



Poi & Parkinson's

Spin Your Health Around



What is Poi?

Poi is a weight at the end of a cord or sock which is swung in circular patterns around the body. Poi originated with the Māori of New Zealand, and it is believed they were originally used to train strength and flexibility, as well as being a form of entertainment. Today, people of all cultures, ages, and abilities are practicing poi as a form of play, performance, and exercise. At SpinPoi, we're passionate about helping people discover the joy and power of this Māori taonga (treasure), and how it can be used to keep the mind and body fit.



“ Practicing poi helps keep the brain alive. It’s stimulating. It’s fun. It requires complex actions that keep the body and mind engaged. Poi just might help delay the onset of diseases that strike in old age like dementia.

- Sir Richard Faull, KNZM FRSNZ, Neuroscientist, Distinguished Professor

Poi & Healthy Older Adults

DOUBLE-BLIND RANDOMIZED CONTROLLED TRIAL

A University of Auckland study led by SpinPoi Founder Dr. Kate Riegle van West investigated the effects of poi, compared with Tai Chi, on physical and cognitive function in healthy older adults. A total of 79 participants (60–86 years) were randomly allocated to a poi or Tai Chi group. Immediately post intervention (two lessons a week, for 4 weeks), both groups improved upper limb strength, postural stability, and simple attention. Tai Chi also improved systolic blood pressure.¹ Therefore, poi seems to be as effective as Tai Chi for improving physical and cognitive function in healthy older adults. These are exciting results, especially when thinking about maintaining quality of life as we age.



Grip strength

Hand strength is an important predictor of bone mineral density, likelihood of falls, general disability, and overall mortality.



Balance

Falls lead to 20-30% of mild to severe injuries, and are the underlying cause of 10-15% of all emergency department visits.



Attention

Our ability to choose and concentrate on certain stimuli is necessary for every day functioning, from driving to holding a conversation.

In addition, qualitative research illuminated how participants felt while practicing poi. Participants were asked "What three words best describe how you are feeling?" Immediately after each lesson. The top themes were relaxed, enjoying the challenge of learning a new skill, and happy.

Upon completion of the study, 75% of participants reported wanting to continue their poi practice.



1) Riegle van West, K., Stinear, C., & Buck, R. (2019). The Effects of Poi on Physical and Cognitive Function in Healthy Older Adults. *Journal of aging and physical activity*, 27(1), 44-52. <https://doi.org/10.1123/japa.2017-0273>.

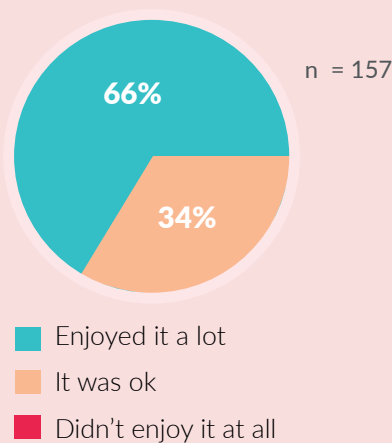
Poi & Elderly Care

PRELIMINARY DESCRIPTIVE SURVEY

Following her PhD research on poi and healthy older adults, Dr. Riegle van West conducted subsequent trials at two aged care facilities in New Zealand. Residents across all levels of care (independently living, rest home, hospital, and dementia) participated in poi sessions twice a week for one month. Question 1 was measured with a scale of faces modeled after the Wong-Baker FACES scale.² Question 2 and 3 were part of a self-reported questionnaire for independently living older adults. Question 2 was a simple multiple choice question. The bar chart for Question 3 represents a series of questions taken from the Physical Activity Class Satisfaction Questionnaire (PACSQ) and measured with a 6-point Likert-type scale.³

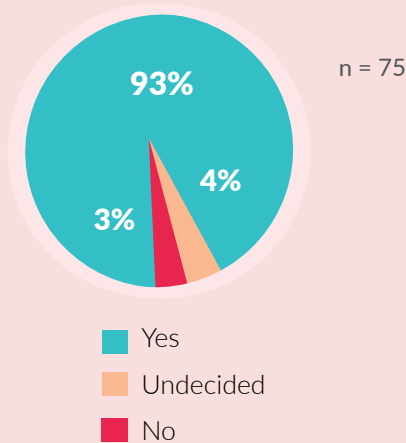
1. How much did you enjoy the poi session?

Rest Home, Hospital, Dementia



2. Would you like to do poi again?

Independently living residents



“ I had cramps in my hands so bad I couldn’t do anything, and after loosening it up with the poi they’re as good as gold. It’s done me wonders.

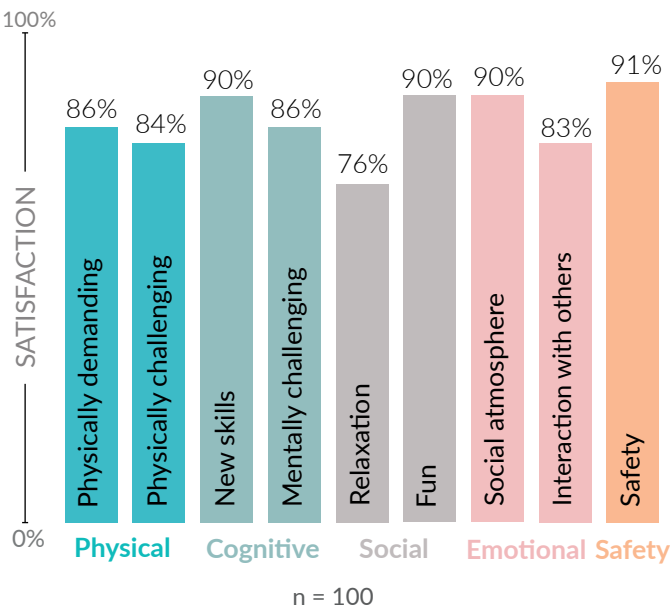
*Independently living resident,
Ryman retirement village*

“ Poi could potentially be one of the most affordable and effective interventions globally to alleviate depression, loneliness and isolation in older adults. We have seen our older residents smile or laugh out loud, socialize and develop new friendships, and engage both their minds and their bodies despite their age and physical or cognitive abilities.

*Group Diversional Therapist,
Selwyn retirement village*

3. How satisfied were you with the poi session?

Independently living residents



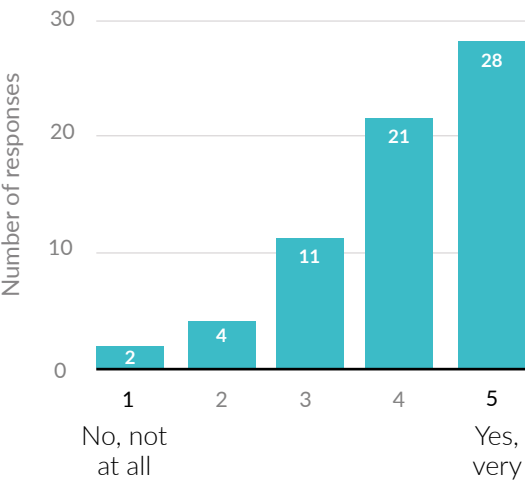
2) Lorish, C. D., & Maisiak, R. (1986). The face scale: a brief, nonverbal method for assessing patient mood. *Arthritis & Rheumatism: Official Journal of the American College of Rheumatology*, 29(7), 906-909. 3) Cunningham, G. B. (2007). Development of the physical activity class satisfaction questionnaire (PACSQ). *Measurement in Physical Education and Exercise Science*, 11(3), 161-176.

Poi & Parkinson's

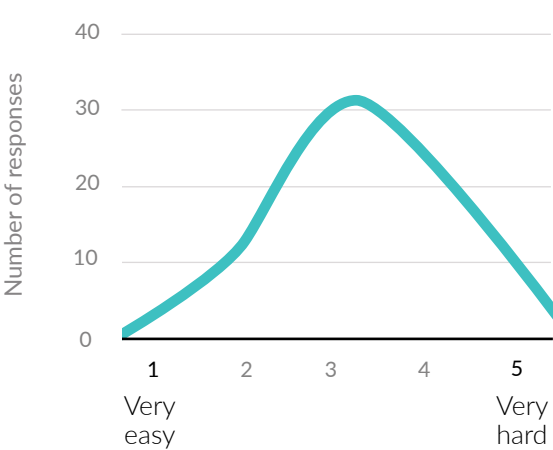
PARTICIPANT SURVEY AND ANECDOTAL STAFF COMMENTS

In 2020 the first exploratory study on poi and Parkinson's was launched across three facilities: Inn Klinikum Altötting und Mühldorf (Germany) under the direction of Certified SpinPoi Instructor and Geriatric Carer Anja Lohoff, Parky Moves (New Zealand) under the direction of Certified SpinPoi instructor and Specialist Group Exercise Instructor Hilary Williams, and The Parkinson's Exercise & Wellness Center (USA) under the direction of the center's Founder Sarrisa Curry. A self-reported questionnaire (attached at the end of this document) was administered to participants immediately after each poi session. A total of 39 participants took part, 10 of whom participated in more than one poi session.

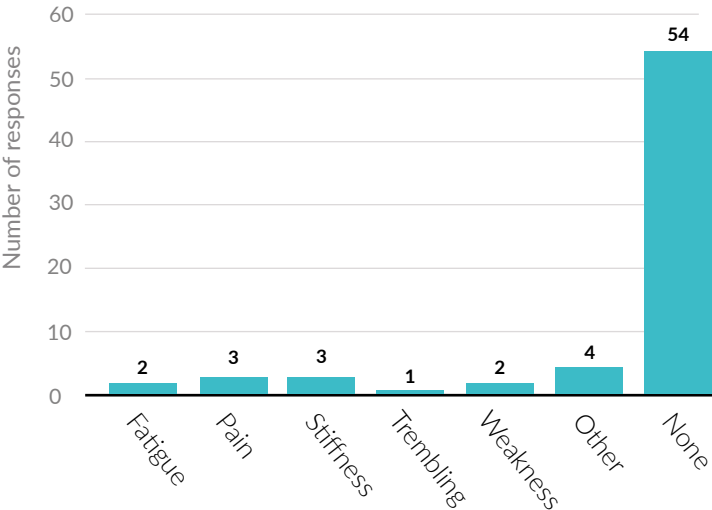
Do you think poi could be helpful for improving your quality of life?



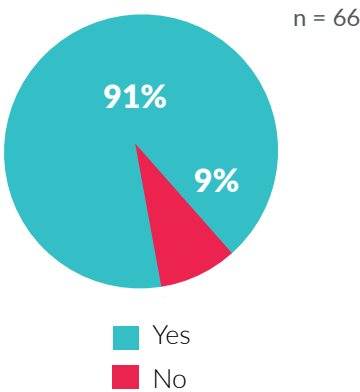
How easy or hard did you find playing poi?



Did any of these things limit you from taking part?

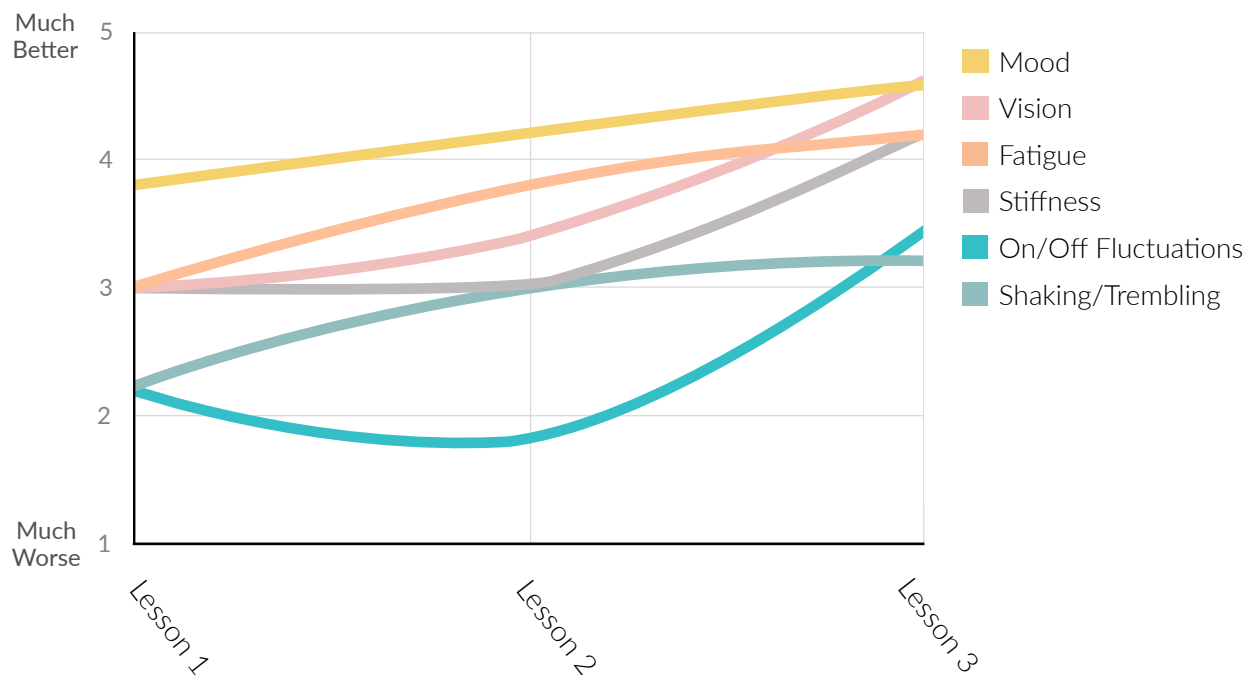


Would you like to do poi again?



Poi & Parkinson's Cont.

Five patients at Inn Klinikum Altötting und Mühldorf participated in 3 poi sessions during their stay. After each session, they were asked: "While practicing poi, please rate if each item below got much worse (1), got somewhat worse (2), stayed about the same (3), got somewhat better (4), or got much better (5)." The graph below represents their responses at each time point, showing an upward trend of improvement in all symptoms during poi play over time.



Especially in Parkinson's patients, it is sometimes unbelievable to observe how their stiffness dissolves during poi play, how their focus is directed towards the poi and how accompanying symptoms – such as trembling in the hands or restlessness in the legs – steadily decrease or simply fade away. I've also noticed how the mood of the patients improves through the movement to the music, which in turn leads to the stabilization of the general condition. From simple swinging to practicing some basic poi movements standing to dancing together, the patients enjoyed the lessons and are very happy to have a new hobby they can practice at home with their family.

- Anja Lohoff, Certified SpinPoi Instructor and Geriatric Carer at Inn Klinikum Altötting und Mühldorf

Poi & Parkinson's Cont.



“ My clients found poi sessions to be mentally and physically taxing, and noticed an increase of Parkinson's symptoms during poi play such as tremor, anxiety, instability, gait complications and even speech. Some noted the feeling of a heavy thick brain fog. After resting, clients reported an unusual heightened awareness of their movement, including reciprocal arm movement through the gait pattern, heel to toe strike, and step width. This phenomenon lasted for up to 2 days post session. After several poi sessions clients were able to quickly move into doing more complex poi movements - plasticity changes were evident. Poi has layers upon layers of skill to learn and master. We have barely scraped the surface at our Center and have been amazed at the outcomes. I am very excited to see what further research will show for the Parkinson's community.

- Sarrisa Curry, Founder of The Parkinsons Exercise and Wellness Center



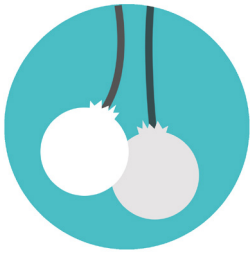
“ The uniqueness of poi was the biggest reason my clients enjoyed it, as it's so different to other activities we do in class (boxing and dance based). There was lots of laughing. I noticed while doing a relatively easy poi move and then adding a step or balance task, both tasks became easier. I also noticed a minor increase in concentration exhaustion after poi. In addition, anyone not familiar with poi will find it tricky, and for this reason it's leveling for Parkinson's folk. My volunteers, non-Parkinson's participants, and kids all found it an equal challenge. The feeling that we were “all in it together” was nice. I felt a couple of chaps were getting frustrated with the poi, so I stopped it for a week, and IT WAS THEM who were asking “Where are the pomp poms!?” and clearly were missing the challenge.

- Hilary Williams, Founder of Move Good Now and Specialist Group Exercise Instructor



Beyond the Science

In addition to the scientifically proven health benefits, poi has a myriad of qualities that make it an excellent tool for keeping the mind and body engaged.



Fun

Fun is an important quality for a therapeutic tool: if something is fun, you just want to do it! Plus play has profound health benefits.



Adaptable

Poi is adaptable for all ages and abilities (e.g. poi can be heavy or light, done sitting or standing, with simple or complex movements).



Cost Effective

Poi doesn't require complex equipment or technology, making it a cost effective solution for individuals and organisations.



Creative

There are infinite possibilities for unleashing your creativity through making poi as a craft activity and exploring different poi movements.



Body & Mind

The mind is like the body in that if you don't use it, you lose it! Poi has been scientifically proven to engage and benefit both.



Social

Group poi classes provide social connections and camaraderie, which are especially important for combating loneliness as we age.



Integratable

Poi is easy to integrate into daily life and into existing exercise and well-being programs as it can be done anywhere, any time.



Māori Taonga

Practicing poi is an excellent opportunity to broaden our cultural awareness by actively engaging with a precious Māori taonga (treasure).

People across the globe are experiencing the power of poi...

“ I had a stroke to the right side of my brain effecting the left side of my body. I just about lost all coordination in my left hand, but spinning poi has gotten my arm motion and finger coordination back in check. I can open and close my hand again, and move my arm all the way around in circles.

- Misty

“ Poi was an important healing force for me. It wasn't too physically demanding, yet it let me get range of motion and coordination at my own pace. It got me off the couch without hurting me, it cheered me up, it gave me a chance to laugh at myself a lot, and it was great for my confidence and mood. And SO fun.

- Robbie

“ [After learning poi] I noticed that my thinking had changed to a more positive tone and I felt my depression, stress and anxiety disappear. I also noticed my coordination improved, not to mention all the exercise I was getting on a regular basis.

- Erika

“ Now my bursitis in one shoulder is gone. My muscle memory, peripheral vision, coordination, physical exercise, stamina, and some chest and arm muscles have increased. Poi is also a great form of mediation. I will be a poi boy for life.

- Neil

**It's time for the world
to follow New Zealand
back to the practice of
poi, and forward to a
healthier future.
Ka mua, ka muri.**



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Poi and Parkinson's Self-Reported Questionnaire

Class: _____ Duration of class: _____

During the lesson were you (circle one): Sitting Standing Combination sitting/standing

While practicing poi, please rate if your symptoms for each item below were much worse (1), about the same (3), or much better (5).

	<i>Much Worse</i>				<i>Much better</i>
	1	2	3	4	5
Shaking/trembling					
Stiffness					
Fatigue					
Mood					
Vision					
On/off fluctuations					
Balance (leave blank if sitting)					

How easy or hard did you find playing

1 2 3

Very easy

Did any of these things limit you from

Pain Vision Problem

Trembling Stiffness

How easy or hard did you find playing poi?

1 2 3 4 5

Very easy *Very hard*

Did any of these things limit you from taking part (circle all that apply)?

Pain Vision Problems Weakness

Trembling Stiffness Fatigue

Other: _____

Do you think poi could be helpful for improving your quality of life?

1 2 3 4 5

No, not helpful at all *Yes, very helpful*

Would you like to do poi again?

Yes No

Any additional comments?