

## Research Article

# Subjective Experiences of Older Adults Practicing Taiji and Qigong

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This article presents a qualitative study following a 6-month Taiji (T'ai Chi)/Qigong (Ch'i Kung) intervention for older adults. The researchers conducted in-depth interviews of eight selected participants who elected to continue practicing Taiji after the intervention ended, in order to explore their subjective experiences of Taiji's effects and their motivations for continuing to practice. We created a Layers Model to capture the significance and meaning of the multidimensionality of their reported experiences. Participants not only reported simple benefits along five dimensions of experience (physical, mental, emotional, social and spiritual) but also described complex multidimensional experiences. Overall findings indicate that participants derived a very wide variety of perceived benefits, the most meaningful being a felt sense of body-mind-spirit integration. Our results support the important role of qualitative studies in researching the effects of Taiji and Qigong.

## 1. Introduction

Over the past 20 years, Taiji has emerged as a popular and much-researched exercise intervention, especially for older adult populations. Although most Taiji research has investigated physical effects, many studies have reported positive findings for both psychological and physical function. Most of the studies that have evaluated psychological benefits have used a quantitative approach and standardized psychological measures, with significant positive effects noted in a variety of areas assessed, including improved quality of life/mood [1–5]; reduction in perceived stress and pain [6–9]; increased self-efficacy [2, 10, 11]; reduced fear of falls and increased balance confidence [12–15]; enhanced immune response [16–18].

Although not all Taiji studies report on the continuance rates for participants at the end of a Taiji intervention, those that do report high levels of subsequent adherence. Wolf et al.'s [13] study cited a continuance rate of over 50%. In the Wenneberg et al. [19] study, 9 of 16 participants continued Qigong. In their study of patients with chronic heart failure, Yeh et al. [4] reported that 14 of 15 participants planned to continue Taiji. Two studies cited higher exercise continuance with Taiji compared to a control group, either an aerobic exercise group [20] or a home exercise group [21]. Other studies reported low drop-out rates for Taiji classes. Gavin and Myers [22] reported, "It is noteworthy that tracking for three years, the drop-out rate for the ongoing Taiji (community) class was only 34%, considerably lower than the 46–52% dropout rate for more traditional

exercise classes” (page 137). In a 6-month post-intervention follow-up study, Li et al. [23] reported that more than 50% of a previously sedentary sample had remained physically active. The Gavin and Myers [22] study also reported a high continuance rate: of the 107 people who had enrolled in a beginning Taiji class and were tracked over a 1-year period, 67% said they planned to enroll in a subsequent class. This decision of participants to continue practicing Taiji or Qigong after an intervention has ended is an important finding that has not been addressed. Such a trend is of interest, because sedentary lifestyles are a major public health concern; a majority of Americans do not engage in recommended levels of physical activity despite decades of research showing its benefits [24, 25].

These low drop-out and high continuance reports support the premise that Taiji elicits an unusually positive response in participants, yet, despite many calls for research that investigates the role of subjective experience and meaning regarding older people and exercise [26], very few studies have used interviews to gather subjective information regarding participants’ responses to Taiji. The importance of a sense of carryover of Taiji into everyday life and/or a wide range of perceived benefits has been alluded to in several studies. By asking six questions to generate binary outcome variables, Kutner et al. [27] found that both their intervention (Taiji) group and their control (balance training) group reported increased confidence in balance and movement, but only the Taiji participants reported effects in daily activities and overall life. Wenneberg et al. [19] conducted semistructured interviews to examine the subjective experiences of patients with muscular dystrophy who practiced Qigong. Using a computer program, they coded their data into six categories that included three categories of perceived benefits: mental/stress reduction effects, increased body awareness and physical effects, and psychosocial effects of group training. They reported that one third of the patients described very positive results; another third reported moderate benefits in relaxation and stress reduction; the final third experienced minor effects. In conclusion, they noted

The most prominent finding ... is the wide variation of experience and perceived effects among participants ... [the] blending together of mental and physical methods may in part explain the wide range of experienced benefits (page 593).

Docker [28] interviewed seven older participants in community Tai Chi clubs in Northern England. Her findings showed participants reported “a variety of physical and mental benefits” as well as “intriguing special effects ... of a spiritual or mystical nature” concluding that “practicing (tai chi) may be attractive to older people not only because of its suitability as a moderate intensity exercise ... but also because it may fulfill other social, emotional, developmental or spiritual needs” (page 114-115).

The purpose of the present study was to further investigate the subjective experiences of older participants who elected to continue practicing Taiji on their own after our

intervention ended. Our study was small and the focus narrow. Our intent was an exploration of respondents’ personal experiences of Taiji in order to gain understanding of the perceived effects and motivations that empowered them to continue practice: just what were they experiencing during the six-month study that influenced them to keep practicing Taiji after the intervention was over?

## 2. Method

*2.1. Taiji Intervention Participation.* Taiji (T’ai Chi)/Qigong (Ch’i Kung) are complex practices that have existed for many centuries in China. Traditionally, the purpose of pursuing these practices is to unify the mind, body, and spirit in order to move toward greater harmony with oneself and the environment, and thus toward improved health and functioning [29, 30]. A complete traditional Taiji curriculum includes Qigong (standing, sitting, lying down meditation, and simple movements, all with an emphasis on meditation), Form (the classic movements that are the familiar hallmark of Taiji), and Push-hands (two-person dynamic training, the “martial art” application of Taiji) [30, 31]. We did not have adequate time to include Push-hands due to the limitations of the 6-month time frame. Three one-hour classes per week were designed and taught by Yang Yang with three of his long-term students assisting.

We began with two dynamic Qigong exercises (*Heaven and Earth Open and Close* and *Lower the Qi and Cleanse Internally*) and with static sitting and standing Qigong meditation. We gradually increased the amount of static sitting and standing practice, until by the 13th week of the study participants were completing one 10-minute sitting and two 10-minute standing meditations each class.

Form work was comprised of 7 movements taken from the Chen Style 48-Movement Form distilled by Grandmaster Feng Zhiqiang. The intention was to create a form that was short and thus easy to remember and yet engaged a wide range of motion of the entire body and incorporated weight shifts and stepping in all directions. Movements were also selected for their adaptability and accessibility, as it was deemed essential that participants be able to enter the study at nearly any level of physical ability and experience progress. The seven movements are *Preparatory Form*, *Lazy About Tying Coat*, *Fist Under Elbow*, *Step Back and Whirl Arms on Both Sides*, *Part Horse’s Mane*, *Wave Hands Through Clouds*, and *Close*. The fundamental skills of Taiji—relaxation, alignment, footwork, efficiency, coordination, accuracy of force production, and control—were emphasized, and parallels were drawn to daily activities. We gradually included more information about integrating mind and spirit into the practice, stressing the importance of a tranquil, peaceful mind and a light and happy spirit in nurturing the body’s vital energy. Traditional Chinese music [32] was played during classes to help cultivate tranquility.

*2.2. Methodological Framework.* In designing this study, our hope was that through open-ended, in-depth interviews, we would gain insights into the nature of the experiences that

led to respondents' ongoing commitment to Taiji practice. Our methodology is grounded in social constructionism [33, 34]. In this framework, it is the meaning that individuals construct their lived experiences that are assumed to shape and guide human action, and so social inquiry is appropriately focused on understanding these meanings. Because the interpretive reconstruction of meanings depends, in part, on who is the listener, our aim was to offer a keenly interested ear and to encourage a full telling of participants' Taiji experiences, while muting our own views and perceptions as much as possible [35, 36].

**2.3. Sampling.** At the end of our six-month quantitative Taiji intervention [15, 18], we purposefully selected and obtained written informed consent from a sample of eight "information-rich cases" [37, page 231]. These were subjects who were continuing Taiji classes on their own, and who, during the six-month study, were observed to be verbally enthusiastic and articulate about their participation. The rationale for selecting these participants was to maximize the potential richness of the interview information to be obtained [37]. The study was approved by the institutional review board of the University of Illinois.

**2.4. Interviews.** The interviews were semistructured using the general interview guide approach [37, page 342–344] as a framework. We began each interview with an invitation to tell the story of their Taiji experience; subsequent questions and probes pursued participant motivations for joining the class, experiences during the class, and any reported changes in aspects of daily life and general health and well-being. An assistant Taiji teacher (Reed) and a physical therapist who was also a Taiji student (DeCelle), each, conducted four interviews. Conversations of 60- to 90-minutes were recorded in the interviewees' homes and then transcribed.

**2.5. Analysis.** In designing our analysis, we were influenced by a series of dialogues we had conducted with Taiji participants in a 2000 pilot study; results from this suggested a broad five-category model of physical, mental, emotional, social, and spiritual benefits from Taiji participation. We elected to start with these five descriptive categories as an initial framework for organizing and coding the interviews as they seemed to capture the key elements from our pilot study and from other studies (e.g., [19, 28]), as well as being congruent with the work of Spirduso, 1994 [38].

Following an initial reading of all of the interviews, the three members of the coding team (Yang, DeCelle, Reed) ranked the interviews in terms of information richness [37] and began coding with the richest interview. The process began with each coder independently assigning each data segment (phrase, sentence, or passage) to the appropriate dimension of experience—physical, mental, emotional, social, or spiritual. We then met to agree on a group coding. After completing the group coding of the first interview, we went on to the next interview, repeating this process of individual then group coding. After completing the coding

of the first four interviews, we used the data from these four to create an interpretive model.

Our five dimensions—physical, mental, emotional, social, and spiritual—were initially conceived as "fuzzy" categories [39], and so it was assumed that there might be some overlapping assignments of the data. Yet, we were surprised to discover that the vast majority of the data segments required multiple-dimension assignment (e.g., physical and mental; emotional, social, and spiritual) in order to fully capture their meaning. We then created a horizontal table of the 31 mathematically possible categories (e.g., possible combinations of the five dimensions) and arranged all the data in this table in order to search for themes in each of the 31 categories. Upon detailed examination and comparison of the contents of the statements in each category, we found that the multidimensionality of the data seemed to be their most dominant and meaningful characteristic. The *number* of dimensions characterizing the data segments appeared to emerge as a more compelling story of the meaning of participants' experiences than a listing of exactly *which* categories were involved, or even of exactly *what* was said in each category. The meaning of the data came into focus when we began to look at it in terms of investigating the meaning of its surprisingly substantial multidimensionality. Our interpretive framework emerged directly from this "discovery".

Because all the three coders had practiced Taiji, in order to minimize possible interpretive bias, we then had an experienced outside qualitative researcher (Greene) with no previous Taiji experience examine our data and findings to give objective input and feedback. After re-analyzing and fine-tuning our model, lastly, we went back and coded the remaining four interviews as a form of both multiplicative and structural corroboration of our findings [40, 41].

### 3. Results

**3.1. Interpretive Framework.** We created the Layers Model as a way to capture the meaning of the multidimensionality of respondents' statements. The model is based on the overlapping of the five dimensions—physical, mental, emotional, social, spiritual—and how they combine to create five overlapping layers of one-, two-, three-, four-, and five-dimensional statements. Upon reviewing the substantive content of all of the statements contained in each layer, the Layers Model evolved from a descriptive representation of the material in each layer to a "prototype" model that offers a conceptual framework for examining the collective meaning of the statements in each layer.

We combined the four- and five-dimensional statements into one layer, Layer 4, to reframe the model as a continuum representing four increasingly complex layers of experience.

**Layer 1 (Simple Benefits).** Statements that reference a single-dimension. These comments describe physical or mental effects that often were related to the interviewees' original motivations for joining the study.

*Layer 2 (Complex Benefits).* Statements that reference two dimensions. In this layer, benefits begin to carry over into everyday life, and the interviewees express the beginnings of improved mind-body connection and an increase in general self-awareness.

*Layer 3 (Immersion).* Statements that reference three dimensions. In this layer, there is expression of increasingly significant carryover of benefits into everyday activities and there is a clearly expressed mind-body connection with associated positive emotions. The interviewees report that Taiji begins to permeate the way they think and feel about themselves; they report a more positive attitude and significant changes in self-confidence and self-concept.

*Layer 4 (Complex Integration).* Statements that reference four- and/or five-dimensions. In this layer, interviewees express experiencing Taiji as an opportunity and a tool to grow and nurture themselves; they describe a sense of a complex mind-body-spirit connection and most report a conscious sense of a more integrated spirituality.

We then created a Layers Diagram as a visual representation of the Layers Model. It shows the overlapping of the layers and the progression from the lightly shaded single-category statements in the outer Layer One, to the slightly darker double-category statements of Layer Two, the more darkly shaded triple-category statements of Layer Three, and finally the four and five category statements in the darkest shaded Layer Four center of the figure. Table 1 shows the relationship between the initial 31 possible categories, the Layers Model and the Layers Diagram.

This representation seems obvious in retrospect, but was actually a “Eureka!”-like realization when it finally emerged at the very end of our analytic process. We believe it provides a parsimonious way of visualizing the entire project and thus of mapping all the data and our interpretive understanding of it.

Because, in qualitative studies, the goal is to construct an interpretation that resonates with the participants’ own interpretations of their experiences [42], in order to establish the credibility of our interpretations, we conducted a formal “member check” [36]. Each of the interviewees (seven of the eight as one was deceased at that point) was asked to read this account and comment on the accuracy of our interpretations. Each participant expressed unqualified agreement that this is an accurate representation of her/his experiences and their meaningfulness.

*3.2. Participants.* What follows is a brief description of the participants and their initial motivations for doing Taiji. (Specific demographic details have been omitted to safeguard confidentiality. Interviewees selected their own aliases for the quotation section.) At the time of the study, all eight interviewees were retired, aged 82, 82, 79, 79, 75, 74, 70, and 67. One was male. Seven were college graduates including four with advanced degrees, and one was a high school graduate. Six were of moderately high and two of moderate

socioeconomic status. Four lived in a senior retirement community, and four in their own homes; four lived with spouses, and four lived alone. All were motivated to join the intervention for physical reasons (1) one with moderately severe back pain that limited her activities of daily living (ADL’s) and generated problems with sleeping; (2) one with long-standing back pain and severe arthritis, along with a feeling of not having much more time “left”; (3) one with limitations in various ADL’s including gardening and dressing, self-described as “beginning to feel like an old lady”; (4) another self-described as never having been very physical and worried about “losing touch with my body”; (5) one with hip and knee pain secondary to arthritis “that was getting pretty painful” who was “hoping to get stronger and get moving again”; (6) one primarily for gait issues related to balance and strength, “I was beginning to stumble when I walked and I thought this might help”; (7) one self-described as having become “fairly sedentary” and thought “it might be a way to get moving again without causing problems with my knees and shoulders”; (8) another with “problems with my legs, especially my knees”.

*3.3. Experiences of Taiji and Qigong.* In this section we present interview data within the Layers Model.

*Layer 1 (Simple Benefits).* In Layer 1, interviewees report simple changes stemming from their practice of Taiji. These are single-category statements. These reported changes typically refer to a physical benefit that was related to the individual’s primary motivation for participation in the study.

My balance was already pretty good but I could still see an improvement. Climbing stairs—I know I said on the questionnaire “yes, I’m confident about it.” Still ... now I feel more ... confident ... balance has improved ... my strength has improved. (Jamie)

Positive changes in physical function were reported by all. Helga made it clear that physical benefits do not have to be dramatic for useful improvement to be noted.

I realize at my age that deterioration is setting in .... I think if you’re just holding your own, you’re lucky .... I fatigue a lot easier, sooner .... I can realize I’m losing ground on that, and yet .... It has helped ... not a pie-in-the-sky sort of thing ‘cause my arthritis is continuing to deteriorate in my knees, but I find that I have more strength in my legs and better balance.

Positive changes in strength and balance were cited by seven of the eight. (The one exception reported no initial strength or balance deficits.)

In the beginning (doing the Qigong) some of the muscles in my legs would really, really hurt ... and now I can’t make it hurt anymore ... and

TABLE 1: Layers diagram, Layers Model, possible category combinations.

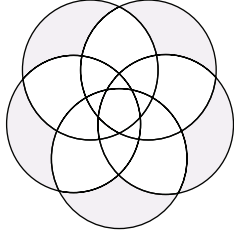
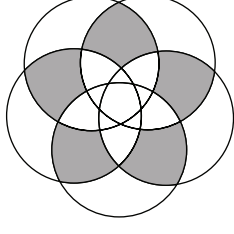
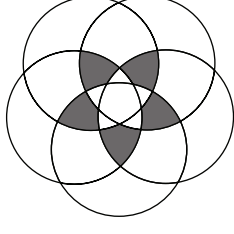
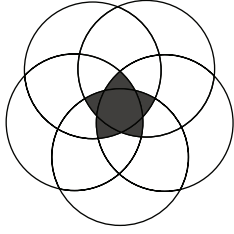
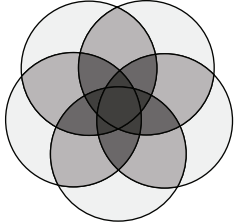
Layers Model	Possible statement category combinations*	Layers diagram
Layer 1 (five possible single-category statements)	P	Simple benefits diagram 
	M	
	E	
	So	
	Sp	
Layer 2 (10 possible double-category statements)	P + M	Complex benefits diagram 
	P + E	
	P + So	
	P + Sp	
	M + E	
	M + So	
	M + Sp	
	E + So	
	E + Sp	
	So + Sp	
Layer 3 (10 possible triple-category statements)	P + M + E	Immersion diagram 
	P + M + So	
	P + M + Sp	
	P + E + So	
	P + E + Sp	
	P + So + Sp	
	M + E + So	
	M + E + Sp	
	M + So + Sp	
	E + So + Sp	
Layer 4 (5 possible four-category statements) and one possible five-category statement	P + M + E + So	Complex integration diagram 
	P + M + E + Sp	
	P + E + So + Sp	
	P + M + So + Sp	
	M + E + So + Sp	
P + M + E + So + Sp		

TABLE 1: Continued.

Layers Model	Possible statement category combinations*	Layers diagram
All four layers	All Statements in all 31 categories	<p data-bbox="1182 348 1356 375">Full layers diagram</p> 

\* Statement categories: P: physical; M: mental; E: emotional; So: social; Sp: spiritual.

I'm standing three times as long . . . Now I can put my socks and jeans on just like I always used to, standing up instead of sitting down. (Grace)

You learn to stand on one foot, and I can do that so much better now. Believe it or not, I couldn't do it all before. (Arlene)

Pain relief was another issue motivating participation; improvement was noted by seven of the eight (the eighth reported no initial pain), especially Jamie. "I'm at the point where I don't have any pain . . . and I'm back to being as active as I was. Quickness is back—I don't have to be slow and careful." Improved flexibility was noted by three respondents, for example, "I was having stiffness getting in and out of bed, and I don't have that anymore. I mean I can just roll over and roll out of bed, everything's fine now" (Ruth).

This layer also contained some benefits coded as *mental*, with four participants reporting improved ability to concentrate.

*Layer 2 (Complex Benefits).* In Layer 2, interviewees express their sense of the benefits of Taiji in a more complex way, mostly combining the mental and physical dimensions. All the interviewees reported a carryover of benefits into everyday life. "I go up the stairs better. I'm very aware of where my feet are . . . before, I don't think I really knew where my feet were unless I was looking" (Anna).

Because of Taiji you are more aware of how you stand, how you sit, how you move . . . It has really helped me . . . in the daily things I want to get done and being more focused; and of course the more focused you are, the better it goes, the better job you do, and the quicker you get it done . . . Let's say I'm in the kitchen preparing a meal . . . it goes much smoother and it's easier. In other words everyday things are better, easier. (Grace)

Increased relaxation and calmness were also mentioned by all eight as valuable and useful effects. In this double-category layer, interviewees also talked about more inherently complex issues such as energy level and sleep.

I have more energy . . . The Taiji practice continues to keep my energy level up higher than it would be otherwise, certainly higher than it was. I'm able to do more than I used to and do what I used to do more easily. (Grace)

Jamie reported that, "My sleep is better . . . I love the full night's sleep . . . I used to wake up at 3:00 every morning and couldn't go back to sleep . . . now it's fine."

Respondents described experiencing the beginning of a body-mind connection from different perspectives.

You know, early on, in the Qigong . . . I had this mental picture of these endorphins that go to your brain and make you feel better after you exercise, so I would be sitting there thinking, "OK you little endorphin, go down to that knee, work yourself in there and make yourself at home." I tried to send them to various parts of my body, and after a while, I could feel it. (Helga)

A number of physical-mental category statements relate to an increased awareness of a heightened mind-body connection.

I've become much more aware of my body . . . I've observed muscles loosening up that I probably couldn't have identified as even *being* there before . . . they stay relaxed more . . . and I'm usually aware of when they start to tense up, and I can "untense" them. (Anna)

The greatest thing . . . is becoming aware of my body. It has really helped my posture. I can tell now when I'm slumping—it just doesn't feel right. (Sally)

Every time I do the Qigong I have this rush of heat going through my body—it amazed me the first time it happened. I imagine my blood going through . . . I relax the muscles because I'm thinking I want the blood to have lots of space for flowing through . . . it's using your mind to connect more clearly to the body. (Jaime)

A sense of improvement in functional ability was frequently expressed along with a positive emotional response to the perceived physical improvement.

It is amazing how much everyone in the group has improved on that one leg standing, and it makes people feel so good that they can do that! I remember when we were first tested and they asked me to stand on one leg with my eyes closed. Well, I thought that was the craziest thing to even *think* about! Now I can do it for 30 seconds *plus* without any problem. (Grace)

*Layer 3 (Immersion)*. In Layer 3 there are triple-category statements, most of which were mental-physical-emotional. In this layer, respondents remark that the relevance of Taiji has permeated many aspects of their lives. Interviewees frequently made statements that added an emotional component to the physical-mental benefits they experienced, usually commenting on how very good the mind-body connection felt to them. "I feel, my body feels sort of though it's being worked on from the inside out, and it feels so very good to do that" (Jamie).

Each interviewee had her/his own experience of a layering of the physical-mental-emotional categories. All reported experiencing significant changes in self-concept and confidence and a more holistic sense of overall abilities and potential.

I notice that, well I notice *me* more . . . There are times in Qigong that—I hear myself shift to a different place . . . This experience of being lined up, when things get lined up differently inside me—there is this most unusual sensation of like *everything* coming together, it's like something goes ahhaah . . . It's a full body sensation that's almost spiritual. (Anna)

All were more optimistic about themselves and about their own aging process. Each of the eight expressed the belief that she/he had significantly improved her quality of life, increased her/his lifespan, or both.

I will keep doing this—it's wonderful! My husband is just astounded that I'll devote three [group] sessions a week to it . . . I have the sense that I'm not going to go downhill nearly as quickly as I might have. It's a very positive way to feel. (Grace)

All of these participants talked in some way about seeing themselves differently, as having more potential, more

confidence, and not worrying so much about what cannot be changed. According to Jamie, "I feel more upbeat . . . more optimistic . . . more hopeful . . . I've upped my lifespan from 80 to 100. How's that!"

Interviewees spoke of Taiji permeating many aspects of daily life including social contexts. Anna talked about how she was much more able to handle stressful family encounters.

I got so I could turn that stuff [negative feelings] off faster . . . before Taiji there were times when I could hardly get rid of it at all . . . [now] it's like, I am not letting this stop me—I *refuse!* [talking about a particularly recent stressful encounter] . . . and I took care of it in terms of getting past it in less than 5 minutes!

At this level, participants also express a deeper sense of integration that begins to include spirit into the mind-body sense of self.

I look forward to the standing Qigong, and the release of everything around you . . . I imagine that I'm standing in water, in the ocean . . . it has such a calming effect on me and this helps me so that I *can* get up and go. (Helga)

At this level, these elders began to express a sense of surprise at the scope of the benefits they felt. Many of them mused about the mechanism—how it works—and began thinking that it might be more complicated than they had previously thought. There was a clear sense of surprise that such a simple activity could produce such exceptional benefits and have such broad application.

I couldn't believe it. At first, I mean it looked like, "Why should we even *do* this?!" But I can see now after doing it that it is giving me strength. I mean it's the ability to walk better, sit better, turn better . . . it isn't just a forceful strength, it's a strength within, it's an inner . . . it has caused my body to follow through with my mind when it says to do something. (Ruth)

I do not like to exercise. That is NOT my favorite thing, and I am not a disciplined person . . . but this is something . . . it's just so different from individual exercise. I mean it IS individual, but, you just receive so much from this . . . it's very different to quiet your mind and not be thinking about things . . . I don't know how to explain it . . . it can be very spiritual. (Sally)

I quit Curves when Taiji came along. I'd rather do Taiji. There's just no comparison between the two, no comparison. That's strictly exercise. This is something entirely different . . . It's just absolutely amazing what it does to your body and mind . . . and you don't realize how important it is until you go through it . . . People who haven't done it, until they actually do, they really don't believe you. (Arlene)

I'm really interested in trying to figure out why it's so useful and so successful . . . . I've been so active all my life—it surprises me that the standing could be so helpful. I don't have to hike up a mountain . . . . In fact, climbing the mountain wouldn't be as effective . . . I can do it in a hotel room, just about any place . . . . I've done it at the airport, looking out the window. (Jamie)

Echoing Jamie, many of the participants expressed the importance of finding it very easy to integrate into everyday life. "It's available anytime and anywhere I want to do it . . . whenever the spirit moves me" (Harry). "It's almost like this little magic pill or something that I can now say to my mind "Quiet, calm, you can do this," and it's like, wow, I can do this anywhere" (Sally).

*Layer 4 (Complex Integration).* Layer 4 expressions involve a complex integration of multiple categories: four or five dimensions overlap in the interviewees' statements, notably mental-physical-emotional-spiritual. This layer involves a sense of Taiji as an organizing, integrating experience. Interviewees spoke of transformative changes, along with a firm commitment to continuing Taiji practice for very different reasons than when they began.

This is a life change for me. I want to continue to do it for as long as I'm able, because I think it's extremely helpful. When I talk to people I say, "I've started Taiji and it's changed my life." (Jaime)

I can't imagine Taiji not being in my life now. It has just been such a delight and such a revelation. (Sally)

This has affected every area of my life . . . it's been exhilarating in many ways . . . . I've experienced a variety of feelings and sensations that come as total surprises to me . . . . I never plan to stop. It contributes too much to me in too many ways to ever stop. (Anna)

In Layer four, these respondents experienced Taiji as an opportunity to learn, grow, and nurture themselves; it became an important tool for them in their daily lives.

My personal experience with it is that participation in Taiji has affected every area of my life. It's, to me, Taiji is spiritual, it's emotional, it's psychological. It affects all of those, and it's physical. It has basically solidified a whole bunch of stuff I have been dealing with most of my life. (Anna)

Respondents frequently and explicitly linked spirit to body and mind and emotions and reported a conscious sense of a more connected spirituality.

The thing that comes close to being spiritual for me is the closing Qigong movement, where you raise your arms and you gather in energy. I can see myself getting just a little piece of that cosmos out there . . . and also the power of cleansing yourself as you push that energy in and down through you; you reach out into the ultimate universe and gather a part of it inside. This to me is separate from God in my own beliefs, but it's something that offers an opportunity for my spirit to express itself, connecting myself . . . to a spirit within that is part of a bigger whole. (Helga)

Respondents reported that this enhanced mind-body-spirit connection was very meaningful for them. Grace described this linking of the spirit with the physical-mental-emotional as a very new experience for her.

The Taiji gives you . . . a way to create a spiritual moment that is also very healthful in a physical way . . . . I can't say I'm more spiritual, but I'm more aware of my spirituality . . . . I never in my whole world would have thought, you know, when we're doing our meditation, and you look out there and see the beautiful trees, and you know that's God's energy, and it's going to be part of me . . . like when we do that washing your organs, and gather that energy with our hands . . . and I can actually feel my fingers growing—that's God's energy washing through me . . . that sense of being very spiritual and physical at the same time . . . it's just not comprehensible to the world!

At this level, interviewees observed that the Taiji philosophy (actively cultivating tranquility, wisdom, energy, and health through a mind-body-spirit connection) permeated their thinking. They reported experiencing a significant increase in their capacity to feel healthier; all conveyed more optimism about themselves, about aging, and about their quality of life.

Because of this, I am learning some new trust in myself that's spiritual in some respects . . . . Taiji has supported a whole place of believing in myself and listening more strongly to my own thoughts, rather than trying to fit into some other way of thinking. (Anna)

At this level, some expressed a strong appreciation for their fellow students and the group aspect of the experience. Anna, the most social of the eight, was the most eloquent about this.

Every person in this group contributes something to me—to me personally, as well as to the group. There's just this real safety of all of us with each other . . . we're just *joyful* . . . everybody's very peaceful.



In this layer, interviewees reflect on the complexity of the whole process, marveling at how so simple a thing could be “affecting everything.” For all of them, musings about the mechanism, about how it all might work, became more complex, surprising, mysterious and indirect than previously thought. Helga was the most philosophical:

There’s something that has to be fundamental, something universal—the movements and the mental attitude seem to provide people with an avenue for their own self-expression, their internal expression. Not the outside, but how you feel on the inside ... it probably comes from the base of the understanding of that person of him or herself ... and what they think of their own improvement ... and it may be improvement of many, many fronts or different fronts for different people.

Anna, as the free spirit of the eight, had the loosest, most freewheeling interpretation of her experience. She viewed it as a complex phenomenon that she experienced with surprise, enthusiasm, and a zen-like trust.

Who knows what all this is about? I don’t even try to interpret. This is wonderful!... And it’s affecting everything! .... I’m going to live the rest of my life differently .... I’m so glad I’m doing this!

Another hallmark of this layer is a strong sense of gratitude for the experience.

I think that this is just grand! To learn something when you are in your late 70s that you can use for however long you happen to live—I mean what greater gift could you expect? You know you don’t think about 70-year-olds really learning new things that they can carry on ... this is so unexpected. This has made me feel much younger, much younger—let’s say 10 years .... Someone who hasn’t done this has no comprehension about how much better it has made me feel (Grace).

#### 4. Discussion

We found that although each interviewee had his or her own unique experience of Taiji and Qigong there were strong commonalities among the eight respondents. All began with motivations related to physical problems and concerns, and all reported significant functional improvement. All also reported experiencing benefits in at least three other dimensions, and all reported integrated mind-body experiences that were, in their own subjective assessments, powerful and unexpected. Ultimately, all of the interviewees felt that these complex integrative experiences were the most important and meaningful outcome of their participation in Taiji. And so as they practiced Taiji and experienced more complex benefits, their motivations to continue shifted accordingly.

All eight of our interviewees referenced at least four individual dimensions in describing their experiences. Six respondents referenced all five dimensions in their observations. Six reported a spiritual experience from their Taiji practice, with five of these six expressing surprise about that. Two reported no spiritual experience, with one of these stating that he/she was “not religious”, and the other stating that spirituality for her/him was a separate issue tied to their Christian religion. One of these two reported that a “sense of peacefulness” was his/her most important Taiji experience, and the other talked about the unique and special importance of Taiji as “both and inner and outer experience”—wordings very similar to the other six who did report spiritual experiences. Seven of the eight respondents made complex four-dimensional statements that referenced four dimensions in one expressed thought (See Table 2). Five respondents (four in the first group and one in the second) made complex five-dimensional statements; four of these five were our only participants with advanced degrees. Educational level here may represent verbal fluency or actual differences in experience, or both. Otherwise there was no appreciable difference between the dimensional content and coding of the two sets of four interviews, thereby providing corroboration for our interpretive model [40, 41].

Our findings are not intended to be a definitive explanation of Taiji’s effects but to further the exploration and discussion of its multifactorial properties. The Layers Model gradually emerged as both an organized, descriptive display of the data and a model that captured the meanings and significance of our respondents’ statements [43]. Our initial visual conception of the Layers Model was as a three-dimensional spatial model showing how the five dimensions overlap to create all 31 categories (a Venn diagram); the present two-dimensional spatial diagram evolved from that as a simpler and clearer illustration of only the layering effect, as that seemed to optimally illustrate our findings. A strength of the model is that it can function both ways. Because the model emerged from data specific to this project, its usefulness beyond this study is yet to be determined. One possible limitation is that at higher levels of complexity, it may be measuring verbal fluency as well as subjective experience. We feel the strength of the model is that it illustrates and illuminates the multidimensionality of our respondents’ experiences—a quality that appears to be the hallmark of their experience. This finding resonates with previous interview studies of Taiji/Qigong which allude to participants’ description of a wide variety and complexity of experience and/or strong carry-over into everyday function as important benefits [19, 27, 28]. Other limitations of our study include the small sample size, the purposeful selection process, and the subjective nature of the data analysis. Further studies are needed to substantiate the usefulness of our interpretive findings.

This study raises questions about the nature of both our respondents’ experiences and the nature of Taiji itself. The challenges of measuring complex interventions like Taiji and Qigong has been theorized in several recent studies [44]. It seems possible that the multidimensionality our respondents described may be inherent to the practice of

TABLE 2: Corroborative analysis: number of interviewees in each group who referenced specific dimensions\* and specific combinations of dimensions.

Group	P	M	E	So	Sp	P + M + E	P + M + E + So	P + M + E + Sp	P + M + E + So + Sp
Most information rich ( <i>n</i> = 4) (Anna, Grace, Helga, Jamie)	4	4	4	4	4	4	4	4	4
Corroborative ( <i>n</i> = 4) (Sally, Ruth, Harry, Arlene)	4	4	4	4	2	4	3	2	1

\* Dimension categories: P: physical; M: mental; E: emotional; So: social; Sp: spiritual.

Taiji and Qigong, as the effects they noted appear to be similar to the effects cited in traditional Taoist texts as the expected results of Taiji practice [29, 45]. In this sense it may be that practicing Taiji allows a practitioner to experience him or herself in the light of its philosophy and intended effects. It may also be that the age of our participants positively impacted the multidimensionality of their reported experiences in that their advanced age and cumulative life experiences facilitated a broader appreciation of the phenomena they experienced. In that sense, Taiji may be a uniquely suited exercise intervention for an aging population.

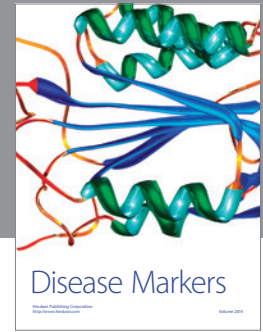
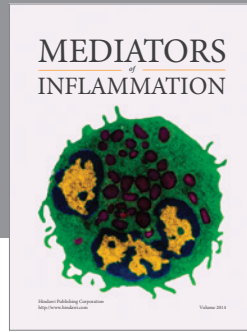
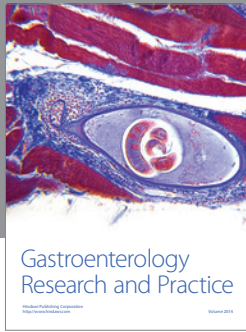
## 5. Conclusion

The results of this study suggest that elders who practice Taiji and Qigong are likely motivated by a variety of positive multidimensional mind-body-spirit effects that are holistic and broad in scope, and it is the integrative multidimensional nature of these experiences that may come to be the most attractive motivator. The Layers Model illustrates a potentially useful way to capture and analyze the relevant qualitative factors that may be inherent to the complex experience afforded by the practice of a conscious mind-body activity such as Taiji. Our study supports the idea that qualitative studies serve an important function in bringing a more informed understanding to the complexity of factors impacting health, aging, and physical activity that may influence peoples' motivations for pursuing mind-body approaches such as Taiji and Qigong.

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