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The Effects of Reflexology on Chronic Back Pain

Introduction:

Chronic pain is defined as 1.) Long-lasting pain, with episodic, exacerbations, that may be felt in the back, one or more joints, the pelvis, or other parts of the body. 2.) Pain that lasts more than 3 months. 3.) Pain that lasts more than a month longer than the usual or expected course of an illness. Pain that persists after the tissue healing is complete. 4.) Pain that returns periodically every few weeks or months for many years.

Chronic pain is often described by sufferers as debilitating, intolerable, or disabling and may occur without an easily identifiable cause. Studies have shown a high correlation between chronic pain and depression or dysphoria, but it is unclear whether the psychological aspects of chronic pain precede or develop as a result of a person's subjective suffering. Chronic pain is the leading cause of disability in the U.S. (1)

Previous Literature:

A double-blind study conducted in Iran showed a significantly higher reduction in pain intensity scores in the reflexology group after the intervention as compared with the non-specific massage group. Finding that reflexology can be effective in reducing the severity of chronic back pain, i.e. it is able to reduce pain from moderate to mild. (2)

Objective:

To determine the benefits of reflexology given to an individual with chronic back pain.

Subject:

A 71 year-old Caucasian female suffering from chronic back pain. Initially diagnosed with scoliosis as an adolescent, Subject now has spinal stenosis. In January 2014 surgery was performed to place rods on either side of the spine from T-10 to L-5. In July 2016 surgery for a total hip replacement of the right side was performed. A bulging disc between C-4 & C-5 was discovered sometime in 2015.

In the pre-session interview, the Subject disclosed that she received traction of the cranium to relieve pain from bulging disc in the cervical spine for one year in 2015. The bulging disc was thought to be a cause of the migraine headaches she endured. No dramatic improvement was seen. She has kept to a bi-weekly Pilates-inspired physical therapy program for the past three years, as well as receiving therapeutic massage for one hour bi-weekly for the past two years. Both forms of manual therapy are able to bring a degree of relief to the subject for a varying period of days (3-5 days at a time). She participates in gym activities 3 days a week, activities include, bicycling, weight training and balance. Lastly, she takes Imitrex spray for migraines every morning, Atenolol for a pre-existing childhood heart condition, and Culturelle probiotics; and in the evening, Eliquis and baby aspirin for the heart condition, as well as Tylenol/Tylenol with Codeine if pain is severe.

Since the hip replacement the subject has reported a lesser degree of pain in general area. Her left shoulder and neck are chronically contracted and the area is a constant source of pain. She is occasionally awoken from sleep from pain throughout the back, only sometimes finds relief by shifting positions or taking a pain reliever.

Treatment Plan:

The protocol that will be used to address the Subject's concern is as follows: Reflexology session once a week for six weeks beginning on November 26, 2016 and ending on December 30, 2016, lasting for one hour, and falling on either a Friday or Saturday morning. The reflex points to address are the spine, the shoulder/shoulder line, low back muscles and hip, with the focus on the feet and addressing main points on the hands. No other modality will be used during this study. Subject has agreed to keep a simple diary to document daily activities and any noticeable changes throughout the six-week period.

Session 1: November 26, 2016

Subject reported pre-session having a headache that has been on and off for two weeks, as well as her right hip and left shoulder hurting.

Post-session, she reported feeling better but not fixed (in a jovial tone).

Areas of noted congestion by therapist:

Plantar: Zone 5, bilateral shoulder. Zone 2-4, bilateral shoulder line.

Dorsal: Zone 1, left shoulder.

Lateral foot: Distal malleolus, bilateral.

Medial foot: Distal malleolus, right.

Palmer: Zone 5, bilateral shoulder. Zone 2-5, bilateral shoulder line. Zone 1, bilateral proximal phalange.

Areas of noted sensitivity by client:

Plantar: Zone 2 & 3, bilateral shoulder line.

Dorsal: Zone 2 & 3, bilateral shoulder line.

Lateral foot: Distal malleolus, right.

Session 2: December 3, 2016

Diary notes showed that subject was less creaky/achy for three days and migraines dissipated following the first session but left shoulder continues to hurt as well as left hip.

Subject reported pre-session that her left hip was hurting but that she had no headache.

Post-session, she reported feeling better but not sixteen yet (in a jovial tone).

Areas of noted congestion by therapist:

Plantar: Zone 5, bilateral shoulder. Zone 2-4, left shoulder line. Zone 2, right shoulder line.

Dorsal: Zone 1, left shoulder line. Zone 2 & 3 left shoulder line.

Lateral: Right spine, lumbar - thoracic. Left spine, thoracic. Distal malleolus, bilateral.

Palmer: Zone 5, bilateral shoulder. Zone 2-5, bilateral shoulder line. Zone 1, proximal phalange.

Areas of noted sensitivity by client:

Plantar: Zone 2, bilateral shoulder line.

Palmer: Zone 3 & 4, left shoulder line.

Session 3: December 9, 2016

Diary notes showed that subject was free of migraine symptoms for six days following the second session.

Subject reported pre-session that she helped move furniture the past two days and that her left hip and shoulder were really hurting.

Post-session, she reported feeling better but not quite sixteen (in a jovial tone).

Areas of noted congestion by therapist:

Plantar: Zone 5, bilateral shoulder. Zone 2 & 3, bilateral shoulder line.

Lateral: left shoulder. Distal malleolus, bilateral.

Medial: Left spine, cervical - thoracic. Right spine, thoracic - sacrum.

Palmer: Zone 5, left shoulder. Zone 2-4, left shoulder line. Zone 1, right shoulder line.

Dorsal: Zone 5, left shoulder.

Areas of noted sensitivity by client:

Lateral: Distal malleolus, right.

Session 4: December 17, 2016

Diary notes showed that subject was free of migraine symptoms for six days and was feeling less achy than usual. After several days, left shoulder hurt real badly and sleeping was difficult.

Subject reported pre-session that her left shoulder was hard like a brick and hurt.

Post-session, she reported feeling better; more relaxed.

Areas of noted congestion by therapist:

Plantar: Zone 1-3, bilateral shoulder line. Zone 5, left shoulder.

Lateral: Zone 5, between shoulder line and pelvic line, Right. Zone 5, pelvic line, Left.

Distal malleolus, bilateral.

Medial: Left spine, thoracic - coccyx. Right spine, lumbar - thoracic.

Palmer: Zone 2-5, left shoulder line.

Areas of noted sensitivity by client:

Palmer: Zone 2-4, left shoulder line.

Session 5: December 23, 2016

Diary notes showed a plateau in relief of pain; Subject reported discomfort at her neck, shoulder, and low back.

Subject reported pre-session having a slight headache and left shoulder hurting, as well as her low back.

Post-session, she reported feeling much better (in a jovial tone).

Areas of noted congestion by therapist:

Plantar: Zone 5, left shoulder line. Zone 2-4, right shoulder line.

Medial: Distal malleolus, bilateral. Thoracic spine, bilateral.

Palmer: Zone 5, bilateral shoulder. Zone 5, left waist line.

Areas of noted sensitivity by client:

Plantar: Zone 4, left shoulder line. Zone 2 & 3, right shoulder line.

Medial: Right cervical spine. Left thoracic spine.

Session 6: December 30, 2016

Diary notes showed a spike in pain, left shoulder and low back left side primarily.

Subject reported pre-session having gone through an emotional strain, and that she had to have an MRI scan the day before. She was experiencing a higher than usual level of pain.

Post-session, she reported feeling better and spirits were better.

Areas of noted congestion by therapist:

Plantar: Zone 5, bilateral shoulder. Zone 1-5, left shoulder.

Lateral: Distal malleolus, bilateral.

Palmer: Zone 5, bilateral shoulder.

Areas of noted sensitivity by client:

Plantar: Zone 5, right shoulder. Zone 1, right shoulder line.

Lateral: Distal malleolus, bilateral.

Palmer: Zone 3, left shoulder line.

Results:

During the course of this study the subject acknowledged that she felt relief from migraines; the intensity, frequency, and length had all improved. Although, she feels her left shoulder will always hurt, she is trying to avoid surgery with alternative therapies. Throughout this study I noticed the areas marked with congestion relating to my subject's complaints begin to reduce and become less evident. By the sixth week the Subject had decreased pain levels and less symptoms of pain.

Reflexology was shown to be an effective tool in relief from chronic back pain in this study, By supporting the body and promoting relaxation, an individual's state of well-being was shown to improve.

Recommendation:

To continue supporting the body and its systems, a one hour weekly or bi-weekly reflexology session is recommended. The focus should remain the same points of the musculoskeletal system; the neck, shoulder/shoulder line, and low back/hip and the central nervous system; the spine.

Conclusion:

It cannot be concluded from this study alone the effectiveness of reflexology on the general population. What can be taken from this study is that reflexology helped this subject with her pain management. This case and others like it warrant a need to continue the study of reflexology and its effectiveness on chronic back pain and the symptoms attributed to this dysfunction.

Chronic back pain is a serious condition that affects many people, and symptoms can be severe and debilitating. Americans spend at least \$50 billion each year on back pain medications. (3)

About 80 percent of adults experience low back pain at some point in their lifetimes. Men and women are equally affected by low back pain, which can range in intensity from a dull, constant ache to a sudden, sharp sensation that leaves the person incapacitated. Pain can begin abruptly as a result of an accident or by lifting something heavy, or it can develop over time due to age-related changes of the spine. Sedentary lifestyles also can set the stage for low back pain, especially when a weekday routine of getting too little exercise is punctuated by strenuous weekend workout. (4)

According to the Agency for Healthcare Research and Quality (AHRQ), in 2007 a total of \$30.3 billion was paid to providers, such as doctors, physical therapists and others, as well as to pharmacies. The Journal of the American Medical Association reports that spine care costs reached \$85.9 billion in 2005. (5) The AHRQ reports that on an individual basis in 2007, costs for spine treatment averaged about \$1500-\$1600 per person. (5)

Resources:

- (1) Taber's Medical Dictionary
- (2) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3696219/>

- (3) <https://www.acatoday.org/Patients/Health-Wellness-Information/Back-Pain-Facts-and-Statistics>
- (4) <https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Low-Back-Pain-Fact-Sheet>
- (5) <https://www.verywell.com/back-pain-statistics-297002>