Type 2 Diabetes and Reflexology
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Subjects Age: 63
Subjects Occupation: Cashier

Definition
Type 2 diabetes is described as a mild, sometimes showing no evidence, form of diabetes mellitus, characterized by reduced tissue sensitivity to insulin and sometimes by weakened beta cell function, increased in severity by obesity and often treatable by diet, exercise, and medications.

Research
Case studies done in several institutions in China, including First Hospital, affiliated to Beijing Medical University, between 1993-2003 concluded that professional foot reflexology and self-reflexology was effective in the relief of diabetes and complications associated with diabetes. Some patients, after two years of professional foot reflexology, along with their daily medication, stopped medication and remained in good health. Two percent of the cases studied had no changes. Professional foot reflexology has been proven to be effective in either stabilizing or decreasing blood sugar levels, and improving pulse rate, general fatigue and foot fatigue.

Treatment Plan
Reflexology and the subject's daily medications were used in this study. My focus was on the reflexes to the endocrine system to help in blood circulation, the reflexes to the nervous system to help homeostasis in the body, the reflexes to the adrenal glands to help release hormones to control sugar levels and the reflexes to the lymphatic system to help clean the body of unwanted toxins. The best time frame for the subject was, one-hour sessions on Wednesdays and Saturdays, at 6:00 pm. for four consecutive weeks for a total of eight sessions.

Subject
The subject is a female, age 63, who was diagnosed with type 2 diabetes in January 2009. She is taking prescription Januet and cinnamon bark, 1 time a day in the morning, daily. She says that she hasn't noticed any changes since she started taking her medication in January. Subject states she has stinging and burning and pain in the plantar surface of her feet. She states her blood circulation seems fine and that she stands on her feet 6-7 hours per day, five days per week while she works. She asserts that she walks 1 block, two times a week and states she's too tired and her feet are too sore for her to do additional exercise. She reports that she has lost ten pounds since
December of 2008 from cutting down on sugar in her diet and that she has been eating healthier and watching what and how much she eats. Subject also stated she gets up frequently during the night to urinate. Subject says her arms, shoulders and hips are often sore after work. Subject's goal is to be more energized, less tired, and she wants her feet to stop hurting. She has never had a professional reflexology session before this case study.

SESSION ONE:

Subject reported she was more relaxed and her feet weren't as sore as usual. She was tense and talked a lot throughout the session. Subject reported that her feet between diaphragm and pelvic lines were very sensitive and very tight. Metabolic waste deposits, the size of a quarter were present in this area. No change in deposits at session-end. Subject shared that she was hesitant on receiving reflexology but after her first session she said she was looking forward to the next session. She also said reflexology was a lot different than she expected.

SESSION TWO:

Subject's daily log indicates she had restless sleep the night following the first session. Sleep improved the next two nights. She reports no pain in her hip and not enough pain in her feet to mention. She reports that her energy level is moderate to high. She also reports waking up less frequently. Subject is doing spring-cleaning and doing more lifting and stretching than normal so she is a little stiff and sore from that.

SESSION THREE:

Subject reports she was a little stressed today and her feet were sore. After session, she stated that she was less tense and that her feet felt a little better. She reports restless, interrupted sleep on night of session that improved by second night. She reports that the pain in her feet is still the same. “Pain isn't too bad in the morning but gets worse by days end”. She says her energy level is moderate.

SESSION FOUR:

Subject claims she is doing better since her first session. She tells me that her feet feel good after sessions. She reports being less stressed and that she seems to sleep better after the day of her session. She says she still wakes up during the night but not as often. She shares that her hip hasn't bothered her since after her second session. Both therapist and subject noticed she gets stressed at her job and this is when she loses energy. Subject is working on relaxing more after work by reading on a daily basis.

SESSION FIVE:

Subject claims she is getting some sound sleep but that her sleep is still interrupted. She asserts that she has no pain in her hip. The pain on her plantar surface zone one and five on the shoulder line is from hardened skin/callous, as diagnosed by a doctor years ago. She reports that the pain
in the arches of her feet has decreased. Metabolic waste deposits have also decreased to the size of a nickel. She said her shoulders and back area between her shoulder blades were hurting her today. She tells me that she worked additional hours this week and that her energy level is moderate to high in the morning but decreases by days end.

SESSION SIX:

Subject reports she had some hip and shoulder pain today. She said it started during work. Her daily log reports sleep habits aren't changing much but she is working on ways to improve that (reading in evening to calm herself, restricting liquid intake after 7PM). Subject is more comfortable and relaxed during session. She was experiencing itching in her feet during session. Pain in the arch of her feet is moderate. The tenderness in arch of feet has decreased. Her daily log reports pain is low in the morning and increases as the day goes on. Her energy level is improving slowly. She does have increased energy in the morning now. Subject’s weight is fluctuating within five pounds. She asserts she is still watching how much and what she eats.

SESSION SEVEN:

Subject reports she has more energy in the morning and afternoon after receiving reflexology. She reports her feet are still tender in areas where hardened skin/calluses are. She claims her foot pain in the arches of her feet has decreased. The metabolic waste deposits in the arch area are decreased to dime size. She says her sleep is still interrupted but not as often as when we first started reflexology and seems to be better the two days after her sessions. She reports no pain in her hip at this time. She states her shoulder pain is moderate today.

SESSION EIGHT:

Subjects daily log reports pain in feet where hardened skin/calluses are is not changing. She reports no pain in the arches of her feet or in her hip. The metabolic waste deposits in the arches remain at the size of a dime. She says her energy level was increased after last session. She reports increased pain in shoulder today that she attributes to lifting too much at work. She said she was relaxed more and less tense after previous session. She says her sleep has been fair to okay and that she still wakes up two to three times per night. Her feet twitched during the session and she said she had some itching in toes.

**Daily Log Comparisons**

<table>
<thead>
<tr>
<th></th>
<th>Prior to study</th>
<th>Post study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain in hip</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Pain in feet</td>
<td>4 (upon rising)</td>
<td>2 (upon rising)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 (after working all day)</td>
</tr>
<tr>
<td>Energy level</td>
<td>low</td>
<td>medium</td>
</tr>
<tr>
<td>Nightly waking occurrence</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
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Summary

The subject was uncertain as to what reflexology was all about in the beginning. After receiving her first session, she looked forward to receiving her next sessions. She noticed her feet felt considerably better after receiving reflexology. As the sessions progressed, she relaxed more compared to her first session, when she talked throughout the whole session. She was less tense during her sessions and she allowed me to apply range-of-motion techniques without her “helping” me. The subject’s hip pain was eliminated after the first session. Although she did aggravate it at one point during the case study, the pain was alleviated during her next session. She has no pain in her hip to date. Her sleep habits remain the same. Sleep for her is interrupted and has been for at least the last five years that she can remember. She admits to sleeping with five cats on her bed and states that she will not change that pattern. She reports she does rest and relax better the days following her reflexology session. Subject also reported her feet, shoulders and hip are better with reflexology when she is not working. Fatigue and tension build quickly throughout the day when she works. We both agree she gets most of her stress and tension from her job. The subject is still taking her medications, Januet and cinnamon bark 1/day in the morning. She reports she has lost 2 pounds since the study began. She is still monitoring her diet and exercise. Subject’s energy levels increase following her sessions. She stated she would like to continue reflexology sessions if her schedule will permit it. She said even if she can receive one or two sessions a month she thinks it would make a difference in her well-being. In my opinion, the sessions gave the subject an escape period in which to relax. I also think it helped her release tension that she's built up over time and was unable to release any other way.

Subject’s glucose reading before the series of reflexology sessions was at 267. After her case study her glucose registered 128. Her doctor stated that he has never seen a patient's results change so dramatically before. He is keeping her on her medication for a little longer because her glucose level is still a little high. He told her he will not take her off her medication because she is border line diabetic now.