all beginner classes and weekend courses and practiced in all continuing classes.

In the Taoist tradition, a person's health depends on the harmony of body, mind and spirit. The Taoist Tai Chi® arts offer access to this tradition in order to help people with their physical, mental and spiritual health in all stages of life.

A. Harmony of Body and Mind and Spirit

Participants were asked the reasons why they started Taoist Tai Chi® practice and the responses have been discussed. Physical health issues far outnumber the other reasons for starting that include mental, social and spiritual.

Through Taoist Tai Chi® practice there is an awareness of improvement to physical and mental and spiritual health regardless of the initial reason to start. Answers to a variety of questions had similar very highly statistically significant responses with the reasons for starting Taoist Tai Chi® arts.



Data Table 29: Harmony of Body and Mind and Spirit

“Tai chi has improved my entire sense of well-being. Just ask my husband. Physically, I have good flexibility and mobility for my age, good discipline to practice daily. Mentally, I sleep well. Before tai chi I did not. Spiritually, I have found a peace and solace that I was not expecting when I first joined.” (*female, age range 60-69*)

B. Conclusion

Participants across Canada were invited to complete a questionnaire to collect information to help us better identify and communicate some of the more tangible benefits of our practice within the Taoist Tai Chi® community, to government officials, politicians and to the general public.

Participants shared their knowledge and experience of how Taoist Tai Chi® arts brought vitality into their lives helping them feel healthier and more fulfilled. They reported multiple health benefits from Taoist Tai Chi® practice including marked improvements in balance and mobility, relief of pain, and emotional and spiritual well-being.

Participants reported being less likely to visit their doctor(s), reducing their use of medications and mobility aids, avoiding surgeries, and requiring fewer visits and faster progress from therapeutic services such as physiotherapy and rehabilitation. Their responses and stories reflect less stress on public health services.

C. Next Steps

The same questionnaire was completed internationally in 2016-2017 by Taoist Tai Chi® societies in 24 countries. The summary report of the health questionnaire international data titled *Improving Lives Around the World and Reducing Healthcare Costs* was released in the Fall 2017.

Dr. Patricia Huston, a participant practicing Taoist Tai Chi® arts, published Health benefits of tai chi: What is the evidence? in November 2016 in *Canadian Family Physician*, the official journal of the College of Family Physicians of Canada. It summarizes the results of many hundreds of studies on over 20 different physical and mental health conditions as well as fitness indicators, such as balance, flexibility and strength.

The study found excellent evidence of benefit in,

- specific conditions including preventing falls, Osteoarthritis, Parkinson's disease, COPD (Chronic Obstructive Pulmonary Disease) rehabilitation and in,
- general health and fitness benefits including balance and aerobic capacity.

The study also found substantial evidence of benefit in depression, cardiac rehabilitation, stroke rehabilitation, cognitive impairment and dementia, and strength.

This clinical review of the scientific literature reveals a considerable body of research observing the effects of practicing tai chi. The research and scientific evidence is continuing to grow.

In Dr. Huston's article in *The Tiger's Mouth, Official Blog of Fung Loy Kok Taoist Tai Chi®*, she states, "People often seek the advice of their family physician before starting a new exercise program. There are now two reports that people can show their family physician or health care provider so that they have the evidence they need to feel confident to recommend Taoist Tai Chi®."

Participants continue to enjoy and practice Taoist Tai Chi® arts because they work.

Our thanks go to all of the more than 6,000 participants in Canada who completed the health questionnaire that was the basis of this report.

The results collected were analyzed and then reported by a team of volunteers. These volunteers have degrees at all levels in health sciences; biology; sociology; statistics; communications and other related disciplines. The team members included:

Heather Boyes, BAA
Jan Clarke, Associate Professor Emerita (Algoma University)
Barb Lamarre, RN
Ruth Martin, MA
Clare Matthews, BES
Susan Schuler, PhD.

The team's applied experience includes professional backgrounds dealing with chronic disease; health care services; anatomy and physiology; spiritual care; quantitative and qualitative research; arranging government funding; and communications.

All team members have been practicing Taoist Tai Chi® arts for many years. Notably, all of these volunteers also offered personal testimonials on the health benefits of tai chi.

Visit our website to view;

- *How to Balance the Budget, Reduced use of public health services reported by Taoist Tai Chi® participants*, Health Questionnaire Preliminary Findings, Canada 2016
- *International Health Questionnaire Survey, Improving Lives Around the World and Reducing Healthcare Costs*, Health Questionnaire Summary Findings, International 2016-2017
- Health benefits of tai chi: What is the evidence?, *Canadian Family Physician*, November 2016

For more information, please

- Visit www.taoist.org
- Call 1-416-656-2110
- Email headoffice@taoist.org

DATA TABLES

Data Table 1: How Long Practicing Taoist Tai Chi® Arts

Responses	Length of Practice		Age Group					
	#	%	#	<40	40-59	60-69	70-79	80+
<i>Total</i>	6246	100.0%	6212	151	1138	2749	1755	419
0-4 Mo	591	9.5%	587	49	152	229	130	27
5 mo - 3 yrs	2108	33.7%	2099	64	481	1009	468	77
4-9 yrs	1860	29.8%	1849	25	273	896	539	116
10-19 yrs	1184	19.0%	1177	13	146	424	476	118
20+ yrs	503	8.1%	500		86	191	142	81

Data Table 2: Conditions that have Impacted Health

Conditions that have Impacted Health	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6,234	100.0%	142	1120	2713	1729	414
Arthritis	2,616	42.0%	6.3%	32.8%	43.7%	47.4%	44.9%
Back / spine issues	2,542	40.8%	39.4%	45.4%	41.4%	39.0%	30.2%
Balance issues	2,154	34.6%	21.8%	26.3%	33.2%	40.1%	47.3%
Depression / stress / anxiety	1,671	26.8%	55.6%	41.2%	27.5%	17.8%	13.0%
Joint problems / TMJ	1,593	25.6%	17.6%	25.2%	26.3%	26.4%	21.0%
High blood pressure	1,443	23.1%	4.2%	15.1%	22.9%	29.8%	24.9%
Accident-related injuries	1,385	22.2%	33.8%	26.0%	23.2%	18.0%	16.2%
Foot issues / plantar fasciitis	1,119	17.9%	13.4%	20.1%	19.5%	16.5%	9.7%
Chronic pain	991	15.9%	14.8%	21.3%	17.0%	13.2%	7.2%
Osteoporosis	876	14.1%	0.7%	5.1%	13.9%	20.0%	20.3%
Sleep disorders	770	12.4%	16.2%	15.0%	13.2%	10.5%	6.8%
Gastrointestinal disorders	754	12.1%	15.5%	14.9%	12.4%	11.0%	7.0%
Mobility issues	691	11.1%	13.4%	12.4%	9.7%	11.3%	15.2%
Headaches / migraines	565	9.1%	18.3%	15.3%	9.1%	5.8%	3.1%
Asthma / lung disorder	555	8.9%	11.3%	9.4%	8.2%	9.8%	7.7%
Heart problems	521	8.4%	3.5%	5.0%	7.2%	11.0%	15.7%
Cancer	489	7.8%	3.5%	5.5%	7.6%	9.9%	9.4%
Varicose veins	429	6.9%	3.5%	6.3%	7.2%	7.1%	7.7%
Diabetes	404	6.5%	2.8%	5.7%	6.9%	6.7%	6.3%
Fibromyalgia / chronic fatigue	321	5.1%	2.8%	8.6%	4.9%	4.3%	1.4%
Brain injury / concussion	207	3.3%	7.7%	4.7%	3.2%	2.5%	1.7%
Stroke / blood clots	157	2.5%	2.8%	2.0%	2.2%	2.9%	4.6%
Parkinson's disease	91	1.5%		0.8%	1.2%	2.3%	1.9%
Multiple Sclerosis	76	1.2%	0.7%	2.5%	1.1%	0.9%	0.2%
Epilepsy	28	0.4%	1.4%	0.7%	0.4%	0.3%	0.2%
Prefer not to say	30	0.5%	0.7%	0.4%	0.5%	0.5%	0.5%
None of the above	408	6.5%	8.5%	8.6%	6.2%	5.4%	6.8%
Other	323	5.2%	9.2%	5.4%	5.4%	4.8%	4.3%

Data Table 3: Reasons to Start Taoist Tai Chi® Practice

Reasons to start practice	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Total</i>	<i>6213</i>	<i>100.0%</i>	<i>150</i>	<i>1142</i>	<i>2743</i>	<i>1757</i>	<i>421</i>
Exercise	4495	72.3%	88	792	1994	1315	306
Physical health issues	2623	42.2%	59	537	1175	701	151
Stress, anxiety, grief...	1478	23.7%	71	397	640	319	51
Social / community	1387	22.3%	28	246	665	361	87
Spiritual reasons	672	10.8%	36	173	335	114	14
Recommended by health professional	531	8.6%	17	95	220	160	39
Other	994	16.0%	24	194	456	266	54

Data Table 4: Positive Impacts

Positive Impacts	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	<i>6,218</i>	<i>100.0%</i>	<i>145</i>	<i>1121</i>	<i>2701</i>	<i>1723</i>	<i>408</i>
Aging	3,509	56.4%	15.2%	43.5%	55.9%	65.3%	70.6%
Coordination	3,205	51.5%	52.4%	50.5%	53.2%	50.9%	45.6%
Posture	3,177	51.1%	58.6%	54.9%	52.4%	47.7%	44.1%
Energy / stamina / endurance	3,047	49.0%	44.8%	53.3%	49.0%	47.4%	44.4%
Emotional / spiritual well-being	2,470	39.7%	61.4%	53.4%	41.5%	30.3%	23.3%
Circulation	2,195	35.3%	37.9%	40.5%	35.5%	33.0%	27.2%
Muscular issues	1,961	31.5%	26.9%	33.3%	32.3%	30.7%	26.2%
Depression / stress / anxiety	1,957	31.5%	65.5%	48.4%	31.1%	22.2%	16.4%
Sleep quality	1,412	22.7%	37.2%	30.2%	22.2%	19.6%	15.0%
Accident-related injuries	1,341	21.6%	31.7%	24.8%	21.5%	19.2%	17.4%
Blood pressure	1,316	21.2%	6.9%	17.7%	21.4%	23.7%	23.5%
Cognitive function	1,286	20.7%	31.7%	22.7%	20.9%	19.5%	14.2%
Body image / body acceptance	1,265	20.3%	29.7%	24.7%	20.4%	18.4%	10.5%
Relationships	859	13.8%	21.4%	19.5%	13.3%	10.3%	14.2%
Digestive issues	649	10.4%	18.6%	15.3%	9.8%	8.0%	8.6%
Immune system	641	10.3%	20.0%	15.0%	8.9%	9.3%	6.9%
Dizziness / vertigo	525	8.4%	7.6%	7.7%	8.2%	8.3%	12.0%
Nervous system	519	8.3%	20.0%	12.0%	7.4%	7.0%	5.6%
Post-operative recovery	469	7.5%	5.5%	6.3%	6.3%	9.1%	13.0%
Respiratory issues	452	7.3%	6.2%	7.1%	6.5%	8.4%	7.8%
Cardiac issues	435	7.0%	2.1%	4.7%	6.1%	8.5%	13.2%
Post-operative healing	435	7.0%	3.4%	6.6%	6.0%	8.2%	10.8%
Independent living	419	6.7%	6.2%	6.4%	4.4%	8.0%	17.9%
Blood sugar levels	411	6.6%	4.1%	6.9%	6.3%	7.1%	6.1%
Recovery times	398	6.4%	7.6%	8.4%	5.7%	6.0%	7.4%
Work-related activities	387	6.2%	20.0%	15.2%	5.5%	1.7%	.5%
Headaches / Migraines	344	5.5%	6.9%	10.2%	5.3%	3.5%	2.2%
Sensory systems	236	3.8%	9.0%	5.4%	3.4%	3.0%	3.7%
Swelling / edema	228	3.7%	2.1%	5.1%	3.4%	3.1%	3.4%
Cancer-related treatments	221	3.6%	2.8%	2.9%	3.2%	4.3%	4.4%
Allergies	210	3.4%	4.1%	4.6%	3.2%	2.9%	2.5%
Hormonal balance	182	2.9%	4.1%	5.7%	2.3%	2.0%	2.0%
Wound / skin healing	128	2.1%	3.4%	3.4%	1.8%	1.2%	2.5%
Other blood levels	111	1.8%	1.4%	1.9%	1.7%	1.8%	2.0%
Need for support services	103	1.7%	2.8%	2.6%	1.1%	1.4%	2.7%
None of the above	172	2.8%	3.4%	2.9%	2.3%	3.0%	3.7%

Data Table 5: Improving Daily Life

Daily Life Improvements	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6,218	100.0%	145	1121	2701	1723	408
Aging	3,509	56.4%	15.2%	43.5%	55.9%	65.3%	70.6%
Coordination	3,205	51.5%	52.4%	50.5%	53.2%	50.9%	45.6%
Posture	3,177	51.1%	58.6%	54.9%	52.4%	47.7%	44.1%
Energy / stamina / endurance	3,047	49.0%	44.8%	53.3%	49.0%	47.4%	44.4%
Sleep quality	1,412	22.7%	37.2%	30.2%	22.2%	19.6%	15.0%
Work-related activities	387	6.2%	20.0%	15.2%	5.5%	1.7%	.5%

Daily Life Improvements	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6,218	100.0%	534	2074	1826	1164	497
Aging	3,509	56.4%	35.2%	48.6%	58.8%	69.4%	72.2%
Coordination	3,205	51.5%	44.6%	53.3%	53.3%	48.3%	53.5%
Posture	3,177	51.1%	38.6%	48.6%	52.0%	55.2%	62.6%
Energy / stamina / endurance	3,047	49.0%	38.6%	45.4%	49.0%	53.1%	65.4%
Sleep quality	1,412	22.7%	22.1%	23.2%	21.9%	21.8%	27.4%
Work-related activities	387	6.2%	4.5%	4.6%	6.8%	6.7%	11.7%

Data Table 6: Impact on Use of Therapeutic Services such as Physiotherapy and Rehabilitation

Responses	#	%
Yes	3363	58.4%
No	2400	41.6%
<i>Base</i>	5763	100.0%

Impact on Use of Therapeutic Services such as Physiotherapy and Rehabilitation	#	%
<i>Base – Total Number responding</i>	3363	100.0%
Used practice of the Taoist Tai Chi® arts for ongoing support after completion of prescribed treatment	1561	46.4%
Made faster progress than expected	797	23.7%
Improved symptom experience	747	22.2%
Required fewer visits than recommended	638	19.0%
Better response to prescribed therapy than expected	624	18.6%
Didn't require	459	13.6%
Other	403	12.0%
No answer	260	7.7%

Data Table 7: Impact on Use of Medications

Responses	#	%
Yes	3232	56.2%
No	2522	43.8%
<i>Base – total number responding</i>	5754	100.0%

Impact on Use of Medications	#	%
<i>Base – total number responding</i>	<i>3221</i>	<i>100.0%</i>
Reduced level of medication	807	25.1%
Reduced number of consultations with doctor regarding medications	359	11.1%
Better response to medication than expected	282	8.8%
Medication no longer required	243	7.5%
Side effects of medication better managed	239	7.4%
Other	929	28.8%
No answer	868	26.9%

Data Table 8: Balance

Balance Improvements	#	%
<i>Base – total number responding</i>	<i>5196</i>	<i>100.0%</i>
Improved coordination	2916	56.1%
Improved joint mobility	2891	55.6%
Improved foot stability	2649	51.0%
Increased security in walking in differing conditions	1881	36.2%
Reduced number of falls	519	10.0%
Reduced impact or injury due to the falls	424	8.2%
Better response to prescribed therapies than expected	207	4.0%
Reduced reliance on mobility aids	200	3.8%
Reduced number of consultations with doctor regarding balance issues	179	3.4%
Other	310	6.0%
No change/Don't know	28	0.5%
No answer	297	5.7%

Practice improved Balance	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base – total number responding</i>	<i>5,196</i>	<i>100.0%</i>	<i>112</i>	<i>906</i>	<i>2266</i>	<i>1475</i>	<i>338</i>
Reduced number of falls	519	10.0%	17.9%	9.8%	7.8%	10.5%	19.2%
Reduced reliance on mobility aids	200	3.8%	4.5%	4.1%	2.9%	3.6%	9.5%
Increased security in walking	1,881	36.2%	23.2%	30.9%	35.4%	39.4%	46.7%
Improved joint mobility	2,891	55.6%	43.8%	55.7%	57.7%	54.0%	53.6%
Better response to therapies	207	4.0%	4.5%	4.5%	3.7%	3.7%	5.9%
Fewer doctor consultations re balance	179	3.4%	1.8%	3.3%	3.1%	3.0%	6.5%
Improved coordination	2,916	56.1%	68.8%	60.0%	57.0%	53.2%	48.2%
Improved foot stability	2,649	51.0%	69.6%	55.1%	52.1%	48.3%	41.4%
Reduced injury due to falls	424	8.2%	13.4%	7.3%	7.7%	8.3%	11.8%
Other	310	6.0%	3.6%	6.3%	6.2%	6.0%	4.7%
No change/Don't know	28	.5%		.7%	.5%	.5%	
No answer	297	5.7%	8.0%	4.9%	5.4%	6.2%	6.8%

Practice improved Balance	#	%	Time Practicing				
			0-4 Mo	5 mo – 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base – total number responding</i>	5,196	100.0%	367	1696	1585	1019	422
Reduced number of falls	519	10.0%	6.3%	8.8%	10.0%	11.3%	14.2%
Reduced reliance on mobility aids	200	3.8%	2.2%	3.7%	4.5%	3.3%	4.3%
Increased security in walking	1,881	36.2%	24.3%	34.4%	37.7%	39.5%	41.2%
Improved joint mobility	2,891	55.6%	49.3%	55.8%	55.9%	55.9%	60.7%
Better response to therapies	207	4.0%	2.2%	4.4%	3.9%	4.2%	3.8%
Fewer doctor consultations re balance	179	3.4%	2.7%	2.8%	3.9%	3.3%	4.0%
Improved coordination	2,916	56.1%	56.4%	58.5%	55.7%	54.5%	52.1%
Improved foot stability	2,649	51.0%	48.0%	53.5%	50.7%	50.4%	47.6%
Reduced injury due to falls	424	8.2%	3.5%	5.4%	8.1%	11.6%	15.2%
Other	310	6.0%	5.4%	4.8%	7.2%	5.9%	7.3%
No change/Don't know	28	.5%	3.0%	.3%	.4%	.3%	.2%
No answer	297	5.7%	8.4%	5.2%	5.0%	6.3%	5.2%

Data Table 9: Mobility

Mobility Improvements	#	%
<i>Base – total number responding</i>	3747	100.0%
Improved joint mobility	2359	63.0%
Improved coordination	2084	55.6%
Improved foot stability	1845	49.3%
Increased security in walking in differing conditions	1482	39.6%
Reduced number of falls	418	11.2%
Reduced impact or injury due to the falls	307	8.2%
Other	255	6.8%
Reduced number of consultations with doctor regarding mobility	215	5.7%
Better response to prescribed therapies than expected	207	5.5%
Reduced reliance on mobility aids	197	5.3%
No answer	159	4.2%

Practice improved Mobility	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	3,748	100.0%	68	618	1605	1090	286
Reduced number of falls	426	11.4%	17.6%	12.6%	8.3%	12.9%	17.8%
Reduced reliance on mobility aids	198	5.3%	7.4%	7.3%	4.2%	4.1%	10.5%
Increased security in walking	1,484	39.6%	27.9%	35.3%	38.6%	42.8%	44.4%
Improved joint mobility	2,361	63.0%	58.8%	65.7%	66.7%	59.5%	52.1%
Better response to therapies	208	5.5%	11.8%	6.1%	5.1%	5.0%	6.6%
Fewer doctor consultations re mobility	216	5.8%	5.9%	7.8%	5.7%	4.2%	5.9%
Improved coordination	2,086	55.7%	75.0%	61.3%	57.9%	52.0%	42.7%
Improved foot stability	1,846	49.3%	69.1%	51.5%	51.1%	47.5%	38.1%
Reduced injury due to falls	308	8.2%	11.8%	8.7%	7.5%	8.3%	9.8%
Other	253	6.8%	7.4%	8.1%	7.6%	5.2%	4.9%
No answer	160	4.3%	8.8%	2.3%	2.9%	5.2%	10.1%

Practice improved Mobility	#	%	Time Practicing				
			0-4 Mo	5 mo – 3 yrs	4-9 yrs	10 – 19 yrs	20+ yrs
<i>Base</i>	3,748	100.0%	256	1222	1102	748	331
Reduced number of falls	426	11.4%	7.0%	9.6%	11.8%	12.2%	17.5%
Reduced reliance on mobility aids	198	5.3%	3.9%	4.3%	6.2%	4.9%	7.3%
Increased security in walking	1,484	39.6%	27.3%	36.2%	42.6%	42.0%	45.9%
Improved joint mobility	2,361	63.0%	55.9%	64.0%	65.7%	60.3%	64.7%
Better response to therapies	208	5.5%	2.3%	5.7%	6.4%	4.7%	5.7%
Fewer doctor consultations re mobility	216	5.8%	3.5%	4.3%	6.8%	5.7%	7.6%
Improved coordination	2,086	55.7%	53.1%	59.2%	55.6%	52.0%	56.2%
Improved foot stability	1,846	49.3%	45.7%	51.4%	50.5%	47.5%	45.0%
Reduced injury due to falls	308	8.2%	4.3%	5.1%	8.9%	11.2%	13.3%
Other	253	6.8%	7.8%	5.2%	7.6%	6.0%	10.0%
No answer	160	4.3%	6.3%	2.9%	3.6%	5.6%	5.4%

Data Table 10: Impact on Falls

Impact on Falls	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6382	100.0%	27	131	325	265	97
Fewer Falls	605	9.5%	14.6%	8.5%	7.3%	10.6%	18.6%
Less Injury From Falls	513	8.0%	9.9%	6.8%	7.7%	8.4%	11.3%

Impact on Falls	#	%	Time Practicing				
			0-4 Mo	5 mo-3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6382	100.0%	35	219	260	211	119
Fewer Falls	605	9.5%	4.7%	7.9%	10.2%	11.0%	14.7%
Less Injury From Falls	513	8.0%	2.7%	5.1%	8.5%	11.9%	15.5%

Data Table 11: Surgeries Avoided

As a result of your practice, have you avoided surgery?	#	%
Yes	548	21.1%
No	2049	78.9%
<i>Total Number responding</i>	2597	100.0%

Data Table 12: Accident-related Injuries, Recovery Times, Wound/Skin Healing

Accident-related Injuries, Recovery Times, Wound/Skin Healing	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6,218	100.0%	145	1121	2701	1723	408
Accident-related injuries	1,341	21.6%	31.7%	24.8%	21.5%	19.2%	17.4%
Recovery times	398	6.4%	7.6%	8.4%	5.7%	6.0%	7.4%
Wound / skin healing	128	2.1%	3.4%	3.4%	1.8%	1.2%	2.5%

Accident-related Injuries, Recovery Times, Wound/Skin Healing	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6,218	100.0%	534	2074	1826	1164	497
Accident-related injuries	1,341	21.6%	13.3%	18.5%	23.3%	22.6%	34.4%
Recovery times	398	6.4%	1.3%	3.6%	7.2%	8.5%	15.7%
Wound / skin healing	128	2.1%	0.7%	1.3%	2.1%	2.5%	5.4%

Data Table 13: Pain Control

Improved Pain Experience:	#	%
<i>Base – Number responding</i>	3579	100.0%
Reduction in intensity of pain	1505	42.1%
Reduced frequency of painful episodes	1471	41.1%
Improved pain tolerance	958	26.8%
Reduced number of consultations with doctor regarding pain management	387	10.8%
No longer experience pain	377	10.5%
Better response to prescribed therapies than expected	285	8.0%
Other	491	13.7%
No answer	313	8.7%

Practice improved Pain Experience	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	3579	100.0%	79	703	1580	945	208
Frequency of painful episodes	1471	41.1%	35.4%	46.9%	42.4%	37.1%	32.7%
Response to prescribed therapies	285	8.0%	8.9%	8.1%	8.4%	7.1%	8.2%
Fewer doctors consultation re: pain	387	10.8%	5.1%	13.5%	10.4%	9.8%	11.1%
Improved pain tolerance	958	26.8%	24.1%	28.9%	25.9%	26.1%	33.7%
Reduced intensity of pain	1505	42.1%	46.8%	49.8%	43.3%	35.9%	35.6%
No longer experience pain	377	10.5%	16.5%	11.7%	10.3%	9.5%	11.1%
Other	491	13.7%	19.0%	12.7%	13.7%	14.6%	11.5%
No answer	313	8.7%	7.6%	8.0%	7.8%	10.2%	11.5%

Practice improved Pain Experience	#	%	Time Practicing				
			0-4 Mo	5 mo – 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	3579	100.0%	328	1245	1035	642	261
Frequency of painful episodes	1471	41.1%	28.4%	41.8%	44.3%	40.3%	45.6%
Response to prescribed therapies	285	8.0%	4.3%	7.8%	9.2%	7.3%	9.6%
Fewer doctors consultation re: pain	387	10.8%	6.1%	9.2%	12.6%	11.1%	16.9%
Improved pain tolerance	958	26.8%	22.0%	25.5%	28.6%	28.3%	28.7%
Reduced intensity of pain	1505	42.1%	31.4%	44.2%	42.3%	41.9%	45.6%
No longer experience pain	377	10.5%	1.8%	9.2%	12.3%	12.6%	16.1%
Other	491	13.7%	24.4%	12.6%	12.6%	12.9%	13.0%
No answer	313	8.7%	16.8%	9.2%	7.4%	7.3%	4.6%

Data Table 14: Chronic Pain

Chronic Pain	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base – number responding</i>	6234	100.0%	142	1120	2713	1729	414
Chronic pain	991	15.9%	14.8%	21.3%	17.0%	13.2%	7.2%

Data Table 15: Impact on Mental Health

Impact on Mental Health	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	4,038	100.0%	115	869	1811	950	226
Improved mood	2,345	58.1%	76.5%	65.9%	58.0%	52.0%	45.1%
Improved emotional strength	1,653	40.9%	56.5%	46.4%	39.5%	38.3%	35.8%
Decreased anxiety	1,636	40.5%	70.4%	49.1%	39.4%	35.6%	26.5%
Improved concentration	1,830	45.3%	55.7%	47.8%	43.8%	45.2%	45.6%
Increased energy	2,135	52.9%	59.1%	54.1%	52.0%	50.6%	58.0%
Improved sleep quality	1,296	32.1%	42.6%	38.7%	32.2%	27.1%	25.7%
Response to prescribed therapies	189	4.7%	8.7%	5.5%	4.4%	3.8%	6.2%
Fewer doctor consultations	253	6.3%	7.0%	7.6%	6.1%	5.5%	4.9%
Other	177	4.4%	2.6%	6.0%	4.5%	3.3%	2.7%
No answer	87	2.2%	.9%	1.7%	2.2%	2.3%	3.1%

Impact on Mental Health	#	%	Time Practicing				
			0-4 Mo	5 mo – 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	4,038	100.0%	321	1354	1143	791	356
Improved mood	2,345	58.1%	65.1%	58.5%	56.5%	55.5%	61.2%
Improved emotional strength	1,653	40.9%	32.4%	35.8%	42.9%	44.8%	53.7%
Decreased anxiety	1,636	40.5%	36.8%	38.3%	43.7%	39.7%	45.5%
Improved concentration	1,830	45.3%	40.8%	44.8%	44.4%	46.6%	52.8%
Increased energy	2,135	52.9%	43.9%	51.8%	50.7%	56.3%	63.2%
Improved sleep quality	1,296	32.1%	32.4%	32.9%	32.0%	30.0%	35.7%
Response to prescribed therapies	189	4.7%	3.4%	4.7%	5.1%	4.0%	6.2%
Fewer doctor consultations	253	6.3%	2.5%	5.5%	7.3%	4.9%	11.2%
Other	177	4.4%	3.4%	3.7%	5.4%	4.8%	3.7%
No answer	87	2.2%	3.1%	2.1%	1.9%	1.8%	2.8%

Data Table 16: Mental Health Improvement

Mental Health Improvement	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6,218	100.0%	534	2074	1826	1164	497
Emotional / spiritual well-being	2,470	39.7%	34.6%	38.2%	38.4%	41.3%	52.3%
Depression / stress / anxiety	1,957	31.5%	28.5%	30.0%	31.7%	32.0%	40.2%
Cognitive function	1,286	20.7%	16.9%	19.2%	20.5%	23.2%	25.4%
Body image / body acceptance	1,265	20.3%	16.1%	18.7%	21.5%	21.4%	24.3%
Relationships	859	13.8%	9.6%	9.8%	14.6%	17.4%	23.7%

Mental Health Improvement	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6,218	100.0%	145	1121	2701	1723	408
Emotional / spiritual well-being	2,470	39.7%	61.4%	53.4%	41.5%	30.3%	23.3%
Depression / stress / anxiety	1,957	31.5%	65.5%	48.4%	31.1%	22.2%	16.4%
Cognitive function	1,286	20.7%	31.7%	22.7%	20.9%	19.5%	14.2%
Body image / body acceptance	1,265	20.3%	29.7%	24.7%	20.4%	18.4%	10.5%
Relationships	859	13.8%	21.4%	19.5%	13.3%	10.3%	14.2%

Data Table 17: Impact on Social Situation

Impact on Social Situation	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	4,122	100.0%	98	767	1819	1097	271
New friends	3,159	76.6%	57.1%	72.2%	76.9%	79.6%	79.7%
Sense of community	2,620	63.6%	72.4%	67.8%	65.5%	59.2%	55.4%
Provided a sense of purpose	1,391	33.7%	35.7%	36.1%	32.6%	33.5%	36.5%
Less isolated	973	23.6%	27.6%	26.6%	23.4%	20.8%	25.5%
Share more meals with people	516	12.5%	11.2%	13.6%	12.0%	12.7%	11.1%
Other	140	3.4%	5.1%	5.3%	3.3%	2.5%	2.2%
No answer	79	1.9%	1.0%	1.4%	1.9%	2.4%	1.8%

Impact on Social Situation	#	%	Time Practicing				
			0-4 Mo	5 mo – 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	4,122	100.0%	292	1297	1255	834	372
New friends	3,159	76.6%	62.7%	74.1%	80.1%	80.6%	74.7%
Sense of community	2,620	63.6%	58.2%	61.1%	63.6%	65.2%	73.7%
Provided a sense of purpose	1,391	33.7%	28.1%	31.3%	30.9%	38.0%	46.8%
Less isolated	973	23.6%	25.3%	23.7%	21.0%	22.2%	32.5%
Share more meals with people	516	12.5%	3.4%	9.4%	13.6%	14.1%	22.6%
Other	140	3.4%	5.1%	2.8%	3.2%	3.7%	4.3%
No answer	79	1.9%	3.1%	2.4%	1.9%	1.4%	.5%

Data Table 18: Independent Living and Support Services

Independent Living & Support Services	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6218	100.0%	145	1121	2701	1723	408
Independent living	419	6.7%	6.2%	6.4%	4.4%	8.0%	17.9%
Need for support services	103	1.7%	2.8%	2.6%	1.1%	1.4%	2.7%

Independent Living & Support Services	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6218	100.0%	534	2074	1826	1164	497
Independent living	419	6.7%	5.6%	4.5%	6.8%	9.5%	10.7%
Need for support services	103	1.7%	.6%	1.3%	1.8%	2.1%	2.8%

Independent Living & Support Services	#	%	Gender	
			Male	Female
<i>Base</i>	6218	100.0%	1542	4386
Independent living	419	6.7%	5.6%	6.9%
Need for support services	103	1.7%	1.4%	1.7%

Data Table 19: Cardiovascular Conditions

Cardiovascular Conditions	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6,218	100.0%	145	1121	2701	1723	408
Circulation	2,195	35.3%	37.9%	40.5%	35.5%	33.0%	27.2%
Blood pressure	1,316	21.2%	6.9%	17.7%	21.4%	23.7%	23.5%
Cardiac issues	435	7.0%	2.1%	4.7%	6.1%	8.5%	13.2%
Swelling / edema	228	3.7%	2.1%	5.1%	3.4%	3.1%	3.4%

Cardiovascular Conditions	#	%	Time Practicing					Gender	
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs	Male	Female
<i>Base</i>	6,218	100.0%	534	2074	1826	1164	497	1542	4386
Circulation	2,195	35.3%	27.3%	32.3%	35.4%	40.8%	42.7%	33.2%	36.1%
Blood pressure	1,316	21.2%	16.5%	19.3%	21.3%	22.9%	28.8%	25.7%	19.6%
Cardiac issues	435	7.0%	4.7%	5.6%	7.4%	8.7%	8.7%	9.9%	5.8%
Swelling / edema	228	3.7%	2.1%	3.9%	3.7%	3.5%	4.4%	2.2%	4.1%

Cardiovascular Issues	#	%	Age Group					Gender	
			<40	40-59	60-69	70-79	80+	Male	Female
<i>Base</i>	6,234	100.0%	142	1120	2713	1729	414	1537	4408
High blood pressure	1,443	23.1%	4.2%	15.1%	22.9%	29.8%	24.9%	27.3%	21.7%
Heart problems	521	8.4%	3.5%	5.0%	7.2%	11.0%	15.7%	13.5%	6.5%
Stroke / blood clots	157	2.5%	2.8%	2.0%	2.2%	2.9%	4.6%	3.7%	2.1%
Varicose veins	429	6.9%	3.5%	6.3%	7.2%	7.1%	7.7%	3.1%	8.3%

Cardiovascular Issues	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6,234	100.0%	565	2074	1824	1155	495
High blood pressure	1,443	23.1%	25.1%	21.5%	23.5%	24.8%	22.0%
Heart problems	521	8.4%	8.0%	7.3%	8.1%	9.7%	10.9%
Stroke / blood clots	157	2.5%	2.5%	2.2%	2.8%	3.0%	2.2%
Varicose veins	429	6.9%	6.4%	6.7%	7.0%	7.6%	6.3%

Data Table 20: Bone Density

Impact on Bone Density	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base (total responding)</i>	959	100.0%	9	96	380	362	93
Increase in bone density	351	36.6%	11.1%	28.1%	34.5%	40.9%	36.6%
No change in bone density	244	25.4%		20.8%	27.6%	26.8%	22.6%
No change in height	228	23.8%		15.6%	22.1%	28.7%	24.7%
Increase in height *	182	19.0%	66.7%	33.3%	22.1%	13.8%	8.6%
Other	162	16.9%	22.2%	19.8%	17.9%	16.0%	12.9%
No new fractures	118	12.3%		6.3%	10.5%	13.3%	22.6%
No answer	28	2.9%		3.1%	2.4%	2.8%	5.4%

* small sample size for <40 age group

Impact on Bone Density	#	%	Time Practicing				
			0-4 Mo	5 mo – 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base (total responding)</i>	959	100.0%	25	171	289	312	144
Increase in bone density	351	36.6%	16.0%	27.5%	37.7%	38.8%	41.0%
No change in bone density	244	25.4%	24.0%	22.8%	24.9%	30.4%	21.5%
No change in height	228	23.8%	32.0%	17.5%	27.3%	23.4%	24.3%
Increase in height	182	19.0%	4.0%	19.3%	18.3%	19.6%	20.8%
Other	162	16.9%	32.0%	22.2%	15.6%	12.5%	20.1%
No new fractures	118	12.3%	12.0%	11.1%	11.1%	11.9%	16.7%
No answer	28	2.9%	4.0%	3.5%	2.8%	2.2%	3.5%

Data Table 21: Osteoporosis

Osteoporosis	#	%	Gender		Age Group				
			Male	Female	<40	40-59	60-69	70-79	80+
<i>Base</i>	6234	100.0%	1537	4408	142	1120	2713	1729	414
Osteoporosis	876	14.1%	2.9%	18.1%	0.7%	5.1%	13.9%	20.0%	20.3%

Osteoporosis	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6234	100.0%	565	2074	1824	1155	495
Osteoporosis	876	14.1%	11.0%	12.7%	14.4%	17.1%	15.2%

Data Table 22: Cancer

Cancer-related Treatments	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6218	100.0%	534	2074	1826	1164	497
Cancer-related treatments	221	3.6%	2.1%	2.4%	3.7%	4.3%	7.2%

Data Table 23: Nervous System, Dizziness/Vertigo and Headaches/Migraines

Responses	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6218	100.0%	145	1121	2701	1723	408
Nervous system	519	8.3%	20.0%	12.0%	7.4%	7.0%	5.6%
Dizziness / vertigo	525	8.4%	7.6%	7.7%	8.2%	8.3%	12.0%
Headaches / Migraines	344	5.5%	6.9%	10.2%	5.3%	3.5%	2.2%

Responses	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6218	100.0%	534	2074	1826	1164	497
Nervous system	519	8.3%	7.5%	7.3%	8.6%	8.7%	11.7%
Dizziness / vertigo	525	8.4%	8.6%	9.7%	8.1%	7.5%	5.4%
Headaches / Migraines	344	5.5%	3.0%	5.1%	5.1%	6.7%	9.9%

Data Table 24: Muscular Issues

Muscular issues	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6,218	100.0%	534	2074	1826	1164	497
Muscular issues	1,961	31.5%	25.7%	33.1%	32.6%	30.4%	29.4%

Muscular issues	#	%	Gender	
			Male	Female
<i>Base</i>	6,218	100.0%	1542	4386
Muscular issues	1,961	31.5%	32.0%	31.5%

Data Table 25: Digestive Issues

Digestive issues	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6218	100.0%	145	1121	2701	1723	408
Digestive issues	649	10.4%	18.6%	15.3%	9.8%	8.0%	8.6%

Digestive issues	#	%	Time Practicing				
			0-4 Mo	5 mo - 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6218	100.0%	534	2074	1826	1164	497
Digestive issues	649	10.4%	6.6%	8.7%	9.9%	11.9%	19.5%

Data Table 26: Immune System

Immune System	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6218	100.0%	145	1121	2701	1723	408
Immune system	641	10.3%	20.0%	15.0%	8.9%	9.3%	6.9%

Immune System	#	%	Time Practicing				
			0-4 Mo	5 mo – 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6218	100.0%	534	2074	1826	1164	497
Immune system	641	10.3%	5.6%	8.5%	9.5%	14.3%	16.5%

Data Table 27: Other Health Improvements

Other Health Improvements	#	%	Age Group				
			<40	40-59	60-69	70-79	80+
<i>Base</i>	6218	100.0%	145	1121	2701	1723	408
Respiratory issues	452	7.3%	6.9%	7.1%	6.5%	8.4%	7.8%
Sensory systems	236	3.8%	9.0%	5.4%	3.4%	3.0%	3.7%
Allergies	210	3.4%	4.1%	4.6%	3.2%	2.9%	2.5%
Hormonal balance	182	2.9%	4.1%	5.7%	2.3%	2.0%	2.0%

Other Health Improvements	#	%	Time Practicing				
			0-4 Mo	5 mo – 3 yrs	4-9 yrs	10-19 yrs	20+ yrs
<i>Base</i>	6218	100.0%	534	2074	1826	1164	497
Respiratory issues	452	7.3%	4.3%	5.2%	7.3%	9.6%	13.3%
Sensory systems	236	3.8%	2.8%	3.3%	3.5%	4.6%	6.4%
Allergies	210	3.4%	3.2%	2.2%	2.9%	4.6%	7.6%
Hormonal balance	182	2.9%	3.6%	2.0%	3.0%	2.9%	5.4%

Other Health Improvements	#	%	Gender	
			Male	Female
<i>Base</i>	6218	100.0%	1542	4386
Respiratory issues	452	7.3%	7.1%	7.3%
Sensory systems	236	3.8%	48.8%	3.5%
Allergies	210	3.4%	3.0%	3.6%
Hormonal balance	182	2.9%	1.4%	3.2%

Data Table 28: Other Health Conditions

Other Health Conditions	#	%	Age Group					Gender	
			<40	40-59	60-69	70-79	80+	Male	Female
<i>Base</i>	6,234	100.0%	142	1120	2713	1729	414	1537	4408
Arthritis	2,616	42.0%	6.3%	32.8%	43.9%	47.4%	44.9%	32.5%	45.3%
Back / spine issues	2,542	40.8%	39.4%	45.4%	41.4%	39.0%	30.2%	42.4%	40.4%
Joint problems / TMJ	1,593	25.6%	17.6%	25.2%	26.3%	26.4%	21.0%	23.3%	26.3%
Foot issues / plantar fasciitis	1,119	17.9%	13.4%	20.1%	19.5%	16.5%	9.7%	14.5%	19.4%
Asthma / lung disorder	555	8.9%	15.5%	14.9%	12.4%	11.0%	7.0%	7.2%	9.5%
Fibromyalgia / chronic fatigue	321	5.1%	2.8%	8.6%	4.9%	4.3%	1.4%	2.9%	6.0%
Brain injury / concussion	207	3.3%	7.7%	4.7%	3.2%	2.2%	1.7%	4.0%	2.9%
Parkinson's disease	91	1%		0.8%	1.2%	2.3%	1.9%	2.9%	1.0%
Multiple Sclerosis	76	1%	0.7%	2.5%	1.1%	0.9%	0.2%	0.6%	1.5%
Epilepsy	28	0%	1.4%	0.7%	0.4%	0.3%	0.2%	0.8%	0.4%

Data Table 29: Harmony of Body and Mind and Spirit

Questions (% very highly statistically significant responses)	Reasons to start Taoist Tai Chi® arts			
	Physical Health	Spiritual	Stress	Social
Would you say your practice had a positive impact on: Posture	52.7%	60.3%	58.2%	55.9%
Would you say your practice had a positive impact on: Coordination	55.1%	58.3%	54.4%	56.8%
Would you say your practice had a positive impact on: Energy / Stamina/ Endurance	50.9%	60.4%	57.4%	55.4%
Would you say your practice had a positive impact on: Circulation	39.7%	42.4%	42.3%	39.6%
Has your practice affected your mental health	89.1%	95.4%	96.6%	90.1%
Has your practice affected your social situation	83.0%	85.7%	86.5%	92.9%
If impacted social situation: Sense of Community	68.4%	77.5%	71.5%	72.9%
If affected mental health: Improved Mood	63.5%	67.3%	66.9%	64.7%