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Gratitude and Kindness: Just What the Doctor Ordered

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Gratitude and Kindness: Just What The Doctor Ordered

By
Kathleen Glynn

A Thesis Presented to the Graduate Faculty of the College of Liberal Arts
In Partial Fulfillment of the Requirements for the Degree of

Master of Arts
In the field of Psychology

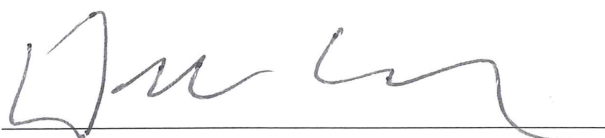
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“The journey is what brings us happiness, not the destination.”

- *Dan Millman, author of “The Peaceful Warrior”*

Abstract

In recent years, the positive psychology movement has grown and researchers have become interested in studying overall well-being and the predictors of happiness. Previous studies have indicated that biology plays a role in determining an individual's happiness, but this is not the only contributing factor. Thought patterns and behaviors play a key role in one's overall well-being. The current study evaluated the relationship that a practice of gratitude and performing acts of kindness had on participants' scores on happiness, gratitude and social support scales. It was predicted that individuals who performed acts of kindness and practice gratitude for one week would score significantly higher than those in the control group as well as individuals who only performed acts of kindness or practice gratitude on the aforementioned measures. Results indicated that a combination of practicing gratitude and kindness significantly increased participants' scores on self-esteem and gratitude measures and significantly decreased their scores on measures of perceived stress. Previous research has demonstrated that when individuals experience higher amounts of gratitude and self-esteem and lower amounts of stress, they are more likely to also experience increases in happiness. Therefore, practicing gratitude and kindness may help to increase happiness.

Dedication

I would like to dedicate this thesis to my family, which includes my husband, Troy McWhorter, and two daughters, Maddy and Lilly McWhorter, but especially to my dearly departed mother, Diane Glynn. She was supportive and patient with me as I navigated my way through the rigors of graduate school. She understood the sacrifices I had to make in order to succeed according to my own standards, and knew I would accept no less than my very best. At the time of her death, I know she was proud of the work I had accomplished and I have no doubt that she would be proud of me today. Thank you mom, for your unwavering faith and support in me. You will live forever in my heart.

I am also deeply appreciative of Dr. de la Garza, my committee chair, who tirelessly read through draft after draft of this thesis. He was always there, patiently answering all of my questions and guiding me every step of the way. Without him, this thesis would not be what it is today. Thank you again!

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Introduction

How much control does an individual have over his or her own well-being? Is it something that is controlled by external circumstances or is it something that is predetermined at birth? These are some questions that researchers and geneticists have been grappling with over the past few decades (De Neve, Christakis, Fowler, Frey, 2012; Lyubomirsky, Sheldon & Schkade, 2005). In recent years, many psychological researchers have shifted from an illness-model that focuses on what is “wrong” with people by only focusing on things such as depression and anxiety, to one of mental health, which concentrates more on what is “right” with people, examining concepts such as happiness and overall well-being (Aspinwall & Tedeschi, 2010; Gillham & Seligman, 1999). For example, a traditional psychologist’s job is typically focused on diagnosing client’s in order to offer an appropriate form of therapy. Positive psychologists, however, are more likely to be interested in how individuals who, despite going through a personally traumatic experience, have shown resilience and strength of character. Since the birth of positive psychology, whose purpose is to study the positive attributes of individuals, clinicians and researchers have been able to take a new approach to mental well-being, specifically looking at factors such as gratitude and happiness as possible predictors of overall well-being (Aspinwall & Tedeschi, 2010; Gillham & Seligman, 1999). With this new approach, public health leaders and clinicians have been able to develop strategies that promote health in a way that benefits individuals, communities and public policies (Kobau, Seligman, Peterson, Diener, Zack, Chapman, Thompson, 2011). Researchers of positive psychology are interested in what cognitive or behavioral aspects contribute to mental health, and if overall well-being is something that can be created (Gillham & Seligman, 1999).

However, before moving further, it is important to understand what the terms “overall well-being” and happiness mean. Overall well-being has been described along with happiness (Lyubomirsky, 2008), low stress levels (Schiffrin & Nelson, 2010), resilience to obstacles and life stressors (Veronese, Castiglioni, Tombolani & Said, 2011), and fulfilling social relationships (Leung, Kier, Fung, Fung, & Sproule, 2011). Happiness has been defined as a feeling one has when their life has meaning, is good and valuable (Lyubomirsky, 2008). As past research shows, happiness can serve a greater purpose in one’s life and is not just an attempt to fulfill a self-serving need (Lyubomirsky, Sheldon, & Schkade, 2005), but can contribute to improved social relationships (Leung, Kier, Fung, Fung, & Sproule, 2011), lower stress levels (Schiffrin & Nelson, 2010), improved health outcomes (Kobau et al., 2011), increased life satisfaction and resilience (Veronese, Castiglioni, Tombolani & Said, 2011). For example, improved social relationships can be seen on a personal level between family members who, when happier, are more willing to communicate open and honestly with each other. Someone who is happier may have lower stress levels because they have the ability to rebound from stressful situations, whereas someone who is unhappy may become overwhelmed in a similar situation. Throughout this thesis these concepts of happiness and overall well-being will be explored in greater depth.

Purpose

The purpose of this thesis is two-fold. The first objective is to discuss current research on happiness and predictors of happiness, with a focus on gratitude and kindness. The second is to propose an experimental study that hopes to determine a relationship between gratitude, kindness and an individual’s overall well-being. Due to a limited number of experimental research studies on kindness, gratitude and happiness, the current study intended to explore the relationship between these variables.

Literature Review

So far, researchers have been unable to find a simple answer as to how an individual can achieve lasting happiness (Sheldon & Lyubomirsky, 2006). Like many other things in life, the answer is not black and white and may differ from person to person. Some questions one may ask are: Is happiness positively correlated with the numbers in one's bank account? Does one's family life or relationship status account for their overall well-being? Or does biology determine how happy we are? Brickman and Campbell (1978) proposed the concept of the "Hedonic treadmill," which proposed that people are born with a happiness set point and that while external events may cause one to deviate from this point, eventually one will return to the original set point. For example, Kennon and Lyubomirsky (2006) found that changes in circumstances, such as getting a new car or a raise at work can increase one's happiness, but the boost is only temporary. This temporary increase in happiness can be explained by people's ability to quickly adapt to new changes, as can be seen in Figure 1. A newly-wed couple in love may experience a euphoric sense of happiness for days and weeks after the wedding, however, after enough time passes and regular daily life resumes, they will adapt to the marriage. This finding reflects the "Hedonic treadmill" theory since an individual can experience a temporary boost in happiness, when a goal is realized, eventually the individual returns to their original happiness set point (Diener, Lucas & Scollon, 2006).

Still, some researchers continue to argue over whether or not it is possible for one's set point to be adjusted (Lykken, 2007; Diener, Lucas & Scollon, 2006) and if it is possible to sustain increases in happiness over time (Lyubomirsky, Sheldon & Schkade, 2005). There appears to be a happiness set point that an individual is born with (Diener & Scollon, 2006), which was demonstrated using monozygotic twins who were reared apart and scored similarly on

a measure of subjective well-being which was given twice over a ten-year period (Lykken, 2007). Other studies using monozygotic and dizygotic twins go as far as to say that genetic factors account for about 33% of the variance on individual happiness (De Neve et al., 2012). Some researchers argue that biology accounts for as much as 50% of an individual's happiness set point (Lyubomirsky et al., 2005). While these researchers cannot seem to agree on an exact percentage of how much an individual's happiness can be accounted for biologically, it is clear that happiness is a combination of both nature, ie., born with a set point, and nurture, ie., environmental factors such as a pay raise at work.

It has been demonstrated through the numerous twin studies, as discussed above, that biology plays a role in an individual's happiness. However, differences were still apparent, even in the monozygotic twins (De Neve et al., 2012), which is an indication that other variables may affect the overall happiness of individuals. Happiness researchers believe that life circumstances and cognitive processes are also responsible for an individual's happiness. According to Lyubomirsky et al. (2005), there are three major factors that contribute to happiness. The first factor is the happiness set point, which could account for as much as 50% of an individual's well-being; secondly there are external circumstances which one does not have complete control over and one can include factors such as where one lives, marital status, income level and career. According to this model, these factors only contribute a total of 10% to one's overall happiness. The other 40%, researchers argue, is attributed to cognitive and behavioral factors, in which an individual has the most control over. These factors may include the types of thoughts and perceptions one has about themselves and the world around them as well as the activities they participate in, such as meditation or practicing gratitude (Lyubomirsky, Sheldon & Sckade, 2005). For example, someone who isolates themselves because they believe the world is an

unsafe place, filled with people who are dishonest and selfish, is less likely to report feelings of happiness and well-being when compared to someone who has rich social relationships and spends their time doing kind acts for other people.

However, in spite of the fact that researchers still argue in favor of the “hedonic treadmill” theory, some researchers say that efforts to increase happiness are not fruitless. Kennon and Lyubomirsky (2006) conducted a longitudinal study that attempted to measure whether increases in happiness could be sustained over time. The researchers in this study recruited individuals who had either recently experienced a positive change in their lives or had recently begun a new activity they considered to positively affect them. Those in the positive life changes condition reported life changes such as getting a new roommate they liked and receiving good news about a mother after an operation to remove a tumor. Those in the positive activities condition reported behavioral changes such as beginning a new exercise routine or making a commitment to spend five hours a day on schoolwork. At the beginning of a regular 16-week semester, researchers measured individuals’ happiness soon after the positive change occurred or beginning the positive activity. At the end of the semester, researchers gave participants the same questionnaire to compare the levels of happiness, thus, to determine if levels of happiness had decreased, increased or remained stable. Results indicated that those in the positive life change condition reported a decline in happiness, while those in the positive activity condition reported sustained levels of happiness throughout the semester. Although baseline measures of happiness were not obtained, these results indicate that those in the positive change condition may have returned to a predetermined happiness set point, while those in the positive activity condition were able to maintain the initial boost in happiness they experienced after beginning the new activity. It is also essential to take into consideration that the latter group was able to maintain

levels of happiness during the semester, even when faced with challenges and stressors college students face over the course of the semester (e.g., exams, term papers, projects, etc.) (Kennon & Lyubomirsky, 2006).

It is important to briefly note the difference between an intentional activity and life change. An intentional activity refers to something that requires effort on the individual's part, whereas a life change is an event that happens to the individual (Lyubomirsky et al., 2005). These findings could be attributed in part by the explanation that when people look to external circumstances and situations for happiness, they are placing their own well-being into the hands of someone else and are relinquishing control (Diener, Scollon, & Nappa, 2006). By choosing instead to begin engaging in positive activities, one may experience an increase in happiness by taking back this control. For example, someone who begins a practice of gratitude in spite of negative outward circumstances is taking control of his or her own cognitive processes and perception of the world around them into their own control.

It is also important to take into account that these new activities are something which individuals enjoy doing. The intentional activity should fit one's own needs and talents, because if the activity or action is something in which they are not proficient at or are doing for the wrong reasons, then it is not likely to lead to an increase in overall well-being (Sheldon & Lyubomirsky, 2006). Also, the intentional activity must be in alignment with the individual's values, resources, strengths and characteristics in order for them to achieve the desired results on increased well-being. For example, someone who is an Atheist would not be likely to benefit from an intentional activity that involved praying.

In order to implement a new activity in one's life, there are two types of effort that are required: 1) Effort to initiate the activity and 2) Effort needed to maintain the activity

(Lyubomirsky et al., 2005). In order for the individual to make an effort to initiate the new activity, the new endeavor must be something that the individual finds valuable enough to put forth the effort and time required and also to overcome any obstacles that might arise, such as remembering to do the activity in the first place. For example, someone who is serious about wanting to lose weight may begin a new exercise program. It is the initial desire to lose weight that pushes this individual to put forth the effort to exercise. It will be important that this individual schedules time regularly throughout the week to exercise and make the activity habitual. Once the individual has been engaging in physical activity over a long-term period, effort to maintain the activity is still required. Lally, Wardle and Gardner (2011) demonstrated that the more frequently individuals perform a particular behavior, or with repetition, the activity becomes more automatic and requires less effort. According to Lyubomirsky et al. (2005) once an individual begins engaging in the new activity and sees the benefits associated with the activity, maintaining the effort should not be difficult. In our weight-loss example, this individual may discover they find pleasure in aerobics classes and thus are likely to continue engaging in this type of exercise because it is something they genuinely like doing. In addition, they are also likely enjoying the benefits associated with this activity.

In support of the idea that participating in positive activities increases levels of happiness, past research has indicated that a number of activities can lead to well-being, these include but are not limited to engaging in physical activity (Parks, Della Porta, Pierce, Zilca, & Lyubomirsky, 2012) or adopting an attitude of gratitude and practicing spirituality (Koenig & Larson, 2001). Nurturing social relationships has also emerged as an essential part of one's overall well-being (Leung et al., 2011). Diener and Seligman (2002) found that those who reported higher levels of

happiness also reported stronger, more meaningful social and romantic connections than those who reported lower levels of happiness.

It is also worth noting that one activity that many people report regularly taking part in an effort to increase their overall happiness is the act of nurturing social relationships (Parks et al., 2012). Brown (2006) explains that humans are hard-wired for social connection and are imperative to happiness and has observed that an individual's sense of being worthy of love and connection are necessary components for overall well-being. When connecting with other people, Brown (2012) explains that being vulnerable and being true to one self are essential components of a meaningful relationship. The purpose of vulnerability is to set the stage for the relationship and allow both individuals the ability to be honest with and trust each other. Baker and McNulty (2013) refer to vulnerability as the act of engaging in behaviors that risk rejection. Doing so opens an individual up to being vulnerable. An important component that emerged from this research was that an individual's self-esteem plays a significant role in whether or not they are able to engage in such behaviors that could put them at risk for rejection. Some behaviors that risk rejection mentioned by the authors include, but are not limited to showing affection, seeking affection and asking for support. These behaviors, which are intended to increase interdependence and thus strengthen personal relationships, often present individuals with a dilemma. On one hand they can choose to be open and engage in risk-taking behaviors, which could increase intimacy, but is accompanied by the possibility of rejection. On the other hand, an individual could choose to remain safe, not perform any risk-taking behaviors and maintain a stagnant relationship that lacks meaning and intimacy. It was demonstrated that individuals who were classified as Low Self-Esteem (LSE) were less likely to engage in the risk-taking behaviors, likely because they were more concerned with self-protection and to avoid

getting hurt (Baker & McNulty, 2013). This example of self-protection, however, goes against human nature, because as mentioned above, we are biologically wired to form and maintain close, intimate relationships with those around us (Brown, 2006).

This need to connect with other humans is also demonstrated through the theory of evolution. For thousands of years, humans have been relying on one another for survival. Humans have had to learn to cooperate and work alongside others to accomplish mutual goals that involve hunting, foraging, preparing food, constructing homes and caring for children to name a few examples (McCullough & Pedersen, 2013). It seems likely to assume that those who belonged to a group of people, working together towards common goals, were more likely to survive than the individual out in the wilderness alone. If this assumption is correct, then it is also likely that as humans have evolved, this need for social interaction has evolved along with humankind.

This brings up the importance of one's self-esteem in relation to their happiness and overall well-being. Many studies have found that individuals with lower self-esteem are more vulnerable to suffer from depression (Sowislo & Orth, 2013) and were found to be ill-equipped to handle stressful situations as opposed to individuals with higher self-esteem. Self-esteem has been shown to act as a barrier, or buffer between an event and one's perception of it. Eisenbarth (2012) examined the relationship between depression, stress and coping strategies among college students; and results suggest that self-esteem could either protect or hinder the individual. Those who had higher reports of self-esteem seemed to be less susceptible to depression and also dealt with stressful situations better than those with low self-esteem. This could be because an individual with higher self-esteem would also have higher levels of self-efficacy. Since self-esteem correlates with depression, it could be predicted that it would correlate with happiness.

This is precisely what was shown by Cheng and Furnham (2004), who found that self-esteem was significantly positively correlated with happiness.

Furthermore, since it has been established that biology plays a significant role in one's overall well-being, it may be worth investigating the other factors that contribute to happiness. If the findings by Lyubomirsky et al. (2005) are supported, and an individual's happiness is comprised of biological factors, which account for 50% of our happiness and circumstantial situations, which makes up for 10%, then that leaves the individual responsible for the other 40%. The concepts of gratitude and kindness are seen throughout the literature on well-being and seem to have a direct relationship to overall well-being. However, to date there have been no known studies that look at gratitude and kindness together. Knowing this, these two concepts were the primary focus of the current study.

Gratitude

Although research in this area is in its infancy, it appears that there is a strong positive correlation with gratitude and overall well-being. Sansone and Sansone (2010) describe gratitude as the act of appreciating something that is of value or which is meaningful to an individual. It can also represent a state of feeling thankful or appreciative. This definition allows researchers to transcend feelings of gratitude associated with material possessions, such as an individual's reports of feeling grateful for a gift they received, and suggests that feelings of gratitude for a particular experience, or concepts such as feeling grateful to be alive or for a beautiful scene in nature may be of greater value when contributing to one's well-being (Sansone & Sansone, 2010). This concept of gratitude and being thankful relates back to findings that indicate individuals find more happiness in savoring life's joys as opposed to acquiring material possessions are more beneficial to one's overall well-being (Lyubomirsky, 2008).

Materialism, and placing high amounts of value on finances, can lead to less life satisfaction, even when one has a large income (Nickerson, Schwartz, Diener, & Kahneman, 2003). Lyubomirsky (2008) suggests that people who spend their money on enjoyable experiences, such as family vacations or outings, are happier than those who spend money on acquiring more material possessions, such as a new TV. This could be explained in relation to the Hedonic Treadmill theory. If an individual wants a new TV, there will be a great deal of happiness when this object is first acquired, but after time, this happiness fades, and returns to the original set point. However, if someone chooses to take a family outing instead, they are spending time with people they care about and are nurturing those social relationships. These findings indicate that the positive experiences have a longer-lasting effect on one's happiness than the acquiring possessions, which may only produce a sense of euphoria which is short-lived.

Furthermore, Emmons and McCullough (2003) found that individuals who were asked to list five things they were grateful for at the end of each day for a week saw a significant increase in scores of measures of positive affect and gratitude in comparison with those in a control group. The participants in the gratitude group also reported significantly fewer physical complaints and more time engaging in healthy behaviors such as exercise (Emmons & McCullough, 2003). Thus, when individuals practice gratitude, they are not taking situations or things for granted and are reminded of the good they have in their lives, which can lead to sustained increases in well-being (Lyubomirsky, 2005). The element of time appears to play a factor as well. Many of the studies that involve the practice of gratitude ask participants to do so over a period of time such as a week (Emmons & McCullough, 2003) or for six weeks (Lyubomirsky, 2005).

Gratitude also seems to play an important role in interpersonal relationships. For example, individuals in romantic relationships found that expressing gratitude towards one's partner helps the individual who is reflecting on the appreciation to realize the value of the relationship. Being grateful for one's partner contributes to the relationship's stability over time and indicates that those who were more appreciative of their significant other also believed they would still be together nine months later. Additionally, when individuals felt appreciated by their partner, they were in turn more appreciative of the partner (Gordon, Impett, Kogan, Oveis, & Keltner, 2012). Clearly gratitude contributes to one's overall well-being, perhaps because it can help to strengthen personal relationships, which have also been shown to be a key factor in one's happiness (Algoe, Haidt & Gable, 2008).

Kindness

Research on gratitude and its effect on relationships is important to happiness research since as the research suggests, social relationships play a large role in one's overall well-being. Another related concept worth examining is kindness. Otake, Shimai, Tanaka-Matsumi, Otsui, and Fredrickson (2006) stated that kindness is an essential component to good social relationships and is strongly correlated with happiness. Kindness adds positivity to social relationships, which are an important predictor of happiness (Lyubomirsky, 2001).

Other studies have indicated that performing kind acts increases one's perception of and satisfaction with personal relationships (Alden & Trew, 2013). The same study indicated that due to its effects on social relationships, kindness may also help to improve an individual's self-esteem. Fredrickson (2001) stated that when other people experience happiness and positive social interactions due to their own kindness, an upward spiral is created, generating increases in happiness. This concept is illustrated by researchers who had individuals practice "counting

kindness” for one week. Participants were given a survey intended to measure their subjective happiness. Participants were then instructed to become aware of their own kind behavior towards others each day over the course of a week. Participants were asked to write down each act of kindness and to report the amount of kind acts at the end of each day. One week after the study was completed, participants were given the happiness survey again. Researchers found that the simple act of “counting kindness” led to significant increases in the participants’ happiness and was maintained a week later (Otake et al., 2006). Again, this component of time emerges where after a week of beginning a new behavior, in this case counting one’s own kind acts, participants show an increase in well-being.

Another way individuals can increase kindness practices in their lives is by practicing a loving-kindness meditation. This practice has roots in Buddhism and Eastern philosophies and encourages the meditator to direct well-wishes towards other people. The intent of the meditation is to promote positive feelings of kindness towards other people and foster emotional, motivational, cognitive and behavioral changes (Salzberg, 1995). According to Lyubomirsky (2001), motivation and cognition play key roles in the differences that separate happy people from those who are less happy. As mentioned earlier, engaging in positive, intentional activities can lead to sustained increases in one’s happiness when the activity is continued over a period of time (Lyubomirsky et al., 2005). Someone who is better able to recognize and understand the rewards associated with engaging in certain activities is more likely to be motivated to engage in such an activity than someone who is unable to see the benefits of the activity. In our previous weight-loss example, this person was able to see the benefits of exercise and was motivated to lose weight. If this person instead didn’t feel exercise would be beneficial enough to them, they would be less motivated to begin exercising in the first place.

Coming back to engaging in kind behaviors, a study was designed to assess if a Loving-Kindness Meditation (LKM) can lead to improvements in social connection by obtaining a sample of 93 participants who reported meditating for less than 30 minutes a day (Hutcherson, Seppala, & Gross, 2008). The researchers randomly assigned participants to either the LKM condition or a visual imagery condition. It was found that participants in the LKM condition demonstrated significant increases in positive mood as well as a stronger connection and positive feelings towards other people, including strangers (Hutcherson, Seppala, & Gross, 2008). With these results it is clear that practicing kindness, along with gratitude also contributes to increases in happiness. It is possible that just as gratitude is shown to strengthen interpersonal relationships, kindness does as well, which raises an interesting question. On their own, both gratitude and kindness have been shown to increase individuals' overall well-being, so would engaging in both activities lead to even larger increases in happiness than engaging in only one?

Current study

Previous research indicates that behavioral changes that are sustained over time lead to increased happiness (Kennon & Lyubomirsky, 2006), so the current study incorporated behavioral changes which included kindness and gratitude as possible predictors of well-being. The current study intended to examine the relationship that gratitude and kindness has with one's overall well-being. Participants were asked to either begin a practice of gratitude, kindness or both gratitude and kindness. Due to a limited amount of experimental research in this area, the current study intended to identify a relationship between these constructs. Since previous research has indicated that happiness tends to be sustained when it is related to a change in one's behavior that is continued over a period of time (Kennon & Lyubomirsky, 2006), the current study will employ a technique that required participants to make some type of behavioral

change, which would incorporate acts of kindness and/or gratitude. Since the literature, as discussed above, suggests that performing acts of kindness and practicing gratitude can increase one's overall well-being (Lyubomirsky, 2005), the current study explored the results that a combination of both had on an individual's happiness.

Condition Description

The participants in the current study who were asked to practice gratitude were given the following operational definition of gratitude: gratitude is the act of taking time to be mindful of what one is thankful for and appreciating something that is of value or meaningful to an individual. The former constructs have demonstrated higher and longer lasting increases to an individual's happiness as opposed to material possessions (Lyubomirsky, 2008).

Some types of behavior practices involving gratitude which were provided to participants as an example on how to express gratitude included: journaling about what one is grateful for, thinking about someone who makes one feel grateful, writing a letter to someone who one is grateful for, meditating on gratitude, practice saying "thank you" and meaning it and praying about gratitude (Sansone & Sansone, 2010).

For the kindness component, because research has demonstrated that both kindness (Otake et al., 2006) and making positive behavioral changes (Kennon & Lyubomirsky, 2006) can lead to increases in happiness, the current study asked participants to carry out kind acts. Results from a pilot study found that certain acts such as smiling at a stranger and volunteering at an animal shelter were considered to be kind acts. Participants were given a list of behaviors that were rated as kind acts and were allowed to choose which acts they would carry out. The acts of kindness that were provided for the participants are discussed in further detail in the materials subsection of the method section. The complete list may be reviewed in Appendix C.

The current study had one group of participants who engaged in both activities, which include practicing gratitude and performing kind acts. This was done because since to date, there have been no experimental studies which have participants incorporating two practices (i.e., gratitude practices and performing acts of kindness) thus allowing us to examine the interactions.

Hypotheses

¹Based on a review of the literature, five major hypotheses were made for this study.

H1: Participants in the gratitude, kindness and combined (gratitude and kindness) conditions will score higher on measures of happiness, gratitude, self-esteem and social support from T1 to T2.

This hypothesis reflected findings of studies of individuals who experience increases in happiness and overall well-being after beginning interventions involving kindness (Lyubomirsky, 2001), and gratitude (Sansone & Sansone, 2010). There have also been findings that suggest that when individuals experience an increase in happiness that interpersonal relationships improve as well (Leung et al., 2011). This prediction was made based on comparisons made from studies that found that individuals who engaged in acts of kindness or practicing gratitude were significantly happier than individuals who did not engage in these behaviors (Otake, et al., 2006; Sansone & Sansone, 2010).

H2: Participants in the gratitude, kindness and combined (gratitude and kindness) conditions will score higher on happiness, gratitude, self-esteem and social support than members of the control group from T1 to and T2 to T3.

This prediction was made due to participants in the control condition will be participating in a neutral activity that was not intended to produce any changes in participants' happiness, gratitude, self-esteem, perceived stress or social relationships (Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011) and the researcher wanted to determine if these changes were still present one week after the experiment had ended.

¹ Table 1 offers a breakdown of each hypothesis to simplify the intention of each prediction

H3: Participants in the gratitude, kindness and combined (gratitude and kindness) conditions will score significantly lower on measures of perceived stress from T2 to T1.

This prediction was made based on findings that suggest individuals who are happier experience less stress (Schiffrin & Nelson, 2010). Practicing gratitude and kindness have been shown to increase individuals' happiness as some researchers suggest, and it was expected that participants' stress levels would be significantly lower after performing acts of kindness and practicing gratitude (Lyubomirsky, 2001; Sansone & Sansone, 2010). The researcher hypothesized that participants in experimental conditions would report lower levels of stress at post-test measures in comparison to the baseline measures.

H4: Participants in every condition will have measures of social support, gratitude and perceived stress that are predictive of their scores on measures of happiness during T1, T2 and T3.

This prediction was made based on previous findings that have suggested that individuals who are happier also report having more meaningful and fulfilling social relationships (Diener & Seligman, 2002), practice gratitude (Lyubomirsky, 2005) and report lower levels of stress (Schiffrin & Nelson, 2010). It was expected that there would be a similar correlation between members of the control group.

H5: Participants in the combined (gratitude and kindness) will score significantly higher on measures of happiness, gratitude, social support, self-esteem in comparison to those in the kindness and gratitude conditions from T2 and T3.

This assertion was made based on evidence that when individuals make positive life changes, such as an attitude change or behavior, increases in well-being are maintained over a long period of time (Kennon & Lyubomirsky, 2006). This hypothesis assumed that beginning two new positive behaviors, participants would experience even greater increases in happiness and well-being.

Method

Participants

A total of 190 participants were recruited via social media and in undergraduate psychology classes, and therefore were comprised of both UTB students and members of the general public. Students who were recruited from undergraduate psychology courses were offered extra credit for completion of the study.

At T1, 190 participants completed the assessments that included baseline measures of happiness, gratitude, social support, perceived stress and self-esteem. Participants' ages ranged from 18-79. Of these 192 participants, 27.8% were male and 71.6% were female and 66% identified themselves as Hispanic, 28.4% as White, 1% as Asian, 2.1% as Black and 2.1% as Other. Of the 190 participants, 49 were in the kindness condition, 41 were in the gratitude condition, 55 in the combined condition and 45 in the control condition.

At T2, 81 participants had not completed the week of activities, leaving 109 participants that had finished the activities and completed a second set of surveys that included measures of happiness, gratitude, social support, perceived stress and self-esteem after participating in the study. Participants' ages ranged from 18-79, with a mean age of 31.6. Of these 118 participants, 23.73% were male, 76.27% were female and 72% identified themselves as Hispanic, 22% as White, 4.2% as Asian, 0.8 as Black and 1.6% as Other. Of the 109 participants, 26 were in the kindness condition, 25 were in the gratitude condition, 25 in the combined condition and 33 in the control condition.

At T3, a total of 107 participants had not completed the week of activities and assessments, leaving 86 participants who completed the entire study. Participants' ages ranged from 18-79, with a mean age of 31.3. Of these 86 participants, 24.4% were male, 75.6% female and 70.9% identified themselves as Hispanic, 24.4% as White and 4.7% as Asian. Of the 83

participants, 19 were in the kindness condition, 19 were in the gratitude condition, 21 in the combined condition and 24 in the control condition.

Materials

Questionnaires that measure gratitude, happiness, social support, stress reactivity and self-esteem were used in this study in order to obtain participants' T1 pretest, T2 posttest and T3 posttest scores on these constructs. For participants in the kindness and gratitude and kindness conditions, a list of kind acts was provided.²

The Gratitude Questionnaire-6 (GQ-6) (McCullough, Emmons, & Tsang, 2002). The GQ-6 is a 6-item questionnaire with a 7-point Likert-type scale used to determine how thankful an individual generally feels in his or her life. A sample question from the questionnaire is as follows: "If I had to list everything that I felt grateful for, it would be a very long list." The scale has a Cronbach's alpha of .78(see Appendix A).

The Subjective Happiness Scale (SHS)(Lyubomirsky & Lepper, 1999). SHS is a 4-item measure that asks participants first to rate on a 7-point Likert-type scales how generally happy they are (1 – not a very happy person, 7 – a very happy person) and how happy they feel compared to others (1 – less happy, 7 – more happy). The last two questions ask participants to consider how a "very happy" and a "very unhappy" person would characterize them (1 – not at all, 7 – a great deal). According to Lyubomirsky & Lepper (1999), this scale has a Cronbach's alpha of .85, but when a test of reliability was conducted for the current study, it was found to have a Cronbach's alpha of .25. Even though this scale was found to have a low reliability within the current study, this measure was still used in statistical analyses because the scale had been used in previous studies where it had been shown to have a high reliability (see Appendix B).

² Gratitude was treated as a DV as well as an IV as a manipulation check to ensure that the act of practicing gratitude resulted in an increase in participants' gratitude.

Inventory of Socially Supportive Behaviors (ISSB)(Barrera, 1981). This scale is a 40-item questionnaire intended to measure to what degree an individual has the support of others in his or her life. An example of a question on this scale asks participants “how often were other people ... right there with you (physically) in a stressful situation.” Participants are asked to respond using a 5-point Likert-type scale that ranges from 0 = not at all to 5 = about every day. The scale has a Cronbach’s alpha of .97 (see Appendix C).

The Perceived Stress Reactivity Scale (Sclotz, Yim, Zoccola, Janesen & Schultz, 2011). This scale is a 23-item questionnaire designed to measure an individual’s level of anxiety, worry or frustration when responding to a variety of hypothetical stressful situations. The questions are multiple choice and each response is weighted differently. For example, one of the questions asks “When I make a mistake a. In general, I remain confident, b. I sometimes feel unsure about my abilities, c. I often have doubts about my abilities.” This scale has a Cronbach’s alpha of .93 (see Appendix D).

Rosenberg’s Self-Esteem Scale (Rosenberg, 1965). This scale is a 10-item questionnaire designed to measure an individual’s feelings of self-worth that asks participants how much they agree or disagree to a particular statement using a 4-point Likert-type scale. For example, one question states “On the whole, I am satisfied with myself.” The scale has a Cronbach’s alpha of .92 (see appendix E).

Cruel, Neutral & Kind Acts. This list includes 60 acts that were provided to participants for pilot testing in order to create a list of kind acts. When this list was created, there were three different categories, cruel, neutral and kind acts and each of the acts was intended to fall into one of the categories. For example, in the cruel acts, one of the items is “yelling at a store clerk,” in the neutral acts one item is “mailing a letter” and in the kind acts, one item is “helping an elderly

person with their groceries.” Each act was equally distributed, with 20 acts in each category. A list of the acts was distributed to an undergraduate psychology course and extra credit was offered for participation. Once the lists were completed, acts were rated on a Likert-type scale from 0-5 with 0 = cruel, and 5 = kind. Acts that were rated 4 or higher were considered to be kind because on a Likert-type scale, 4 and above would be considered on higher end of the scale, whereas a score of 2 or 3 would be considered neutral and anything below a 2 would be on the lower end of the scale (see Appendix F).

Kind Acts. A list of 18 acts were selected from the pilot study mentioned above. The acts that were considered kind, had a mean score of 4 or higher in order to qualify as being a kind act. The acts that were rated as 4 or higher were chosen for this list, because an item rated 4 or higher on a Likert-type scale would be considered on the higher end of the scale. The list of kind acts was provided to participants in the kindness condition to ensure they performed acts that most would consider to be kind (see Appendix G).

Demographics Form. This form is a two-page form that asks questions about participants’ demographic information, such as their age and gender (see Appendix H).

Informed Consent. A two-page consent form was given to participants offering them a brief explanation about the research and what they were expected to do throughout the study (see Appendix I).

Debriefing Form. This form is a one page form that informed participants of the nature of the study and what the researchers expected to find in the current study (see Appendix J).

Procedure

In order to be able to look at the effects of gratitude and kindness, both individually as well as an effect they may have together, there were four different groups that each participant

had the possibility of being assigned to. One group was instructed to list what they are grateful for, a second group was asked to perform kind acts and a third was instructed to both perform a kind act and list what they are grateful for. The fourth group served as the control condition and was asked to create a list of three things they had done throughout the day. This activity was designed to be neutral and should not have jeopardized any possible significant results found within the experimental conditions (Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011).

A sample size of 196 individuals was obtained through announcements in undergraduate and graduate psychology courses, as well as Facebook pages and groups. Individuals who were interested in participating gave their email addresses to the researcher, who then entered into an excel spread sheet, which placed them randomly into one of the four conditions. The four conditions consisted of gratitude, kindness, gratitude and kindness and a control group. Participants were sent an email that contained basic information about the study and what would be expected of them during the course of the study. They were asked not to discuss the study or what activity they have been asked to participate in, so as not to give away the nature of the study or to compromise the results. They were also given a participant ID number and a link to an informed consent form, which made them aware of rights to cease the study at any time. Once they signed the form electronically, they were prompted to complete the online questionnaires measuring happiness, gratitude, self-esteem, perceived stress and social support via [surveymonkey.com](https://www.surveymonkey.com).

Those who were assigned to the gratitude condition were instructed to take five minutes each day for one week to focus on three things they are grateful for and to think about why they are grateful for these things. Each day, the researcher sent out a reminder email, prompting participants to focus on gratitude and to send their gratitude list as well as a brief explanation of

why they are grateful for these things to the researcher by the end of the day. This was done because Sansone & Sansone (2010) found that meditating on and journaling about gratitude led to increases in individual's overall well-being.

Those who were assigned to the kindness condition were given a list of 20 kind acts that had been previously pilot-tested in terms of kindness. Participants in this condition were asked to choose three acts from this list every day to perform for one week. Participants were told that they could choose to do the same three acts or new ones every day. Each day, the researcher sent out a reminder email, prompting participants to perform three kind acts and to write down which acts they performed and a brief explanation of why they believed the acts were kind. They were then asked to send this list via email to the researcher by the end of each day.

Those who were assigned to the condition with both gratitude and kindness were instructed to do several things. First, they were asked to take five minutes each day for a week to focus on three things they are grateful for and to think about why they are grateful for these things. They were also asked to perform three acts of kindness from the list of 20 kind acts each day for one week. Each day, the researcher sent out a reminder email prompting participants in this group to make a list of three things they are grateful for and a brief explanation of why they were grateful for each as well as a list the three kind acts they performed that day and why they thought the acts were kind. They were asked to send these lists to the researcher by the end of each day.

Individuals in the control condition were asked to make a list of three things that happened to them that day. Each day, the researcher sent out a reminder email prompting participants in this condition to make a list of these three things and send it to the researcher by the end of the day.

A day after the experiment concluded, individuals were then asked to complete the questionnaires on happiness, gratitude and social support during a second pretest session. Participants were tested a third and final time a week after the experiment concluded in order to see if the effects were sustained over time.

A reminder email was sent out to participants each morning because it was a legitimate concern that some individuals would forget to carry out the tasks asked of them. Once the experiment was complete, participants were thanked for their participation and told that if they wanted to learn about the nature of the study and the results they could email the researcher. Once the study was completed, participants were debriefed about the nature of the study and were informed of preliminary results via an email sent out by the researcher. Participants were thanked again for their participation and were informed of the results of the study (see Appendix J).

Results and Statistical Analyses

Before any analyses could be run, the data needed to be screened for normality. The test for normality revealed that the measures of gratitude were negatively skewed and they violated the Kolmogorov-Smirnov test of normality at T1, $D(76) = .166, p < .001$, T2, $D(76) = .17, p < .001$, $D(76) = .137, p = .001$. The distribution of measures of gratitude were negatively skewed with a skewness of -1.307 and kurtosis of 1.998 at T1, as seen in Figure 2, a skewness of -.985 and kurtosis of .538 at T2, as seen in Figure 4, and a skewness of -.745 and kurtosis of -.383 at T3, as seen in Figure 6. In order to transform the data so that its distribution had a more normal, bell-shaped distribution, a log10 transformation was conducted by taking the largest value, which was 42 for gratitude at T1, T2 and T3, adding 1 to it for a total of 43 and subtracting each gratitude score from this value. Even after completing the transformation, the Kolmogorov-

Smirnov test of normality was still not satisfied for gratitude at T1 $D(76) = .142, p < .001, F(3, 186) = 1.17, p = .323$, as seen in Figure 3, T2 $D(76) = .138, p < .001, F(3, 105) = .933, p = .428$, as seen in Figure 5, T3 $D(76) = .156, p < .001, F(3, 79) = .963, p = .415$, as seen in Figure 7. However even though the transformation didn't satisfy the Kolmogorov-Smirnov test of normality, the data had a more normal, bell-shape to it and was less skewed and kurtotic. The gratitude data had a skewness of $-.729$ and the kurtosis was $.241$ at T1, a skewness of $-.396$ and kurtosis of $-.901$ at T2, a skewness of $-.411$ and kurtosis of -1.149 at T3. There were four outliers at T1, but they were kept in the analysis due to the small sample size.

The test for normality revealed that the measures of happiness were negatively skewed and they violated the Kolmogorov-Smirnov test of normality at T1, $D(76) = .126, p = .005$, as seen in Figure 10, T2, $D(76) = .148, p < .001$, as seen in Figure 12, T3, $D(76) = .135, p = .001$, as seen in Figure 14. The distribution of measures of happiness were negatively skewed with a skewness of $-.715$ and kurtosis of 10.44 at T1, positively skewed with a skewness of $.463$ and kurtosis of 1.319 at T2 and a skewness of $-.594$ and kurtosis of 1.026 at T3. In order to transform the data so that its distribution had a more normal, bell-shaped distribution, a log₁₀ transformation was conducted by taking the largest value, which was 23 for happiness at T1, 28 T2 and 25 at T3, adding 1 to each happiness score from the above values. After completing the transformation, the Kolmogorov-Smirnov test of normality was still not satisfied for happiness at T1 $D(76) = .183, p < .001, F(3, 177) = 3.485, p = .017$, as seen in Figure 11, T2 $D(76) = .198, p < .001, F(3, 103) = 1.645, p = .184$, as seen in Figure 13, T3 $D(76) = .176, p < .001, F(3, 78) = 1.41, p = .246$, as seen in Figure 15. The transformation left the data even more skewed at T1, with a skewness of $-.897$ and kurtosis of $.229$ at T1, a skewness of -1.699 and kurtosis of 6.936 at

T2, a skewness of $-.868$ and kurtosis of 2.231 at T3. There were four outliers at T1 and T2 and one at T3 that were kept in the analysis due to the low sample size.

The test for normality revealed that the measures of social support were normal and the Kolmogorov-Smirnov test of normality was satisfied $D(75) = .073, p = .2$, T2 $D(75) = .09, p = .2$, T3 $D(75) = .084, p = .2$. The distribution of measures of social support were normal with a skewness of $.496$ and kurtosis of $-.037$ at T1, a skewness of $.658$ and kurtosis of $.548$ at T2 and a skewness of $.754$ and kurtosis of $.277$ at T3. Because the Kolmogorov-Smirnov test of normality was satisfied, no transformations were conducted for social support measures.

The test for normality revealed that the measures of perceived stress were normal and the Kolmogorov-Smirnov test of normality was satisfied $D(75) = .086, p = .2$, T2 $D(75) = .054, p = .2$, T3 $D(75) = .094, p = .09$. The distribution of measures of perceived stress were normal with a skewness of $.21$ and kurtosis of $-.673$ at T1, a skewness of $-.006$ and kurtosis of $-.274$ at T2 and a skewness of $.082$ and kurtosis of $-.341$ at T3. Because the Kolmogorov-Smirnov test of normality was satisfied, no transformations were conducted for measures of perceived stress.

The test for normality revealed that the measures of self-esteem were normal and the Kolmogorov-Smirnov test of normality was satisfied $D(75) = .089, p = .2$, T2 $D(75) = .099, p = .07$, but were not satisfied at T3 $D(75) = .116, p = .01$, as seen in Figure 8. The distribution of measures of self-esteem were normal with a skewness of $-.437$ and kurtosis of $-.309$ at T1, a skewness of $-.595$ and kurtosis of $-.102$ at T2 and a skewness of $.695$ and kurtosis of $-.132$ at T3. Because the Kolmogorov-Smirnov test of normality was satisfied for self-esteem measures at T1 and T2, no transformations were conducted for these measures, however a transformation was done for self-esteem measures at T3. In order to transform the data so that its distribution had a more normal, bell-shaped distribution, a log10 transformation was conducted by taking the

largest value, which was 40 for self-esteem at T3, and 1 was added to each value. After completing the transformation, the Kolmogorov-Smirnov test of normality was still not satisfied for self-esteem at T3 $D(83) = .121, p = .004, F(3, 79) = 2.454, p = .069$, and had a skewness of $-.799$ and kurtosis of $-.008$, as seen in Figure 9. There was one outlier that was kept in the analysis due to the low sample size.

Hypotheses testing

Once the data was transformed, the hypotheses could be tested, using the transformed data. In order to test the first hypothesis that those in the gratitude, kindness and combined (gratitude and kindness) conditions will see an increase from T1 to T2 measures of happiness, gratitude, social support and self-esteem, a 4 (condition: gratitude, kindness, combined, or control) X 3 (Time: T1, T2 and T3) a Repeated Measures Factorial ANOVA was conducted to examine the effect the condition has on the participants' happiness, gratitude, self-esteem and sense of social support. There was no significant effect found from T1 to T2 measures of happiness on those in the gratitude group, $F(2, 32) = 1.055, p > .05, \eta^2 = .062$, T1 ($M = 18.04, SD = 2.73$), T2 ($M = 19.15, SD = 3.19$), the kindness group, $F(2, 28) = .887, p > .05, \eta^2 = .06$, T1 ($M = 18.87, SD = 2.83$), T2 ($M = 19.08, SD = 2.36$) or the combined (gratitude and kindness) conditions $F(2, 38) = .49, p > .05, \eta^2 = .025$, T1 ($M = 18.29, SD = 2.73$), T2 ($M = 18.67, SD = 3.17$). There was no significant effect from T1 to T2 measures of gratitude found in the gratitude group, $F(2, 32) = .636, p > .05, \eta^2 = .038$, T1 ($M = 36.97, SD = 4.04$), T2 ($M = 37.04, SD = 4.65$) or the kindness group $F(2, 28) = .242, p > .05, \eta^2 = .017$, T1 ($M = 36.54, SD = 4.8$), T2 ($M = 36.28, SD = 5.5$), but there was a significant effect found in the combined (gratitude and kindness) condition, $F(2, 38) = 3.28, p < .05, \eta^2 = .147$, T1 ($M = 35.29, SD = 5.78$), T2 ($M = 36.04, SD = 5.95$). There was no significant effect from T1 to T2 measures of social support

found in the gratitude group $F(2, 28) = 2.36, p > .05, \eta^2 = .146$, T1 ($M = 107.22, SD = 32.04$), T2 ($M = 105.85, SD = 32.71$) the kindness group $F(2, 24) = 1.25, p > .05, \eta^2 = .094$, T1 ($M = 98.35, SD = 32.73$), T2 ($M = 92.39, SD = 27.4$) or the combined (gratitude and kindness) condition $F(2, 38) = 0.2, p > .05, \eta^2 = .011$, T1 ($M = 97.62, SD = 30.72$), T2 ($M = 100.04, SD = 34.8$). There was no significant effect from T1 to T2 measures of self-esteem in those in the gratitude condition $F(2, 32) = 1.66, p > .05, \eta^2 = .094$, T1 ($M = 32.21, SD = 6.7$), T2 ($M = 6.7, SD = 5.93$), the kindness condition $F(2, 28) = .67, p > .05, \eta^2 = .046$, T1 ($M = 32.51, SD = 5.4$), T2 ($M = 32.96, SD = 6.18$) but there was a significant effect found in the combined (gratitude and kindness) condition $F(2, 38) = 4.79, p < 0.01, \eta^2 = .202$, T1 ($M = 39.9, SD = 7$).

A Repeated Measures Factorial ANOVA was conducted to test the second hypothesis that predicted that those in gratitude, kindness and combined (gratitude and kindness) conditions will score higher on measures of happiness, gratitude, self-esteem and social support than members of the control group from T2 to T3 will be measured by using a 4 (condition: gratitude, kindness, combined and control) X 3(Time: T1, T2 and T3) Repeated Measures Factorial ANOVA. There was no significant difference found between the condition and happiness scores $F(6, 144) = 1.46, p > .05$, gratitude scores $F(6, 144) = .882, p > .05$, self-esteem $F(6, 142) = .881, p > .05$ or social support $F(6, 142) = .135, p > .05$. However, there was a significant difference found on self-esteem scores between the three times $F(2, 142) = .658, p < .05$. Pairwise comparisons revealed significant differences on measures of self-esteem even with an adjusted alpha level of .016, which was used to account for multiple comparisons.³ There were significant differences on participants' measures of self-esteem between T1 and T2 ($p < .016$).

³ The alpha level was adjusted to reduce the risk of a Type 1 error.

There was no significant difference on participants' measures of self-esteem between T2 and T3 ($p > .016$) or T1 and T3 ($p > .016$).

In order to test the third hypothesis that predicts that participants in the combined (gratitude and kindness) conditions will score significantly lower than those in the gratitude, kindness conditions on measures of perceived stress from T2 to T1 a Repeated Measures ANOVA was conducted. There was no significant effect found from T2 to T1 on those in the gratitude condition $F(2, 32) = .61, p > .05, \eta^2 = .037$ or the kindness condition $F(2, 28) = 2.7, p > .05, \eta^2 = .162$. However, there was a significant effect found on those in the combined (gratitude and kindness) condition, $F(2, 38) = 7.38, p < .05, \eta^2 = .28$.

Regression Analyses

In order to test the fourth hypothesis that participants' scores on measures of social support, gratitude and perceived stress will predict participants' happiness scores from T1, T2 and T3, a Hierarchical Regression was conducted.

At T1, the results indicated that gratitude ($p < .001$), and perceived stress scores ($p < .001$), correlated with happiness scores. The results indicated that gratitude accounted for 10% of the variation ($R^2 = .102, R^2 \text{ change} = .102, F(1, 180) = 20.343, p < .001$). Perceived stress was also correlated with happiness scores and the results indicated that perceived stress accounted for 22% of the variation ($R^2 = .218, R^2 \text{ change} = .125, F(1, 179) = 26.174, p < .001$). Social support was correlated with happiness and accounted for 23% of the variance ($R^2 = .227, R^2 \text{ change} = 0, F(3, 178) = 17.393, p < .001$). In the first model, gratitude was found to be a significant predictor of happiness, ($\beta = .176, t = 4.51, p < .001$). When perceived stress is entered into the model, both gratitude, ($\beta = .149, t = 4.05, p < .001$) and perceived stress ($\beta = -.107, t = -5.37, p < .001$) are statistically significant. In the final model when social support is entered into the equation,

gratitude is still significant predictor of happiness, ($\beta = .146, t = 3.88, p < .001$), as is perceived stress, ($\beta = -.107, t = -5.36, p < .001$) however, social support is no longer significant ($\beta = .002, t = .31, p = .757$).

At T2, the results indicated that gratitude ($p < .01$), perceived stress ($p < .001$) correlated with happiness scores, however and social support scores were not found to be a significant predictor ($p > .05$). The results indicated that gratitude accounted for 8% of the variation ($R^2 = .079, R^2 \text{ change} = .079, F(1, 104) = 8.89, p < .01$). Perceived stress was also correlated with happiness scores and the results indicated that perceived stress accounted for 19% of the variation ($R^2 = .186, R^2 \text{ change} = .107, F(1, 103) = 13.52, p < .001$). In the first model, gratitude was found to be a significant predictor of happiness, ($\beta = .159, t = 2.98, p < .05$). When perceived stress is entered into the model, both gratitude, ($\beta = .116, t = 2.24, p < .05$) and perceived stress ($\beta = -.114, t = -3.67, p < .001$) are statistically significant. In the final model when social support is entered into the equation, gratitude is still a significant predictor of happiness, ($\beta = .1, t = 1.909, p < .05$), as is perceived stress, ($\beta = -.116, t = -3.75, p < .001$) however, social support is not significant ($\beta = .012, t = 1.518, p > .05$).

At T3, the results indicated that gratitude ($p < .001$) and perceived stress scores ($p < .001$), correlated with happiness scores. The results indicated that gratitude accounted for 29% of the variation ($R^2 = .287, R^2 \text{ change} = .287, F(1, 80) = 32.126, p < .001$). Perceived stress was also related with happiness scores and the results indicated that perceived stress accounted for 33% of the variation ($R^2 = .333, R^2 \text{ change} = .046, F(1, 79) = 5.45, p < .05$). However, social support was not shown to be correlated with happiness scores ($p > .05$). In the first model, gratitude was found to be a significant predictor of happiness, ($\beta = .239, t = 5.67, p < .001$). When perceived stress is entered into the model, both gratitude, ($\beta = .225, t = 5.41, p < .001$) and

perceived stress ($\beta = .004, t = 2.334, p < .05$) are statistically significant. In the final model when social support is entered into the equation, gratitude is still a significant predictor of happiness, ($\beta = .222, t = 5.02, p < .001$), as is perceived stress, ($\beta = .004, t = 2.304, p < .05$) however, social support is not significant ($\beta = .964, t = -.178, p > .05$).

In order to test the fifth hypothesis, which states that participants in the combined (gratitude and kindness) condition will score significantly higher on measures of happiness, gratitude, social support, self-esteem than participants in the kindness and gratitude conditions from T2 to T3, a 4 (condition: gratitude and kindness, kindness, gratitude and control) X 2 (Time: T2 and T3) Repeated Measures Factorial ANOVA was conducted.

A Repeated Measures Factorial ANOVA was conducted to test the fifth hypothesis that stated participants in the combined (gratitude and kindness) condition would score significantly higher on measures of happiness, gratitude, social support, self-esteem than participants in the kindness and gratitude conditions from T2 to T3. There was no significant difference found between those in the gratitude, kindness and combined condition and happiness scores $F(3, 70) = .689, p > .05$, gratitude scores $F(3, 72) = .341, p > .05$, self-esteem $F(3, 79) = .337, p > .05$ or social support $F(3, 71) = 1.93, p > .05$.

Exploratory analysis

After testing for the hypotheses, questions remained, so some exploratory analyses were conducted. Following the final survey at T3, participants were asked if they had experienced an increase in happiness due to the activities they completed throughout the course of the experiment. An exploratory Chi-square test was conducted due to the data being categorical. Participants in the experimental conditions reported greater increases in happiness than those in the control condition, $X^2(1, N = 84) = 9.56, p < .01$. Based on these results, participants in the

experimental groups were significantly more likely to say that they had experienced greater increases in happiness than those in the control condition.

Discussion

For decades, researchers have been interested in learning more about happiness. Researchers in various fields have contributed numerous pieces of information that lead the scientific community to believe that happiness is caused by a combination of things. Biology clearly plays a role in determining one's happiness set point (De Neve et al., 2012). External factors and situations also play a small role (Lyubomirsky et al., 2005). Another big piece of the puzzle lies in a person's thought and behavior patterns. This last component is still shrouded in mystery as social scientists try to determine what cognitive patterns and behaviors play the biggest role in accounting for an individual's happiness and overall well-being. The current study's aim was to contribute to the foundation of knowledge that currently exists, linking gratitude and kindness to increases in one's overall well-being. Previous studies have found that individuals who engaged in positive behaviors reported higher increases in happiness (Kennon & Lyubomirsky, 2006, Leung et al., 2011). Other studies have shown that an attitude of gratitude and awareness of kindness also play an important role in well-being (Koenig & Larson, 2001). The current study attempted to combine these concepts, thus allowing individuals to experience kindness and gratitude by engaging in such behaviors.

The current study incorporated two practices, gratitude and kindness, into the experimental design of the study, something that had not previously been done before. Doing this allowed the researchers to determine if engaging in both gratitude and kindness resulted in a higher increase in one's well-being as opposed to practicing only gratitude or kindness individually. Based on prior research, it was expected that participants in the kindness and

gratitude groups would experience significant increases in happiness, gratitude (Sansone & Sansone, 2010), self-esteem (Cheng & Furnham, 2004), or social support (Diener & Seligman, 2002) after participating in the experiment. Our results demonstrated that individuals who practiced both gratitude and kindness together scored significantly higher on measures of self-esteem and gratitude, and significantly lower on measures of perceived stress. This, however, was not the case for participants who practiced either gratitude or kindness individually. Participants who were asked to either begin practicing gratitude or performing kind acts did not exhibit significant increases in measures of happiness, gratitude, self-esteem or social support after one week of beginning the study or after two weeks of beginning the experiment.

These findings suggest that on their own practicing gratitude and kindness may not be enough to increase one's well-being, but when combined can lead to increases in positive well-being and the experience of less perceived stress. This information leads researchers to believe that individuals who practice a combination of gratitude and kindness can experience increased feelings of being grateful, higher self-esteem and lower levels of perceived stress. Previous studies have found positive correlations between gratitude, self-esteem and happiness (Sansone & Sansone, 2010, Lightsey, 1994) and a negative correlation between perceived stress and happiness (Glynn, Lopez & Montoya, 2010). These findings could best be explained by saying that those who have more positive thoughts about themselves also experience a higher sense of self-worth and lower stress levels, which in turn lead to increases in happiness (Lightsey, 1994).

This information could be particularly helpful to mental health professionals as well as to individuals suffering from depression, stress disorders or low self-esteem. It has been demonstrated that stress can negatively impact one's health and can affect an individual's respiratory, endocrine and cardiovascular systems. When stress becomes chronic and is

experienced over long periods of time, certain hormones such as cortisol and epinephrine are released. These hormones, over time, can contribute to major health problems such as hypertension, heart attack and diabetes and can be fatal (“Stress effects,” 2014). It has been observed that chronic stress can lead to depression. Between 2006 and 2008, it was reported that 9.1% of the United States population had suffered from depression (“Current depression,” 2010). Currently one of the most common methods used to treat depression is with the use of prescription drugs, and it is estimated that 11% of Americans are taking anti-depressant medications (Pratt, Brody & Gu, 2011). Unfortunately, these types of medications also come at a price, with side effects that can range from muscle spasms, upset stomach, headaches, loss of sexual desire as well as possible drug interactions (“What are the real risks,” 2005). This method of treatment also takes the standpoint from an illness-model, which is focused on treating the disease, rather than preventing it. If mental health and medical professionals were to take a preventative approach to well-being, then there would be less people in need of the “treatment.” This could mean less people would have to rely on prescription medications and have to deal with unwanted side effects. With enough research in the area of overall well-being, we might see the day where psychologists and doctors are handing out prescriptions for gratitude and kindness instead of Zoloft.

The current study also explored possible predictors of happiness and yielded similar results to those of Glynn et al. (2010) and Lightsey (1994) had found that perceived stress was negatively correlated with happiness. It was observed that individuals who report higher levels of perceived stress had lower levels of happiness and vice versa. This would lead researchers to believe that if an individual focuses more on reducing stress levels, they can also expect to feel happier. There are a limited number of studies that look at the direct link between perceived

stress and happiness, but the two are clearly correlated. There are a number of factors that contribute to one's perception of stress and how they handle stress, which has to do with learned coping mechanisms, status and resources (Chatters, 1988). Knowledge in this area is vital because if individuals are able to adopt healthier coping mechanisms, they are more likely to prevent feelings of stress before they occur. In doing so, individuals would be able to improve their overall well-being and experience more happiness and less depression.

Another predictor of happiness the current study found to make a significant contribution was gratitude. Gratitude and happiness are positively correlated and happier participants also had a tendency to report higher levels of gratitude. This falls in line with previous findings from (Sansone & Sansone, 2010) who found a strong positive correlation between individuals who were more grateful and also exhibited higher levels of happiness. Lyubomirsky (2008) said that when people are feeling gratitude, they are better able to savor life's joys, which leads to increases in happiness. It is possible that by just asking an individual to be aware of things to be grateful for and to reflect on some of these, it made them more aware of things to be grateful for that they may have otherwise overlooked.

On the third and final set of questionnaires, participants were asked the following question:

Have the activities that you were asked to do throughout this experiment made you experience more happiness in your life?

Significant differences were found between the four different groups in response to these questions. Participants in the experimental conditions, who participated in practicing gratitude, kindness or gratitude and kindness were significantly more likely to answer yes this question than members of the control group. It is possible that when asked to reflect upon the whole

experience in regards to an increase in happiness, participants recognized the effect the experience had on them.

Based on these results, it is safe to assume that these increases of happiness had been sustained over time and contradict Brickman and Campbell's (1978) "Hedonic treadmill" theory that states that external events can only temporarily elevate one's happiness. According to this theory after the passage of time, the individual will return to the original set point. Instead, the results seem to support the idea that happiness can be increased and sustained over time. Researchers argue that a large part of an individual's happiness remains within their control (Lyubomirsky, Sheldon & Schkade, 2005). Cognitive factors, such as the types of thoughts and perceptions a person has about the world around them play a big part in determining one's happiness. Behavioral factors, such as participating in meditation or practicing gratitude can also lead to significant increases in one's happiness. Engaging in healthier thoughts and behaviors can greatly contribute to well-being and individuals can see this increase sustained over time (Lyubomirsky, Sheldon & Schkade, 2005). The participants in the experimental conditions of the current study were asked to begin making positive behavioral changes and many of them reported that they felt happier because of the experience, even two weeks after the experiment had ended.

There were some limitations with this study, which mainly includes the limited sample size. One hundred and ninety participants began the study, but only 83 completed it. This is common with repeated measures designs due to attrition rates (Ellis, 1990). While the researchers were expecting to find significant differences between all of the experimental groups, it is possible that the manipulation was not intense enough to create a significant difference. The current study only asked participants to name three things they were grateful for and to reflect on

them for five minutes a day. It is possible that there would have been significant differences if this time were increased from five minutes of reflection to ten minutes. In any future studies, it may be helpful to ask about participants' history of gratitude and kindness practices before beginning the study. This information could be useful to researchers in a situation where an individual has prior experience with the experimental activity. For example, if someone has been practicing gratitude on a daily basis for the past year, practicing gratitude for one week would likely not significantly affect that participant the same way it may affect someone who has never practiced gratitude.

Another limitation was the low reliability score of the questionnaire used to measure happiness. The fact that the happiness measure used in the current experiment failed to yield any significant differences between the groups is likely due to the low reliability the scale was found to have in the current study. While the measure was shown to have higher ratings of reliability in other studies, for the current study, it received a Chronbach's alpha score of .25. This could be due in part to a number of factors, one of which being the population. The majority of the population used in the current study was Hispanic, and so it is possible that this scale may not be a good measure of happiness for this population.

In spite of some of its limitations, the results from this study are an important addition to the field. Participants were tested before beginning the experiment, right after completing it and again one week later, which allowed researchers the opportunity to examine the effects the IV's had on participants across time. A previous study demonstrated that positive behavioral changes over time can lead to increases in overall well-being (Kennon & Lyubomirsky, 2006), but to date there have been few studies that have tested participants at three intervals over time.

Research in this area is important because it can help a wide variety of individuals from therapists and their clients, researchers and individuals seeking to increase their happiness. There is a wealth of self-help books on the market that claim to have the key to happiness, but many are not supported by empirical research (Lyubomirsky, 2008). With further scientific research on happiness, researchers and therapists will have the ability to create empirically sound methods that have been shown to increase happiness.

Although there is an apparent wealth of research that examines the relationship between gratitude and kindness to concepts such as happiness and gratitude, there is still the need for further exploration. While there have been findings that suggest that the act of practicing gratitude and kindness is correlated to increases in self-esteem (Baker & McNulty, 2013) and a happier social life (Leung et al., 2011) there is a limited amount of studies that can suggest a direct causation. The current study looked to identify causation by employing an experimental design. It was expected that through an experimental design, it could be demonstrated that when individuals adopt certain practices of gratitude and kindness that they will in turn experience increases in happiness, gratitude, self-esteem, social support and lower stress reactivity.

As expected, participants in the combined (gratitude and kindness) conditions in the current experiment benefited from these behavior changes throughout the course of the experiment and increases in gratitude, self-esteem and lower levels of stress were observed. These results demonstrated the benefits of making positive changes to one's behaviors and cognitive patterns, leading to increases in overall well-being. These results may allow researchers to draw conclusions as to what factors can predict happiness. The findings of the current study suggested that both gratitude and perceived stress predicted how happy an individual was. Participants who experience more gratitude in their lives were also happier,

while those who scored higher on perceived stress measures reported lower levels of happiness. This information can be vital to anyone in search of more happiness in their life. The experimental nature of the current study provided researchers with important information that suggests that by simply taking time to count one's blessings and to be kind to another person one can experience more well-being in their lives. This information can be helpful to anyone in the health care field, counselors, or people who want to increase their well-being. These simple practices can positively increase someone's sense of self-worth and lower stress levels, which correlate with happiness.

In a field that has long been dominated by an illness-model that looks at pathologies and what is "wrong" with people, it is refreshing to take a new perspective that instead looks at people's strengths and virtues. More experimental studies on happiness and well-being should be conducted because they would add to the pool of research on happiness, because to date there have not been a lot of experimental designs examining this topic.

In light of these results from the current study, the next step to take would be to conduct a study with more intense manipulation using individuals who suffer from stress. The next step to take should have an intervention-like approach to stress, using gratitude and kindness as a "treatment." Participants could be recruited from a local university by posting fliers around campus in search of individuals who believe they may be stressed out. Once potential participants responded, researchers would have them complete a stress measure that is designed to measure stress levels. A cut-off point would need to be set in order to determine if an individual was stressed. Those individuals who score over a set number would be used in the experiment and randomly assigned to a control or experimental condition. Before the experiment began, participants would be asked how often they practice gratitude and kindness in their daily

lives. Those who were placed in the experimental condition would be asked to begin a practice of gratitude for ten minutes a day as well as perform three kind acts a day for a week. Those in the control group would be asked to simply report about three things that happened to them every day for a week. At the end of the week, another stress measure would be given to see if the activities had an impact on participants' stress levels. The results from this potential study would allow researchers to conclude whether or not implementing practices of gratitude and kindness can help to lower stress levels. If participants in the experimental group displayed significantly lower stress levels, then researchers would be able to conclude that gratitude and kindness may be a good form of treatment to use on individuals suffering from stress.

Continued research in this area can be beneficial to researchers, doctors, public health leaders, individuals and society as a whole. Increased knowledge about what contributes to an individual's overall well-being can help people to make more positive lifestyle changes that will impact their physical and mental health, allowing them to live more active, fulfilled lives. When it comes down to it, isn't this something we all want?

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Tables

Table 1

Hypotheses – a breakdown of the hypotheses and results

H1: T1 to T2 increase

- a. H1a: Participants in the experimental groups will score higher on measures of happiness from T1 to T2.
 - a. This prediction was not supported by the results. There was no significant effect found from T1 to T2 measures of happiness on those in the gratitude group, $F(2, 32) = 1.055, p > .05, \eta^2 = .062$, the kindness group, $F(2, 28) = .887, p > .05, \eta^2 = .06$ or the combined (gratitude and kindness) conditions $F(2, 38) = .49, p > .05, \eta^2 = .025$.
- b. H1b: Participants in the experimental groups will score higher on measures of gratitude from T1 to T2.
 - a. This prediction was supported by the results for those in the combined condition, $F(2, 38) = 3.28, p < .05, \eta^2 = .147$.
 - b. The prediction was not supported by the results in the gratitude group, $F(2, 32) = .636, p > .05, \eta^2 = .038$ or the kindness group, $F(2, 28) = .242, p > .05, \eta^2 = .017$.
- c. H1c: Participants in the experimental groups will score higher on measures of self-esteem from T1 to T2.
 - a. This prediction was supported by the results for those in the combined conditions, $F(2, 38) = 4.79, p < 0.01, \eta^2 = .202$.
 - b. The prediction was not supported by the results for those in the gratitude group $F(2, 32) = 1.66, p > .05, \eta^2 = .094$ or the kindness group $F(2, 28) = .67, p > .05, \eta^2 = .046$.
- d. H1d: Participants in the experimental groups will score higher on measures of social support from T1 to T2.
 - a. This prediction was not supported by the results for those in the gratitude condition, $F(2, 28) = 2.36, p > .05, \eta^2 = .146$, the kindness condition, $F(2, 24) = 1.25, p > .05, \eta^2 = .094$, or the combined condition, condition $F(2, 38) = 0.2, p > .05, \eta^2 = .011$.

H2: T2 to T3 increase

- a. Participants in the experimental conditions will score higher on measures of happiness than members of the control group at T2 and T3.
 - a. This prediction was not supported by the results, $F(6, 144) = 1.46, p > .05$.
- b. Participants in the experimental conditions will score higher on measures of gratitude than members of the control group at T2 and T3.
 - a. This prediction was not supported by the results, $F(6, 144) = .882, p > .05$.
- c. Participants in the experimental conditions will score higher on measures of self-esteem than members of the control group at T2 and T3.
 - a. This prediction was not supported by the results, self-esteem $F(6, 142) = .881, p > .05$.

- d. Participants in the experimental conditions will score higher on measures of social support than members of the control group at T2 and T3.
 - a. This prediction was not supported by the results, $F(6, 142) = .135, p > .05$.

H3: T2 to T1 decrease

- a. Participants in the experimental conditions will score significantly lower on measures of perceived stress from T2 to T1.
 - a. This prediction was supported by the results for those in the combined condition, $F(2, 38) = 7.38, p < .05, \eta^2 = .28$.
 - b. This prediction was not supported by the results for those in the gratitude condition, $F(2, 32) = .61, p > .05, \eta^2 = .037$ or those in the kindness condition $F(2, 28) = 2.7, p > .05, \eta^2 = .162$.

H4: Correlations

- a. Participants' scores on measures of social support will predict their scores on measures of happiness during T1, T2 and T3.
 - a. The prediction was supported by the results and social support was found to be correlated to happiness at T1 ($R^2 = .227, R^2 \text{ change} = 0, F(3, 178) = 17.393, p < .001$), but not at T2 or T3 with $p > .05$.
- b. Participants' scores on measures of gratitude will predict their scores on measures of happiness during T1, T2 and T3.
 - a. The prediction was supported by the results at T1 ($R^2 = .102, R^2 \text{ change} = .102, F(1, 180) = 20.343, p < .001$), T2 ($R^2 = .079, R^2 \text{ change} = .079, F(1, 104) = 8.89, p < .01$), and T3 ($R^2 = .287, R^2 \text{ change} = .287, F(1, 80) = 32.126, p < .001$).
- c. Participants' scores on measures of perceived stress will predict their scores on measures of happiness during T1, T2 and T3.
 - a. The prediction was supported by the results at T1 ($R^2 = .218, R^2 \text{ change} = .125, F(1, 179) = 26.174, p < .001$), T2 ($R^2 = .186, R^2 \text{ change} = .107, F(1, 103) = 13.52, p < .001$) and T3 ($R^2 = .333, R^2 \text{ change} = .046, F(1, 79) = 5.45, p < .05$).

H5: Combined vs. individual

- a. Participants in the combined condition will score significantly higher on measures of happiness than those in the kindness and gratitude conditions for T2 and T3.
 - a. This prediction was not supported by the results $F(3, 70) = .689, p > .05$.
- b. Participants in the combined condition will score significantly higher on measures of gratitude than those in the kindness and gratitude conditions for T2 and T3.
 - a. This prediction was not supported by the results $F(3, 72) = .341, p > .05$.
- c. Participants in the combined condition will score significantly higher on measures of social support than those in the kindness and gratitude conditions for T2 and T3.
 - a. This prediction was not supported by the results $F(3, 71) = 1.93, p > .05$.
- d. Participants in the combined condition will score significantly higher on measures of self-esteem than those in the kindness and gratitude conditions for T2 and T3.
 - a. This prediction was not supported by the results $F(3, 79) = .337, p > .05$.

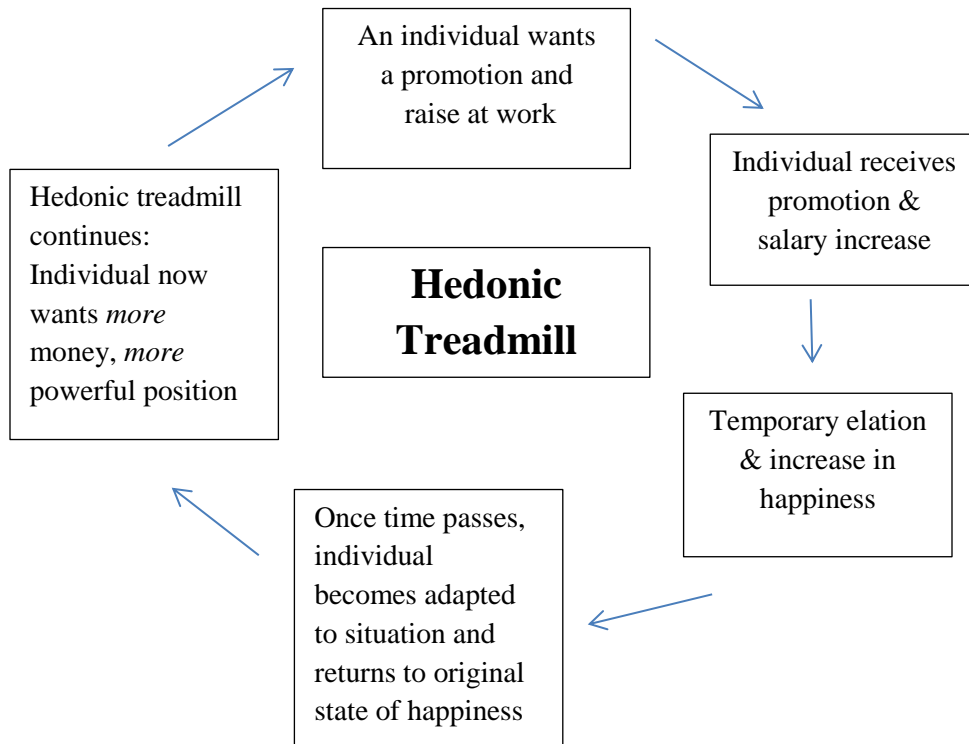
Figures

Figure 1. This is a graphic representation of the hedonic treadmill that demonstrates how outside factors can temporarily increase an individual's happiness, but over time, the happiness level will return to its original point (Brickman & Campbell, 1978).

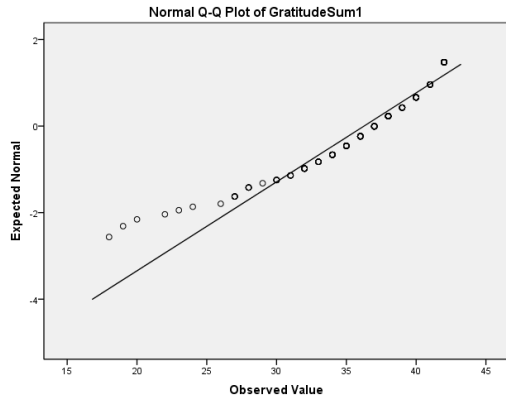


Figure 2. Q-Q plot results from gratitude scores across all groups at Time 1 prior to any transformations.

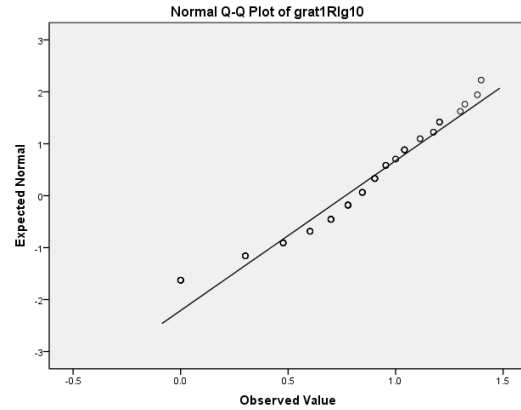


Figure 3. Q-Q plot results from gratitude scores across all groups at Time 1 after a Log 10 Transformation.

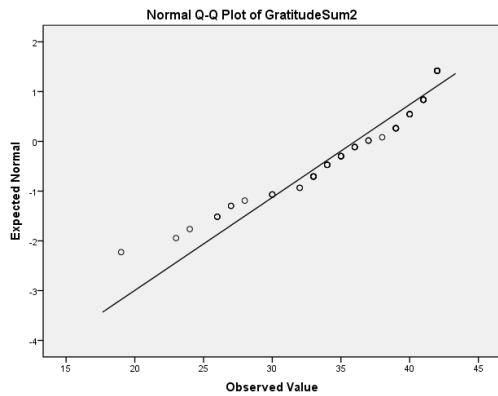


Figure 4. Q-Q plot results from gratitude scores across all groups at Time 2 prior to any transformations.

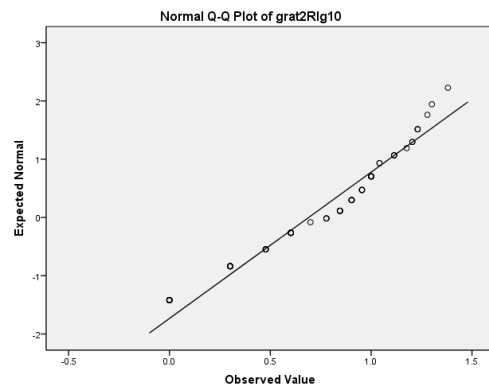


Figure 5. Q-Q plot results from gratitude scores across all groups at Time 2 after a Log 10 Transformation.

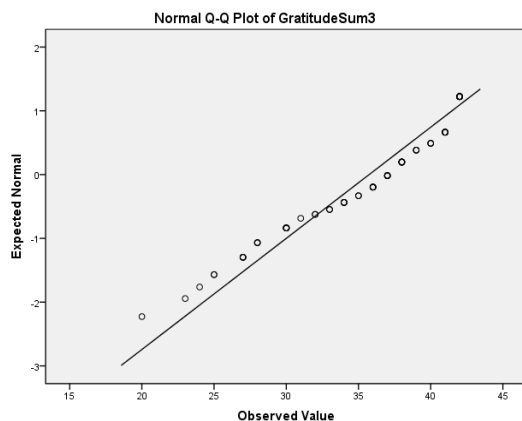


Figure 6. Q-Q plot results from gratitude scores across all groups at Time 3 prior to any transformations.

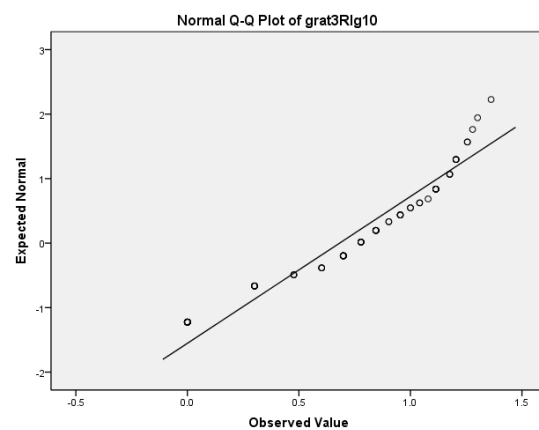


Figure 7. Q-Q plot results from gratitude scores across all groups at Time 3 after a Log 10 Transformation.

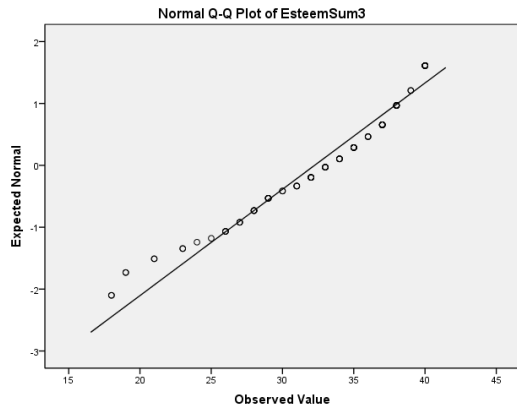


Figure 8. Q-Q plot results from self-esteem scores across all groups at Time 3 prior to any transformations.

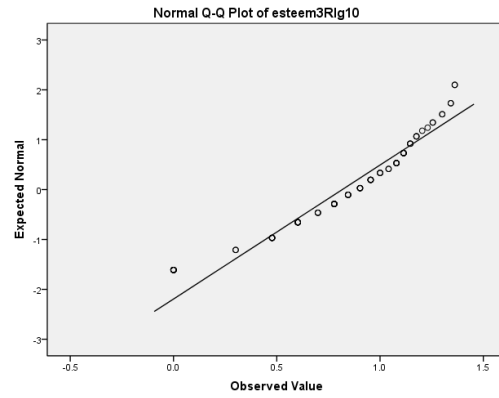


Figure 9. Q-Q plot results from self-esteem scores across all groups at Time 3 after a Log 10 Transformation.

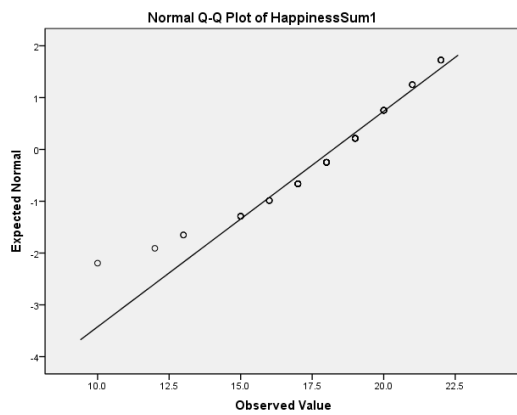


Figure 10. Q-Q plot results from happiness scores across all groups at Time 1 prior to any transformations.

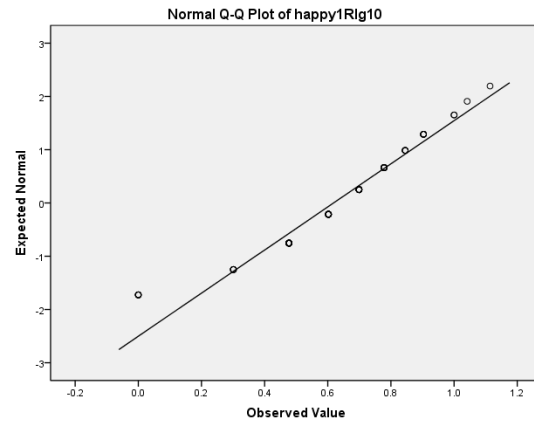


Figure 11. Q-Q plot results from happiness scores across all groups at Time 1 after a Log 10 Transformation.

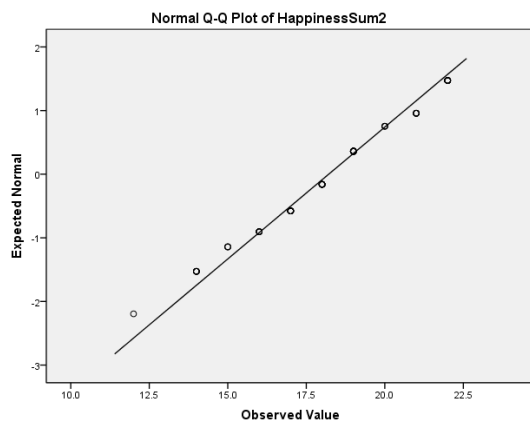


Figure 12. Q-Q plot results from happiness scores across all groups at Time 2 prior to any transformations.

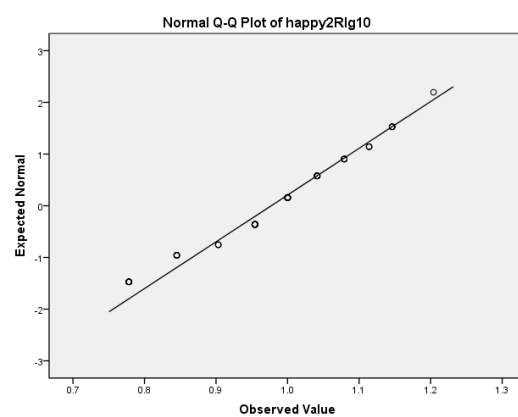


Figure 13. Q-Q plot results from happiness scores across all groups at Time 2 after a Log 10 Transformation.

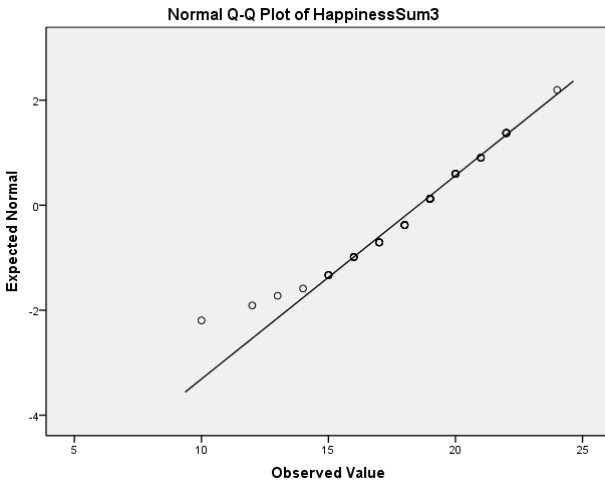


Figure 14. Q-Q plot results from happiness scores across all groups at Time 3 prior to any transformations.

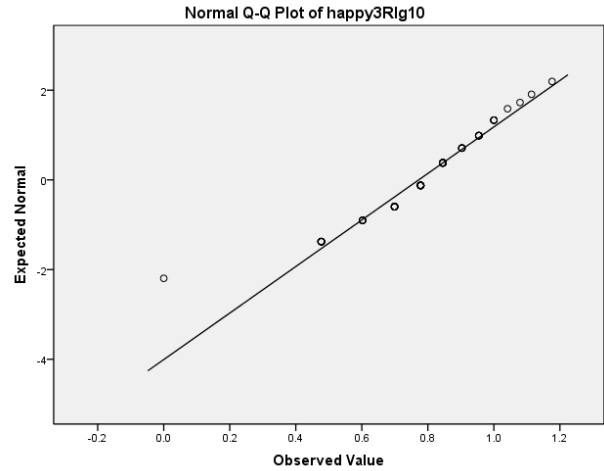


Figure 15. Q-Q plot results from happiness scores across all groups at Time 3 after a Log 10 Transformation.

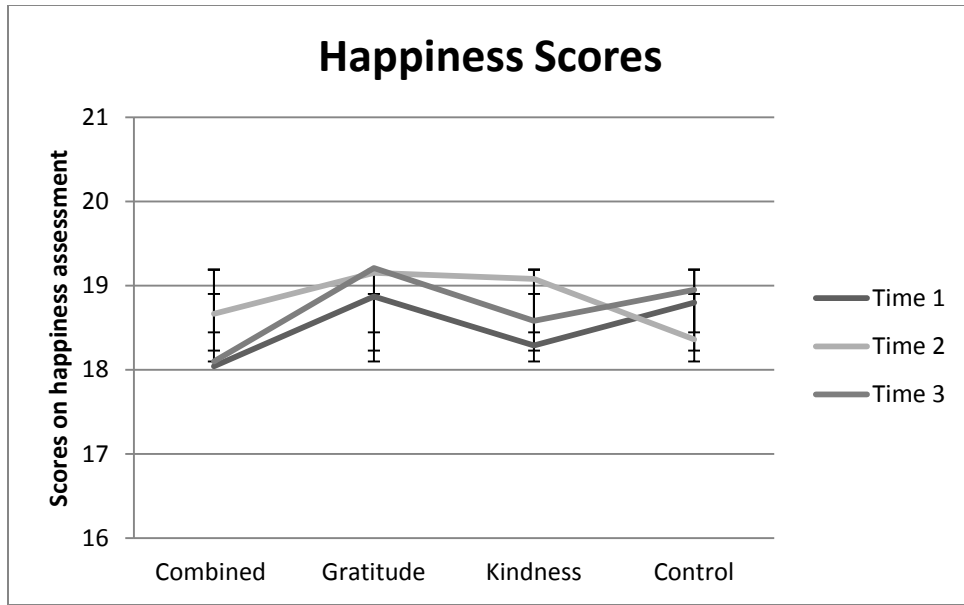


Figure 16. Mean happiness scores across three experimental groups and one control group from T1, T2 and T3.

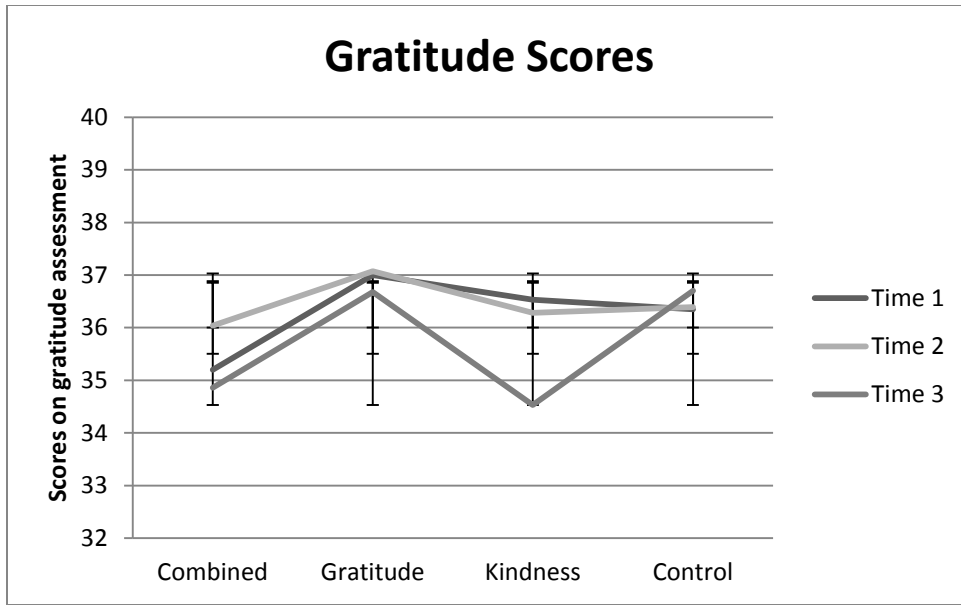


Figure 17. Mean gratitude scores across three experimental groups and one control group from T1, T2 and T3.

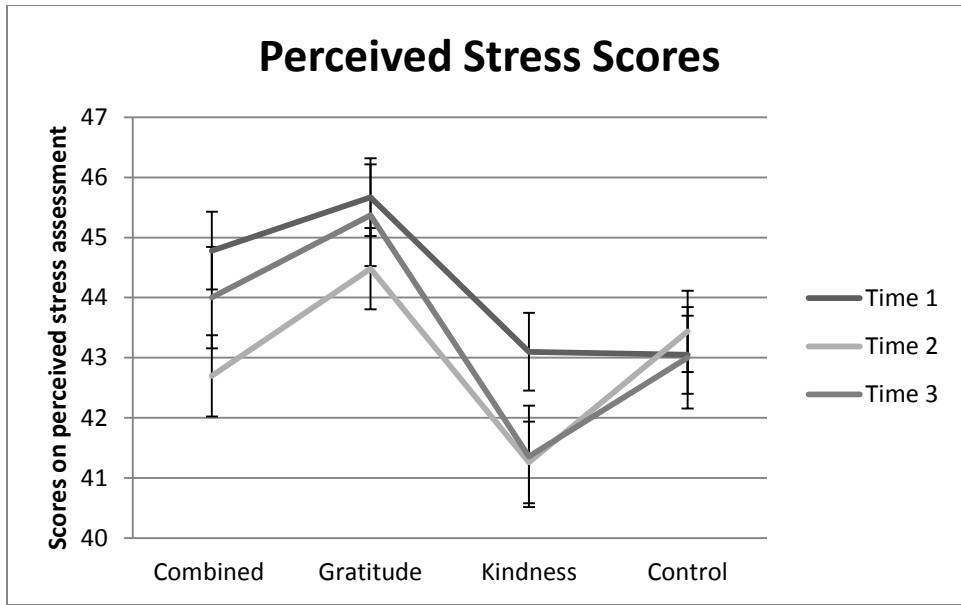


Figure 18. Mean perceived stress scores across three experimental groups and one control group from T1, T2 and T3.



Figure 19. Mean self-esteem scores across three experimental groups and one control group from T1, T2 and T3.

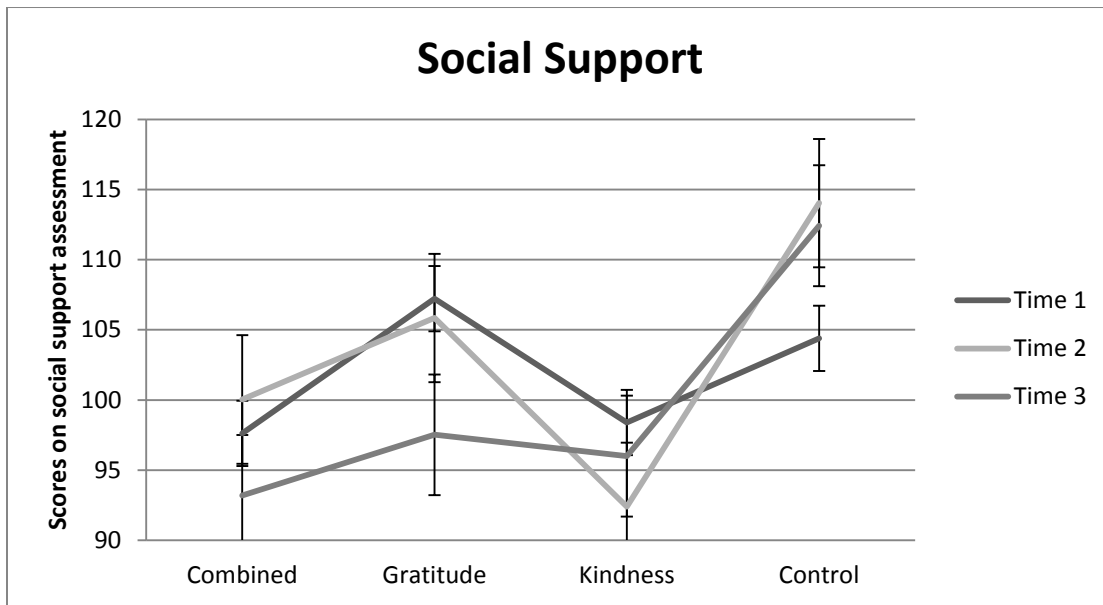


Figure 20. Mean social support scores across three experimental groups and one control group from T1, T2 and T3.

Appendix A**The Gratitude Questionnaire-6 (GQ-6)**

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

- 1 -strongly disagree
- 2 -disagree
- 3 -slightly disagree
- 4 -neutral
- 5 -slightly agree
- 6 -agree
- 7 -strongly agree

- ___ 1. I have so much in life to be thankful for.
- ___ 2. If I had to list everything that I felt grateful for, it would be a very long list.
- ___ 3. When I look at the world, I don't see much to be grateful for.
- ___ 4. I am grateful to a wide variety of people.
- ___ 5. As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.
- ___ 6. Long amounts of time can go by before I feel grateful to something or someone.

Items 3 and 6 are reverse scored.

Appendix B**The Subjective Happiness Scale (SHS)**

On a scale from 1 – 7, 1 being “not a very happy person” to 7 being “a very happy person”...

1. In general, how happy are you (from 1-7)
2. How happy are you in relation to your peers

On a scale from 1-7, 1 being “not at all” and 7 being “a great deal”...

3. How does the description of a “very happy” person characterize you?
4. How does the description of a “very unhappy” person characterize you?

After reverse-scoring for the last item, higher scores on this measure indicate greater subjective happiness.

Appendix C

Inventory of Socially Supportive Behaviors (ISSB)

We are interested in learning about some of the ways that you feel people have helped you or tried to make life more pleasant for you over the past *two weeks*. Below you will find a list of activities that mother people might have done for you, to you, or with you in recent weeks. Please read each item carefully and indicate how often these activities happened to you during the past *two weeks*.

Please read each item carefully and select the rating that you think is the most accurate. During the past four weeks, how often did other people do these activities for you, to you, or with you.

Use the following scale to make your ratings.

0 = not at all, 1 = once or twice 2 = about once a week, 3 = several times a week, 4 = about every day

1. Looked after a family member when you were away.
2. Was right there with you (physically) in a stressful situation.
3. Provided you with a place where you could get away for a while.
4. Watched after your possessions when you were away (pets, plants, home, apartment, etc.).
5. Told you what she/he did in a situation that was similar to yours.
6. Did some activity with you to help you get your mind off of things.
7. Talked with you about some interests of yours.
8. Let you know that you did something well.
9. Went with you to someone who could take action.
10. Told you that you are OK just the way you are.
11. Told you that she/he would keep the things that you talk about private – just between the two of you.
12. Assisted you in setting a goal for yourself.
13. Made it clear what was expected of you.
14. Expressed esteem or respect for a competency or personal quality of yours.
15. Gave you some information on how to do something.
16. Suggested some action you should take.
17. Gave you over \$25.
18. Comforted you by showing you some physical affection.
19. Gave you some information to help you understand a situation you were in.
20. Provided you with transportation.
21. Checked back with you to see if you followed the advice you were given.
22. Gave you under \$25.
23. Helped you understand why you didn't do something well.
24. Listened to you talk about your private feelings.

Appendix C cont.

25. Loaned or gave you something (a physical object other than money) that you needed.
26. Agreed that what you wanted to do was right.
27. Said things that made your situation clearer and easier to understand.
28. Told you how he/she felt in a situation that was similar to yours.
29. Let you know that he/she will always be around if you need assistance.
30. Expressed interest and concern in your well-being.
31. Told you that she/he feels very close to you.
32. Told you who you should see for assistance.
33. Told you what to expect in a situation that was about to happen.
34. Loaned you over \$25.
35. Taught you how to do something.
36. Gave you feedback on how you were doing without saying it was good or bad.
37. Joked and kidded to try to cheer you up.
38. Provided you with a place to stay.
39. Pitched in to help you do something that needed to get done.
40. Loaned you under \$25.

Appendix D**The Perceived Stress Reactivity Scale**

1. When tasks and duties build up to the extent that they are hard to manage
 - a. I am generally untroubled
 - b. I usually feel a little uneasy
 - c. I normally get quite nervous
2. When I want to relax after a hard day at work
 - a. This is usually quite difficult for me
 - b. I usually succeed
 - c. I generally have no problem at all
3. When I have conflicts with others that may not be immediately resolved
 - a. I generally shrug it off
 - b. It usually affects me a little
 - c. It usually affects me a lot
4. When I make a mistake
 - a. In general, I remain confident
 - b. I sometimes feel unsure about my abilities
 - c. I often have doubts about my abilities
5. When I'm wrongly criticized by others
 - a. I am normally annoyed for a long time
 - b. I am annoyed for just a short time
 - c. In general, I am hardly annoyed at all
6. When I argue with other people
 - a. I usually calm down quickly
 - b. I usually stay upset for some time
 - c. It usually takes me a long time until I calm down
7. When I have little time for a job to be done
 - a. I usually stay calm
 - b. I usually feel uneasy
 - c. I usually get quite agitated
8. When I make a mistake
 - a. I am normally annoyed for a long time
 - b. I am normally annoyed for a while
 - c. I generally get over it easily
9. When I am unsure what to do or say in a social situation
 - a. I generally stay cool
 - b. I often get warm
 - c. I often begin to sweat
10. When I have spare time after working hard
 - a. It often is difficult for me to unwind and relax
 - b. I usually need some time to unwind properly
 - c. I am usually able to unwind effectively and forget about the problems of the day
11. When I am criticized by others
 - a. Important arguments usually come to my mind when it is too late to make my point

Appendix D cont.

- b. I often have difficulty finding a good reply
 - c. I usually think of a good reply to defend myself
12. When something does not go the way I expected
- a. I usually stay calm
 - b. I often get uneasy
 - c. I usually get very agitated
13. When I do not attain a goal
- a. I usually remain annoyed for a long time
 - b. I am usually disappointed, but recover soon
 - c. In general, I am hardly concerned at all
14. When others criticize me
- a. I generally don't lose confidence at all
 - b. I generally lose a little confidence
 - c. I generally feel very unconfident
15. When I fail at something
- a. I usually find it hard to accept
 - b. I usually accept it to some degree
 - c. In general, I hardly think about it
16. When there are too many demands on me at the same time
- a. I generally stay calm and do one thing after the other
 - b. I usually get uneasy
 - c. Usually, even minor interruptions irritate me
17. When others say something incorrect about me
- a. I usually get quite upset
 - b. I normally get a little upset
 - c. In general, I shrug it off
18. When I fail at a task
- a. I usually feel very uncomfortable
 - b. I usually feel somewhat uncomfortable
 - c. In general, I don't mind
19. When I argue with others
- a. I usually get very upset
 - b. I usually get a little bit upset
 - c. I usually don't get upset
20. When I am under stress
- a. I usually can't enjoy my leisure time at all
 - b. I usually have difficulty enjoying my leisure time
 - c. I usually enjoy my leisure time
21. When tasks and duties accumulate to the extent that they are hard to cope with
- a. My sleep is unaffected
 - b. My sleep is slightly disturbed
 - c. My sleep is very disturbed
22. When I have to speak in front of people
- a. I often get very nervous

- b. I often get somewhat nervous
 - c. In general, I stay calm
23. When I have many tasks and duties to fulfill
- a. In general, I stay calm
 - b. I usually get impatient
 - c. I often get irritable

Appendix E**Rosenberg's Self-Esteem Scale**

Please indicate the following for each question, how much you strongly agree, agree, disagree or strongly disagree to each of the following statements.

Strongly Agree Agree Disagree Strongly Disagree

1. I feel that I am a person of worth, at least on an equal plane with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times.
10. At times I think I am no good at all.

Appendix F
Cruel, Neutral & Kind Acts

These are representative tables that shows the Mean scores for each act

Cruel Acts: Rate 0-1

Mean Scores CRUEL ACTS

- 0.14 Insulting someone
- 0.07 Stealing money from your mother's purse
- 0.05 Ignoring someone's plea for help
- 0.13 Stealing candy from a child
- 0.37 Punching someone because they made you angry
- 0.51 Cutting in line
- 0.23 Yelling at a stranger for staring at you
- 0.18 Yelling at a store clerk
- 0.09 Trying to get someone fired
- 0 Stealing money from the church offering basket
- 0.18 Spreading a rumor about someone
- 0.11 Keying someone's car
- 0.4 Telling someone's secret
- 0.14 purposely tripping someone as they walk by
- 0.14 Purposely tripping someone as they walk by
- 0.35 Flip someone off in traffic
- 0.29 Giving someone a nasty look
- 0.18 Kicking a dog
- 0.11 Taking money from a child's piggy bank
- 0.63 Telling a class that their graduate TA is on heroine

Appendix F cont.

0.09 Telling your mom you hate her

0.89 Running a red light

Neutral Acts: Rate 2-3**Mean Scores****NEUTRAL ACTS**

2.23 Walking to your car

2.21 Checking the weather report

3.95 Saying hello to a stranger

3.93 Offering someone advice

2.24 Eating lunch

3.33 Confiding in a friend

2.82 Asking someone for advice

2.59 Brushing your teeth

2.21 Getting a coffee

2.49 Getting dressed in the morning

3.56 Lending someone a pen

2.77 Listen to a lecture

2.51 Mail a letter

2.38 Going shopping

3.14 Filling out a survey

2.66 Taking notes in class

2.75 Cleaning your car

3.96 Letting another car go in front of you in traffic

2.59 Organizing your desk

2.43 Checking your email

Appendix F cont.***Kind Acts: Rate 4-5***

Mean Scores	KIND ACTS
4.05	Smiling at a stranger
4.42	Holding the door for someone
4.35	Letting someone go ahead of you in line at the grocery store
4.78	Helping an elderly or handicapped person with their groceries
4.26	Listening to a friend in need
4.35	Giving someone a sincere compliment
4.43	Calling a friend or family member just to say hi
4.14	Babysitting for a family member or friend
4.15	Doing a chore for a friend or family member
4.15	Keeping a secret
4.28	Giving money to a homeless person
4.31	Surprising coworkers with doughnuts and sweet bread
4.45	Volunteering somewhere such as at an animal shelter or soup kitchen
4.19	Cooking dinner for someone
4.64	Helping someone change a tire
4.42	Donate blood
4.17	Visiting an elderly family member or friend
4.19	Feeding a stray animal
4.5	Donate bone marrow

Appendix G

Kind Acts

1. Smiling at a stranger
2. Holding the door for someone
3. Letting someone go ahead of you in line at the grocery store
4. Helping an elderly or handicapped person with their groceries
5. Listening to a friend in need
6. Giving someone a sincere compliment
7. Calling a friend or family member just to say hi
8. Babysitting for a family member of friend
9. Doing a chore for a friend or family member
10. Keeping a secret
11. Giving money to a homeless person
12. Surprising coworkers with doughnuts and sweet bread
13. Volunteering somewhere such as at an animal shelter or soup kitchen
14. Cooking dinner for someone
15. Helping someone change a tire
16. Donate blood
17. Visiting an elderly family member or friend
18. Feeding a stray animal

Appendix H**Demographics Form**

Age _____

Gender

Male

Female

Education Level

High school

Some college

College Degree

Masters Level or Higher

Marital status

Single

In a relationship

Engaged

Married

Do you have children?

Yes

No

Ethnicity

Hispanic

White

Black

Asian

Other _____

Employment Status

Employed part-time

Employed full-time

Unemployed

Rank the following items on level of importance on a scale of 1-5, with 1 being not at all important, to 5 being extremely important.

How important is ...

1. Having a lot of friends
2. Impressing other people
3. Being happy
4. Being financially successful
5. Spending time on hobbies
6. Having a steady job

Appendix I

Informed Consent

Consent to be a Research Subject

Introduction

You are invited to participate in a study conducted by graduate student Kathleen Glynn. Kathleen Glynn is a second year graduate student working on her Master of Arts in Psychology.

Overall Purpose of Study:

The purpose of this research is to obtain information regarding health and well-being. You have been selected to participate in this study because you are a UTB/TSC student.

Procedures

If you decide to participate in this study, you will be subjected to the following tests:

- 1) You will be asked to complete short surveys measuring various aspects of well-being and demographic information
- 2) After completing the short surveys, the investigator will give you further instructions on what you are expected to do throughout the length of the study. This may involve journaling and interacting with other individuals. This portion of the study will continue for one week.
- 3) You will be asked to complete a short set of surveys after the experiment is complete and again one week after its completion.
- 4)

Risks/Discomforts

There are minimal risks to participating in this study. No known injuries or side effects are associated with participation in this study. You have the right to refuse to answer any questions that make you feel uncomfortable.

Benefits

Your participation is voluntary. The benefits of participation in this research are primarily educational. If you are recruited from an undergraduate psychology course, you may receive credit for participating in this experiment. It is required that you complete the experiment in order to receive credit. If you do not complete the experiment, then you will not receive credit. For those not wanting to participate in the experiment, an alternative activity should be discussed with your professor.

Confidentiality

Participation in this study is voluntary and you have the right to withdraw from the study at any time without loss of compensation. If this makes you uncomfortable, you have the right to refuse

Appendix I cont.

to participate or withdraw at any time from this study without penalty. No identifying information will be disclosed and all identifying information will be removed and replaced by numbers. Data will be stored in a locked file and destroyed in 3 years.

Participation/Compensation

Participation in this research study is voluntary. You have the right to withdraw at any time or refuse to participate without jeopardizing your opportunity to receive this information.

You are voluntarily making a decision whether or not to participate. Your signature indicates that, having read and understood the information provided above, you have decided to participate. You will be given a copy of this consent form to keep.

You should feel free to ask questions now or at any time during the study. If you have any questions regarding your participation in this study, you may contact Kathleen Glynn at Kmcwhorter83@gmail.com.

If you have any questions regarding your rights as a research subject, you may contact the Chairman of the UTB IRB- Human Subjects of the Office of Research Integrity and Compliance at 956-882-7731.

I have read, understood and received a copy of the above consent, and desire of my own free will and volition to participate in this study and accept the benefits and risks relating to the study.

Signature of Subject

Date

Appendix J

Debriefing Form

Thank you for participating in this research study. Your participation is appreciated and valuable.

Now that the project is complete, I wanted to share with you the nature of the study.

Previous research studies have found that the way in which people think and behave play a key role in their overall well-being and happiness. The purpose of the study was to determine whether performing acts of kindness and practicing gratitude can increase individuals' happiness, gratitude and improve social relationships. After analyzing the data from my study, I discovered that participants who were asked to focus on gratitude and performing random acts of kindness experienced increases in gratitude and self-esteem, decreases in perceived stress and reported that they were overall happier because of the experience.

This information is valuable to researchers such as me, and also to you. Most of us want to be happier and increase our well-being, so these findings lead us to believe that when we stop to focus on things we are grateful for and to go out of our way to be kind to others that we experience these things.

Thank you again for your participation.