Reflexology Research Program Case Study - Peripheral Neuropathy

About the program

Reflexions is a Hobart based reflexology and massage business operated by therapist and professional reflexologist, Tiziana Hill.

Her Reflexology Research Program is offered to clients to help reduce pain and symptoms associated with a range of conditions, measuring the effectiveness of weekly reflexology treatments. Clients pay a reduced hourly fee for six to eight treatments and consent to measure and document their progress using a Visual Analog Scale and simple questionnaire. Pseudonyms have been used in all case study reports for the privacy of the clients.

The program commenced in 2020. It is not associated with any university or research organisation. Data and observations are collected for the purpose of preparing case studies and the true names of participants are not revealed.

Case Study 1: The effect of reflexology treatments for reducing the symptoms of peripheral neuropathy

1. Peripheral neuropathy

According to the Mayo Clinic, peripheral neuropathy results from nerve damage leading to pain, numbness and weakness, most often in the feet and hands.

Its causes range from injury and infection to autoimmune conditions and cancer chemotherapy treatments. Diabetes can also cause peripheral neuropathy.

In some cases peripheral neuropathy reduces or improves if it is caused by a condition which can be treated, and the pain can sometimes be treated by medication.*

*Mayo Clinic, August 2022, *https://www.mayoclinic.org/diseases-conditions/peripheral-neuropathy/symptoms-causes*

2. Client

The client in this study was Ian, a 71 year old active retiree who came to Reflexions in 2020 seeking help for peripheral neuropathy in both feet. He had sought the help of his GP and specialists and found nothing provided relief for his symptoms. The condition was worsening and no further medical solutions were available.

The symptoms he experienced were pain, numbness and tingling which he described as “pins and needles”. He also presented with occasional edema (swelling) in the ankles, and most particularly around the right ankle.

Ian's medical history included colon cancer in 2015 which was successfully treated with chemotherapy.

The symptoms of peripheral neuropathy were chronic, having started after his recovery from colon cancer. The nature of the symptoms worsened over time and by June 2020 he was no longer able to play golf without experiencing considerable pain and discomfort.

Ian felt that his quality of life was deteriorating and his emotional state was beginning to suffer as a consequence. He played golf three times a week and cited this activity as essential to his health and wellbeing, both physical and mental. In recent months, the symptoms of peripheral neuropathy were making golf painful and unpleasant.

Other medical factors:

- Ian suffers from sleep apnea and uses a C-PAP machine to aid his sleeping, which he describes as good.

- Skin cancer on his left leg calf was diagnosed and surgically removed in August 2020, during participation in this reflexology program.

- Ian did not have diabetes or any other medical condition that could account for his peripheral neuropathy, other than cancer treatment five years earlier.

3. The treatments

We agreed to a program of six weekly treatments, using classic reflexology (Ingham) on the feet. Mid way through the program, this was extended to eight weeks due to ongoing improvements.

Eight treatments were given weekly, each Friday. Observations, changes in stress levels, symptoms and sleep were measured using a Visual Analogue Scale. The ten-point scale used was a linear measurement, with 10 indicating symptom/s unbearable and 1 as no pain.

The objective was to understand if foot reflexology could decrease or remove any of the symptoms of peripheral neuropathy and thus improve his quality of life.

4. Program Results

4.1 Stress

Ian's stress levels were measured before and after each treatment.

On treatment day 1, he rated his stress level as 8 out of 10, falling to 5 out of 10 at the end of treatment. On his second treatment day, he rated his stress level at 6 out of 10, falling to 2 out of 10 at the end of treatment. In weeks 3 to 8, his stress levels were either 3 or 4, falling to 2 at the end of treatments 3 to 7.

At the program's end, his stress level ended at 1 – no stress indicated.

4.2 Sleeping

Ian's sleep quality did not change during the program. He reported sleeping well and to the same degree as before the treatment.

4.3 Symptom changes

Edema

Although not likely linked to the peripheral neuropathy, in week 1 the edema in his right ankle was particularly pronounced and observable. The colours in his skin included red and purple colouring in the swollen area. This area was not treated or touched during the treatments. There was an instant reduction after week 1 treatment, with ongoing improvements over the next few weeks. He ceased to report on edema during the program as it was no longer an issue to him.

Pain and pins and needles

Ian reported at the start of the program that the feeling of pins and needles in his feet was at times extreme, often to the point of pain. Movement exacerbated these symptoms, and he reported often leaving the golf course after 18 holes limping and in pain.

Numbness

The numbness in the balls of both feet and over the top aspect was an ever-present symptom.

5. Weekly changes

At start of treatment in week 1, both numbness and the pins and needles pain were present. Half way through treatment he reported feeling like the pins and needles were being swept upwards and away as I worked over the ball of his feet (lung reflexes). At the end of session 1, the pins and needles were present but pain and stress had decreased. Symptom levels of 10 out 10 dropped to 7 at end of treatment, to 7 the morning after and returned to 9 by day 3.

At the start of week 2, Ian reported that there was on overall modest improvement in pain and the pins and needles in the few days after treatment, although by day 6, the final three holes at golf was undertaken with excruciating pain levels. He rated symptoms at 9 out of 10 at start, and 5 out of 10 at finish of treatment.

On his return in week 3, Ian said he had experienced "huge" improvement until day 6, when he "limped off the golf course". He reported 7 out of 10 at start of treatment and 2 at the end - no pins and needles and 'some' numbness.

In week 4 Ian said he felt much improved. Symptoms were 5 out of 10 (no pain) at start and 2 out of 10 at end. On days 1 and 3 he later reported 4 out of 10. On day 6 his feet were a "a little tender" before deteriorating during golf. After golf his feet subsequently improved to tolerable levels at a rate which he was pleased with.

In week 5, Ian reported that his new "normal" state was pain free. The numbness was present but at reduced levels, and virtually no numbness when lying down. Symptom rating started at 4 and fell to 3 out of 10 before and after treatment. Symptoms on day 1 was 3 and on day 3 they were 4 out of 10.

In weeks 6, 7 and 8 symptom reduction was sustained.

6. Client Observations

Ian made the following observations:

- The edema in his right ankle resolved over the first few weeks.
- The pain usually experienced when playing golf changed from pain to soreness around weeks 3-4, before dissipating.
- In weeks 5 and 6 the pins and needles stopped and did not return.
- The numbness was reduced to bearable levels around week 4-5, although at week 7 there was an 8 out of 10 spike.
- Ian felt the reflexology program was a life-altering success.

"This is feeling fantastic. Everything's mostly gone.
Even if the numbness stays like this, I am a happy man."

6. Conclusion

In this case study, it has been shown that classic foot reflexology treatments over an eight week period substantially improved the quality of life of this client by removing pain, pins and needles and by reducing stress and the numbness cause by peripheral neuropathy.

Since 2020, symptoms have largely retained their reported levels. The sense of pins and needles has not returned, the numbness remains unchanged and any incidents of pain are rare and short-lived. (January, 2023)