

7-9-2011

Can positive self-talk alter one's happiness?

Elizabeth Armetta

Let us know how access to this document benefits you - share your thoughts on our feedback form.

Follow this and additional works at: <https://rdw.rowan.edu/etd>

 Part of the [Psychiatric and Mental Health Commons](#)

Recommended Citation

Armetta, Elizabeth, "Can positive self-talk alter one's happiness?" (2011). *Theses and Dissertations*. 433.
<https://rdw.rowan.edu/etd/433>

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact LibraryTheses@rowan.edu.

CAN POSITIVE SELF-TALK ALTER ONE'S HAPPINESS?

By

Elizabeth A. Armetta

A Thesis
Submitted to the
Department of Psychology
College of Education
In partial fulfillment of the requirement
For the degree of
Master of Arts
At
Rowan University
May 10, 2011

Thesis Chair: Dr. Roberta Dihoff

© 2011 Elizabeth A. Armetta

Acknowledgement

To the following people I owe the deepest gratitude:

To all of my participants for coming to positive self-talk classes and putting out time and effort to improve your self-talk. I am very lucky to have such supportive friends.

To my family for pushing me and always supporting me through the tough times, especially Braden and Riley because you always remind me why I want to be a School Psychologist and have kept me smiling through this year.

To Dr. Klanderman and Dr. Dihoff for your guidance.

Lastly, to my classmates, specifically Jenna and Alison, for making the experience a little less stressful.

Abstract

Elizabeth A. Armetta

CAN POSITIVE SELF-TALK ALTER ONES HAPPINESS

2010/2011

Master's in Art of Psychology

The purpose of this study is to explore the possibilities of positive self-talk and the effect it can have on people and their happiness level. In this study there were a total of thirteen subjects who attended classes to exam their self-talk and develop skills in using positive self-talk. The subjects took a pretest to establish the degree of their happiness and they took a posttest to see if there is an improvement in their level of happiness. Using a Paired Sample t-test the result showed a significant finding. The result suggests that people using positive self-talk can improve the level of happiness that they feel. While not all members of the cohort had improved in their happiness level majority showed an improvement making for a suggestion of further research of why specific subjects did not improved while majority of the population did.

Table of Contents

<u>Chapter One</u>	1
1.1 Need.....	1
1.2 Purpose.....	1
1.3 Hypothesis.....	2
1.4 Background.....	2
1.5 Assumption.....	6
1.6 Limitation	7
1.7 Summary	7
<u>Chapter Two</u>	9
2.1 What is Happiness?.....	9
2.2 What Affects Happiness?.....	10
2.3 What is Positive Psychology?.....	12
2.4 How and Who can Positive Psychology Help?.....	13
2.5 What is CBT?.....	15
2.6 What is Self-Talk?.....	17
2.7 Negative Self-Talk.....	19
2.8 Positive Self-Talk.....	20
2.9 Ways to Change ones Self-Talk.....	21
2.10 Summary.....	22
<u>Chapter Three</u>	23
3.1 Sampling.....	23
3.2 Measurements.....	23
3.3 Hypothesis.....	25
3.4 Design of Study.....	25
3.5 Analysis.....	26

<u>Chapter Four</u>	27
4.1 Restatement of Hypothesis.....	27
4.2 Results.....	27
4.3 Summary.....	29
<u>Chapter Five</u>	30
5.1 Summary of Chapters One to Four.....	30
5.2 Discussion	31
5.3 Conclusion.....	32
5.4 Implication of Further Research.....	32
References.....	34
Appendix A.....	37
Appendix B.....	38
Appendix C	39

Chapter 1

1.1 Need:

“Both the professional and the general media have recently published concerns about an ‘epidemic’ of child and adolescent depression” (Angold, Costello, Erkanli p.1243 2006). There are many more youths that are taking anti-depressants at an earlier age, while at the same time there are more and more suicides that are being committed. (Angold, Costello, Erkanli p.1243 2006) This tells the researcher that if there is techniques that can help a person look at a more positive side of life it can be used as a prevention of this outrageous number of suicide attempts and those reported suffering from depression. If it is possible to stop something before it is starts than, it is should to be explored.

1.2 Purpose:

There is definitely a rise in the rate of suicide and cases of depression, therefore there are a number of questions to be posed: 1. ‘Why are people so unhappy?’ and 2. ‘What can be done to change or prevent these statistics?’ With this study the researcher will attempt to explore one perspective to these questions. The researcher will investigate the connection between language and happiness. Why can some people be happy while, other people are so sad? This study will help look at an alternative for people who are suffering from mild depression or to prevent depression or sadness that many people feel on a daily basis.

1.3 Hypothesis:

In this study the subjects will receive a pretest to explore the level of happiness each subject is experiencing in daily life. The test will be followed with the use different forms of self-talk to help improve the subjects' emotional state of happiness. The subjects will then receive a post test to test the subjects' new happiness level. The researcher predicts with proper training and enforcement of self-talk the subjects will gain a higher score on the happiness scale than what they scored on their original test. Each subject will begin the process by taking a test in which scores the depression level within the subject. The subject will then receive a few workshops on promoting positive speech, also known as, positive self-talk.

1.4 Background:

For many generations psychologist have spent time exploring the background of why people are depressed and what makes them sad. In more recent exploration researchers have begun to explore what it is that makes people happy? With this knowledge psychologist can work on creating happiness rather than attempting to eliminate depression. This new wave of psychology is called Positive Psychology. (Seligman, Martin PhD, p7)

What exactly is Positive Psychology and why is this relative to the study of the change of linguistics on people's moods? "Positive Psychology is the scientific study of the strengths and virtues that enable individuals and communities to thrive."

(<http://www.ppc.sas.upenn.edu/>) This research shows what makes certain people strong

enough to make it through everyday living while other people find it difficult to get out of bed in the morning. This concept has everything to do with the research that will follow in this thesis. There are people who are able to look at rough situations head on and push through with a positive attitude. What makes these people strong enough to thrive? Positive psychology has a belief that people want to fulfill their lives and want to be able to accomplish many things with meaning and enhancement of everyday events such as life, work, play and love. (<http://www.ppc.sas.upenn.edu/>)

It is important to understand that Positive Psychology is broken down in to three parts. The first part is called Positive Emotion. Positive emotion deals with the emotions from the past, present and the future. These emotions include but are not limited to; satisfaction, contentment, serenity, optimism, hope, trust, faith and confidence. (Seligman, Martin PhD, p261) The second part is Positive individual traits, meaning one's ability to experience and how deeply they can love, work, courage, empathy, resilience, originality, inquisitiveness, honesty, self-knowledge, restraint, self-discipline, and knowledge. This is a person's strength and virtue. . (<http://www.ppc.sas.upenn.edu/>) Lastly, the third part of Positive Psychology is Understanding Positive Institution meaning "democracy, strong families, and free inquiry, that support the virtues, which in turn support the positive emotions (Seligman, Martin PhD, xi)." All of these concepts can appear in the way people talk about themselves or about others and their situations. If people do not hold these ideas with a positive fashion they will not speak in a positive way. This in return will keep people from fulfilling their full potential as positive beings.

Many of the concepts that are discussed in Positive Psychology are ideas that are used by psychologist in self-help books. While many people will believe that self-help

books are full of garbage they actually have many important ideas to follow. These books try to help how people feel and think about their selves. Many of these books contain the underlying theory of Cognitive Behaviorism. Cognitive behavior therapy can help people identify inaccurate or negative thoughts, cognitive behavioral therapy allows you to examine taxing situations more clearly and respond to them in a more efficient way.

(<http://www.mayoclinic.com/health/cognitive-behavioral-therapy/MY00194>) Cognitive behavior therapy is often used to help people suffering from depressing and anxiety. Cognitive behavioral therapy is not limited to these people. These ideas can also be represented when people enter stressful situations. The techniques used in this type of therapy allow people to face the situations that are given to them but, handle them in a way that will not consume their thoughts and behavior.

(<http://www.mayoclinic.com/health/cognitive-behavioral-therapy/MY00194>)

Many words affect a person's cognition or express one's cognition. Some therapists that use the cognitive behavioral therapy method may also use the term, self-talk. Self-talk is a word that is used to describe the inner dialogue a person will have with themselves. There are two forms of self-talk. There is positive and negative self-talk. This study will focus mainly on the use of positive self-talk, but it is important to understand the concept of negative self-talk and its affect on the human condition. The use of negative self-talk can have a great affect on a person's stress level and over all mental health. There are a number of disorders that can come from the over use of negative self-talk such as anxiety and depression. Negative self-talk can cause a person to gain the feeling of hopelessness. In some cases even personality disorders can derive from the constant use of negative self-talk. (<http://www.psychologytoday.com/blog/life->

[changes/200908/how-do-you-spot-negative-self-talk](http://www.psychologytoday.com/blog/life-changes/200908/how-do-you-spot-negative-self-talk)) This knowledge base helps the researcher understand the need to help train people on how to look at and think about situations in a positive way. It is easy to spot negative self-talk once a person is showed the fallacies in the thought patterns that they contain in their own minds. However, it is much harder for a person to convert these ideas into positive self-talk.

(<http://www.psychologytoday.com/blog/life-changes/200908/how-do-you-spot-negative-self-talk>)

Positive self-talk can sometimes be referred to as positive thinking. Everyone has heard the expression “Is the glass half empty or half full?” Those who say that the glass is half full tend to have a positive way of thinking. However, not every thought is this simple; this is not to say that there are not people who tend to be optimistic because there are definitely large populations of these people. These people are able to look at an upsetting situation and understand that this is not just happening to me and there is something that can come of this if looked at in the proper way.

(<http://www.mayoclinic.com/health/positive-thinking/SR00009>) There is a number of benefits to using positive self-talk such as; a longer lifespan, lower rates of depression, lower levels of distress, greater resistance to colds, better psychological and physiological well being, reduce risk of death by cardio vascular disease, and better coping skills during hardships and times of stress.

<http://www.mayoclinic.com/health/positive-thinking/SR00009>

The idea of self-talk has many factors that have helped create it as a form of psychology and back it up of why it can work. Positive Psychology shows the underlying need for this way of thinking and talking. While Cognitive Behavioral therapy shows

how to use it and teach the methods behind it. It is important to understand that there are two forms of self-talk that can either make a person positive or make a person negative. It is all about how people look and think about a situation that can create or destroy their happiness.

Definitions: For the purpose of this study, the following terms are defined as follows:

Happiness: “Feeling pleasure: feeling or showing pleasure, contentment, or joy”

(<http://encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?lextype=3&search=happiness>)

Depression: “Sadness: a state of unhappiness and hopelessness”

(<http://encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?lextype=3&search=depression>)

Self-talk: “Mental talking; the things that an individual says to himself or herself mentally” (http://encarta.msn.com/dictionary_1861715988/self-talk.html)

Positive Psychology: “the scientific study of the strengths and virtues that enables individuals and communities to thrive.” (<http://www.ppc.sas.upenn.edu/>) or

1.5 Assumptions:

The researcher knows that everyone has their own interpretation of how much happiness they feel and can be content with the level in which they have it. The researcher would assume that the subjects who have a healthy level of happiness would

like to maintain it and those who are ranging on the lower end of the depression test would like to improve this state of being.

1.6 Limitations:

This study was only completed by educated twenty to thirty year olds who were compliant to fulfill all items for the workshops. These subjects were also looking for ways to relieve stress and had/have the desire to remain positive and happy in their pursuits in life. Therefore, this study cannot be labeled as covering a general population outside this type of cohort. This study was limited in the number of subjects who participated (12) do to the intensive, one on one, work with the researcher therefore there is a lacking number in sample size. Those who did decide to take part in the study mostly were females; there were only two males who decided to take part in the study. Therefore, the study has more of a reflection of an ones happiness level alterations.

1.7 Summary:

In Chapter 2, there will be a discussion of what defines happiness. With the definition of happiness one needs to understand how it develops and what will affect maintaining it. While not all psychologists have the same method of coping with any negative emotion, they do tend to have a common belief on what needs to be looked at to create a happy person. Some psychological ideals that help develop happiness are cognitive behavioral therapy and positive psychology. There is a common bond with both ideologies and that is to teach a person to think about themselves in a positive manner and with that they can carry the positive thought into action for daily life. Self-talk is the common bond in which these two ideas work together to help develop an emotional

change. Chapter 2 will explore these techniques and find out if it is possible for a person to change the happiness level by utilizing these ideologies.

Chapter Two

Chapter two is separated into three sections that work together to provide information to how positive self-talk can be effective to gain and maintain happiness. To understand how certain techniques affect happiness it is important to first understand what happiness is and what creates or destroys happiness. Once happiness is defined it is only logical to explore the science of what makes one happy. Positive Psychology has the purpose to help one find the way to the most fulfilling life. Lastly, a therapy that can be used with the purpose of working towards a happier disposition is Cognitive Behavioral Therapy.

2.1 What is Happiness?

Happiness is certainly the most in demand of emotions, yet the psychology that follows it is almost as indescribable as how to achieve and preserve it. A challenge to recognize the basis of happiness and its mechanism, such as, amusement and laughter, is a difficult feat. Happiness is not the absence of sadness. It is resistant to money and brief pleasures. (Bettman & Wood, 2007) Some people may believe that material items are what make people happy but it shows that those who are making a good living still want to make more and have higher goals for themselves in which are difficult to reach which actually causes dissatisfaction in their lives which has an effect on their happiness. (Seligman, 2002)

There are several things that make up what is known to be happiness. While people see happiness as a general statement there are many layers to this emotion. One important concept is the term mirth. Mirth is the concept of what humor is and what is

humorous to a person. Mirth is then linked to laughter, which is considered an expression of happiness. (Chahine, Chemali & Nassan, 2008) Laughter is a behavior that is believed to be contagious to other people. Devereuz and Ginsburg developed an experiment and explored this concept. They found that people who are in a group laughing about something tend to laugh longer and more than if they were alone. (2001) Does this mean that laughter is contagious or does it mean that people make people happy?

This question is difficult to answer because happiness is difficult to measure. Some psychologists have used PET scans to investigate if there is a way to measure happiness level. There was investigation of the cerebellum of while the subjects were viewing short movie clips meant to bring happiness to the subjects. The cerebellum had a higher blood flow while the subjects watched the short movie clips. (Chahine, Chenali & Nassan, 2008) So if short movie clips can show signs of happiness in the brain what else can have an effect on the mind and develop the presence of happiness.

2.2 What Affects Happiness?

What makes happiness and what makes one feel happy. There is a perspective that believes that satisfaction in life helps create a happy person. This is something this is often reminded to the modern society. “Be your best!” “You can do it” the list of sayings goes on and on. (Peterson, Park & Seligman, 2005) There is a belief called self-determination theory in which the person decided within themselves what talents they have and work on them. This helps bring out what is within them and become the best person they can be. These talents should be used for the greater good of man. (Deci &

Ryan, 2000) The idea that people are satisfied with life helps understand happiness, but what is looked at when people explore satisfaction.

Friendship and family are predictors of happiness. Marriage is a relationship that enhances happiness level but is believed to be so because marriage builds and create more social roles in a person's life. (Wood, Rhodes & Whelan, 1989) Social roles help people reinforce who they are in society and what meaning their lives have. Childhood experiences can lead to a happier adult, such as, what the child sees as being closeness to his or her parents. (Coleman & Holder, 2009) Parenting styles has an effect on children and their future happiness in life. The best return of happiness is the Authoritative parenting style, which is when there is a give and take in the parent-child relationship. Happiness can be related to tis because parents guide their children through life issues and the work together to come to conclusion. (Coleman & Holder, 2009)

There are more factors that can have an affect on how people can become happier. Gratitude is a strong characteristic that helps contribute to ones happiness. This means that people who are able to accept things from others and truly appreciate what people are trying can be happier in life. This also, means these people are comfortable and satisfied with life's simple pleasers. This concept works together with the idea of kindness; just the same, one would receive gratitude when they show kindness towards others. (Otake et al. 2007)

Depression has a huge effect on a large population of people in the United States, it is estimated that nearly twenty percent suffer from major depression and there looks to be an increase of depression within the young people of the United States. (Kessler,

McGonagle, Zhaos et al., 1994) Depression can impair cognitive and occupational functioning which in return is beginning to cost a great deal of money for those who suffer from it.

There are things that happen in people's lives that cannot be controlled like a car accident, war and cancer. There are items that put extra stress on a person's emotional state. Sometimes these things lead to a change in a person's happiness level. These events can lead to mental disorders like post traumatic stress disorder, depression and/or anxiety. While these things can be created by an event in some people's lives some people are already born to be predisposition to have these problems. There is a way for these people to get back to the state in which they once were. They can recondition themselves to think positively. (Goodfellow, Linely & Joseph, 2008)

2.3 What is Positive Psychology?

Most definitions of Positive Psychology say about the same thing it is a "scientific study of ordinary human strengths and virtues" (Sheldon & King, 2001) but what does that really mean? To simplify what positive psychology is for the purpose of this study it will be "scientific study of what goes right in life" (Peterson, Christopher, 2009) Positive psychology was proposed as a intentional improvement to the previous ideologies that were focused on by psychologist for many decades. This type of psychology does have attention on problems but more importantly knowing how to avoid or undo what goes incorrectly in life is not simply enough for the founders of this psychology. These psychologists still use original style of psychology but they extend upon and complement upon many theories. (Peterson, Christopher, 2009) "One of the central topics of concern to positive psychology is happiness (Seligman, 2003)."

The concepts that are behind positive psychology have always been in front of man. The ideas behind positive psychology can be seen in philosophy from Aristotle. His belief in humanity, love and justice are some of the basis that positive psychology is based around. (Schwartz & Sharpe, 2006) Positive Psychology is “a science that seeks to understand positive emotion, build strength and virtue, and provide guide posts for finding what Aristotle called the ‘good life’ (Seligman, 2002).”

Positive Psychology is broken down into three pillars. The first pillar encompasses positive emotion, such as happiness, joy, hope, interest, serenity and gratitude. The second pillar is positive traits such as strength, virtue and abilities. The last and not often thought about pillar but none the less very important, positive institutions. While most people believe that positivity comes from oneself, it can come from their surroundings. Such as the type of government that is implemented in one's society, or school, the family unit is considered a positive institution. All of these things help support a positive inner voice. (Seligman, 2002)

2.4 How and who can Positive Psychology help?

Positive Psychology can help children in a number of ways in order to improve their lives. Using Positive Psychology children can rise above hardship and flourish. (Werner, 1982) A term that is used when discussing children and positive psychology, it is positive youth development. Positive youth development takes an intentionally vast viewpoint on all the qualities of a child that should be encouraged (Catalano, Berglund, Ryan, Lonczak & Hawkins, 2004). This is an area where positive psychology helps by communicating these qualities to the students by giving each child ways to assess and

educate them on how great they are and will be. (Seligman, Steen, Park & Peterson, 2005) Positive Psychology helps give children a sense of resiliency and help children remain persistent in gaining success because they receive motivation, increase educational aspirations, start to feel belief for their future, a sense of eagerness, they start to feel belief for their future, a sense of eagerness, they start to feel they have a purpose, and a sense of consistency (Benard, 1991). There are a number of other things that help support each student against problems and help them with using positive psychology besides their individual personality traits like talents, strengths and productive interests, these students need help from their social environment like their as family support, their parents need to get involved in their education. Sometimes it is difficult for parents to be around all the time but students can find other adult role models that can help keep their positive energy up. The community, in which the child comes from can also, helps and keep a student constantly giving them positive expectations and praise for all of the efforts that are being put out. (Benson, 1997)

Positive Psychology can help maintain a healthy lifestyle, meaning that positive psychology can promote wellness. Wellness is positive mental and physical health. (Schueller, 2009) How can positive psychology do this? This can help be preserved by expressing a positive outlook on emotions, social interaction and functioning. It is easier to make way through a sickness if there is a positive outlook on the outcome. (Schueller, 2009) In Seligman's book Authentic Happiness he discusses that humanity is important to a positive intuition. (2002)

Optimism is something else to look at while talking about Positive Psychology. People who are optimist have positive expectations about the future. These people are

goal oriented and are motivated by factors outside and within their self. With this concept these people develop a self-esteem and self-efficacy. (Barlow, Tobin, Schmidt, 2009) Using the theory of positive psychology can develop these factors.

2.5 What is Cognitive Behavioral Therapy?

Cognitive behavioral therapy is based on the cognitive model of emotional response, meaning that CBT is based on the concept that our beliefs cause our feelings and behaviors, not environmental influences, such as people, situations and events. The benefit of this concept is that people can change the way they think to feel or act better.

“Cognitive-behavioral therapy can be effective in treating adult depression and shows promise in treating depression in youth (Gillham, Reivich, Freres et al., 2009).” Most programs that are used with youths right now tend to use mainly cognitive therapy but they are developing in using cognitive-behavior therapy to improve on the type of intervention that is being proactive today. While problem-solving skills are important for these youths to develop they need to develop proper social skills. Many of these programs using Cognitive-Behavioral Therapy are presented in the school system for the students. They have group sessions with these students and preliminary finding of those programs prove to be very positive. (Gillham, Reivich, Freres et al., 2006) These programs cannot only help with depression but can help with preventing depression from developing to a higher level. Cognitive behavioral therapy is used to work with patients that is suffering from terminal illness. Many of these patients are suffering from depression and they work as a group to improve this emotion. (Duarte, Miyazaki, Blay & Sesso, 2009)

Cognitive Behavioral Therapy has two major goals that it would like to accomplish with all that take part in it. The therapy would like to educate patients to change their dysfunctional thoughts to becoming a depressive behavior. The second goal is to give the patient the ability to have the cognitive information to prevent him or herself from having a relapse back into a depression or any other dysfunctional trait. (Karwoski, Garret & Ilardi, 2006) There are studies that were done that show that cognitive behavior therapy is as if not more effective in working with people with depression as medication to control behaviors. (Craighead, Hart, Craighead & Ilardi, 2002)

There are several things that can happen in and out of group therapy for cognitive behavioral therapy. One thing that is important that people do when walking away from their intervention group is something that is sometimes called homework or out of group activity. These things are important to do because just because they learn techniques in group therapy does not mean that the person goes home to continue to use these techniques. (Beck, Rush, Shaw & Emery, 1979) Taking these therapeutic devices outside of group will help have a longer lasting effect on a person who is working on improving their behavior. This helps the client gain new information and work on their skills. Homework assignments have been linked with reduced symptoms. (Baker, Fletcher, Kessler, Kazantzis & Meimeyer, 2008) Some types of homework that are given to people who are in cognitive behavior therapy would be recording thoughts or statements that were made during the day. They may be given one specific skill set, like talking with strangers to work on. This is so the patients can experience the real world activities and

bring back information to group. (Baker, Fletcher, Kassler, Kazantzis & Meimeyer, 2008)

Self-talk is a mental skill that is promoted a great deal and explains that statements that one may say to oneself. Self-talk can happen within one's mind or spoken out loud for people to hear. (Hardy, Hardy & Roberts, 2009) "Historically, a number of terms have been used to refer to self-talk including inner speech, internal dialogue, private speech, verbal rehearsal and egocentric speech (Hardy, Markland & Oliver, 2010 p308)." Self-talk can be broken down in to two categories: Positive Self-Talk and Negative Self-Talk. Both types of self-talk have been proven to have an affect on people's performance while working or in social settings. (Hardy, Hardy and Roberts, 2009 p435)

2.6 What is Self-Talk?

Self-talk is a psychological skill that is used to develop, cope and maintain mood states. (DePape, Hakim-Larson, Voelker, Paige & Jackson, 2006)Self-determination theory can help explain how self-talk can be linked to emotional states. SDT explains the motivation that each person has within themselves and it consists of psychological needs for the person to develop personally and emotionally. (Deci & Ryan, 2000)

A direct influence on someone's self-talk is his or her concept of locus of control. Locus of control is the belief that a person is able to control what will happen to them. Thus, those with a strong locus of control have a more positive self-talk while those who have a weaker locus of control will tend to have negative self-talk. (Jemmer,P. Dr., 2009) Unfortunately, it seems as though people are hardwired to focus on the negative and tend

to put oneself down in ways one would expect from other people. So it is important to acknowledge one's self-talk and be able to identify what type is being used and how to improve what is being said consciously or unconsciously to oneself. (White, 2008)

There are two terms that are important to know to completely understand what encompasses what self-talk means and they are the inner critic and cognitive distortion. The term inner critic is often used to describe where the thoughts are coming from. The inner critic is the voice inside our head that tells us when we are not doing our best or not looking our best, basically telling us the negative things that we are producing. The key is hearing the inner critic and deciding what to do with this information. (White, 2008)

Cognitive distortions are terms used to explain negative self-talk that is developed after listening to the inner critic. This concept was created by David Burns and using this concept in many of his self-help books to help people develop a happier disposition. These concepts are similar to logical fallacies but specifically target people's self-talk. For example when a student receives a bad grade, their response is "I always do badly in math; I am not good at it." While the child may have done poorly on the test, the child does not always do poorly. The cognitive distortion that is being represented is the concept of all or Nothing Thinking. Learning cognitive distortions help separate positive self-talk and negative self-talk. It makes it easier to spot the negative self-talk and helps show what positive self-talk should look like. (Burns, 1999)

2.7 Negative Self-Talk

Negative self-talk can stir up or create negative emotions that do not need to be there. Negative self-talk can create anxiety or enhance one's anxiety. There are several other terms that are used when talking about negative self-talk they include: Self-attacking, self-blaming, self-neglecting and self-controlling. (Jemmer, 2009) Locus of Control plays a part of negative self-talk because when people believe that they cannot control what is happening in their lives, while those who are positive believe they can change these things in their lives. Thus negative self-talk happens when people see situations in a certain perspective that is exaggerated or distorted. (Jemmer, 2009) This concept is discussed heavily in Dr. David Burns' book entitled, *Feeling Good*. Burns refers to this as cognitive distortions meaning, the irrational thought that people identify for themselves for situations or who they are in life. (Burns, 1999) For example if a child is picked last for a sport the child may say something like "I always fail when I try to do something new and as a result I fail at everything I try." This exhibits a "black or white" style of thinking. The child is only seeing things in absolutes meaning that if they fail at one thing, they must fail at all things. If the child adds, "I must be a complete loser and failure" to their style of thinking, this would be an example of *overgeneralization* meaning taking a failure at one specific task and generalizing it as their identity. In total there are fifteen cognitive distortions that can describe in depth the fallacy in people's negative self-talk. This categorization helps identify the thought pattern that people have and from there one can start to explore how to change negative self-talk into positive self-talk. (Burns, 1999)

2.8 Positive Self-Talk

Positive self-talk helps enhance students' self-esteem and places regulation on their behaviors and expectations in a positive way. Those students who engage in positive self-talk are guiding and monitoring their own activities. (Hardy, Markland, Oliver, 2010) A great example of a person or group that affectively uses positive self-talk is athletes. Goltsios, Hatzigeorgiadis, Theodorakis and Zourbanos completed a study in which they explored the world of athletes and how they work to succeed on the field. In their study they observed the events that happen before the game including what happens in the locker room. The whole team is huddled up to discuss the big game that is about to happen. While all of them are in the huddle they begin to use positive self-talk by chanting phrases like "We're number one" over and over again. These words help the team become energized while they run out onto the field. The positive words that are chanted help the team enter the game in a positive manner. This helps the teamwork together towards the goal of winning. In this study it shows that the use of positive self-talk helps the teams succeed at achieving their goals. (2008) People who are able to walk into a situation knowing that it maybe tough and work through it with an optimistic view are taking their inner critic and using it to their advantage. People that use positive self-talk are able to understand that the inner critic is only telling the person what can be improved and they see this as a challenge and something to work to develop rather than to decide to give up. (White, 2008)

2.9 Ways to Change ones Self-Talk

The most common therapy that is talked about to help change a person's self-talk is cognitive therapy. This seems like a simple concept since cognitive therapy works with how people think. (Burns, 1999) However, the feat is much greater than just knowing a person need to change how they think. This is why cognitive-behavioral therapy is explored in depth because cognitive function is important to understand but to change a person's personality from being pessimistic to optimistic needs to deal with the behavior of the person. Optimism is not a concept it is a lifestyle. (Chroni, Hatzigeorgiadis & Theodorakis, 2008)

There are several steps to help change a person's self-talk. The first step is to first explore and understand what type of self-talk a person uses most often. There are several methods for measuring self-talk, such as the Self-Talk Scale (STS). (Brinthaup, Hein & Kramer, 2009) This scale does not just focus on the same specific statements that most other questionnaires focus on. STS works on understanding inner and private speech. Private speech happens less often but nonetheless very important. This helps to understand how people use self-talk for example are they using it as motivation, a reward or punishing he or her. (Brinthaup, Hein & Kramer, 2009) The best way to get an accurate idea of what types of self-talk people are experiencing is having them keep a self-talk log. This helps people look and think back to situations and thoughts that they may generally have forgotten. (White, 2008) This is the part of the evolution of speech in which one can look back at what type of self-talk they tend to use and what patterns seem to form in the way their self-talk is used. This is the step in which a person can utilize the

concepts of cognitive distortions. (Burns, 1999) Once a person has identified their cognitive distortions they can focus on different ways they can make similar statements but in a more positive light. For example: I always do poorly on a test! Can be changed to something like, I did poorly on this test but, I can still do better. It helps for people to use their self-talk to motivate them to do better. A way to help people do this is by telling them they can do better and they will do better. Eventually, a person will not have to focus on every statement they make and eventually positive self-talk will become natural. (White 2008, Burns 1999)

2.10 Summary

In Chapter 2, this is a great deal of information provided on what defines and helps create happiness. Happiness is an emotional state that can be helped and improved. There are also, great amount of things that have an effect on happiness such as depression, illness and life events. Happiness can be described in other forms through the voice of positive psychology. In this study, it looks at what makes people happy and not what makes people lack happiness. This branch of psychology focuses on the healthy mind. Another branch of psychology that is explored in this chapter is cognitive behavioral therapy. This therapy works to change the way people think and works on people's behaviors at the same time. One technique that is used in cognitive behavioral therapy is the use of self-talk. There are two types of self-talk, negative and positive. It is important to strive to use positive self-talk to keep or gain happiness in one's life.

Chapter 3

3.1 Sampling:

There were a total of 13 people who took part in this study all ranging in age of 20 to 30 and are from both gender groups. All of those who have taken part in this study were chosen because they were willing to spend the time recording information and willing to learn techniques to become happier. Those who took part in the study were also very interested in becoming more positive in their behavior and thoughts. These participants took part in sit down group work explaining what self-talk is and how to create positive self-talk.

3.2 Measurements:

To rate the level of happiness within each subject they took “The Burns Depression Innovatory”, that is found in David Burns’ book Feeling Good. This test includes 15 questions that range in a scale of zero to three. This test was administered a total of two times, to collect the before rate of happiness and the after rate of happiness. This test is broken into three sections.

Burn’s Depression Innovatory breaks down a number of symptoms of depression. The symptoms include sadness, discouragement, self-esteem, inferiority, guilt, indecisiveness, irritability, and loss of interest, motivation, self-image, sleep and suicidal impulses. All these responses were rated and have the participant broken into five different groups. This allows the researcher to understand what level of happiness each person has within him or herself and can see how the subject evolves from the use of positive self-talk.

The procedure of this experiment started with the use of Burn's Depression Inventory. This process gives a numeric representation of people's happiness level. Each subject received a notebook to record his or her own thoughts for a week before the second meeting. After the first meeting, the researcher met with smaller groups so that explanation of self talk and how to use positive self talk will be done on a much more intimate level so that each subject will feel comfortable with asking questions and performing examples of how they can use self talk in their everyday lives. Once these meetings were completed the subjects will go back into their notebooks to look at their logs of how they thought about situations that happened to them throughout the week. They will then, select a number of situations and record how they could have talked about the situation in a different way using positive self-talk. Then the subjects will reflected on similar situations they happened the following two weeks and work on utilizing positive self-talk when these situations happen. After two weeks, the researcher met with the subjects again in the same small groups and discuss if they were capable of using techniques that were taught in the first session. This helped each member talk about his or her situations and help give tips to other subjects on how to improve their self-talk. The subjects continued to record situations and record their positive self-talk. After four more weeks of recording, the researcher had one last class to see how people are progressing with their use of positive self-talk. If the group seems to be working well with their information than they can continue logging their self-talk if those seemed to have struggled, the researcher had another class to help improve on the subject's skills of positive self-talk. After two more weeks the large group of subjects met with one another to complete another Burn's Depression Test. The results were then recorded.

Once all results are recorded, the researcher then, inputted the data to see if there is significance to this study by using a Paired Sample t-test.

3.3 Hypothesis:

Null Hypothesis for subject's happiness level: There will be no change in the level of happiness each subject's experiences.

Alternative Hypothesis for subject's happiness level: There will be a significant change in the level of happiness each subject's experience.

Null Hypothesis for subjects changing the way they use their self-talk: Subjects will show no change in the way they use self-talk.

Alternative Hypothesis for subjects changing the way they use their self-talk: Subjects will show a change in the way they use self-talk.

3.4 Design of the Study:

The study consisted of one group that produced two test scores. The subjects are the independent variable and the test scores were dependent variables. The test scores should be improved if the subjects take part in classes and used skills that are provided to them. These two test scores were used to compare one another to see what the level of happiness is before or after using self-talk. The group consists of 13 people. Each member of the study received a pre-test to measure the level of happiness of each participant. Once the test had been administered the members underwent a two-month period of lessons on how to improve their self-talk. These members wrote in journals, created vision boards and practiced different styles of positive self-talk. Once the two-

month period was completed the participants took a post-test to measure the improvement of each participant's happiness level.

3.5 Analysis:

This study looked at the level of happiness that is measured by the Burn's Depression inventory. The subjects worked on being happy by using positive self-talk and learn a new pattern of thought. After they learn to use positive self-talk they measured their happiness.

The Paired Sample t-test for significant between means of two correlated samples was used to measure significant. The discussion of results will review the subjects pretest and posttest scores.

Summary:

Using Burn's depression inventory and the use of positive self-talk the study was able to research if happiness levels can be altered. Group work was given to subjects to help learn and use positive self-talk. The Burn's Depression Inventory is given again to decide if self-talk helped each subject to be happier. In Chapter Four an analysis and interpretation of the data was included and Chapter Five will discuss suggestions and further pathways of exploration in regards to this concept.

Chapter 4

The purpose of this study was to examine the level of one's happiness before and after the subjects were taught positive self-talk. The test measures things such as self-esteem, sadness, discouragement and loss of interest. Between two correlated samples t-test was used to measure the significant of the results to see if positive self-talk can help ones happiness level.

4.1 Restatement of Hypothesis:

Null Hypothesis for subject's happiness level: There will be no change in the level of happiness each subject's experiences.

Alternative Hypothesis for subject's happiness level: There will be a significant change in the level of happiness each subject's experience.

Null Hypothesis for subjects changing the way they use their self-talk: Subjects will show no change in the way they use self-talk.

Alternative Hypothesis for subjects changing the way they use their self-talk: Subjects will show a change in the way they use self-talk.

4.2 Results:

In respect to the Level of Happiness hypothesis, the data indicated there was a significant difference in scores between the pretest and the post test in the level of happiness the subjects experienced. There is a .000 significant in this study with a .006 significant 2-tailed ($F_{12}=3.290$, $t=2.52 < .006$). Therefore the Null Hypothesis of there would be no difference in level of happiness once the subjects have taken part in

positive self-talk sessions and did not accept it.. Although there were two subjects who did not improve overall as a group there was a positive correlation of happiness level in comparison to the pretest and post test.

Testing the subjects of whether they have used positive self-talk was not possible in using the specific data that was collected, however the improvement of the subjects happiness suggest the Null Hypothesis of Positive Self-talk is true. In teaching lessons of positive self-talk, one was able to observe that there was a change and improvement of how the subjects talked about oneself. While the journals that were completed were not collected and group discussions show that the subjects had started to use new phrases when talking about themselves and their efforts.

Looking at the results (See Appendix C) from the pretest and the posttest of the subjects' happiness level shows a number of things. Where majority of the subjects improved in their scores there were a few that went down and one that stayed the same, however these numbers help suggest that the subjects were actively using positive self-talk.

4.4 Summary:

Thirteen subjects agreed to participate in a study that measured the happiness of each subject. They then participated and followed several lessons on how to change of their person's self-talk to become more positive. These classes are used to help the subjects use positive self-talk more regularly. As a result it was the desire to see that the positive self-talk will improve the subjects happiness level. The subjects were than given

a posttest to measure if there was an improvement, stayed the same or went down in their score. Both test results were inputted to a Paired Sample t-test. The test that was chosen is one that is seen regularly in self-help books to measure the level of a person's happiness level and looked at several aspects of happiness not just specifically sadness and happiness.

Chapter 5

5.1 Summary of Chapters One through Four:

The rise in depression causes many therapist and people to seek new ways of working on developing higher happiness levels. While many people are prescribe medicine to help raise their happiness level there is much more that can be involved in working with their happiness level. It is important for people to work on improve themselves and not just depending on medicine.

Happiness is the most sought out emotion and it is important to be able to define this emotion properly to understand what one is actually looking for when they are trying to improve their happiness. (Bettman& Wood, 2007) There are several psychological terms that help with altering ones happiness level. The study of Positive Psychology focuses on the concept of what makes one functional rather than what makes some one dysfunctional. Using this concept one can look for what makes people happy rather than what is making someone depressed. (Seligman, 2002) Cognitive Behavioral Therapy suggest that the use of Positive Self-talk can benefit those seeking therapy to improve their happiness. Changing the way one talks about them works on thought and behavior. (Duarte, Miyazaki, Blay & Sesso, 2009)

Thirteen young adults age ranging from twenty to thirty all took part in classes to help change their self-talk to being positive. This study tested their happiness before and after the classes took place. This study is looking to find alternative ways to help people raise their happiness level. Burn's Depression Inventory questions not just the subjects' happiness or sadness but items that can affect ones happiness.

The Paired Sample t-test showed that there is a significant between using Positive Self-talk and ones happiness level. In looking at the data received from the outcome of pretest and posttest majority of the subjects' happiness level improved.

5.2 Discussion:

The prediction for this study was that there would be an improvement of one's happiness level when using positive self-talk regularly and correctly. Once pretest and posttest were compared on average there was an improvement in scores. However, in total four of the thirteen subject did not improve. One subject stayed the same while the other three went down in their score. Interestingly these subjects were those who started out with a much lower pretest score. These subjects started with test results that suggest that overall are happy people.

Previous studies suggest that there is positive effectiveness of using positive self-talk to help with depression. The information that was collected from this study showed a similar outcome in which those who took place in using positive self-talk tended to become happier in their everyday life. There were several members who did not improve. It was interesting to see that those who started out with better scores in happiness were those who showed no improvement. This could be the case because they may have been having a bad day or week when taking the post test or just the same they could have been having a really good week the week they took the pretest. The study consists of only higher educated twenty to thirty year olds. The fact that those who took part of this study were educated could be why they found it easy to take part in the lessons and practicing using self-talk without people telling them all the time what to do. Majority of the

subjects were female which could have the equal effect as the age and education could have.

5.3 Conclusion:

Happiness levels that were found in this study showed an improvement overall. This further supports many of the past studies that suggest that positive self-talk can promote a happier person. Even though the researcher attempted to make an even population there was difficult experience getting males involved in the study. Furthermore those who were most willing to take part in the study had attended college and were interested in educating themselves further. The population that was studied was a rather small group because it was a time consuming study therefore the specific cohort that turned out for the study was not intentional.

5.4 Implication of Further Research:

This study had an inability to cover a large population to observe which gender, age and education could have an effect on learning positive self-talk. If this study could be done in a broader field then, there is a greater chance to discover if positive self-talk can promote higher happiness levels for all types of people or if there is a specific cohort that is more apt to respond in a significant manner.

In this study there were a much larger number of females than to men. This makes the argument of whether women are more likely to benefit from this study for several reasons. It would be a good idea in further research to do a comparison between

females and males. There could be several explanations of why this could be. Positive Self-Talk deals with a lot of “I” statements and working with feelings and emotions. Many studies suggest that women tend to be better at these types of experiences. Also, women and men may interpret direction and their thoughts differently. This could change the extent of the change in happiness levels.

In this study the age group that was worked with was from twenty to thirty years of age. Further research can look further into age groups and see if there are specific groups that respond better to Positive Self-talk. In this study the age group that turned out were those who were at a point in life where they are becoming happy with what they are doing and become interested in finding new way to promote their happiness. It would be interesting to see how adolescents would respond to this same study. Will they take part effectively in the study and be willing to fulfill all the requirements. This group is an important group to focus on because if these skills are taught earlier on it could be used as a prevention of further depression at later ages.

Lastly, education could be a focus in later studies. In this study everyone has attended college which suggest that they have the ability to take part in lessons and understand what is being taught and utilizing the information that is provided. Higher education could be the reasoning why the subjects in this study benefited from using positive self-talk. If this is focused on it could prove to be positive or it could eliminate the possibility that something like education can sway ones happiness.

References

- Backer, K.D., Fletcher, R., Kessler, D.M., Kazantzis, N., & Neimeyer, R.A., (2008):
Group Cognitive Behavioral Therapy for depression Out comes Predicted by
Willingness to Engage in Homework, Compliance with Homework, and
Cognitive Restricting Skill Acquisition. *Cognitive Behavioral therapy*. 37:4, 199-
215.
- Barlow, P. J., Tobin, D.J., & Schmidt, M. M., (2009). Social Interest and Positive
Psychology: Positive. Aligned. *Journal of Individual Psychology*. 63:3, 1991-
202.
- Beck, A.T., Rush, J.A., Shaw, B.F., & Emery, G. (1979). *Cognitive Therapy of
Depression*, New York: Guilford Press.
- Benson, P. (1997) *All Kids are our Kids*. San Francisco: Jossey Boss.
- Betterman, J., & Wood, S., (2007). Predicting Happiness. How Normative Feelings Rules
Influences and ever Reverse Durability Bias. *Journal of Consumer Psychology*,
17 (3), 188-201.
- Catalano, R.F., Berglund, M.L., Ryan, J.A.M., Lonczak, H.S., & Hawkins, J.D. (2004).
Positive Youth Development in the United States: research findings on
evaluations of Positive Youth development programs. *The Annals of The
American Academy of Political and Social Science*, 591, 98-124.
- Chahine, L.M., Chemali, Z.N., & Naassan, G. (2008). On Happiness: A Minimalist
Perspective on a Complex Neural Circuitry and its Psychosocial Constructs.
Journal of Happiness Study. 9:489-501.
- Coleman, B., & Holder, M., (2009). The Contribution of Social Relationships to
Children's Happiness, *Journal of Happiness Study*, 10:329-349.
- Craighead, W.E., Hart, A.B. , Craighead, L.W., & Ilardim, S.S., (2002). *Psychosocial*

- Treatments for major depressive disorder. In P.E. Nathan & J.M. Gorman, A Guide to treatment that works (2nd ed) New York, Oxford Press.*
- Deci, E.L. & Ryan, R.M. (2000). That 'what' and 'why' of goal pursuits: Human needs and the self-determination of Behavior. *Psychological Inquiry*, 11, 227-268.
- DePape, A.M., Hakim-Larson, J., Voelker, S.M Paige, S., & Jackson, D.L., (2006). Self-Talk and Emotional intelligence in college students. *Canadian Journal of Behavioral Science* 38, 250-260.
- Devereux, P.G. & Ginsburg, G.P. (2001) Social effects on the production of laughter. *The Journal of General Psychology*, 128: 227-240.
- Duarte, P.S., Miyazaki, M.C., Blay, S.L. & Sess, R., (2009). Cognitive-behavioral group Therapy is an effective treatment for major depression in Hemodialysis patients. *Internal Society of Nephrology*. 76, 414-421.
- Fredrickson, B.L., Otake, K., Tanaka-matsum, J. & Otsui, K. (2006). Happy People become Happier through Kindness: A counting kindness Intervention. *Journal of Happiness Studies*. 7:361-375.
- Goodfellow, B., Linley, P.A. & Josephe, S. (2008). Positive Changes in out look following Trauma and their relationship to subsequent Post Trauma and their relationship to subsequent Post Traumatic Stress, Depression and anxiety. *Journal of Social and Clinical Psychology* 8:877-891.
- Hardy, J., Markland, D. & Oliver, E., (2010). Interpretation of Self-talk and post-lecture affective states of higher education students: A self-determination theory perspective. *British Journal of Educational Psychology*. 80: 307-323.
- Jemmer, P. (2009). Self-Talk: The Spells of Psych-chaotic Sorcery. *European Journal of Clinical Hypothesis*. 9:1, 51-58
- Karwosk, L., Garrat, G.M. & Illardi, S.S.(2006). On Intergration of Cognitive-Behavioral

Therapy for Depression & Positive Psychology .

- Kessler, M.B., McGonagle, K.A., Zhao, S., Nelson, C.B., Hughes, M., Eshkeman, S.,(1994). Lifetime and 12 month prevalence of DSM psychiatric disorders in the United States *Archive of General Psychiatry*, 51, 8-19.
- NACBT Online Headquarters. Retrieved from www.nacbt.org
- Park, N., Peterson, C. & Seligman, E.P.(2005), Orientations to Happiness and Life Satisfaction: The Full life versus the Empty Life. *Journal of Happiness Studies*. 6:25-41
- Peterson, C.(2009). Positive Psychology: Reclaiming children and youth. 18, 2, 3-7.
- Schwartz, B., & Sharp, K.E. (2006). Practical Wisdom: Aristotle meets Positive Psychology. *Journal of Happiness Studies*, 7:377-395
- Sheldon, K.M., & King, L. (2001) Why Positive Psychology is Necessary *American Psychologist*, 56, 2160-217.
- Seligman M.E.P. (2003) Positive Psychology: Fundamental Assumptions. *Psychologist* 16, 126-127.
- Seligman, M.E.P, Steen, T.A, Park, N., & Peterson, C. (2005). Positive Psychology progress: Empirical Validation of Interventions. *American Psychologist*, 60,410-421.
- Seligman, M.E.P. (2002) *Authentic Happiness*. New York. A Division of Simon & Schuster Inc.
- Werner, E.E. (1982) *Vulnerable but invincible: A Longitudinal Study of Resilient Children and Youth*. New York: McGraw-Hill.
- Wood, W., Rhodeas, N., & Whelan, M. (1989). Sex Differences in Positive Well-being: A Consideration of Emotional Style and Marital Status, *Psychological Bulletin*, 105, 248-264.

Appendix A

I, _____ agree to participate in a study entitled "The Exploration of Using Positive Self-Talk to make a Change on a Person's Happiness Level," which is being conducted by Elizabeth Armetta, graduate student at Rowan University.

The purpose of this study is to explore the idea that using positive self-talk can help create a happier disposition. I understand that I will be taking Burn's Depression Test to explore my level of happiness. I understand that I will have to make an effort to use positive self-talk for the next three months.

I understand that my responses and that all the data gathered will be confidential. I agree that any information obtained from this study may be used in any way thought best for publication or education provided that I am in no way identified and my name is not used.

I understand that there are no physical or psychological risks involved in this study, and that I am free to withdraw my participation at any time without penalty.

I understand that my participation does not imply employment with the state of New Jersey, Rowan University, the principal investigator, or any other project facilitator.

If I have any questions or problems concerning my participation in this study, I may contact Elizabeth Armetta at (856) 261-3123 or Dr. Roberta Dihoff at 856-256-4000 ext: 3783

(Signature of Participant) (Date)

(Signature of Investigator) (Date)

Appendix B

THE BURNS DEPRESSION INVENTORY

INSTRUCTIONS: The following is a list of symptoms that people sometimes have. Put a check () in the space to the right that best describes how much that symptom or problem has bothered you during this past week.		0-NOT AT ALL	1-SOMEWHAT	2-MODERATELY	3-A LOT
SYMPTOM LIST					
1.	SADNESS: Have you been feeling sad or down in the dumps?				
2.	DISCOURAGEMENT: Does the future look hopeless?				
3.	LOW SELF ESTEEM: Do you feel worthless or think of yourself as a failure?				
4.	INFERIORITY: Do you feel inadequate or inferior to others?				
5.	GUILT: Do you get self-critical and blame yourself for everything?				
6.	INDECISIVENESS: Do you have trouble making up your mind about things?				
7.	IRRITABILITY AND FRUSTRATION: Have you been feeling resentful and angry a good deal of the time?				
8.	LOSS OF INTEREST IN LIFE: Have you lost interest in your career, your hobbies, your family, or your friends?				
9.	LOSS OF MOTIVATION: Do you feel overwhelmed and have to push yourself hard to do things?				
10.	POOR SELF-IMAGE: Do you think you're looking old or unattractive?				
11.	APPETITE CHANGES: Have you lost your appetite? Or do you overeat or binge compulsively?				
12.	SLEEP CHANGES: Do you suffer from insomnia and find it hard to get a good night's sleep? Or are you excessively tired and sleeping too much?				
13.	LOSS OF LIBIDO: Have you lost your interest in sex?				
14.	HYPOCHONDRIASIS: Do you worry a great deal about your health?				
15.	SUICIDAL IMPULSES: Do you have thoughts that life is not worth living or that you might be better off dead?				
Add up your total score for the 33 symptoms and record it here.					
DATE:					

Abstract C

Subjects	1	2	3	4	5	6	7	8	9	10	11	12	13
Pretest	9	22	30	16	30	18	20	27	14	24	22	28	12
Posttest	11	17	26	16	28	17	16	25	15	21	18	21	11

Data Entry of results from pretest and posttest of subjects' Burn's Depression Inventory