



THE USE OF CLINICAL HYPNOTHERAPY TO IMPROVE OUTCOMES IN PATIENTS WITH TYPE 2 DIABETES

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A B S T R A C T

Objective

The medical education and practice of medicine have been focused on medications, surgeries, and other physical modalities of treatment for decades. Despite evidence showing that the subconscious mind is effective for influencing the general health of the body, the utilization of the subconscious mind has been largely absent in medical training and practices. Clinical hypnotherapy is an effective method in which the unconscious level of the mind can be accessed and potentially utilized for healing physical ailments.

Research Design and Methods

This pilot study was designed to quantitatively research the effect that Hypnotherapy has on processing blood sugar levels with type 2 diabetics. Participants were randomly assigned to a control group with clinical therapeutic treatments but without hypnotherapy sessions and other therapeutic treatment, and an experimental group that received 5 specially designed sessions of hypnotherapy to supplement their clinical therapeutic treatment. Baseline HgbA1C levels were obtained in both groups, and again at 3 and 6 months after the onset of the study. Daily blood sugars and responses to stressors were also measured and logged by all participants.

Results

All participants in the experimental group improved in handling daily stress and processing blood sugar. All control group participants experienced more difficulty in managing daily stress as well as experienced greater difficulty in processing blood sugar.

Conclusions

This clinical trial serves as a pilot study and provided statistically significant results that proper clinical hypnotherapy can be used as an important tool for the treatment of type 2 diabetic patients.

KEYWORDS

Clinical Hypnotherapy, Type 2 Diabetes

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INTRODUCTION

There are more than 340 million individuals around the world diagnosed with diabetes and that number is expected to grow over the next 20 years [1]. Diabetes remains the 7th leading cause of death in the United States [2].Clinical hypnotherapy, an assimilative therapy that incorporates hypnosis, may provide a means of improving patient outcomes for this chronic disease [3]. Although hypnotherapy has been found to reduce stress and increase mindfulness in recent studies [4-5], there is limited evidence on the use of hypnotherapy for use to supplement conventional therapy for diabetes. Clinical hypnotherapy, as evident in use for reducing stress and increasing mindfulness [4-5], addresses the subconscious mind of the individual as a means of improving physical ailments.

One of the most problematic diabetic complications that is also responsible for amputations is a diabetic foot ulcer [6-7]. Hypnosis has shown positive results in increasing peripheral blood circulation and decreasing diabetic foot problems [8]. Also, mind-body interventions for vascular complications of diabetes have been reported to be effective in relieving diabetic angiopathy together with biofeedback. In general, the efficacy of hypnosis looks promising in diabetic foot care [8]. Additionally, it has been mentioned in the literature that hypnotic suggestions may serve as a motivational coach and may be used effectively to alter beliefs and behaviors and hence serve as an ancillary method in the management of diabetes [9]. It is imperative that we expand upon the limited studies that have been done regarding hypnotherapy and its impact on diabetic blood sugar control.

This study addressed the lack of literature on the relationship between hypnotherapy and outcomes among diabetes patients. Specifically, in this quantitative experimental study, the effectiveness of the implementation of hypnotherapy on the blood sugar level of type 2 diabetic patients was measured over a period of six months.

Methodology

The overarching research question in this pilot study was: What is the possible impact of hypnotherapy on the blood sugar of type 2 diabetic patients? From this overarching research question, the subsidiary questions and hypotheses were:

Q1: To what degree can the subconscious mind resolve the root cause of type 2 diabetes?

Q2: To what degree can the pancreas begin to properly function and normalize blood sugar?

Q3: To what degree is the correlation between a traumatic event and the onset of Diabetes type 2 within two years of this event?

Q4: To what degree is the correlation between response to hypnotherapy and the number of years diagnosed with type 2 diabetes?

Q5: To what degree does hypnotherapy impact the response to life stressors?

Q6: To what degree is the impact on daily blood sugar and the HgbA1C in response to hypnotherapy?

Q7: To what degree is the experimental group able to reduce their diabetic medication?

Point biserial correlations and repeated measures ANOVA were conducted to answer the research questions. The independent variables in this study were time point (baseline, 3-month, and 6-month), group (hypnotherapy experimental group or control group), the occurrence of a traumatic event within two years of diabetes diagnosis (yes or no), hypnosis response (yes or no), and length of time since diagnosis of type 2 diabetes. The dependent variables are responses to life stressors as well as any changes in daily blood sugar, HgbA1C levels, and need for medication. Five subjects were included in the experimental group for hypnotherapy and four subjects in the control group.

The aim of this experimental study was to determine the effect of hypnotherapy on the blood sugar level of type 2 diabetic patients over a six-month period. A total of five hypnotherapy sessions (one every 1-2 weeks) were given to the five participants in the experimental group. Documentation was made during each hypnotherapy session regarding each participant's response to the session as well as any other important observations. Releasing techniques were utilized to allow the participant's subconscious mind to release from the underlying problem causing diabetes. Responses to these techniques were documented. In addition, the participants receiving hypnotherapy sessions were asked to listen to a hypnotic subliminal CD daily for 30 minutes to reinforce the hypnotic suggestions given to them during their hypnotherapy sessions. They also read aloud positive affirmations daily and will read a hypnotherapy book between hypnotherapy sessions one and two, to better understand the mind-body relationship in self-healing.

Blood glucose levels, in the form of HgbA1C, were measured at three time points: baseline, 3month, and 6-month on both the experimental and control group participants. In addition, all participants were asked to keep a daily log of their fasting blood sugar levels as well as their responses to life stressors. Logs documenting these results were turned in on a regular basis.

The HgbA1C lab work was performed at an independent laboratory. The laboratory used was WestPac laboratory, a CLIA certified laboratory. The HgbA1C test was done on a calibrated, standardized machine. The stress questionnaire was done using a standardized form created by ISMA. The questions were simple and straightforward. Each question was a yes or no answer that was easy to interpret. The participant was given time to answer the questionnaire without any intervention by the researcher. The home blood sugar logs were turned in by the participant and required the person to know how to test blood sugar. Each participant was taught on the proper use of a home blood sugar monitor (glucometer). At the start of the study, each glucometer was verified for accuracy by comparing it to a blood draw for blood sugar.

Validation of Findings

The HgbA1C lab work was performed at an independent laboratory. The laboratory used was WestPac laboratory, a CLIA certified laboratory. The HgbA1C test was done on a calibrated, standardized machine. The stress questionnaire was done using a standardized form created by ISMA. The questions were simple and straightforward. Each question was a yes or no answer that was easy to interpret. The participant was given time to answer the questionnaire without any intervention by the researcher. The home blood sugar logs were turned in by the participant and required the person to know how to test blood sugar. Each participant was taught on the proper use of a home blood sugar monitor (glucometer). At the start of the study, each glucometer was verified for accuracy by comparing it to a blood draw for blood sugar.

The experimental group was given logs to document whether they listened to the Hypnotherapy subliminal CD daily, read aloud the affirmations daily, and read the Hypnotherapy book. It was a simple check mark indicating that they had done what was requested. This log was also reviewed at each Hypnotherapy session. There is no reason to believe that the participants incorrectly recorded their actions. There was no incentive or disincentive to put incorrect information.

Results

In both the control and the experimental groups, the HgbA1C level was obtained at baseline 3 and 6 months. Self-reported random blood sugar levels were also requested in order to see any trends in the changes in blood sugar levels between HgbA1C blood draws. The self-reported random blood

sugar levels were inconsistently taken except by one subject in the experimental group and two subjects in the control group. All participants were compliant with the HgbA1C measurements.

The control group had an increase in HgbA1C ranging from 0.1-0.4 at 3 months and 0.2-1.2 at six months. An increase in the HgbA1C indicates an increase in the overall blood sugar levels, which indicated an overall worsening of type 2 diabetes.

The experimental group had a decrease in HgbA1C ranging from 0.3-1.8 at 3 months and 0.5-2.0 at 6 months. A decrease in the HgbA1C indicates an overall decrease in the blood sugar levels, which indicated an improvement in type 2 diabetes. As reflected in Figure 1, the amount of reduction in the HgbA1C varied greatly between participants. The participants who read the hypnotherapy book, listened to the subliminal CD consistently, read the affirmations daily, and attended the hypnotherapy sessions in the shortest time frame, had the best response, i.e. had a larger decrease in their HgbA1C. The participant who did not read the book, did not listen to the CD regularly, did not read the affirmations, had the most life stressors currently, and had the most difficult time scheduling the hypnotherapy sessions, had the least reduction in HgbA1C.

Each participant in the experiment group showed some reduction in the HgbA1C level, representing a reduction in blood sugar levels for all 5 experimental group participants. Each of the five experimental group participants noted a decrease in their desire for sweets (known to elevate blood sugar) and an increased desire to eat the right foods. In addition, they expressed felt calmer and less likely to stress eat. The amount and quality of sleep were improved in all but one of the participants; good sleep has been correlated with better blood sugar control. The hypnotherapy sessions had a positive impact on the lifestyle of the five experimental group participants and on the overall blood sugar levels.

Figure 1 graphs the difference in the average changes in the HgbA1c at 3 and 6 months for both the control and the experimental group. Series 1 represents 3 months and series 2 represents 6 months. Zero represents the baseline average HgbA1C for both groups. A decrease in the HgbA1C represents an improvement in the overall blood sugar levels, and an increase in the HgbA1C represents a worsening of the overall blood sugar levels. The average increase in HgbA1C for the control group was 0.3 at 3 months and 0.4 at 6 months. The average decrease in HgbA1C for the experimental group was 0.92 at 3 months and 1.28 at 6 months.

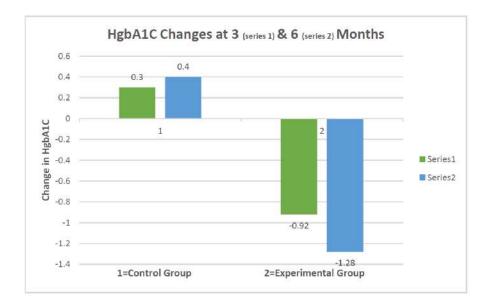


Figure 1

To What Degree Does Hypnotherapy Impact the Response to Life Stressors

All participants were given a 25 questionnaire at the beginning of the study and at the end of 6 months. The questionnaire used was from ISMA. The questionnaire had 25 yes or no answers that reflected the degree to which they were experiencing stress. A yes answer was given one point and a no answer was given 0 points. A higher total number correlated with a higher stress level. Figure 2 demonstrates the stress level changes in the control group. The control group had an average stress level of 8.75 at baseline, 10.25 at 3 months and 11.25 at 6 months. Each participant in the control group either had the same stress response level throughout the study or they had an increased level of stress by 1-6.

by the end of the study. It is important to note that this study was performed from September through February 2018 and encompassed several holidays. The holiday season for many tends to be stressful, so it is not surprising that the control group had a slight increase in their stress level. **Figure 2**

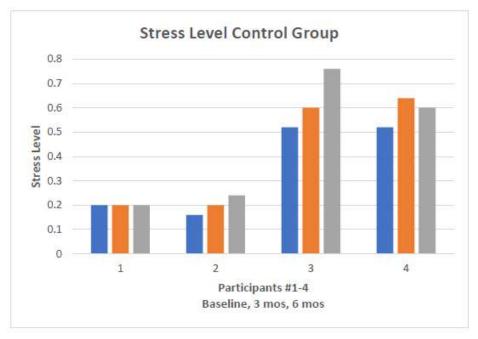
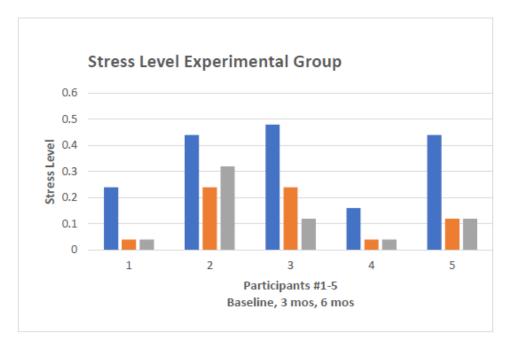


Figure 3 demonstrates the stress level changes in the experimental group. The experimental group had an average of 8.8 at baseline, 2.6 at 3 months and 3.2 at 6 months. Each participant in the experimental group had a decrease in their stress level from baseline at 3 and 6 months. Each person stated that they felt more relaxed and able to deal with day to day stressors. This response was seen starting after the first Hypnotherapy session and continued to improve throughout the five sessions. Figure 3



To What Degree is the Experimental Group Able to Reduce Their Diabetic Medication?

Each participant in this study was on medication for type 2 diabetes. One of the things that can indicate an improved blood sugar control is the ability to reduce medication. None of the participants in the control group were able to lower their medication use. One of the participants in the experimental group was able to decrease from two Metformin pills per day down to one pill and is planning on discontinuing this medication currently. Another of the experimental participants was able to stop taking one medication-Glimiperide. The other three participants in the experimental group still had elevated HgbA1C levels despite the improvement, thus they were unable to decrease the amount of medication that they were taking.

The fact that two people in the experimental group could decrease medication is significant, since it was a small study. It is not the common path for type 2 diabetic patients to decrease medication, rather the common thing is to slowly increase medication dosages and add medications as time progresses. This was a short time frame of 6 months and a small number of study participants. It is the conclusion of this study that Hypnotherapy does positively impact the ability of type 2 diabetics to decrease their diabetic medication.

DISCUSSION

No prior study has evaluated the relationship between the functioning of the pancreas and the emotional response to trauma or significant life stressors. Although the sample size in this study was small, having nine total participants, clear results were generated. The study was designed to be easily replicated by a professionally trained Clinical Hypnotherapist.

This study documented that hypnotherapy does therapeutically have an effect on blood sugar levels. Specifically, hypnotherapy assisted in the reduction of overall blood sugar levels and decreases the severity of type 2 diabetics. When hypnotherapy sessions were combined with a daily routine of listening to the *Overcoming Diabetes* subliminal CD and reading the affirmations combined with reading the *Power of Suggestion With Hypnosis* book, the effect was additive.

To What Degree Can the Subconscious Mind Resolve the Root Cause of Type 2 Diabetes?

In this study, 4 out of the 5 participants showed a positive response to the releasing techniques used during the hypnotherapy sessions. Having an 80 percent response rate to the releasing techniques reveals that the subconscious mind can resolve the root cause of type 2 diabetes in a large percentage of people. It is quite possible that there would have been a 100 percent response if the study had gone on for a longer period of time.

To What Degree Does the Pancreas Begin to Properly Function and Normalize Blood Sugar?

The control group participants did not show any decrease in their HgbA1C levels. Each one had a slight increase in their HgbA1C levels ranging from 0.1-0.4 at 3 months and 0.2-1.2 at 6 months. The average increase was 0.3 at 3 months and 0.4 at 6 months. This increase in HgbA1C indicates that their pancreas is not functioning properly and is functioning less properly as time progresses. In contrast, each of the 5 experimental group participants had a decrease in their HgbA1C levels. The decrease ranged from 0.3-1.8 at 3 months and 0.5-2.0 at 6 months. The average decrease was 0.92 at 3 months and 1.28 at 6 months. The decrease in the HgbA1C, it shows that the pancreas is beginning to function properly and normalize the blood sugar.

To What Degree is the Correlation Between a Traumatic Event and the Onset of Type 2 Diabetes Within Two Years of This Event?

All nine of the study participants experienced a significant stressor within two years of the diagnosis of their type 2 diabetes. These events ranged from moving a far distance, financial issues, job changes, significant illnesses in themselves or family members, and serious issues with close family members. This indicated that there was a correlation between a traumatic event and the onset of type 2 diabetes within two years of the event. Since emotional, traumatic events impact the subconscious mind, this shows that the subconscious mind affects how the pancreas is functioning. Thus, the subconscious mind can cause the pancreas to function improperly causing type 2 diabetes, and therefore, the subconscious mind can resolve it as well.

To What Degree is the Correlation between Response to Hypnotherapy and the Number of Years Diagnosed with Type 2 Diabetes?

The conclusion of this study is that there is no significant correlation between the response to hypnotherapy and the number of years diagnosed with type 2 diabetes. Hypnotherapy can result in a response for type 2 diabetics no matter how long they have been diagnosed. The degree that the person is compliant with the treatment plan seems to correlate more with the response to hypnotherapy rather than the number of years diagnosed with type 2 diabetes.

To What Degree Does Hypnotherapy Impact the Response to Life Stressors

The experimental group had an average of 8.8 at baseline, 2.6 at 3 months, and 3.2 at 6 months. Each participant in the experimental group had a decrease in their stress level from baseline at 3 and 6 months. Each person stated that they felt more relaxed and able to deal with day to day stressors. This response was seen starting after the first hypnotherapy session and continued to improve throughout the five sessions. When stressful events occurred in their lives, they all felt that they could handle the situation much more easily than before. Four out of five of the participants in the experimental group also noted that they were sleeping more peacefully. These effects stayed with the participants even at 6 months, several months after their last hypnotherapy session.

The control group in this study showed that stress levels typically increased over the holiday season. The experimental group showed that hypnotherapy has a significant impact on the response to life stressors. Five hypnotherapy sessions resulted in a significant reduction in stress level and gave all the participants a feeling of calm and the ability to handle day to day life in a more productive manner.

To What Degree is the Impact on Daily Blood Sugar and the HgbA1C in Response to Hypnotherapy?

Only one person in the experimental group and two participants in the control group were compliant with daily blood sugar testing. Each participant in the experimental group had a decrease in the HgbA1C. The average decrease in HgbA1C was 0.92 from baseline at 3 months and a decrease of 1.28 from baseline at 6 months. This is quite a significant difference since the use of medication tends to lower the HgbA1C by 0.5-1.2 and this amount of reduction is considered highly successful. The fact that hypnotherapy resulted in an average decrease of 1.28 in the HgbA1C of the experimental group suggests that hypnotherapy positively impacts the daily blood sugar and as a result, reduces the HgbA1C.

To What Degree is the Experimental Group Able to Reduce Their Diabetic Medication?

Each participant in this study was on medication for type 2 diabetes. None of the participants in the control group were able to lower their medication use. One of the participants in the experimental group was able to decrease from two Metformin pills per day down to one pill and is planning on discontinuing this medication currently. Another of the experimental participants was able to stop taking one medication-Glimiperide. The other three participants in the experimental group still had elevated HgbA1C levels despite the improvement, thus they were unable to decrease the amount of medication that they were taking. The fact that two people in the experimental group could decrease medication is significant since it was a small study. It is not the common path for type 2 diabetic patients to decrease medication, rather the common thing is to slowly increase medication dosages and add medications as time progresses. This was a short time frame of 6 months and a small number of study participants. It is the conclusion of this study that Hypnotherapy positively impacts the ability of type 2 diabetics to decrease their diabetic medication.

CONCLUSION

The results of this study demonstrate a reduction in the blood sugar of type 2 diabetics using hypnotherapy. This effect appears to be enhanced when combined with the daily listening of the hypnotherapy CD, twice-daily use of the affirmations, and reading the hypnotherapy book. Each of the participants also had a significant reduction in stress levels and an increase in their quality of life. These benefits continued for the duration of the study, and three months after the end of the last hypnotherapy session.

This study demonstrates that hypnotherapy is a safe and effective treatment for type 2 diabetes. It is also effective at reducing stress and enhancing the quality of life. This comes with no negative side effects, unlike the use of medications. Hypnotherapy can result in the body recovering completely and having the pancreas function normally, negating the need for any dangerous medication. It is recommended that hypnotherapy be offered to all type 2 diabetics as a treatment modality. The hypnotherapy sessions must be provided by a professionally trained Clinical Hypnotherapist. The correct environment and hypnotic scripts are critical for the success of hypnotherapy. Hypnotherapy should be provided in a clinical environment using evidence-based techniques.

This study sample was small, and it is recommended that additional studies be conducted with a larger number of participants. Another recommendation is to have a longer study. This study was conducted over a period of six months. It would be beneficial to conduct a study over 2-5 years to evaluate the complete resolution of type 2 diabetes and the continued effect. Six months is not a long enough time for studying a chronic disease, such as type 2 diabetes. A longer study period would be better able to answer the question about the possibility for participants to decrease or stop taking medication as well as demonstrate the successful long-lasting effect of Hypnotherapy.

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Appendix A: Forms Used During the Study



29995 Technology Drive Ste 201 Murrieta, CA 92563 Telephone: (951) 461-3021 Fax: (951) 461-8898

Participant Experimental Group Guidelines:

- 1. Fill out initial paperwork before the start of the study.
- Keep track of your stress level and any stressors in your life during the study. Record this and submit it weekly.
- Get Lab work drawn before your first Hypnotherapy session and at 3 and 6 months from the first lab draw.
- 4. Check your blood sugar at home on a daily basis. Keep track of your blood sugar on the log provided. Each day you are to check your blood sugar first thing in the morning before eating or drinking anything. You may also check your blood sugar more often if desired, but it is not required for this study.
- On a weekly basis please e-mail <u>backoffice@anoptimalvou.com</u>, or drop off in person, your blood sugar log and stress level log. (Suite 201, 29995 Technology Drive, Murrieta, CA.)
- Contact the office at 951-461-3021 or e-mail <u>backoffice@anoptimalvou.com</u> if you have any questions. For Hypnotherapy sessions you may contact our office to book them or contact Nancy Holguin directly at 951-206-6944.
- Listen to your Hypnotherapy CD for 20-30 minutes a day. Please log that you
 have listened to the CD. Bring this log to all Hypnotherapy sessions.
- Read your Hypnotherapy book to completion at least once. You may re-read the book as many times as desired.
- Read aloud the subliminal affirmations in the morning and evening each day during the study.
- 10. Schedule and keep your 5 Hypnotherapy sessions within the expected time frame.

Participant's No.:



Participant Control Group Guidelines:

- 1. Fill out initial paperwork before the start of the study.
- Get your lab work drawn at the start of the study and at 3 and 6 months after the start of the study.
- Keep track of your stress level and any stressors in your life during the study. Record this and submit it weekly.
- 4. Check your blood sugar at home on a daily basis. Keep track of your blood sugar on the log provided. Each day you are to check your blood sugar first thing in the morning before eating or drinking anything. You may also check your blood sugar more often if desired, but it is not required for this study.
- On a weekly basis please e-mail <u>backoffice@anoptimalyou.com</u>, or drop off in person, your blood sugar log and stress level log. (Suite 201, 29995 Technology Drive, Murrieta, CA.)
- Contact the office at 951-461-3021 or e-mail <u>backoffice@anoptimalyou.com</u> if you have any questions.

Participant's No.:

How to check your blood sugar at home

Equipment needed:

Glucometer and strips, lancet, soap, access to a sink, cotton ball, band aid, sharps container.

Step 1. Get ready

- Wash your hands with soap and warm (not hot) water.
- Follow all of the instructions that came with your glucometer. Be sure that your test strips were
 designed to be used with your meter and are not expired.

Step 2. Draw a drop of blood

- Prick the side of your finger with the lancet. Squeeze gently until you get a drop of blood.
 Squeezing too hard can cause an inaccurate reading.
- Put the lancet in a special sharps container. Ask your healthcare team where you can buy one or what you can use to throw away any sharps.
- If you are unable to get enough blood, hold your hand at your side and gently shake it.

Step 3. Place the drop on a strip

- Wait for the meter to show a message or symbol that it is time to test.
- Touch the test strip to the drop of blood. Apply a cotton ball to your finger to stop bleeding and place a band aid if needed.
- Be sure to follow the instructions included with meter.

Step 4. Read and record your results

- Wait for your meter to show the result.
- If you see an error message, recheck using a fresh strip and a fresh drop of blood. Also recheck if the glucose numbers aren't what you expect—too low without symptoms, or too high for no reason.
- Write the results in your log book.



Blood Sugar Log

Participant's No .: _____

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CD Listening Log

Participant's No.:

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Stress Questionnaire

Because everyone reacts to stress in his or her own way, no one stress test can give you stress levels. This stress test is intended to give you an overview only. Please see a Stress Management Consultant for a more in-depth analysis.

Answer all the questions that apply to you with a yes or no. Answer yes, even *if only part of the question applies* to you. Take your time, and please be completely honest with your answers.

		Yes	No
1	I frequently bring work home at night		
2	Not enough hours in the day to do all the things that I must do		\square
3	I deny or ignore problems in the hope that they will go away		\square
4	I do the jobs myself to ensure they are done properly		
5	I underestimate how long it takes to do things		\square
6	I feel that there are too many deadlines in my work / life that are difficult to meet		\square
7	Myself confidence/self-esteem is lower than I would like it to be		\square
8	I frequently have guilty feelings if I relax and do nothing	1	\vdash
9	I find myself thinking about problems even when I am supposed to be relaxing	1	\vdash
10	I feel fatigued or tired even when I wake after an adequate sleep		\vdash
11	I often nod or finish other people's sentences for them when they speak slowly	+	\vdash
12	I have a tendency to eat, talk, walk, and drive quickly	+	+
13	My appetite has changed, have either a desire to binge or have a loss of appetite/may skip meals		
14	I feel irritated or angry if the car or traffic in front seems to be going too slowly / I become		
15	very frustrated at having to wait in a queen If something or someone really annoys me, I will bottle up my feelings	+	+
16	When I play sports or games, I really try to win whoever I play	+	+
17	I experience mood swings, difficulty making decisions, concentration and memory is impaired		+
18	I find fault and criticize others rather than praising, even if it is deserved		+
19	I seem to be listening even though I am preoccupied with my own thoughts		\vdash
20	My sex drive is lower, can experience changes to menstrual cycle		\vdash
21	I find myself grinding my teeth		\vdash
22	Increase in muscular aches and pains especially in the neck, head, lower back, shoulders		\vdash
23	I am unable to perform tasks as well as I used to, my judgment is clouded or not as good as it was	1	
24	I find I have a greater dependency on alcohol, caffeine, nicotine, or drugs		1
25	I find that I don't have time for many interests/hobbies outside of work		<u> </u>
A yes	answer score = 1 (one), and a no answer score = 0 (zero). Totals		\square

Your Score:

Most of us can manage varying amounts of pressure without feeling stressed. However too much or excessive pressure, often created by our own thinking patterns and life experiences, can overstretch our ability to cope and then stress is experienced.

4 points or less: You are least likely to suffer from stress-related illness

5-13 points: You are more likely to experience stress related ill health either mental, physical, or both. You would benefit from stress management/counseling or advice to help in identified areas.

14 points or more: You are the most prone to stress showing a great many traits or characteristics that are creating un-healthy behaviors. This means that you are also more likely to experience stress and stress-related illness e.g. diabetes, irritable bowel, migraine, back and neck pain, high blood pressure, heart-disease/strokes, mental ill health (depression, anxiety, and stress). It is important to seek professional help or stress management counseling. Consult your medical practitioner.

Tips to help improve your score

Review the questions that you scored yes:

- · See if you can reduce, change or modify this trait.
- Start with the ones that are easiest and most likely to be successful for you.
- Only expect small changes to start with, it takes daily practice to make any change.
- Support from friends, family/colleagues will make the process easier and more enjoyable.
- · Professional help is always available, and your GP is a good place to start.

Participant's No.:



Weekly Stress Diary

· For information about stress diaries, visit: www.mindtools.com/rs/StressDiary.

Date / Time	Most Recent Stressful Event Experienced	How Happy Do You Feel Now? (Scale: 1-10)	Mood	How Effectively Are You Working Now? (0-10)	Fundamental Cause of the Event		Physical Symptoms Felt During Stressful Event	How Well Did You Handle the Event
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Hypnosis Questionnaire Port 1

To answer each question, merely circle yes or no. Try to give an answer to each question to the best of your knowledge.

1,	Have you ever walked in your sleep after your 18th birthday?	Yes	No
2.	During your teenage years, did you have any difficulty expressing your feelings to one or both of your parents?	Yes	No
3	Have you ever had a very highly emotional religious experience?	Yes	No
4	Do you usually look directly into a person's eyes when you are discussing an interesting subject?	Yes	No
5	Do you usually move close to a person when you are discussing an intersting subject?	Yes	No
6	Do you feel most people you meet for the first time do not moke any judgment on your appearance?	Yes	No
7.	In a group of people you have just met for the first time, would you feet uneasy about starting the conversation?	Yes	No
8.	Do you feel at ease about holding hands or hugging someone of the opposite sex while other people are present?	Yes	No
9.	If someone mentions that it feels very warm in the room you are in, do you begin to feel warm also?	Yes	No
10.	Do you ever have times when you do not hear what someone is saying because you are thinking about what you are going to say?	Yes	No
11.	Do you feel that you learn and understand better by seeing and reading than by hearing?	Yes	No
12.	If you attend a new class or lecture, do you feel at ease about asking questions in front of the group?	Yes	No
13.	When expressing your ideas, do you find it important to tell all the details leading up to the subject so the other person can understand it completely?	Yes	No
14.	Do you enjoy relating to children?	Yes	No
15.	Are you at ease and comfortable about your body movements even when you are with unfamiliar people?	Yes	No
16.	Do you prefer reading material based on true facts instead of material that comes from someone's imagination?	Yes	No
17.	If you see someone sucking on a sour lemon, does it cause your mouth to water?	Yes	No
18.	If you were to imagine someone sucking on a sour lemon, would it cause your mouth to water?	Yes	No
19.	If yo have performed a task very successfully, would you feel comfortable if you were complimented in front of other people?	Yes	No
20	Do you feel comfortable if someone compliments you about your physical body or your appearance?	Yes	No
21.	Do you feel that you are a good conversationalist?	Yes	No

Hypnosis Questionnaire Port2

To onswer each question, circle yes or no.

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1.	Have you ever awakened in the middle of the night and felt that you could not move your body and/or could not talk?	Yes	No
2.	As a child, did you feel you were more affected by the tone of voice of your parents than by what they actually said?	Yes	No
3.	If someone fails about a fear that you have experienced, does it cause you to feel apprehensive or fearful?	Yes	No
4.	If you have had an argument with someone, after it is over, do you have a tendancy to think about what you could have or should have sold?	Yes	No
5.	Do you occasionally not hear what someone has said to you because your mind is on something completely different?	Yes	No
¢	Do you sometimes desire to be complimented for on accomplishment, but teel embanassed or uncomfortable when complimented?	Yes	No
7.	Do you often have a fear of not being able to carry on a conversation with someone you have just met?	Yes	No
8.	Do you feel self-conclous if someone mentions something about your physical body or appearance?	Yes	140
9.	If you have a choice, would you prefer not being around children most of the time?	Yes	No
10.	Do you feel a little tense and anxious about body movements around unfamiliar people?	Yes	No
11.	Do you prefer reading material that comes from someone's imagination instead of material based on true tacts?	Yes	No
12	Do you fee, that getting emotional about religion is something you would wont to avoid?	Yes	No
13.	It someone describes a bitter taste, do you have difficulty experiencing the physical feeling of #?	Yes	No
14	If someone describes a beautiful scene, such as a soliboat floating on a peaceful lake, do you have difficulty visualizing the scene?	Yes	No
15.	Do you teel that your own opinion at yourself is not as good as other people's opinion about you?	Yes	No
16,	Do you feel self-concious about reaching out and kissing or putting your arms around a person you are dating or are married to if other people are present?	Yes	No
17.	In a new class or locture situation, do you usually feel uneasy asking questions even though you desire more explanation?	Yes	No
18.	Do you feel uneasy it a new acquaintence locks directly in the eyes when talking to you?	Yes	No
19	In a group situation with people you have just met, would you feet uncomfortable about starting a conversation?	Yes	No
20.	If you are with the person you love do you find it difficult to tell him or her about your feelings of love?	Yes	No'
21.	In a group of people you have just met, it someone is taking about a subject, would you find it difficult to express your coinions if you strongly disagree with the ideas he is expressing?	Yes	No
	정말했는 것 같아요. 이렇게 잘 못 하면 것을 잘 많아요. 것 같아요. 이렇게 가지 않는 것 같아요. 이렇게 이렇게 하는 것이 같아요. 이렇게 하는 것 같아요. 이렇게 아니 것 같아요. 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이		

Source: Winkler, Arthur, Th.D., Ph.D., "Suggestibility Handout."

SCORING INSTRUCTIONS FOR SUGGESTIBILITY QUESTIONNAIRE

- Count the number of <u>yes</u> answers on Hypnosis Questionnaire Part 1. Give 5 points for each <u>yes</u> answer to questions 1 through 19 and 3 points for each <u>yes</u> answer to questions 20 and 21.
- 2. Do the same for Hypnosis Questionnaire Part 2.
- 3. Add the two scores together to obtain the combined scores.
- 4. Locate the combined score number on the top horizontal line of the graph.
- Locate the number that most closely corresponds to the score for Hypnosis Questionnaire - Part 1 in the first virtical column on the left side of the graph. For example, if the score is 73, you would use 75. If the score is 76, you would use 75.
- Follow a straight horizontal line across the page from the score on Part 1, and a straight vertical line down from the combined score for Part 1 and Part 2.
- The number in the box where the two lines intersect is the adjusted percentile score for Hypnosis Questionnaire - Part 1. This score indicates the client's percentage of physical suggestibility.
- 8. Subtract that score from 100 to determine the client's emotional suggestibility.

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Appendix B: Subliminal Affirmations Used During the Study

OVERCOME DIABETES

Your inner mind is resolving that diabetes problem in an easy, natural, way The processes and activities of your body are functioning properly including your pancreas In short time you will be free from diabetes Your pancreas is functioning properly Your pancreas is producing the correct amount of insulin your body needs Your health improves more each time you listen to this tape You will be pleased with the wonderful changes you experience Your mind is using all the knowledge and information you have to resolve that diabetes problem You will soon be completely free from diabetes Your overall health keeps improving Your body is stabilizing your carbohydrate metabolism Our pancreas is producing insulin in a perfect way Your thyroid gland is producing thyroxin perfectly Any surplus sugar in your blood is being stored properly in your liver to be used when needed All of the processes and activities of your body are functioning in perfect harmony Your carbohydrate metabolism is oxidizing and utilizing carbohydrate perfectly The cells in your pancreas are functioning properly to produce normal insulin metabolism All the blood vessels, tissues and organs in your body are becoming stronger and healthier each day Your heart and kidneys are performing their functions properly Youthful vitality and energy are rejuvenating your entire body Your inner mind is assessing what caused that diabetes and getting the problem resolved Your inner mind is causing your pancreas to adjust itself easily and naturally You are experiencing pleasant feelings as your pancreas is rejuvenating itself perfectly You are enjoying the pleasant feelings as your pancreas is rejuvenating itself perfectly You feel an emotional healing taking place within you Every day in every way your pancreas is producing insulin more perfectly You were created in the image of God You were created to be healthy and strong Your body knows how to heal itself perfectly You pancreas is functioning more perfectly You are attuned to the Higher Power within you Your mind, body, and spirit are one You are one with the Higher Power within you Your Higher Self heals your body perfectly It is okay for you to be free from diabetes It is safe for you to be free from diabetes It is okay for you to be healed from diabetes It is safe for you to be healed from diabetes The more you love your body the healthier your body becomes You are happy to realize the progress you are making You trust your inner mind to direct your pancreas to function perfectly You deserve to have your pancreas function properly You choose to have your pancreas function properly You anticipate your pancreas functioning properly You are willing to be free from diabetes You have a success consciousness about being completely free from diabetes You are proud of the way your body is healing You are optimistic about your body healing You feel an emotional healing taking place within you You are aware that something good is happening within you, so just let it happen

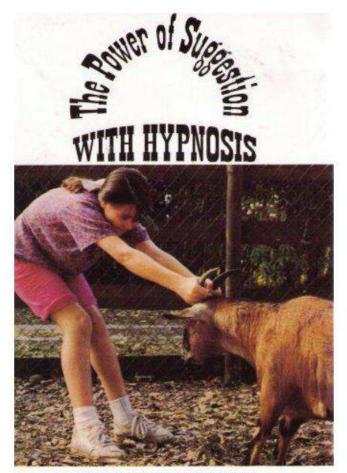
FOR GOOD HEALTH

The processes and activities of your body are f	unctioning perfectly
Your body is becoming healthier	You deserve to be healthy and strong
You anticipate always being healthy	You are willing to be healthy and strong
You have a success consciousness about being	healthy
Developing a healthy body is natural	Developing a healthy body is easy
Your body keeps becoming healthier and stron	ger each day
You love and respect your body	You always treat your body well
You are capable of achieving perfect health	You are achieving perfect health
You are confident of achieving perfect health	It is safe for you to be healthy
Your body becomes healthier each day	You enjoy living a healthy life
You are loved and respected by others	You love and respect others
You are a confident person	You are an optimistic person
Your body maintains a good healthy condition	You are grateful for your healthy body
The more you love your body the healthier it b	ecomes
You eat foods that are healthy for your body	You drink liquids that keep you healthy
Everything you eat and drink is processed prop	erly by your body to keep you healthy
It is okay for you to take time to develop a hea	lthy body
You enjoy living a healthy life	You feel good about living a healthy life
You are lovable	You love others
You accept love from others	Love conquers all things
Love increases your happiness	Love improves your health
You are one with God	The kingdom of God is within you
You feel an emotional healing taking place	You are full of joy arid happiness
You are a loving person	You are a caring person
You are a forgiving person	You treat others kindly
Love rules your life	You are patient and kind
God is always with you	God always strengthens you
You expect good things from life	You expect to always be healthy
You are willing to be healthy	You enjoy living a healthy life
God loves you and wants you to be healthy	You are connected with God
Your Higher Self keeps you healthy	You choose to be peaceful
You choose to be calm	You choose to be in perfect harmony
You choose to always do what is right	Your thoughts are peaceful
Your thoughts are loving	Your thoughts are uplifting
You have the Power of God within you	Your mind, body, and spirit are one
You are spiritually connected with God	Your Higher Self heals you perfectly
You keep feeling more tranquil	You keep feeling more peaceful
You keep feeling more calm	You keep feeling more at ease

FOR GOOD HEALTH CONTINUED

You choose to be in perfect harmony	Each day brings new joy into your life								
The healing processes of your body are functioning perfectly									
You feel a healing warmth flowing through your entire body									
You feel an emotional healing taking place within you									
You are happy with what you are achieving	You were created perfectly								
You were created with a healthy body	You were created to always be healthy								
You are attuned to the Higher Power within you									
You are at one with the Higher Power within you									
You are experiencing good feelings all through yo	our body								
You are experiencing soothing sensations all through	ugh your body								
Your body is responding perfectly to its own natu	ral healing energies								
Your self-confidence is increasing	Your self-acceptance is growing stronger								
Your self-reliance is progressing You continue progressing daily									
You love yourself unconditionally You love others unconditionally									
You forgive yourself for what you have done in the past									
You forgive others for what they have done in the past									

Appendix C: Hypnotherapy Book, The Power of Suggestion With Hypnosis



By E. Arthur Winkler, Th.D., Ph.D.

Appendix D: Goals for Interviews, Hypnotherapy Sessions, and Post – Talks

Before the first interview/session:

1. The Participant will be given a history form, demographic form, consent forms and stress questionnaire to fill out and will submit to the researcher before the first session. Any questions on these will be answered before the first Hypnotherapy session.

We will ensure that the participant has a glucometer machine and supplies and is given instructions on how to use it.

A baseline HgbA1C will be drawn within two weeks prior to the first session. It can be drawn right immediately before the first session if needed.

 Each Participant will be given the Hypnotherapy suggestibility questionnaire and asked to submit it to the Hypnotherapist prior to the first session.

5. Each Participant will be assigned a number and this number will be used throughout the study. The participant will proceed forward using that number.