2016

Relationship Between Meaning in Life and Dispositional Forgiveness

Shirley Karseboom
Walden University

Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Shirley Karseboom

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Stephen Lifrak, Committee Chairperson, Psychology Faculty
Dr. Donna Dimatteo-Gibson, Committee Member, Psychology Faculty
Dr. Steven Little, University Reviewer, Psychology Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2016

Abstract

The Relationship Between Meaning in Life and Dispositional Forgiveness

by

Shirley Ann Karseboom

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

May 2016

Abstract

Both meaning in life and forgiveness have been shown to separately contribute to better mental health. However, no prior research examined the linkage between meaning in life and forgiveness. This quantitative study was therefore to identify if there was a relationship between meaning in life, as measured by the Meaning in Life Questionnaire (MLQ), and overall dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations, as measured by the Heartland Forgiveness Scale (HFS). Survey data were gathered from 250 college students in Western Canada, and multiple linear regression controlling for sociodemographic factors was used. The results showed a relationship between meaning in life and 3 out of the 4 variables. A significant relationship was found between meaning in life and dispositional forgiveness, dispositional forgiveness of situations, and overall dispositional forgiveness. There was no relationship found between meaning in life and dispositional forgiveness of others. These findings may be explained by extant literature suggesting differences in both cognitions and emotions between self forgiveness, other forgiveness, and overall forgiveness. Mental health professionals applying therapeutic intervention options that incorporate these 2 constructs may help to precipitate social change in terms of the treatment and management of mental health, especially with respect to the potential to improve treatment options for depression, anxiety, substance abuse, and anger. Improved treatment interventions and options for individuals can potentially lead to increased employability, reduction in crime, better school attendance and performance, and overall improved physical health across the lifespan.

Relationship Between Meaning in Life and Dispositional Forgiveness

by

Shirley Ann Karseboom

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

May 2016

Dedication

This work is dedicated to my supportive and loving husband, Henry, to my cheerful and adventurous twins, Emily and Nicolas, and my dearest parents, Esme and Roy. This process was long, and at times felt like it would never end. Without my family's support, this journey would never have been possible to complete. My blessed twins arrived halfway into the process and were with me every inch of the way. They had baby passports and flew to the United States five times with me while strapped to me in a double baby carrier as I strove to complete my Ph.D. requirements. My husband and parents also accompanied me to the United States to allow me to complete my degree. Thank you for being the wonderful people you all are and for being such an integral part of my journey.

Acknowledgments

There are so many people that guided and supported me through my training. Thanks to my family and friends for allowing me to get the time I needed to complete my studies. Thank you to my chairperson, Dr. Steve Lifrak, who supported and mentored me through this very long process with encouraging emails, calls, and valuable feedback. I am also grateful to other my committee members Dr. Donna Dimatteo-Gibson and Dr. Steven Little, for their time and dedication throughout this process. I also must give thanks to Dr. William Rooney, who was originally part of my committee but sadly passed away on November 24, 2014. Mr. Ali Al-Asadi played a significant role in helping me navigate through the IRB process for the college I collected data from and his expertise and support of the process helped greatly. Lastly, Dr. Christopher Bradley, provided the extra support I needed to stay focused, stay the course, and break down the process into manageable steps to be able to succeed. I cannot thank you all enough for sharing your knowledge, answering my questions, and going above and beyond your commitments to me. Each of you played a role in helping me through this long and difficult process. Your kindness and support will always be remembered.

Table of Contents

List of Tables

Chapter 1: Introduction to the Study

Background to the Study

Poor mental health has been correlated to a lack of meaning in life (Mascaro & Rosen, 2005; Schulenberg, Strack, & Buchanan, 2011; Yalom, 1980; Zika & Chamberlain, 1987) and lack of willingness to forgive (Bono, McCullough, & Root, 2008; Coates, 1997; Cox, Tripp, Bennett, & Aquino, 2012). What is unknown is if meaning in life and dispositional forgiveness are directly related. This study was designed to examine if there was a relationship between meaning in life and dispositional forgiveness of self, others, and situations.

Mental health issues are prevalent in Canada and globally, creating a continued need for examining contributing factors that cause and advance positive mental health. Both national and regional surveys of Canadian citizens suggest that mental disorders affect approximately one in five Canadians (Vasiliadis, Lesage, Adair, & Boyer, 2005). The full extent of the costs associated with mental health services in Canada is unclear, because these costs are not clearly separated from the costs of the overall public health system. As more attention by the government is being focused on the area of mental health, more questions are being asked about provincial and federal costs pertaining to mental health. The estimated costs of depression-related health care services in the province of Alberta alone are approximately $114.5 million (Slomp et al., 2012).. This study will therefore make a contribution to this area via its examination of the potential link between meaning in life and dispositional forgiveness. This project specifically investigated potential correlations between higher levels of meaning in life (a mental

health construct) and higher levels of dispositional forgiveness (a mental health outcome). This is important because it may allow for the development of more treatment approaches in improving mental health functioning of individuals.

Problem Statement

Several studies have shown that there are well-known mental health benefits to having greater meaning in one's life. Having meaning in life reduces the need for therapy, decreases depression, decreases anxiety, decreases suicidal ideation, decreases substance abuse, and decreases other kinds of distress (Steger, Frazier, Kaler, & Oishi, 2006). Along these same lines, engaging in forgiveness can have a positive impact on an individual's mental health (Bono et al., 2008). The ability to forgive has protective effects from anxiety, depression and suicide (Toussaint, Marschall, & Williams, 2012), increases self esteem and hope (Freedman & Enright, 1996), and decreases anger (Goldman & Wade, 2012). Both meaning in life and forgiveness have been shown to separately contribute to better mental health, suggesting a potential relationship between these variables. This relationship, if confirmed, would facilitate crafting mental health interventions that use both concepts to improve individuals' mental health functioning. The literature review for this study showed that there is a lack of clarity concerning the nature of the relationship between meaning in life and dispositional forgiveness. Even though the potential importance of having meaning in life is clear, it is not clear in the literature how this is related to dispositional forgiveness.

Purpose of the Study

The purpose of this study was to identify whether or not there is a relationship between meaning in life and overall dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations. Gaining a better understanding of such a relationship between the two variables may allow for the development of mental health interventions that include both variables as a way to achieve improved mental health functioning in individuals. The establishment of a relationship between meaning in life and dispositional forgiveness makes a theoretical contribution to the body of work on the topic, as prior research in this area has failed to examine if there is a relationship between the two constructs. Filling in this gap in the literature allows other researchers to build and further develop more effective ways to improve overall mental health functioning of individuals.

Research Questions

The primary research question investigated in this study was: Is there a relationship between Meaning in Life and total dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations?

In order to effectively investigate this research question, the following null and alternative hypotheses were posed:

Hypothesis 1a

- **Null Hypothesis (H0a):** There is no relationship between the meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life

Questionnaire (MLQ) and the dispositional forgiveness of self as assessed by the forgiveness of self subscale of the Heartland Forgiveness Scale (HFS).

- **Alternative Hypothesis (H1a):** There is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of self as assessed by the forgiveness of self subscale of the Heartland Forgiveness Scale (HFS).

Hypothesis 1b

- **Null Hypothesis (H0b):** There is no relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of others as assessed by the forgiveness of others subscale of the Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1b):** There is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of others as assessed by the forgiveness of others subscale of the Heartland Forgiveness Scale (HFS).

Hypothesis 1c

- **Null Hypothesis (H0c):** There is no relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of situations as assessed by the forgiveness of the situation subscale of the Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1c):** There is a positive relationship between meaning

in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of situations as assessed by the forgiveness of the situation subscale of the Heartland Forgiveness Scale (HFS).

Hypothesis 1d

- **Null Hypothesis (H0):** There is no relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and overall dispositional forgiveness as assessed by the complete Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1d):** There is positive a relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and overall dispositional forgiveness as assessed by the complete Heartland Forgiveness Scale (HFS).

Theoretical Frameworks

To examine whether there was a relationship between meaning in life and dispositional forgiveness, several theoretical frameworks were used to help develop an understanding and assessment of the concepts known as meaning in life and forgiveness. Each line of theory discussed below is a prominent work in the field related to the given concept.

Steger's Framework for Meaning in Life

There are numerous theories about meaning in life. The work of Michael Steger, the developer of the Meaning in Life Questionnaire (Steger, 2005) is an active researcher

in this area. Steger's efforts have resulted in a conceptual framework for seeing how meaning in life relates to overall well-being. Steger's work on the components of meaning in life suggests that there is both a cognitive and motivational component to having meaning in one's life. The presence of meaning in life provides importance, sense, and purpose, all of which further leads to being able to feel like one belongs, gain a good understanding of one's self, and gain a good understanding of the world one lives in (Steger, 2012). People have experiences in their lives and how they respond to their experiences is in part by how they derive meaning from them. The cognitive aspect of meaning in life is the cognitive process one engages in to comprehend our experiences in life.

Having goals and purpose in one's life are what makes up the motivational aspect of meaning in life. Having meaning in life gives an individual purpose or direction in what to do with their life. It has been suggested that there is a link between purpose and pursuits with well-being (Emmons, 1992). Steger (2012) described how a goal is more impactful when that goal is developed through a person's own understanding of him or herself and his or her own life. This notion of goal-directed behavior uses the cognitive component of meaning as the springboard for the motivational component. This framework of cognitive and motivational components are what comprise meaning as a way to describe meaning in life as a psychological construct which is distinctly separate from other psychological constructs.

McCullough's Forgiveness Theory

Michael McCollough is an active researcher in the field of forgiveness, and his

work has proposed what is widely regarded as the best conceptual framework for seeing forgiveness. McCollough (2000) describes forgiveness as being a prosocial act that is foundationally based in a motivational construct. McCollough makes an assumption that when a person is faced with an interpersonal offense, two potential feelings may occur and that the underlying motivations for those feelings that arise differ. The first response can be that the person views the offense as an attack, and as a result, the feelings that are generated are of a hurtful nature. The underlying motivation to avoid being hurt may lead the person to avoid contact with the offender. The alternative response may be that the person experiences feelings of anger due to a sense of injustice. The underlying motivation in this situation, according to McCollough, is for the person to want revenge against the offender, or at the very least, see some consequence or harm befall the offender.

According to McCollough (2000), People are social beings that need to be connected to others; as such, this need to be connected is a motivator that can help to balance out motivations to avoid or seek revenge. The alternative to avoiding or seeking revenge is forgiveness. Forgiveness towards an offender allows for the reparation of that relationship. Therefore McCullough (2000) views forgiveness as a prosocial act after an interpersonal offense has transpired. In other words, McCullough sees forgiveness as "motivational change" (p. 45). This is a well-supported theoretical idea that addresses not only interpersonal forgiveness, but also intrapersonal forgiveness.

Bioinformational Theory

Bioinformational theory helps to link forgiveness and well being via biological responses activated through emotions to an individual's experiences. People have emotional responses to their experiences. Memories can be stored with emotional responses that are linked to a particular memory, and emotional responses can even be evoked when a person is asked to imagine a factual or nonfactual experience or situation. These psychological reactions are termed *valences*, and include both negative or positive emotional reactions and *arousal* reactions (Lang, 1979). Lang showed that emotions that arise when processing an event are accompanied by both visceral and somato-motor activity. Positive emotions can be linked to less tension in muscles, including facial expressions, as well as more pleasing and relaxing physiological responses (Witvliet, Ludwig, & Laan, 2001).

Physiological responses to positive emotions such as decreased blood pressure, decreased heart rate, lower muscular tension in the body, lower skin conductance, and parasympathetic reactivity can counteract the more negative and arousal physical responses and are linked to improved health (Witvliet et al., 2001). Unforgiving responses can be categorized in the negative emotions category with physiological responses that can be harmful to health over the short and long term. In contrast, forgiving responses can be categorized in the positive emotions category, and positive emotions are associated with physiological responses that can promote health (Witvliet et al., 2001). I selected this theory because there are physiological responses that are linked

to both positive and negative emotions, and not all emotions are caused by conscious cognitions, as noted by Worthington (2006).

Combining Theories

Having meaning in life gives individual's purpose or direction, outcomes which have been empirically linked to both physical well-being and mental health (Emmons, 1992). Steger's framework for meaning in life identifies both cognitive and motivational components as having meaning in life, and states that cognitions contribute to the motivational component of meaning in life. McCullough's work on forgiveness views forgiveness as an act that is also based in a motivation component. The motivational need to be connected to others and belong may compete with and balance out motivations related to lack of forgiveness such as avoidance of others and seeking revenge. McCullough's work can also be applied to an intrapersonal variable such as forgiveness of self. When one does not forgive oneself, we may avoid others because it is not easy to be around others when one feels negative towards oneself or engages in self-destructive or high-risk activities. Self-forgiveness has been used as a therapeutic intervention for dealing with negative attitudes towards the self, such as self-hatred, self-anger, self-condemnation, guilt and shame (Hall & Fincham, 2005). A lack of forgiveness can have a negative impact on an individual's well-being and mental health (Bono et al., 2008).

Bioinformational theory explains how individuals have an emotional response to an experience, and how this emotional response can be stored as a memory with either positive, negative or both a mix of positive and negative emotions attached to the memory. Emotions are linked to physiological responses in the body. Certain

physiological responses are linked to improve health outcomes, such as decreased blood pressure, while other physiological responses may be harmful especially over the long term (Witvliet et al., 2001)**.** This suggests if a person has meaning in life, and if having meaning leads to forgiveness, then the act of forgiveness may lead to physiological responses that promote positive health outcomes, such as good mental health.

Operational Definitions

Meaning in life: This study used Steger et al.'s definition of the meaning of life as "The sense made of and significance felt regarding the nature of one's being and existence" (p. 81). For example, individuals have experiences in their lives which they engage in a process to comprehend the experience, respond to the experience, and then derive meaning from the experience related to their own existence.

Forgiveness: This study used Thompson et al.'s definition of forgiveness as "framing of a perceived transgression such that one's responses to the transgressor, transgression, and sequelae of the transgression are transformed from the negative to neutral or positive. The source of a transgression and therefore the object of forgiveness may be oneself, another person or persons, or a situation that one views as being beyond anyone's control (e.g., an illness, fate or a natural disaster)" (p. 318).

Transgressions are comprised of "two types: hurts and offenses… hurts violate physical or psychological boundaries…offenses violate moral boundaries" (Worthington, 2006, p. 31).

Transgressor: Someone or something that engages in a form of wrongdoing towards or to another person (Worthington, 2006).

Disposition: A habitual inclination or tendency to act or think in a particular way (*Merriam-Webster's online dictionary*, n.d.). For example, individuals have ways that they normally think or behave in their lives.

Well-being: The frequent experience of positive moods or emotions (i.e., affect) and high satisfaction of life and the infrequent experience of negative moods and emotions (Vaingankar et al., 2012).

Social Change Implications

Many studies have examined the relationship between meaning in life and improvement in mental health outcomes with regards to depression, suicidal ideation, and substance use (Mascaro & Rosen, 2005; Schulenberg et al., 2011; Yalom, 1980; Zika & Chamberlain, 1987). Several studies have examined the relationship between forgiveness and improvement in mental health outcomes with regards to depression, anxiety, suicidal ideation, and anger (Freedman & Enright 1996; Goldman & Wade, 2012; Toussaint, et al., 2012). There are numerous health benefits when engaging in the process of forgiveness; examples of some of the benefits are a reduction of negative thought processes and emotions (Worthington, 2006). The benefits of forgiveness also extend to an individual's ability to maintain relationships with others by way of the reparation from conflict caused by the effects of negative thought processes and emotions (Gordon & Baucom, 1998; Hebl & Enright, 1993). Having less meaning in life has been associated with greater need for therapy and more mental health issues as previously stated. Yet what has not been done to date is a direct examination between the linkage (if any) between meaning in life and forgiveness.

A study of the potential relationship between meaning in life and forgiveness is the first step towards examining the potential for the possibility of more tailored and specific recommendations for meaning in life and forgiveness interventions as they contribute to improving mental health. Having therapeutic intervention options that incorporate these two constructs may help to precipitate social change in terms of the treatment and management of mental health, especially with respect to the potential to improve treatment options for depression, anxiety, substance abuse, and anger. Being able to mange such mental health issues more effectively would contribute to societal improvement in many significant ways. It could help to reduce the overall costs to the health care system allowing government finances to be allotted to other social programming. Individuals with such mental health issues tend to have lower rates of employability (Comino et al., 2003), increased involvement with the law (Hodgins, 1998), more difficulties in school (Tempelaar et al., 2014), and poorer physical health (Scott & Happell, 2011). Therefore, better treatment interventions and options can potentially lead to increased employability, reduction in crime, better school attendance and performance, and overall improved physical health across the lifespan.

Assumptions, Limitations and Scope

The assumption of the study was that the results would link a positive relationship between meaning in life and overall dispositional forgiveness, self, situations, and others. The significance of this is that it may help to aid in future development of clinical interventions with these variables to improve a client's mental health in potential areas such as, depression, anxiety, substance abuse, and anger. Other assumptions for this study

that are related to the hypotheses were that the participants were willing to participate and were not coerced in any way. Second, the participants were answering truthfully in filling out the two self-reporting measures used to collect the data. Thirdly, the study was able to be replicated by any other researchers and obtain similar results. Lastly, the sample of convenience was a close enough representative of the general population so that inferences could be made from the results.

Several limitations were also considered for this study, with the first limitation of this study being the use of a convenience sample. The risk lies in that the convenience sample is not representative of the entire population; therefore, generalizing the results can be problem laden (Neuman, 2011). Another potential limitation was that the accuracy of the self-reported measures relied on the student's accuracy, attentiveness, honesty and effort put into filling out the measures properly. Thirdly, research has shown that women tend to be more willing to forgive than men (Worthington, 2006), and there was a higher ratio of females to males in the classes that the researcher accessed at the site where the research was conducted. This could limit generalizability of the results. Lastly, the main ethnicity of participants in this study was Caucasian, which could also limit its generalizability to other racial groups.

Summary

A significant number of individuals struggle with mental health issues and the cost to manage health care is a complex and challenging problem worldwide. Greater understanding of well-being variables may be helpful to guide more empirically supported, affordable, and efficacious approaches to improving mental health and well-

being. This study was designed to examine if there was a relationship between meaning in life and dispositional forgiveness. Chapter 2 covers prior research in the area of meaning in life and well being, and forgiveness and well-being. This is followed by Chapter 3, which covers the study's research design and approach, research questions, instrumentation, how data was collected and analyzed and ethical considerations. Chapter 4 covers the results of the study. Lastly, Chapter 5 consists of a discussion of the results, what it means, how it advances what we know about the area along with recommendations for future research.

Chapter 2: Literature Review

Introduction

The focus of this study was to examine the potential relationship between meaning in life and dispositional forgiveness, a research topic that has received minimal attention to date. EBSCO databases were the primary source used for this literature review with an emphasis on drawing relevant literature from the PsycINFO, PsycARTICLES and Academic Search Complete subsets of the EBSCO database. Keywords used for these searches were *dispositional forgiveness, forgive*, *forgiveness, forgiveness of others*, *forgiveness of self*, *forgiveness of situations*, *Heartland Forgiveness Scale, Life Regard Index*, *meaningfulness*, *meaninglessness*, *meaning in life, Meaning in Life Questionnaire*, *purpose in life*, *Purpose in Life Test*, and *Sense of Coherence Scale*.

The first section of this literature review presents an examination of meaning in life as a psychological construct, with emphasis placed on key theorists who examine meaning in life and definitions of meaning in life. The second section of this literature review presents an inquiry into historic and current research on the relationship between mental health and meaning in life. In the third section of this literature review, the focus is on forgiveness as a psychological construct, including definitions of forgiveness in the extant research literature. The fourth section is an overview of historic and current research on forgiveness and its relationship with mental health. The literature review ends with a summary of the information presented throughout this chapter.

Meaning in Life as a Psychological Construct

Throughout the history of humankind, there has been evidence of the continued search for what makes life meaningful (Frankl, 1997; Wong & Fry, 1998). Meaning in life as a psychological construct emerged in part as a reaction to World War I and II. Civilians and soldiers who served during the wars lived in a time of shock and fear. The world had become a violent and uncertain place to live in. Fear for many led to an erosion of trust and difficulties in maintaining their routines with work and recreation (Jones, Woolven, Durodie, & Wessely, 2006), which lead for many to begin to question their purpose, values, and meaning in life. Humans needed to believe in something to persevere.

Grappling with such a need caused health care providers to take an in-depth look at humanity itself to find new values. Families were torn apart and rates of mental health issues continued to rise within the soldiers who fought in World War II (Boone & Richardson, 2010). Those soldiers that returned to their families came back as very different people than their family once knew, and difficulties adjusting to the soldiers returning home were strains put on all the family members not only the soldier (Harrisson, 2010). When a society is impacted by significant losses, conflicts, or even confusion regarding morals, it is challenged to come up with new ways to cope with these issues (Boone & Richardson, 2010). The philosophical writings that emerged after World War I and II can be seen as a means for those philosophers to devise answers to their own life stressors and cries for meaning. Out of such writings came different

philosophical ideas of meaning in life which began to be examined as a psychological construct in studies starting in the 1950s.

Meaning in Life Theory: Existentialism

Existentialism has roots in the 1800s philosophical work of Kierkegaard, but gained prominence in the 1940s in reaction to the "terror and inhumanity" of world events, including World War I and World War II (Jacobsen, 2007, p. 289). Existentialism is a philosophical approach that is considered at its core to be concerned with one's approach to living. The emphasis in existentialism is on the individual, in which he or she alone has the freedom and responsibility to choose how to live his or her life (Jacobsen, 2007). While existential philosophers have different interpretations of existentialism, there are three common concepts to existentialist philosophy. The first concept is that humans have free will. The second, aligned concept is that humans must take responsibility for their actions. The third concept is that living is an individual process.

Some of the themes addressed in existentialism are freedom, living, dying, responsibility and finding meaning in life (Yalom, 1931). Out of these varied existential themes, the focus of this section is on meaning in life. Various existential philosophers have perceived and defined meaning in life differently. Soren Kierkegaard is considered by many as the grandfather of existentialism (Lowrie, 1962), and his philosophy evolved into valuing and embracing a more subjective approach to life. A more subjective approach to life involves believing and fully participating in living life with passion and vigor (Lodge, 2007). Kierkegaard (1962) also took a theistic approach in some of this

writings to find meaning in life, as he did not view God or religion as objective constructs.

Kierkegaard's theistic approach suggests that an individual should take purposeful action by making choices through religious beliefs, thus allowing there to be some certainly in a world full of apparent uncertainties. Kierkegaard urged others to seek out and choose ideas that they could "live and die" for (Lodge, 2007, p. 212). Kierkegaard's writings were drawn from his own struggles in seeking answers to satiate his own questions about life and a higher power. Jean-Paul Sartre (1957) shared similar views to Kierkegaard, arguing that meaning in life is generated through making choices (Muller, 2010). Sartre's writings complimented Kierkegaard in that Sartre believed that purpose or meaning is not derived by God, but instead by the individual choosing to make a commitment to God. It is through the act of choosing that the essence of meaning is obtained and value is derived.

Another philosophical view that lies in direct opposition to existentialism is nihilism. Nihilism's core concepts are that life has no meaning, value, or purpose. Although Albert Camus never considered himself to be an existentialist, he was classified as one (Solomon, 2001). Camus' writing focused on debunking nihilism. He stated, "there is but one truly serious philosophical problem, and that is suicide. Judging whether life is or is not worth living amounts to answering the fundamental question of philosophy" (Camus, 1955, p. 3). Camus (1955) reasoned that out of all the philosophical questions, the only important one is whether life has meaning. Camus saw

this question as of the utmost importance because people were willing to die for this question.

In contrast, Nietzsche (1982) posited that life has no meaning, which is the quintessential nihilist viewpoint. Similar to Nietzsche's views are the views of Schopenhauer (1970), a staunch nihilist, who argued that there was nothing a person could contribute to life because there is no divine plan. Schopenhauer (1970) posited that people were so insignificant that they had minimal ability to influence progress. Essentially, Schopenhauer viewed life as a constant and meaningless cycle of painful and boring events (Clark, 2012).

The existential movement spurred several psychiatrists to use existential ideas to help develop existential psychology and existential psychotherapy. This branch of psychology differs from other branches in that it emphasizes how the client should examine his or her own self-awareness and should shift his or her view of current and daily issues to larger issues regarding problems of human existence. These may be referred to as the "big questions in life" (Jacobsen, 2007). This type of psychotherapy has the basic goal of learning how to live one's life authentically. In order to live an authentic life, an individual conducts his or her life in a way that is congruent with their deepest and firmly held opinions, beliefs, values and goals (Corey, 2013).

Existential Psychology: Frankl and Other Originators

Viktor Frankl's work is considered the impetus for the examination of meaning in life as a psychological construct. Frankl is seen by many as a pioneer in studying meaning (Wong & Fry, 1998). Frankl developed some existential psychological

concepts, such as logotherapy, that later developed into his existential psychology theoretical approach. Logotherapy has been referred to as the "Third Viennese School of Psychotherapy" (Schulenberg, Nassif, Hutzell, & Rogina, 2008, p. 447). It is a form of psychotherapy that takes a meaning centered approach to problems. Frankl had begun to work on many of his existential psychological concepts prior to the onset of World War II while working in the Am Steinhf mental hospital, as well as when he was in private practice.

Frankl's experiences as a prisoner in the concentration camps tested and validated his theory (Frankl, 2000). While imprisoned, Frankl observed the differences amongst the prisoners who were able to maintain or hold onto some meaning in their lives compared to those who lost meaning while imprisoned. In examining these differences, he noticed those who could maintain even the smallest amount of meaning amidst the horrors of the camps had a better chance of survival (Frankl, 1997). Over the course of three years, Frankl survived a total of four concentration camps. The empirical evidence he gathered through his observations of people in the concentration camps validated his belief that through meaning in life there is survival value (Frankl, 2000).

In his autobiography, Frankl talked about how when he entered his first concentration camp, he had a manuscript sewn in his overcoat's lining to hide it from the German SS officers. After arriving at the camp, he had to give up his belongings; he therefore lost the manuscript. This lost manuscript became a powerful image to Frankl: he stated that he survived so that he would be able to reconstruct it (Frankl, 2000). The first year after the war, Frankl returned to Vienna where he wrote the last draft of *The*

Doctor and the Soul, and in the span of nine days, he wrote the seminal work *Man's Search for Meaning* (Frankl, 2000).

In *Man's Search for Meaning*, Frankl (1959) theorized that a person engages in a process of discovering meaning in life from what exists outside of the individual. In other words, a person does not create meaning *internally* but instead is motivated to access or find it *externally* (Frankl, 1959). Frankl argued that there were three ways to find meaning in life: (a) the deeds done or work created by a person; (b) an experience involving human interactions, and; (c) a confrontation with something that cannot be altered or changed, leading to a change in the individual's attitude (Frankl, 2000). Thus a person's search for meaning is a person's primary motivation for living, which Frankl called "will to meaning" (Frankl, 1969, p. 16).

Frankl (1969) further posited that when a person could realize their will to meaning, they experienced "existential frustration," or misdirected meaning of life that could lead to meaninglessness (Frankl, 1969, p. 163). According to Frankl (1969), meaninglessness can be viewed as a hole. This hole creates in a person a vacuum that needs to be filled. This vacuum may be temporarily filled with superficial realizations, but will not be satisfied until the person's true motivation is realized (Frankl, 2000). Frankl (1969) further argued that existential frustration could very easily lead to a form of mental illnesses he termed *noogenic neuroses*. However, Frankl (1969) was questioning and searching for more effective and alternative ways to treat these noogenic neuroses than the treatment methods used by the psychoanalytic or behavioral therapy techniques of his day. Therefore, he founded *logotherapy* (*logo* is Greek for meaning), a form of

therapy that focuses on and utilizes a person's perceived meaning and purpose in life to promote one's well being (Frankl, 1959; Ponsaran, 2007).

Ludwig Binswager and Medard Boss also deserve recognition for their contributions to existential psychology. Their ideas helped others after them to build practices and theories of existential psychotherapy. Ludwig Binswager, a Swiss psychiatrist, developed existential psychological ideas about a fundamental meaning structure (Binswanger, 1963). Binswager's main idea is that people do not automatically possess the ability to become aware of meaning in their world, but instead can learn about meaning and by doing so transcend beyond their daily situation to deal with more meaningful life issues. This ability allows individuals to determine their own direction in life and choose how they want to live (Ghaemi, 2001). Similar ideas can also be found in the work of Medard Boss, a Swiss psychiatrist who was trained in psychoanalysis and was analyzed by Sigmund Fred. Boss merged his training in psychoanalysis with existential themes when he wrote *Psychoanalysis and Daseinsanalysis* (Boss, 1963). In this work Boss focused particular attention on how individuals related to one another and have a need to exist in mutual tolerance by sharing the world they live in (Churchhill, 1989).

Meaning in Life Theory: Positive Psychology

Another branch of psychology, positive psychology, has helped to increase our understanding of meaning in life. Positive psychology is driven by a philosophical focus on human strengths, not weaknesses; the promotion of health, not the treatment of illness; and solutions, not problems. Other branches of psychology focus primarily on healing,

possibly as a reaction to dealing with the aftermath of World War II. Psychology has been able to gain greater understanding of how people are impacted by hardship and cope with adversity, but less is known about "what makes life worth living" (Seligman & Csikszentmihalyi, 2000, p. 5), a topic that is at the core of positive psychology.

Positive psychology: Maslow. While the positive psychology movement gained the most momentum in the 1990's, Abraham Maslow was actually the first theorist to use the term *positive psychology* in the 1950s. Maslow's (1954) definition of positive psychology was led by his belief in the potential of mankind and the moral, good, and valuable qualities of humans (Maslow, 1954). Maslow steered away from the Freudian and Behavioral lenses of psychopathology and instead directed his ideas towards the positive ways humans function and are motivated. Maslow's ideas resulted in the formulation of his theory of hierarchical needs and human development (Zalenski & Raspa, 2006). Maslow's hierarchy of needs took the form of a pyramid, with the most basic and important needs that are required for survival on the lower levels of the pyramid, and higher level needs such as self-esteem and self-actualization at the top. Maslow emphasized that both lower level and higher level needs can sometimes only be partially achieved and that the pyramid should not be rigidly interpreted (Maslow, 1954).

Positive psychology: Seligman. Work in the field of positive psychology has been going on for decades, yet it was not until the 1990's that the field started gaining more recognition. Many scholars prior to Martin Seligman had conducted research in this field, but were given little recognition due to working mostly in isolation (with the notable exception of Maslow). Seligman's contribution is in uniting scholars with similar

interests and creating a network for researchers and scholars to break the isolation and draw much deserved attention to past and present scholar's work on the topic of positive psychology (Lopez & Gallagher, 2009).

The "Meaning" of Meaning in Life: Issues with Terminology, Measurement, and Research

When reviewing the literature, the most common empirical measures used in meaning in life research are (a) the Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964), (b) the Life Regard Index (LRI; Battista & Almond, 1973) and (c) the Sense of Coherence Scale (SOC; Antonovosky, 1987). If one were to compare any research conducted using these three measures, one would have great difficulty, since each measure uses a different definition for the construct known as 'meaning in life'. This point will become apparent through the exploration of the various measures below.

Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964). Crumbaugh and Maholick (1964) developed the PIL to assess how an individual perceives meaning and life purpose. Frankl (1959) described this concept as "existential frustration" or a person's failure to find meaning in their life. Crumbaugh and Maholick used Frankl's existential ideas from logotherapy to assist in the development of their test. They defined meaning in life as "the ontological significance of life from the point of view of the experiencing individual" (Crumbaugh & Maholick, 1964, p. 201). The PIL test emphasizes examining how meaningful an individual sees his or her own existence in the world, and how such meaning is related to the individual's well being (Schulenberg et al.,

2010). The term ‘meaning’ is interchangeable with the term ‘purpose’ and the test basically measures the level or degree to which an individual senses meaning in their life. The use of the PIL has been widespread in the collection of empirical research since its development, although there have been criticisms regarding the test’s validity (Debats, 1990).

Life Regards Index (LRI; Battista and Almond, 1973). The LRI was developed by Battista and Almond (1973), and they were amongst the few practitioners of their time who wanted to find empirical evidence that well-being was related to an individual’s meaning in life. Battista and Almond opted to avoid using the term ‘meaningful life’ as they considered it to be too vague, and instead replaced it with the term ‘positive life regard’. They defined positive life regard as “an individual’s belief that he is fulfilling a life-framework or life-goal that provides him with a highly valued understanding of his life” (Battista & Almond, 1973, p. 410). The LRI test was developed to measure an individual's perception of positive life regard/meaning in his or her life. This test has been described as “more conceptually sophisticated than the PIL however, it has not been as extensively studied” (Debats, 1990, p. 24).

Sense of Coherence Scale (SOC: Antonovsky, 1987). Antonovsky (1987) created the SOC as a result of his theory, which he named salutogenesis. Salutogenesis has similarities with positive psychology as it is an approach that centers on looking at the factors that are supportive of an individual’s well being instead of focusing on factors that cause disease. In order to capture and measure aspects of his theory, Antonovsky created the SOC scale (Antonovsky, 1987). The concept of *sense of coherence* was

defined by Antonovsky as "a way of seeing the world" (p. 725), and the way an individual sees the world either detracts from his or her health or boosts his or her health. The SOC is another test that is constructed to look at factors linked to well being; however, this test does not actually measure meaning in life but rather an individual's disposition of coping in regards to how they view their world as meaningful, comprehensible and manageable (Antonovsky, 1987; Debats, 1998).

Meaning in Life Questionnaire (MLQ: Steger, Frazier, Kaler and Oishi, 2006). The Meaning in Life Questionnaire measure looks at meaning as two separate constructs, with these being presence of life meaning and the search for life meaning. In addition, the authors of the MLQ generated a definition of meaning in life by making an effort to constitute the main definitions of meaning (Steger et al., 2006). Consequently the definition of meaning in life that buttresses the MLQ is "the sense made of, and significance felt regarding, the nature of one's being and existence" (Steger et al., 2006, p. 81). More information on the MLQ can be found in Chapter 3.

At issue in the meaning in life literature is the use and application of one construct, the *presence of life meaning*, and the use and application of another construct, the *search for life meaning* (Park, Park, & Peterson, 2010). So even though there is over 40 years of research on meaning in life, the difficulty lies in being able to compare the research due to varying definitions of the constructs being measured (Steger et al., 2006). Further criticisms of the research on this topic are that some of the variables in the PIL and LRI have spurious relationships due to lurking variables (Debats, Van der Lubbe, & Wezeman, 1993; Frazier, Oishi, & Steger, 2003; Schulenberg & Melton, 2010). What

can be agreed upon when comparing the various instruments that measure the concept of meaning in life is that meaning in life is important to one's psychological and physical health and overall well-being; indeed, meaning in life is important to one's very survival (Frankl, 1959; Kenyon, 2000; Park, Park, & Peterson, 2010; Steger et al., 2006).

Meaning in Life and Well Being

The consistent finding in the meaning in life literature has been that there is a relationship between perceived meaning in life and a person's well-being or psychological health. Meaning in life and perceived meaning in life research clearly shows a positive relationship with happiness and greater satisfaction in life (Linley & Joseph, 2011; Park, Park, & Peterson, 2010), whereas research regarding the psychological construct search for meaning has very different meditational factors. It is also empirically supported in the research that a lack in meaning in life is related to poorer mental health and/or psychological distress (Mascaro & Rosen, 2005; Schulenberg et al., 011; Yalom, 1980; Zika & Chamberlain, 1987). There have been many studies that have examined the relationship between meaning in life and mental health outcomes with regards to depression, suicidal ideation, and substance use. These studies will be discussed below.

Meaning in Life and Depression

Meaninglessness has been shown to be related to negative affect and clinical depression (Mascaro & Rosen, 2005; Thakur & Basu, 2010). Level of hope is a variable that is inversely correlated with depression and influences an individual's ability to perform at their best and mange or cope better with their lives (Synder, 2002). Volkert,

Schulz, Levke, Brutt and Andreas (2013) looked at hopelessness as a loss of meaning in life and were able to show with a college population that students with higher levels of meaning reported less symptoms of depression than those with lower levels of meaning. This dovetails with findings by Steger, Mann, Michels and Cooper (2009) who looked at the two constructs of meaning in life and seeking meaning in life among members of smoking cessation groups. The authors found that those with low reported scores of meaning in life had more depressive symptoms than those with higher reported scores of meaning in life. In addition to this, those patients that had both low reported scores for meaning in life, as well as seeking meaning in life, were the individuals with the most health issues and depressive scores.

Searching for meaning has also been linked to more symptoms of depression and higher rates of neuroticism (Steger, Kashdan, Sullivan, & Lorentz, 2008), possibly due to the difficulties in working through the existential issues that come up when dealing with a difficult situation or adversity (Linley & Joseph, 2011). It is empirically supported by numerous studies findings that having less meaning in an individual's life is associated with depression across various populations (Debats et al., 1993; Newcomb, 1986; Rusner, Carlsson, Brunt, & Nystrom, 2009; Strack, 2009; Thakur & Basu, 2010).

Meaning in Life, Suicidal Ideation, and Substance Use

Meaninglessness has been shown to be related to both suicidal ideation and drug use. Hopelessness (i.e., a loss of meaning in life) is also a factor linked to suicidal ideation. A study by Joiner and Rudd (1996) showed that hopelessness is a predictor for suicidal ideation when depression is controlled in the predictive model. Harlow,

Newcomb and Bentler (1986) looked at whether meaning in life was associated with suicidal ideation and drug use in adolescents. The results of their study suggested that when males lacked meaning or purpose in life they tended to have more suicidal thoughts, whereas females tended to turn to using substances. Yet when males had higher rates of depression they tended to turn to substance use, and females tended to have increased suicidal ideation. These results suggest adolescent males and females respond differently to meaninglessness. An investigation of geriatric individuals complimented the findings of the Harlow et al. (1986) study by finding that meaning in life is a protective factor against individuals with suicidal ideation (Heisel & Flett, 2008). Indeed, it has been empirically supported by numerous studies that having less meaning in an individual's life is associated with suicidal ideation across various populations (Dogra, Basu, & Das, 2008; Dogra, Basy, & Das, 2011; Thankur & Basu, 2006), as well as increased rates of substance use and abuse (Coleman, Kaplan, & Downing, 1986; Newcomb, 1986).

The body of literature has shown that having meaning results in positive well-being. Forgiveness has also been shown to be associated with well-being (Toussaint & Friedman, 2009). What has not been examined to date in the extant literature is the relationship between meaning in life and forgiveness. The discovery of a relationship between the two concepts may help to gain an even greater understanding of how psychological professionals can assist individuals in improving their well-being. In order to more fully understand how this is possible, an examination of the concept of forgiveness is in order.

The Concept of Forgiveness

The concept of forgiveness first began as a religious ritual that people engaged in when seeking forgiveness from the divine (O'Donnell, 2004). Judeo-Christian beliefs expanded the concept of forgiveness by enacting an expectation that members of the faith need to forgive one another for transgressions. This notion shifted the idea of forgiveness from a concept of the divine to a process between individuals (O'Donnell, 2004).

Interestingly, it was not until the 1930s that a small amount of interest was shown in forgiveness as a psychological construct. Although Freud wrote extensively about numerous psychological ideas, he did not address forgiveness to a large extent. The fact that Freud did not extensively examine forgiveness is an oversight that was also done by many of the most influential and prolific psychological scholars of the early ninetieth century. A possible reason for this is the historical separation of religion and science (Gorsuch, 1988), coupled with the fact that forgiveness was seen as being related to the domain of religion.

It was not until the 1980s that the construct of forgiveness was given serious and sustained attention by scientific researchers (McCullough, Pargament, & Thoresen, 2000). Forgiveness and its relation to moral development began to be explored in the 1980s, as did the possibilities that forgiveness could to be used in a clinical setting as an aspect of a patient's treatment plan in psychotherapy. By the 1990s the area of examining personality and forgiveness began to be fully explored (McCullough et al., 2000). The result of such work has given empirical legitimacy to pursuing more research in the field of forgiveness.

Definitions and terminology of forgiveness. There is significant disagreement in the field as to how to define forgiveness (Freedman & Enright, 1996; Mullet, Girard, & Bakhshi, 2004; Worthington Jr., Van Oyen Witvliet, Pietrini, & Miller, 2007). Robert Enright, who is a prolific writer about the concept of forgiveness, defines forgiveness as "a willingness to abandon one's right to resentment, negative judgment, and indifferent behavior toward one who unjustly hurt us, while fostering the undeserved qualities of compassion, generosity, and even love toward him or her" (Enright & Fitzgibbons, 2000, p 46). In essence, Enright sees the essence of forgiveness as involving a shift in an individual behaviorally, cognitively and affectively (Enright & Fitzgibbons, 2000). Others in the field would disagree with aspects of this definition; as such, examining the some of the commonalities amongst the various definitions offered by other authors should help us to gain a better understanding of the construct of forgiveness.

Other writers, such as Michael McCullough, define forgiveness as a redirection of negative motivations (McCullough, Fincham, & Tsang, 2003). It does appear that there is agreement that forgiveness involves a response on the three levels of affect, behavior and cognition. The definition of forgiveness that will be used for this study is from the Heartland Forgiveness Scale. This scale defines forgiveness as

> the framing of a perceived transgression such that one's responses to the transgressor, transgression and sequelae of the transgression are transformed from negative to neutral or positive. The source of a transgression and therefore the object of forgiveness may be oneself, another person or persons, or a situation that one views as being beyond anyone's control (Thompson et al., 2005, p. 318).

Being that there are different types and processes when it comes to the concept of forgiveness, Worthington and Scherer (2004) generated two different categories to assist in the identification of the different types of forgiveness. One type of forgiveness is emotional forgiveness, a form which lacks conditions and firmly established in an individual's emotions. The second type is decisional forgiveness, which is when an individual makes a cognitive decision to forgive. However, in decisional forgiveness the individual still may have negative or hurtful emotions about the transgression or transgressor (Worthington & Scherer, 2004).

Clarifying what is not forgiveness. Due to many misconceptions about forgiveness, a clear definition of what forgiveness is not should be included. There are eight different constructs that may be confused and misused with the construct of forgiveness, which includes the following: (a) pardoning, (b) condoning, (c) letting time heal, (d) excusing, (e) ceasing anger, (f) forgetting, (g) denying, and (h) reconciliation. Pardoning is when the transgressor is spared from legal punishment (Scobie & Scobie, 1998). Condoning is when the person transgressed against does not hold the transgressor responsible for his or her actions, but instead justifies the transgressors actions (Mullet, Girard, & Bakhshi, 2004). Letting time heal is not taking any action towards healing, but instead just using the passing of time to try to reduce any pain due to being transgressed against (Enright, Gassin, & Wu, 1992). Excusing is when the person transgressed against does acknowledge what the transgressor did to him or her, but the action is excused, thus absolving the transgressor of any blame (Fisher & Exline, 2006). Ceasing anger is when the person transgressed against adopts a neutral stance towards the transgressor

(Davenport, 1991). Forgetting is when the person transgressed against does not have a conscious memory of the transgression (Scobie & Scobie, 1998). Denying is when the person transgressed against is either unwilling or unable to acknowledge the transgression (Butler & Mullis, 2001). Lastly, reconciliation is when the person transgressed against fixes or restores their relationship with the transgressor. The field of psychology tends to take a secularized view of forgiveness and sees it as an internal process that takes place within the person that is transgressed against. This is very different than reconciliation which is viewed as an external and relational process (De Wall & Pokorny, 2005).

Forgiveness and well-being. There is growing body of research suggesting there is a relationship between forgiveness a person's well-being or psychological health (Bono et al., 2008; Coates, 1997; Cox et al., 2012). There does appear to be a reasonable potential outcome when lack of forgiveness or unforgiveness may be interpreted to be a stress reaction to transgressions and transgressors (Berry, Worthington, Parrott, O'Connor, & Wade, 2001). Some evidence that suggests this has been conducted with positron emission tomography (PET). PET scans have shown brain activity is similar when looking at an individual who is stressed or focusing on not forgiving (Pietrini, Guzzelli, Basso, Jaffe, & Grafman, 2000). Another study showed hormonal patterns (i.e. glucocorticoids) are similar when compared to a stressed or unforgiving individual (Berry & Worthington, 2001). Forgiveness may be a way for an individual who has been wronged to cope with the transgression or transgressor (Maltby, Macaskill, & Day, 2001). For example, Ann Macaskill looked at forgiveness of self and others and how it

was associated with mental health and life satisfaction. Her results showed no significant relationship between forgiveness of others with regards to mental health or life dissatisfaction, but did suggest forgiveness of self had an impact on better mental health and reduced anger. This study does not support the findings of several other studies that did show a significant relationship between forgiveness of others and improved mental health and life satisfaction (Coates, 1997; Maltby et al., 2001). Macaskill suggested the reason for this may be that the other studies used "the original Mauger measure" (Macaskill, 2012, p. 39).

Forgiveness, depression, suicide, and anxiety. There have been several studies that have examined the relationship between forgiveness and mental and physical health outcomes with regards to depression. Forgiveness has been suggested to be related to depression. Maltby et al. (2001) were able to show with undergraduate students that individuals that failed to forgive others and/or failed to forgive themselves had higher depression scores compared to those who could forgive themselves and/or others. This further compliments findings by Hirsch, Webb and Jeglic (2011), as their work examined depression and suicidal behaviors in relationship to forgiveness in college students. Hirsch and his colleagues found that students that had greater forgiveness of others had lower rates of suicidal behaviors regardless of the depressive symptoms, and that the greater forgiveness of self in students was linked to less depression and less suicidal behaviors. A nationally representative sample of adults in the United States was used by Toussaint et al. (2012) to examine mediating effects of forgiveness on depression; their

work further supported the findings that forgiveness of others has protective effects from depression but not forgiveness of self.

Studies that implemented interventions of forgiveness have also bolstered research in this area. Freedman and Enright (1996) worked with incest survivors in providing forgiveness psycho-educational interventions for the span of a year. When compared to a control group, the results in the experimental group showed an increase in self-esteem and hope, and lower rates of depression and anxiety in the incest survivors. Another study by Reed and Enright (2006) examined the effects of forgiveness therapy on females that had experienced spousal emotional abuse. All of the participants scored much lower in their level of forgiveness towards their spouse when compared to the mean for nonclinical samples. At the completion of the forgiveness therapy, the results showed an increase in self-esteem and a reduction in depression and anxiety. Similar results were found by Lin, Enright and Klatt (2013) in an investigation of forgiveness interventions with Taiwanese adults who had insecure attachment issues. Results of the study found that respondents who engaged in forgiveness had improved measures of attachment security, as well as higher levels of hope and self-esteem.

Forgiveness and children. A small number of studies have also been conducted with children and adolescents with positive outcomes with regards to a reduction of anger, associations with prosocial behaviors, and positive peer social interactions (Denham, Neal, Wilson, Pickering, & Boyatzis, 2005). Hui and Chau (2009) carried out a study with Hong Kong Chinese children that had been hurt in interpersonal relationships.

When compared to the control group, the children that had gone through a process based forgiveness intervention rated higher in their well-being and attitudes.

Forgiveness and anger. Anger can lead to well-known physical and mental health problems when it is chronic, and it also has been linked to violence and acting out towards others. Goldman and Wade (2012) were able to show that forgiveness is an effective intervention against anger, as their participants (i.e., college students) had reductions in ruminating, hostility for the person who offended against them, and reductions in the desire for revenge when they engaged in forgiveness. Hirsch et al. (2012) examined forgiveness as a mediator of the link between anger and suicidal behaviors with college students. Forgiveness of self was found to be a clinically significant mediator in the anger-forgiveness relationship.

Summary

There is clear evidence in the research indicating the correlation between a lack of meaning in life and poorer mental health (Mascaro & Rosen, 2005; Schulenberg et al., 2011; Yalom, 1980; Zika & Chamberlain, 1987). There is also a substantial body of evidence that suggests a correlation between a lack of willingness to forgive and poor mental health (Bono et al., 2008; Coates, 1997; Cox et al., 2012). The results of the current study dovetail with this work insofar as they provide a foundation to justify the exploration of the relationship between forgiveness and meaning in life by the current investigation.

There is further evidence to support the suggestion that a lack of forgiveness is a stress reaction to wrongdoings acted out or upon an individual (Berry et al., 2001), and

that forgiveness is a way to cope with such wrongdoings (Enright & Fitzgibbons, 2000). For adults, forgiveness has been associated with improved mental health, a reduction in anger, lower rates of depression and anxiety, improved self esteem, a reduction in suicidal behaviors, and an improvement with a person's overall well-being (Freedman & Enright 1996; Goldman & Wade, 2012; Hirsch et al., 2011; Lin et al., 2013; Maltby et al., 2001; Toussaint et al., 2012). The research with regards to children and adolescents is much more limited, but what has been identified in this body of work is that forgiveness is associated with prosocial behaviors, positive peer social interactions, reduction in anger, and overall improvement with this population's well-being (Denham et al., 2005; Hui & Chau, 2009). Research in the area of forgiveness has also clearly shown a relationship between forgiveness and various psychological, emotional, and physical benefits for various adult populations (Freedman & Enright 1996; Goldman & Wade, 2012; Hirsch et al., 2011; Lin et al., 2013; Maltby et al., 2001; Toussaint et al., 2012), as well as to a limited extent, both children and adolescent populations (Denham et al., 2005; Hui & Chau, 2009).

This investigation sought to investigate how meaning in life and forgiveness interact. The previously discussed research served as a springboard for further efforts by this project, efforts that will hopefully lead to a better understanding of specific ways to teach forgiveness so as to achieve its wide range of benefits. People of all ages today are facing increasing difficulties with their mental health, a fact that further emphasizes the importance of how deeper understanding of forgiveness can help. Indeed, significant mental health benefits have been linked to meaning in life and other mediating factors

(i.e. total dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others and dispositional forgiveness of situations) in the potential relationship between meaning in life and forgiveness. Further identification of these factors will be helpful to aid in the development of future clinical and prevention treatment interventions.

Chapter 3: Research Method

Introduction

This chapter contains a discussion of the research design for my study. The purpose of this study was to identify if there was a relationship between meaning in life and overall dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations. This chapter is divided into a discussion of my research design and its rationale, the sample population, sample selection, procedures for collecting data, the instruments that were used in gathering the data for the research, how the data were analyzed, threats to validity, and ethical procedures**.**

Independent Variable

The independent variable of this study was Presence of Meaning as measured by the MLQ. The variable remained continuous to account for maximum variability.

Dependent Variables

The dependent variables in this study were Total HFS, Forgiveness of Self, Forgiveness of Others, and Forgiveness of Situations as measured by the HFS.

Control Variables

The variables age, race, sex, education, marital status, income, and number of children were used as statistical controls in this investigation.

Overall Research Design and Research Approach

A quantitative correlational methodological approach was used to investigate the relationship between Meaning in Life as assessed by the presence of meaning in life

subscale of the Meaning in Life Questionnaire (MLQ) (Steger, 2006) and total dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations, as measured by the Heartland Forgiveness Scale (HFS) (Thompson et al., 2008). Given that surveys were used to capture primary data from the study sample, and given that scales were used to operationalize the key concepts of meaning in life and forgiveness, a quantitative correlational methodological approach was appropriate, in line with Neuman's (2011) guidelines. This was because a quantitative correlational research approach allows for the testing of theories by the researcher via the formulation of research questions and hypotheses.

By posing hypotheses that examined relationships among the variables in the investigation, I was able to discover whether or not there was support for the research question from the collected data, in accordance with Neuman (2011). The variables in a quantitative investigation are typically measured in such a manner that provides the researcher with numerical data; for example, the use of a survey instrument allowed numerical data to be collected and then statistically analyzed (Creswell, 2009) in the current investigation.

I used a survey to collect data because adequate existing information was not available for use. Survey research was used to capture both descriptive data and attitudinal information from the sample of respondents. I used two established instruments, the Meaning in Life Questionnaire (Appendix A) and the Heartland Forgiveness Scale (Appendix B). The necessary authorization to use the Heartland

Forgiveness Scale (HFS) from the creator of the scale was obtained (please see Appendix C). Permission to use the Meaning in Life Questionnaire (MLQ) was unnecessary, as the scale's creator, Dr. Steger, has made the MLQ intended for free use in research as stated on his website and on the copyright at the bottom of the survey instrument (Steger, 2006).

The data used in this project was obtained from students enrolled at a Canadian college hereafter referred to as Canadian College (pseudonym). A letter of cooperation from Canadian College was obtained (Appendix E). In addition to completing a questionnaire that contained the MLQ and HFS scale, respondents were also asked to provide information on their age, race, sex, education, marital status, income and number of children; an overview of the content of the composite survey instrument is contained in Appendices A, B, and D. Sociodemographic information was gathered for use as statistical control variables so as to ensure for a more accurate estimation of the impact that the focal independent variable (MLQ) had on the dependent variable (HFS). After potential respondents completed the surveys, the data were entered into a computer for data processing.

I used the statistical analysis program SPSS to compute the descriptive and inferential statistics that were used to investigate the tenets of the various research hypotheses. Multiple linear regression analysis was used to examine the relationship between MLQ scores and HFS scores, controlling for sociodemographic factors. Multiple linear regression was an appropriate method of analysis because both the focal independent variables and dependent variables were continuous; furthermore, multiple

linear regression allowed for control variables to be considered in the calculations, as recommended by Ritchey (2008).

Population, Sample, Sampling Method and Power Analysis

This study collected data from a sample of convenience. A sample of convenience is a way to access available individuals based solely on the criteria of obtainability (Berg & Lune, 2012). A sample of convenience is often used because it is an inexpensive sampling technique that requires less time to obtain a desired sample size (Monette, Sullivan, & DeJong, 2002), as was desirable for this study. The sample of convenience that was accessed in this study was comprised of college students. The use of a sample of convenience in quantitative investigations among college student samples is frequently used for quantitative correlational research projects. Numerous prior research projects have used college or university students as samples of convenience as part of their own quantitative correlational research endeavors (Granqvist & Hagekull, 1999; Grunwald & Mayhew, 2008; Sullivan & DeJoing, 2002; Wong, 2008).

Students at Canadian College were asked to participate within the current investigation; thus, the population for this investigation was college students who were age 18 or older. In order to determine the minimum sample to be drawn from this population, a G*Power analysis was conducted. When determining a minimum sample size, a statistical power of 0.8 is considered acceptable, a statistical power of 0.9 is considered robust (Anderson, 2001; Cohen, 1988; Shadish, Cook, & Campbell, 2002), and an alpha level of 0.05 is considered nominal (Ritchey, 2008). An *a priori* linear multiple regression model test in G*Power with an alpha of .05, a robust power of 0.9, a

relatively small effect size of 0.1 (Cohen, 1988) and an 8 predictor regression model using a two-tailed approach indicated that the minimum sample size needed to achieve an acceptable level of statistical power needed to be 210 respondents.

In order to account for the potential loss of participants due to incomplete data, incorrectly filled out surveys, withdrawn consent, or other similar issues. I multiplied the minimum sample by 40% and added the resultant number to the minimum sample size of 210. The final proposed sample size cap of 294 respondents was designed to allow for the detection of statistically significant effects. In all, 250 viable surveys were captured, which is within the 210–294 range.

Participation and Data Collection

In accordance with Canadian College's Ethics Committee policies, I first selected the courses and sections from which to select participants. I then contacted each instructor from those sections and informed them of the project and that the project had received Canadian College's ethics approval. Once permission was obtained by the instructors, times and dates were arranged for classroom visits.

Students registered in classes at Canadian College were notified by their instructors of the day and time the researcher would be coming to their class for the administration of voluntary surveys. This was done in accordance with Canadian College's Research Ethics Committee's policies. Students were told that a Walden University doctoral graduate student would coming to their classrooms to gather data for a dissertation. Students were informed verbally by their instructors that the gathering of data would take place in their classrooms, and that participation on their part would be

completely voluntary. If a student did not want to participate, they were asked to remain in the classroom and told that they could engage in a quiet and self-driven individual activity at their desk.

Prior to the completion of the surveys, the students were informed about the purpose of the study by myself and a consent form was given to each student. The students were given a paper copy, which was read out loud by myself and then the students were also given time to read the paper copy themselves. I asked if there were any questions and then took the time to address any questions that arose. The students kept a copy of the consent form for their own use, and consent was demonstrated by the students through the action of handing in their completed surveys as in accordance with Canadian College's ethics approval. Using this method of consent ensured anonymity of the data.

After the informed consent form had been handed out, the participants were given the survey. On the day that the data were collected, the teachers of each class allowed students to complete the surveys during course time. On average, it took approximately 20 minutes for students to complete the survey. Prior to completing the surveys, participants were read the instructions by myself, as well as provided with the written instructions for the MLQ (found at the top of the instrument in Appendix A) and written instructions for the HFS (found at the top of the instrument in Appendix B). Prior to the students taking the surveys, I asked if there were any questions and then took the time to address any questions that arose.

The data for the study were collected in accordance with Walden Universities Institutional Review Board (IRB) approval policies and Canadian College's IRB approval polices. Canadian College's Ethics Board had already granted approval for collecting the survey data from their students (please see approval letter in Appendix E). Code ID numbers were assigned to each instrument instead of students names to ensure anonymity. To match and track each instrument to the same student, the same code ID number was assigned and marked on each instrumentation package and all documents in that package that were handed out to the student. The instrumentation package contained the MLQ, HFS and sociodemographic questions.

Instrumentation

The survey instrument (please see Appendix A, B and D for an overview of the content that was included in the survey instrument) can be broken down into three parts: 1) the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ); 2) total dispositional forgiveness scale, dispositional forgiveness of self subscale, dispositional forgiveness of others subscale, and, dispositional forgiveness of situations subscale of the Heartland Forgiveness Scale (HFS); 3) Sociodemographic control variables. Each of these aspects of the survey instrument is discussed below.

Meaning in Life Questionnaire (MLQ)

The Meaning in Life Questionnaire (MLQ) is a 10 item self-report measure of two dimensions of meaning in life. The two dimensions are the Presence of Meaning subscale, which measures how individuals currently feel their lives are of meaning, and the Search for Meaning subscale, which measures how involved and motivated

individuals are in finding meaning in their lives (Steger et al., 2006). Both subscales have good internal consistency. Steger et al. (2006) found an alpha reliability coefficient of .86 for the Presence subscale and an alpha coefficient .88 for the Search subscale. In addition, Steger et al. (2006) noted that the MLQ has excellent reliability, test-retest stability, a stable factor structure and convergence with informants.

All items in the MLQ are rated by a 7-point scale using the response categories of absolutely untrue (1), mostly true (2), somewhat untrue (3), can't say true or false (4), somewhat true (5), mostly true (6) or absolutely true (7). The MLQ has been tested previously on both college students and other adult populations; the scale takes approximately 5 to 10 minutes to complete (Steger, 2005). The strength of this measure is that it can identify individuals who feel they have meaning in their lives, as well as those that are still searching or seeking for meaning (Steger et al., 2006).

The choice of the MLQ was determined in large part on the fact that two other similar measures, the Purpose in Life (PIL) and Life Regard Index (LRI), have been criticized as both having "excessive overlap" with other well-being measures (Zika & Chamberlain, 1987; 1992). Steger et al. (2006) examined the convergent and discriminant validity for all three measures (MLQ, PIL and LRI) and found that even though all three of the measures had excellent convergent validity, the MLQ surpassed the other two measures because the discriminant validity of the PIL and LRI was of "questionable quality" (Steger et al., 2006, p. 88).

Heartland Forgiveness Scale (HFS)

The Heartland Forgiveness Scale is an 18 item self-report measure of four dimensions of forgiveness. The first dimension is the total tendency of a person to be forgiving (Total HFS); in other words, a respondent's disposition towards forgiveness. The other dimensions consist of three subscales which are Forgiveness of Self, Forgiveness of Others and Forgiveness of Situations. Each of these subscales consists of 6 items.

All items in the HFS are rated on a 7-point scale that uses the response categories of almost always false of me (1), more often false of me (3), more often true of me (5) or almost always true of me (7). Each response is given a numerical value and scale scores are calculated for the one total scale and three subscales. The HFS can be used with individuals aged 18 and up, and it typically takes approximately 5 to 10 minutes to complete (Asgari & Roshani, 2013). In this study, the HFS was used to assess the Total Dispositional Forgiveness (Total HFS), Forgiveness of Self, Forgiveness of Others and Forgiveness of Situations in the participants. The publisher of the HFS asserts the HFS has excellent convergent validity, satisfactory internal consistency reliability, strong test retest reliability (i.e., Cronbach alpha scores typically range between .84 and .87) and a clear and consistent factor structure (Thompson et al., 2005).

The HFS has been found to be significantly correlated with other dispositional forgiveness scales such as Mauger's Forgiveness scale (which measures forgiveness of self and others) and the Multidimensional Forgiveness Inventory (which also measures forgiveness of self and others) (Thompson et al., 2005). That said, the HFS has an

additional dispositional scale (a measure of Forgiveness of Situations) and therefore offers increased utility when compared to the two other forgiveness measures (Thompson et al., 2005).

Data Analysis

The collected data were transferred into the SPSS statistical analysis software package. Once encoded into SPSS, the collected survey data were statistically analyzed via both descriptive and inferential statistics. Ritchey (2008) notes that descriptive statistics are univariate statistics that only provide information on the basic patterns and trends within the data, whereas inferential statistics allow a researcher to take findings in a sample and extrapolate those findings to the larger population from which the sample was drawn.

The means and standard deviations were calculated so as to better uncover the basic trends within the collected data. Multiple Linear Regression (or MULR) was then used to regress the dependent variables onto the various independent variables to see if MLQ scores predicted HFS scores while controlling for sociodemographic factors. Because both independent and dependent variables were continuous, and because statistical control variables were also used, MULR was the appropriate statistical analysis technique (Ritchey, 2008). The use of bivariate analysis techniques to investigate the relationship between the MLQ and HFS, such as a Pearson Correlation, would have been inadequate in the current analysis scenario because bivariate techniques do not allow for control variables to be taken into consideration (Ritchey, 2008).

Research Questions

The primary research question used in this study was: Is there a relationship between Meaning in Life and total dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations? In order to effectively investigate this research question, the following null and alternative hypotheses were posed:

Hypothesis 1a

- **Null Hypothesis (H0a):** There is no relationship between the meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of self as assessed by the forgiveness of self subscale of the Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1a):** There is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of self as assessed by the forgiveness of self subscale of the Heartland Forgiveness Scale (HFS).

Hypothesis 1b

- **Null Hypothesis (H0b):** There is no relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of others as assessed by the forgiveness of others subscale of the Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1b):** There is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in

Life Questionnaire (MLQ) and the dispositional forgiveness of others as assessed by the forgiveness of others subscale of the Heartland Forgiveness Scale (HFS).

Hypothesis 1c

- **Null Hypothesis (H0c):** There is no relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of situations as assessed by the forgiveness of the situation subscale of the Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1c):** There is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of situations as assessed by the forgiveness of the situation subscale of the Heartland Forgiveness Scale (HFS).

Hypothesis 1d

- **Null Hypothesis (H0):** There is no relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and overall dispositional forgiveness as assessed by the complete Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1d):** There is positive a relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and overall dispositional forgiveness as assessed by the complete Heartland Forgiveness Scale (HFS).

Sociodemographic Controls

Several statistical controls were taken into account to adjust for the confounding effects that sociodemographic factors might have had on the main independent and dependent variables being examined by the research hypotheses (Neuman, 2011). The sociodemographic controls that were used for this study include age, race, sex, education, marital status, income and number of children. Age was defined as the number of years old a respondent was at the time they took the survey, and was categorized as 18-27, 28-38, 39-49, 40-50, 51-61, 62-72, or 73+. Race was broken down into Caucasian, Hispanic, Métis (Aboriginal people of Canada), First Nations (Aboriginal people of Canada), African American, or Other. Choices offered for the variable that identified a respondent's sex was male or female. Education categories consisted of 12 years, 13 years, 14 years, 15 years, 16 years, and 17 years or more of education. For the variable marital status, response choices included single, common in-law, divorced, married and other. The variable which measured a respondent's income consisted of the ranges of $10,000 or less, $10,001-$20,000, $20,001 to $30, 000, $30,001 to $40,000, $40,001 to $50,000, and $50,001 or more. Finally, the number of children a respondent has was broken down into 0, 1, 2, 3, 4, or 5 or more.

Threats to Validity

As for dealing with issues to increase accuracy and the potential usefulness of the study's findings, validity issues were considered. It was important to attempt to thwart any uncontrolled unrelated influences from influencing the independent variable (threats to internal validity). Data were therefore gathered over a period of two days at a Canadian

College to reduce the impact of history, and the use of standardized instruments helped to address any concerns about how the independent variable was assessed. Issues to manage external validity were also considered as a way of looking at the generalizability of the findings (external validity). Sociodemographic factors were considered to reduce issues with sample characteristics; however, it was not possible or practical to include all possible populations characteristics in the sample. As for stimulus characteristics and settings, all the participants were administered the instruments in a college classroom setting as a way to provide a similar setting for all the participants. Lastly, all participants were provided with the same consent instructions (please see Appendix F) to reduce reactivity to assessment.

Ethical Considerations

Several measures were taken to ensure the ethical treatment of all research participants. Prior to the distribution of any surveys, approval for this project was obtained from Walden University IRB. It should be noted that IRB approval was also obtained by Grand Prairie Regional College (please see Appendix E). Prior to their participation, informed consent was obtained from each of the potential participants so as to ensure that they were able to make an informed and voluntary decision about whether or not to participate within the survey. Respondents were informed that they could choose not to participate within the survey without fear of reprisal or penalty, and that they could withdraw from the study at any time without fear of reprisal or penalty. It should be noted here that the content of the survey that was distributed (please see Appendix A, B and D) had a minimal risk in causing participants to have psychological

or emotional reactions. However, just in case participants experienced distress during the survey, each respondent was provided with contact information for Canadian College's Peer Counseling Information, as well as my contact information. Respondents were also informed that anonymity of the data would be assured, as no identifying information (such as names, addresses, phone numbers, etc.) was placed on the surveys. Respondents were also told that code ID numbers would be used to track the surveys instead of names.

All information that was gathered is stored in a locked cabinet only accessible by myself for a minimum of 5 years. Only one computer was used to analyze the data, and the computer is owned and solely used by me. The computer is password protected. Once data were analyzed, it was downloaded, saved onto a USB flash drive, and deleted from the computer. The USB flash drive is to be stored in a locked cabinet for 5 years.

Chapter 4: Results

Introduction

This chapter presents an overview of the statistical findings of the relationship between meaning in life and overall dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations. This chapter also reviews any discrepancies from the proposed steps of data collection versus the actual steps to data collection.

The primary research question and research hypotheses were as follows:

Is there a relationship between Meaning in Life and total dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations? In order to effectively investigate this research question, the following null and alternative hypotheses are posed:

Hypothesis 1a

- **Null Hypothesis (H0a):** There is no relationship between the meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of self as assessed by the forgiveness of self subscale of the Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1a):** There is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of self as assessed by the forgiveness of self subscale of the Heartland Forgiveness Scale (HFS).

Hypothesis 1b

- **Null Hypothesis (H0b):** There is no relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of others as assessed by the forgiveness of others subscale of the Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1b):** There is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of others as assessed by the forgiveness of others subscale of the Heartland Forgiveness Scale (HFS).

Hypothesis 1c

- **Null Hypothesis (H0c):** There is no relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of situations as assessed by the forgiveness of the situation subscale of the Heartland Forgiveness Scale (HFS).
- **Alternative Hypothesis (H1c):** There is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of situations as assessed by the forgiveness of the situation subscale of the Heartland Forgiveness Scale (HFS).

Hypothesis 1d

- **Null Hypothesis (H0):** There is no relationship between meaning in life as

assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and overall dispositional forgiveness as assessed by the complete Heartland Forgiveness Scale (HFS).

- **Alternative Hypothesis (H1d):** There is positive a relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and overall dispositional forgiveness as assessed by the complete Heartland Forgiveness Scale (HFS).

The rest of this chapter reviews actual data collection, provides the descriptive and demographic statistics calculated, an examination and explanation of the multivariate data results, and then summarizes the findings.

Data Collection

I selected the courses and sections from which to select participants, and then contacted each instructor from those sections and informed them of the project and that the project had received Canadian College's ethics approval. Once permission was obtained from the instructors, I arranged the times and dates for classroom visits. Students registered in those classes at Canadian College were notified by their instructors of the day and time I would be coming to their class for the administration of voluntary surveys. The data were collected during the period of March 3, 2015 to March 19, 2015. A total of 266 students were in the classes attended, and a total of 250 fully participated and provided viable data. GPRC IRB approval was granted to use the sample size of 266. This still was a large enough sample as the minimum sample size needed to achieve an acceptable level of statistical power, was calculated as 210 respondents (see Chapter 3).

That number was increased in order to account for the potential loss of participants due to incomplete data, incorrectly filled out surveys, withdrawn consent or other similar issues, the minimum sample was multiplied by 40%, and the resultant number was added to the minimum sample size of 210. Therefore the sample size of 266 should still allow for the detection of statistically significant effects.

As for discrepancies in data collection, instead of collecting the data within a two-day period, all data collection activities ended up taking 16 days. It is unlikely the timeline alteration for survey data collect affected the results significantly. This change was also approved by the GPRC IRB. Otherwise all of the procedures outlined in Chapter 3 were followed.

Descriptive and Demographic Statistics

Descriptive statistics in the form of means and standard deviations for the five scales used in the current project (i.e., the presence in life subscale of the MLQ [hereafter MLQ], the self subscale of the HFS, the others subscale of the HFS, the situation subscale of the HFS, and the overall HFS), as well as percentages and frequencies for the categorical variables used in the current project (i.e., a respondent's age, race, sex, education, marital status, income and number of children) were computed so as to articulate the basic patterns within the data. Reliability estimation of the five scales used in the current project (i.e., the MLQ, the self subscale of the HFS, the others subscale of the HFS, the situation subscale of the HFS, and the overall HFS) was demonstrated via the computation of Cronbach alpha estimates. Table 1 shows the percentage and frequencies of the categorical variables in the dataset.

In the dataset, the majority of the sample is female at 62.0%, and three out of every four respondents (76.8%) are between the ages of 18 and 27 years of age. Nearly nine in every ten respondents (88.4%) are White, and given the distribution of this variable, the decision was made to dichotomize the race of respondent variable as White versus non-White. As for the educational level of respondent in years, it was fairly evenly distributed among the seven response categories. That said, nearly one in four respondents (24.8%) had 14 years of education. As for marital status, seven in every ten respondents (69.6%) indicated they were single. Given the distribution of this variable, the decision was made to dichotomize the marital status of respondent variable as Single versus Not single. The household income of respondent has a U-shaped distribution such that the top two responses were either $50,000 or more (35.2%) or $10,000 or less (28.0%). Four out of every five respondents (81.2%) stated that they have no children.

Table 1

Percentages and Frequencies, Study Variables

Variable & Value	*n*	%
Biological sex of respondent		
Male	95	38.0%
Female	155	62.0%
Age of respondent		
18-27	192	76.8%
28-38	40	16.0%
39-49	3	12.0%
40-50	13	5.2%
51-61	2	0.8%
Race of respondent		
White	221	88.4%
Non-White	29	11.6%
Education level of respondent in years		
12 years	36	14.4%
13 years	47	18.8%
14 years	62	24.8%
15 years	57	22.8%
16 years	22	8.8%
17 years or more	26	10.4%
Marital status of respondent		
Single	174	69.6%
Not single	76	30.4%
Household income of respondent		
$10,000 or less	70	28.0%
$10,001 to $20,000	35	14.0%
$20,001 to $30,000	20	8.0%
$30,001 to $40,000	23	9.2%
$40,001 to $50,000	14	5.6%
$50,001 or more	88	35.2%
Number of children of respondent		
0	203	81.2%
1	23	9.2%
2	10	4.0%
3	7	2.8%
4	4	1.6%
5 or more	3	1.2%
N	250	100.0%

Table 2

Means and Standard Deviations, Study Variables

Variable	*n*	*M*	*SD*	Min	Max
Heartland forgiveness scale, self subscale	250	4.81	1.14	1	7
Heartland forgiveness scale, other subscale	250	5.07	0.99	1	7
Heartland forgiveness scale, situation subscale	250	4.95	1.02	1	7
Heartland forgiveness scale, overall scale	250	4.94	0.83	1	7
Meaning in life questionnaire scale	250	4.96	0.90	1	7

Table 2 shows the means and standard deviations of the study variables in the dataset. Table 2 shows that the midpoint for all five scales is 4.0. The means score for all five scales is over the midpoint. Among the three HFS subscales, it is the 'other' subscale that emerges as having the highest mean (M=5.07). This suggests that among respondents, there is a higher level of forgiveness towards others than toward the situation (M=4.95), the self (M=4.81), and overall (M=4.96). These mean scores suggest that the average respondent felt that the questions in the HFS were "more often true of me". The average score of the MLQ scale (M=4.96) suggests that the average respondent felt that the questions in the MLQ were *somewhat true*.

Table 3 shows the internal consistency values for the variables. Tavakol and Dennick (2001) note that the alpha statistic was developed by Lee Cronbach in order to provide a measure of internal consistency of a scale as a function of its reliability. The measure of alpha ranges between a value of 0 to 1, with higher scores generally indicating better reliability. Scores of .70 or higher suggest that a scale has an acceptable level of reliability (Cronbach, 1970). All five of the scales demonstrate excellent

reliability.

Table 3

Internal Consistency Values (Cronbach α)

Scale	α
Heartland forgiveness scale, self subscale	0.840
Heartland forgiveness scale, other subscale	0.822
Heartland forgiveness scale, situation subscale	0.803
Heartland forgiveness scale, overall scale	0.884
Meaning in life questionnaire scale	0.785

Multivariate Data Results

The purpose of the study was to examine the relationship between Meaning in Life and total dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations. In order to investigate the tenets of the research question and the four main hypotheses, a series of multiple linear regressions, also known as OLS (for Ordinary Least Squares) regressions, were calculated. As Ritchey (2008) noted, an OLS regression is appropriate when the dependent variable of a research question (in this case, the four forms of the HFS) is continuous in nature. Ritchey (2008) also noted that OLS regression is appropriate when there is more than one independent variable that serves as a predictor of a given dependent variable. In a regression equation, the independent variables can take the form of either continuous or categorical data. This condition is satisfied under the current circumstances.

Four hypotheses were developed from the above research question. Hypothesis 1a sought to investigate whether there is a positive relationship between meaning in life as

assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of self as assessed by the forgiveness of self subscale of the Heartland Forgiveness Scale (HFS). Table 4 presents the results of the test of this hypothesis.

Table 4

OLS Regression of Heartland Forgiveness Scale, Self Subscale on Predictors

Variable	*B*	*SE(B)*	*β*	*t*	p
Constant	3.013	0.501		6.014	0.001
Biological sex of respondent	-0.153	0.156	-0.066	-0.979	0.328
Age of respondent	0.079	0.111	0.057	0.706	0.481
Race of respondent	0.212	0.226	0.060	0.936	0.350
Education level of respondent in years	0.069	0.050	0.091	1.396	0.164
Marital status of respondent	0.018	0.180	0.008	0.102	0.918
Household income of respondent	-0.014	0.041	-0.025	-0.333	0.740
Number of children of respondent	-0.033	0.096	-0.028	-0.347	0.729
Meaning in life questionnaire scale	0.298	0.059	0.319	5.025	0.001
N	250				
F	3.933				0.001
R^2	0.115				

In discussing Table 4, it is first important to see if the variance in the data set is greater than the unexplained variance. This is done by a check of the Omnibus F-Test. This parameter is statistically significant ($F = 3.933$, $df = 8, 241$; $p < .001$), which means decomposition of effects within the regression model can proceed. The coefficient of determination, also known as the R^2 value, is .115. This value shows that 11.5% of the variation in the HFS self subscale can be explained by the eight independent variables in the equation. Among the eight independent variables, only meaning in life ($B = 0.298$, p

< .001) emerges as a statistically significant predictor of HFS self subscale scores. The positive coefficient suggests that as meaning in life increases for a respondent, his or her forgiveness of self also increases.

Based on these results, there is support from the data for H1a. That is to say, there is a relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of self as assessed by the forgiveness of self subscale of the Heartland Forgiveness Scale (HFS). The results of the multiple linear regression used to investigate this hypothesis were clinically significant ($p<.001$) indicating that as meaning in life increases for an individual, his or her forgiveness of self also increases.

Hypothesis 1b sought to investigate whether there is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of others as assessed by the forgiveness of others subscale of the Heartland Forgiveness Scale (HFS). Table 5 presents the results of the test of this hypothesis.

Table 5

OLS Regression of Heartland Forgiveness Scale, Others Subscale on Predictors

Variable	*B*	*SE(B)*	*β*	*t*	p
Constant	4.030	0.453		8.894	0.001
Biological sex of respondent	0.232	0.142	0.113	1.637	0.103
Age of respondent	-0.012	0.101	-0.010	-0.119	0.905
Race of respondent	0.080	0.204	0.026	0.390	0.697
Education level of respondent in years	0.066	0.045	0.099	1.468	0.143
Marital status of respondent	0.027	0.163	0.013	0.167	0.867
Household income of respondent	-0.014	0.037	-0.030	-0.381	0.703
Number of children of respondent	0.086	0.087	0.083	0.996	0.320
Meaning in life questionnaire scale	0.110	0.054	0.135	2.060	0.040
N	250				
F	1.823				0.073
R^2	0.057				

In Table 5, it is the case that the Omnibus F-Test is statistically nonsignificant ($F = 1.823$, $df = 8, 241$; $p = .073$). As such, decomposition of effects within the regression model is rendered moot. Based on these results, there is no support from the data for H1b. That is to say, there is no relationship between meaning in life as assessed by the presence of meaning in life subscale of the MLQ and the dispositional forgiveness of others as assessed by the forgiveness of others subscale of the HFS. No further interpretations or conclusions should be drawn or caution should be heeded when the global F test for all the variables in the multiple regression model is not statistically significant (Allison, 1999). The results of the multiple linear regression used to investigate this hypothesis were not clinically significant ($p<.001$) indicating that there is no relationship between meaning in life and forgiveness of others.

Hypothesis 1c sought to investigate whether there is a positive relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of situations as assessed by the forgiveness of the situation subscale of the Heartland Forgiveness Scale (HFS). Table 6 presents the results of the test of this hypothesis.

Table 6

OLS Regression of Heartland Forgiveness Scale, Situation Subscale on Predictors

Variable	*B*	*SE(B)*	*β*	*t*	p
Constant	2.823	0.443		6.372	0.001
Biological sex of respondent	-0.011	0.138	-0.005	-0.081	0.935
Age of respondent	0.009	0.098	0.007	0.092	0.927
Race of respondent	0.383	0.200	0.121	1.918	0.056
Education level of respondent in years	0.102	0.044	0.150	2.327	0.021
Marital status of respondent	0.054	0.160	0.024	0.338	0.736
Household income of respondent	0.042	0.036	0.088	1.165	0.245
Number of children of respondent	0.015	0.085	0.014	0.176	0.860
Meaning in life questionnaire scale	0.253	0.052	0.303	4.832	0.001
N	250				
F	4.829				0.001
R^2	0.138				

Table 6 shows that the Omnibus F-Test is statistically significant ($F = 4.829$, $df = 8, 241$; $p < .001$). As such, decomposition of effects within the regression model can proceed. The coefficient of determination, also known as the R^2 value, is .138. This value shows that 13.8% of the variation in the HFS situation subscale can be explained by the eight independent variables in the equation. Among the eight independent variables, only two variables, education ($B = 0.102$, $p = .021$) and meaning in life ($B = 0.253$, $p < .001$), emerge as statistically significant predictors of HFS situation subscale scores. The positive coefficient for education suggests that as a respondent's education increases, his or her forgiveness of a situation also increases. The positive coefficient for the meaning in life scale suggests that as meaning in life increases for a respondent, his or her forgiveness of a situation also increases.

Based on these results, there is support from the data for H1c. There is a relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and the dispositional forgiveness of situations as assessed by the forgiveness of the situation subscale of the Heartland Forgiveness Scale (HFS). The results of the multiple linear regression used to investigate this hypothesis were clinically significant ($p<.001$) indicating that as meaning in life increases for an individual, his or her forgiveness of situations also increases.

Hypothesis 1d sought to investigate whether there is positive a relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and overall dispositional forgiveness as assessed by the complete Heartland Forgiveness Scale (HFS). Table 7 presents the results of the test of this hypothesis.

Table 7

OLS Regression of Heartland Forgiveness Scale, Overall Scale on Predictors

Variable	*B*	*SE(B)*	*β*	*t*	p
Constant	3.289	0.363		9.073	0.001
Biological sex of respondent	0.022	0.113	0.013	0.198	0.843
Age of respondent	0.025	0.080	0.025	0.313	0.754
Race of respondent	0.225	0.164	0.087	1.375	0.170
Education level of respondent in years	0.079	0.036	0.142	2.203	0.029
Marital status of respondent	0.033	0.131	0.018	0.255	0.799
Household income of respondent	0.005	0.030	0.012	0.162	0.871
Number of children of respondent	0.023	0.069	0.026	0.327	0.744
Meaning in life questionnaire scale	0.220	0.043	0.322	5.142	0.001
N	250				
F	4.838				0.001
R^2	0.138				

In Table 7 it is the case that the Omnibus F-Test is statistically significant (F = 4.838, df = 8, 241; $p < .001$). As such, decomposition of effects within the regression model can proceed. The coefficient of determination, also known as the R^2 value, is .138. This value shows that 13.8% of the variation in the HFS overall scale can be explained by the eight independent variables in the equation. Among the eight independent variables, only two variables, education (B = 0.079, p = .029) and meaning in life (B = 0.220, $p <$ .001), emerge as statistically significant predictors of HFS overall scale scores. The positive coefficient for education suggests that as a respondent's education increases, his or her overall level of forgiveness also increases. The positive coefficient for the meaning in life scale suggests that as meaning in life increases for a respondent, his or her overall level of forgiveness also increases. Based on these results, there is support from the data for H1d. That is to say, there is a relationship between meaning in life as assessed by the presence of meaning in life subscale of the Meaning in Life Questionnaire (MLQ) and overall dispositional forgiveness as assessed by the complete Heartland Forgiveness Scale (HFS). The results of the multiple linear regression used to investigate this hypothesis were clinically significant ($p<.001$) indicating that as meaning in life increases for an individual, his or her overall forgiveness also increases.

Summary

Multiple regression was the method used to help discover the relationships between the variables in this study. First, the study found that there is a relationship between meaning in life and dispositional forgiveness. Second, there is no relationship

between meaning in life and dispositional forgiveness of others. Third, there is a relationship between meaning in life and dispositonal forgiveness of situations. Lastly, there is a relationship between meaning in life and overall dispositional forgiveness.

Chapter 5 further summarizes and discusses any social and clincal implications that may be relevant to the studies findings. In addition the following chapter discusses recommendations for any future research or contributions in this area.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The study was conducted to identify if there was a relationship between meaning in life and overall dispositional forgiveness, dispositional forgiveness of self, dispositional forgiveness of others, and dispositional forgiveness of situations. Students at a Canadian college were invited to voluntarily participate in the study to evaluate whether the presence of meaning in their life as assessed by the Meaning in Life Questionnaire (MLQ) had a relationship to their overall dispositional forgiveness, their dispositional forgiveness of self, their dispositional forgiveness of others, and their dispositional forgiveness of situations as assessed by the Heartland Forgiveness Scale (HFS) when controlling for several demographic factors.

I used multiple regression analysis to investigate the primary research question. The study found that there is a positive relationship between meaning in life and dispositional forgiveness, that there is no relationship between meaning in life and dispositional forgiveness of others, that there is a positive relationship between meaning in life and dispositional forgiveness of situations, and that there is a positive relationship between meaning in life and overall dispositional forgiveness.

There were three frameworks used to help explain the concepts of meaning in life and forgiveness in this study. A brief overview is provided for all three. First is Steger's framework for meaning in life. Steger described how both cognitive and motivational components are needed to have meaning in one's life. The cognitive processes an individual engages in to understand his or her life experiences are interpreted by the

individual as a way to provide importance and purpose with respect to the cognitive aspect of meaning in life (Steger, 2012). The motivational aspect of meaning in life is the goal directed behaviors that come from the cognitive aspect. Having goals and purpose are basically the motivational component of having meaning in one's life. This framework allows one to clearly identify meaning in life as a psychological construct (Steger, 2012).

The next framework that was used for the project was McCullough's Forgiveness Theory (McCullough, 2000). This theory is driven by the need of people as social beings to connect with one another. For example, a person who is dealing with an interpersonal offense can either feel motivated to avoid the transgressor or motivated to seek revenge, or at the very least desire a consequence to be experienced by the transgressor. The theory posits that the drive an individual has to connect or belong leads the individual to a different alternative other than revenge, which is to forgive and work on repairing the relationship (McCullough, 2000). Indeed, McCullough described forgiveness as *motivational change* (p. 45).

The last theory used in this study was bioinformational theory. This theory suggests that there is a link between forgiveness and well-being through the various biological responses activated in the human body to an individual's emotional experiences. Unforgiving responses are linked to negative physiological responses on the part of the sympathetic nervous system. Negative physiological responses are in turn harmful to an individual's health whether acute or chronic (Witvliet, Ludwig, & Lann, 2001). In contrast, forgiving responses are linked to positive physiological responses

from the parasympathetic nervous system. These responses promote good health and well being (Witvliet et al., 2001).

Since the literature is abundant with evidence showing that both meaning in life and forgiveness separately contribute to better mental health, this study was conducted to fill a gap in the literature regarding whether there is a relationship between these variables. Filling in this gap in the literature will allow other researchers to use the current findings for their own efforts, as well as to continue to develop more effective ways to improve the overall mental health functioning of individuals. How the findings fit with the current literature is discussed in more detail below, as are the key findings drawn from the results of the study.

Key Findings and Discussion

Meaning in Life and Self Forgiveness

It was predicted that the presence of meaning in life as assessed by the Meaning in Life Questionnaire (MLQ) would be positively related to forgiveness of self as assessed by the forgiveness of self subscale of the Heartland Forgiveness Scale (HFS). The findings in this study suggest that as meaning in life increases for an individual, his or her self-forgiveness also increases. What is unique about the findings of this study is that there is no research to date linking these two variables. Findings in the literature related to these two variables suggest that self forgiveness is seen as a coping strategy that is effective in reducing negative thought processes and replacing them with positive cognitions that ultimately lead to feeling better (Worthington, Witvliet, Pietrini, & Miller, 2007). There is also a paucity of work in the area of forgiveness of others and overall

forgiveness as compared to self-forgiveness (Westbrook et al., 2015). The paucity of work in this area may be due to the fact that major theorists such as Worthington and Steger have argued that out of all the types of forgiveness, self-forgiveness is most likely to be linked to better well being and physical health since it enables individuals to manage or resolve negative emotions that can be at the root of maladjustment (Worthington, Witvliet, Pietrini, & Miller, 2007). Evidence of this point can be found in a meta-analytic review that showed how self forgiveness was positively correlated with psychological and emotional well being (Westbrook et al., 2015).

It has also been found in the literature that there is a positive correlation between meaning in life and wellbeing (Linley & Joseph, 2011; Park, Park, & Peterson, 2010). This is not surprising, as individuals who use self-forgiveness as a coping strategy tend to have more positive cognitions and emotions. Findings within the clinical literature suggest differences in both cognitions and emotions between self forgiveness, other forgiveness, and overall forgiveness (Macaskill, 2012). Given these facts, additional research is warranted to gain a better understanding of this robust connection indentified between meaning in life and forgiveness of self by examining the specific cognitions and emotions involved in self-forgiveness.

Meaning in Life and Forgiveness of Others

I predicted that the presence of meaning in life as assessed by the MLQ would be positively correlated to forgiveness of others as assessed by the forgiveness of others subscale of the HFS. The results did not show a significant relationship between meaning in life and forgiving others. There is no research to date linking these two variables. What

work that has been discussed in the literature suggests forgiveness of others is easier to achieve than self-forgiveness due to a "double standard" concerning forgiveness. In other words, it is much easier to be harder on oneself than on others which in the end makes it easier to be more understanding towards others versus more understanding towards oneself (Macaskill, 2012). Results in the literature are similar insofar as forgiveness of others was not found to be correlated with well being. Again, it has been shown in the literature that a positive correlation exists between meaning in life and wellbeing (Linley & Joseph, 2011; Park et al., 2010). As such, it is somewhat surprising to find no relationship between meaning in life and forgiveness of others. However, when a factor analysis was conducted of various measures of self forgiveness and other forgiveness, the outcome was a differential factor loading on the scales, results which suggest that the concepts of self forgiveness and forgiveness of others are distinct from each other (Mauger et al., 1992; Thompson et al., 2005). Therefore, additional research is warranted to gain a better understanding of this lack of connection between meaning in life and forgiveness of others by examining the specific cognitions and emotions involved in forgiveness of others.

Meaning in Life and Forgiveness of Situations

It was predicted that the presence of meaning in life as assessed by the Meaning in Life Questionnaire (MLQ) would be positively correlated to forgiveness of situations as assessed by the forgiveness of situation subscale of the Heartland Forgiveness Scale (HFS). The results suggest that as meaning in life increases for an individual, his or her forgiveness of situations also increases. There is no research to date linking these two

variables. Indeed, forgiveness of situations seems to be the least researched out of all the forgiveness variables. In the study conducted by Thompson et al. (2005) the variable of forgiveness of situations was positively correlated to satisfaction with life, low anxiety, low depression, and low anger, all of which are generally considered to be positive life outcomes. It has also been shown in various studies that a positive correlation between meaning in life and wellbeing exists (Linley & Joseph, 2011; Park et al., 2010). It is therefore not surprising to find a positive correlation between meaning in life and forgiveness of situations in light of existing research in these closely related areas.

Meaning in Life and Overall Forgiveness

It was predicted that the presence of meaning in life as assessed by the MLQ would be positively correlated to overall forgiveness as assessed by the overall forgiveness of self subscale of the HFS. The results suggest that as meaning in life increases for an individual, his or her overall forgiveness also increases. There has been no research to date linking these two variables; what has been discussed in the literature suggests that overall forgiveness is linked to well being (Worthington et al., 2007; Thompson et al., 2005). In the study conducted by Thompson et al. (2005), the variable of overall forgiveness was positively correlated to satisfaction with life, low anxiety, low depression, and low anger; along these same lines, a positive correlation between meaning in life and wellbeing has been demonstrated in the literature (Linley & Joseph, 2011; Park et al., 2010). It is therefore reasonable to find a positive correlation between meaning in life and overall forgiveness, which is what was found in the current investigation.

It has been shown in the literature that the presence of meaning in life can help to reduce various mental health issues such as depression, anxiety, suicidal ideation, substance abuse, and distress levels (Steger et al., 2006). The literature also has shown that the ability to forgive can also reduce mental health issues such as depression, suicide, and anxiety (Bono et al., 2008; Toussaint et al., 2012), increase self-esteem and hope (Freedman & Enright, 1996), and decrease anger (Goldman & Wade, 2012). While both the presence of meaning in life and engaging in forgiveness have been shown to improve or contribute to better mental health, examining the link between these two variables has not been conducted to date. If a relationship does exist between these two variables, it could allow for the development of better mental health treatment options. These improved mental health options could in turn lead to better mental health functioning in individuals.

The current investigation found that there is a positive relationship between meaning in life and dispositional self forgiveness, between meaning in life and dispositional forgiveness of situations, and between meaning in life and overall dispositional forgiveness. It was also found that there was no significant relationship between meaning in life and dispositional forgiveness of others. The use of Bioinformational theory, Steger's framework for meaning in life and McCullough's forgiveness theory can help to better understand how these findings may lead to better mental health options.

Bioinformational theory outlines how individuals have emotional responses (be they positive, negative or a combination of both) to experiences, and that the responses

are stored as a memory along with the emotions of that experience. Emotions cause various physiological responses in the body which either improve health, such as decreased blood pressure, or negatively impact health over time, such as high blood pressure (Witvliet et al., 2001)**.** Therefore, if a person has meaning in life, this meaning should lead to forgiveness. As a result, engaging in forgiveness might in turn lead to positive physiological responses that support good mental health. Steger's framework for meaning in life adds insight to this process in two ways. First, Steger's framework describes how the cognitive process an individual uses can help that person to actively understand his or her life experiences. This in turn leads a person to determine whether his or her experiences are meaningful or not. If an individual determined an experience to be meaningful, it can be used as a springboard for the individual to move onto the second process or second component described by Steger, which is the motivational aspect of meaning. During this step the individual is motivated to make goals and take action to further the meaning they have determined for themselves (Steger, 2012). This line of thought on the part of Steger dovetails with the ideas espoused by McCullough's Forgiveness Theory. McCullough views forgiveness as "motivational change" (McCullough, 2000, p. 45); that is to say, forgiveness is a redirection of negative emotions (McCullough, Fincham, & Tsang, 2003). McCullough further suggested that the human need to belong can override the desire for revenge or avoidance towards a transgressor. This addresses not only interpersonal forgiveness, but also intrapersonal forgiveness, and may further explain the positive relationship between meaning in life and dispositional forgiveness found in the current investigation. In other words, if a

person has meaning in life, then having meaning should lead to forgiveness. As a result, engaging in forgiveness might in turn lead to positive physiological responses that support good mental health.

How might these three theories help to explain why a significant relationship was not found between meaning in life and forgiveness of others? The search for an explanation for this question leads us back to the clinical literature which suggests differences in both cognitions and emotions between self forgiveness and other forgiveness (Macaskill, 2012). Self forgiveness was found to have a significant relationship to meaning in life in this study, whereas forgiveness of others did not. Beck (1962) suggests that the underlying mechanisms in cognitions differ between forgiving one's self and forgiving others. Beck observed how individuals were significantly harsher on themselves than they were on others for the same mistakes or offenses. This suggests that there is greater emotional distress experienced by individuals whom do not forgive themselves as compared to those whom do not forgive others. The greater the negative emotional, the greater the negative physiological responses on the body in terms of reduced well being and health (Witvliet et al., 2001). Based on this line of thought, it can be argued that the thought processes involved in forgiveness of others may not cause enough emotional distress for the vast majority of individuals due to the different cognitions between forgiving self and forgiving others. This may help to understand why no link was seen between forgiveness of others and meaning in life, as it may be the case that not being able to forgive others has less of a negative impact on a person's health than forgiveness of self, situations, and overall forgiveness.

Steger's framework for meaning in life can further add to this line of thought. With respect to his two step process, it is the case that in the first step, the cognitive process of how an individual actively understands their life experiences leads to determining experiences as meaningful or not. If an individual does not determine an event to be meaningful, then the individual would not complete the second step (i.e., the motivational component) and set goals and take action because it is not meaningful enough for them to do so. When an event is not meaningful to an individual, the need to belong may not override the desire for revenge or avoidance towards a transgressor. This may further explain the negative correlation between meaning in life and dispositional forgiveness; however, this line of thought is speculative at best. Regardless, these initial findings support the merit of future research of the relationship between these variables. Further examination of both the underlying mechanisms of cognitions and emotions between meaning in life and forgiveness of self, situations, others, and overall forgiveness, and how various interventions affect or alter an individual's cognitions and emotions, are definitely called for as a way to help clinicians use empirically supported interventions.

Limitations of the Study

Several limitations were associated with this study. The first limitation was the use of a convenience sample. In using a convenience sample, there is a risk that the sample may not be representative of the entire population from which the sample was drawn. This can lead to problems in generalizing the results to the parent population from which the sample was drawn (Neuman, 2011). In this study's dataset, the majority of the

sample was female (62.0%), three out of every four participants were between the ages of 18 and 27 years of age, nearly nine in every ten respondents (88.4%) were White, seven in every 10 respondents (69.6%) indicated they were single, and four out of every five respondents (81.2%) stated that they have no children. Therefore, further research with more male respondents, older respondents, non-White respondents, and respondents with children would be helpful to obtain a greater degree of generalizability of these results.

Another limitation would be that a self-reported measure was used which relies on the respondent's accuracy and effort in filling out the measures. Since every study needs to limit the amount of variables that can be examined, this can be considered a limitation of the current study. In other words, there may be more variables that were not included in the current study (such as shame or guilt) that may impact meaning in life and forgiveness.

Recommendations

Further research is needed to examine why there was no relationship between meaning in life and forgiveness of others, especially in light of the fact that there was a relationship between meaning in life and overall forgiveness, meaning in life and forgiveness of self and meaning in life and forgiveness of situations. As previously argued, it may be the case that the act of forgiving others is a much different process than the acts of overall forgiveness, forgiveness of self and forgiveness of situations. Further examination of both the underlying mechanisms of cognitions and emotions between meaning in life and forgiveness of self, situations, others, and overall forgiveness would be important to explore, as a deeper understanding of such an exploration can be applied

to the development of highly specific and effective empirically supported interventions that clinicians can use to improve their clients' mental health outcomes.

Future studies should also consider investigating various interventions to increase meaning in life as a way to gauge how it impacts forgiveness. Additionally, a replication of the current study with more males and greater representation among diverse racial/ethnic groups may provide a better understanding of the relationship between meaning in life and forgiveness.

Social Change Implications

The literature clearly establishes that there is a relationship between the presence of meaning in life and improvements in depression, suicidal ideation, and substance use (Mascaro & Rosen, 2005; Schulenberg et al., 2011; Yalom, 1980; Zika & Chamberlain, 1987); in other words, meaning in life is related to better mental health. The literature also establishes that there is a relationship between engaging in forgiveness and improvement in depression, anxiety, suicidal ideation, and anger. Again, it has been established that meaning in life is related to overall better mental health (Freedman & Enright 1996; Goldman & Wade, 2012; Toussaint et al., 2012).

Establishing that there is a link between the presence of meaning in live and engaging in forgiveness may potentially allow for more specialized treatment interventions which involve both meaning in live and forgiveness. These specialized treatments can in turn result in better treatment outcomes for the mental health issues discussed above. Better treatment options for depression, anxiety, substance abuse, and anger could ultimately help to reduce costs associated with the funding of mental health,

increase employability of individuals with mental health issues (Comino et al., 2003), improve school performance of students with mental health issues (Tempelaar et al., 2014), decrease rates of crime for individuals struggling with mental health issues (Hodgins, 1998), and decrease costs of the health system through the reduction of poor physical health in individuals with mental health issues (Scott & Happell, 2011). Therefore, better treatment interventions and options that incorporate meaning in life and forgiveness could lead to reduction in health care costs, increased employability, a reduction in crime, improved school attendance and performance, and overall improved physical health across an individual's lifespan.

Conclusion

This project sought to fill a gap in the literature, as the relationship between meaning in life and forgiveness was previously unknown before the current investigation. The results associated with this study helped to confirm the existence of a relationship between meaning in life and overall dispositional forgiveness, forgiveness of self, and forgiveness of situations. The work conducted in this study also confirmed there was no relationship between meaning in life and forgiveness of others. These findings will be helpful in beginning the process of developing a more evidence-based approach to using these variables for interventions to aid in the treatment of depression, anxiety, substance abuse, and anger. Treatment in these areas should help lead to improved mental functioning of individuals, improved physical health of individuals, potential lowering of health care costs, potential to increase employability, reduce crime, and an increase in students' school attendance and academic performance.

References

Allison, P. (1999). *Multiple regression: A primer.* Thousand Oaks, CA: Sage.

Anderson, N. (2001). *Empirical Direction in Design and Analysis*. Mahwah, NJ: Lawrence Erlbaum Associates.

Antonovsky, A. (1987). *Unraveling the mystery of health. How people manage stress and stay well*. San Francisco, CA: Jossey-Bass.

Asgari, P., & Roshani, K. (2013). Validation of forgiveness scale and a survey on the relationship of forgiveness and students' mental health. *International Journal of Psychology and Behavioral Research*, *2*(2), 109-115.

Battista, J., & Almond, R. (1973). The development of meaning in life. *Psychiatry*, *36*(4), 409-427.

Beck, A. (1962). *Cognitive therapy and the emotional disorders.* New York, NY: Meridian Books.

Berg, B., & Lune, H. (2012). *Qualitative Research Methods for the Social Sciences*. Boston, MA: Pearson.

Berry, J., & Worthington, E. (2001). Forgiveness, relationship quality, stress while imagining relationship events and physical and mental health. *Journal of Counseling Psychology*, *48*(1), 447-455.

Berry, J., Worthington, E., Parrott, L., O'Connor, L., & Wade, N. (2001). Dispositional forgiveness: Development and construct validity of the Transgression Narrative Test of Forgiveness. *Personality and Social Psychology*, *27*(1), 1277-1290.

Binswanger, L. (1963). Being in the world. In *Hetdegger's analytic of existence and its*

meaning for psychiatry. New York, NY: Basic Books.

Blocker, H. G. (1974). *The meaning of meaninglessness*. The Hague, Netherlands: Martinus Nijhoff.

Bono, G., McCullough, M., & Root, M. (2008). Forgiveness, feeling connected to others, and well-being. *Personality and Social Psychology Bulletin*, *34*(1), 182-195. doi:10.1177/0146167207310025

Boone, K., & Richardson, F. (2010). War neurosis: A cultural historical and theoretical inquiry. *Journal of Theoretical and Philosophical Psychology*, *30*(2), 109-121. doi:10.1037/a0021569

Boss, M. (1963). *Psychoanalysis and Daseinsanalysis*. New York, NY: Basic Books.

Butler, D. S., & Mullis, F. (2001). Forgiveness: A conflict resolution strategy in the workplace. *Journal of Individual Psychology*, *57*(3), 259-273.

Camus, A. (1955). *The myth of Sisyphus and other essays*. New York, NY: Knopf.

Churchhill, S. (1989). Daseinsanalysis: In defense of the ontological difference. *Theoretical and Philosophical Psychology*, *9*(1), 51-56.

Clark, M. (2012, Spring). Suffering and the affirmation of life. *Journal of Nietzsche Studies*, *Issue 43*, 87-98.

Coates, D. (1997). The correlations of forgiveness of self, forgiveness of others and hostility, depression, anxiety, self esteem, life adaptation and religiosity among female victims of domestic abuse. *Dissertations Abstracts International*, *58, 2667B*.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.).

Hillsdale, NJ: Lawrence Erlbaum Associates.

Coleman, S., Kaplan, D., & Downing, R. (1986). Life cycle and loss: The spiritual vacuum of heroin addiction. *Family Process*, *25*(1), 5-23.

Comino, E., Harris, E., Chey, T., Manicavasagar, V., Penrose Wall, J., Powell Davies, G., & Harris, M. F. (2003). Relationship between mental health disorders and unemployment status in Australian adults. *Australian & New Zealand Journal of Psychiatry*, *37*(2), 230-235. doi:10.1046/j.1440-1641.2003.01127.x

Corey, G. (2013). *Theory and practice of counseling and psychotherapy*. Belmont, CA: Brooks/Cole.

Cox, S., Tripp, T., Bennett, R., & Aquino, K. (2012). An empirical test of forgiveness motives' effects on employees' health and well-being. *Journal of Occupational Health Psychology*, *17*(3), 330-340. doi:10.1037/a0028314

Creswell, J. (2009). *Research design* (3rd ed.). Thousand Oaks, CA: Sage.

Cronbach, L. J. (1970). *Essentials of psychological testing* (3rd ed.). New York, NY: Harper.

Crumbaugh, J. C., & Maholick, L. T. (1964). An experimental study in existentialism: The psychometric approach to Frankl's concept of noogenic neurosis. *Psychiatry*, 409-427.

Davenport, D. S. (1991). The functions of anger and forgiveness: Guidelines for psychotherapy with victims. *Psychotherapy*, *28*(1), 140-144. Retrieved from

De Wall, F. B., & Pokorny, J. J. (2005). Primate conflict and its relation to human forgiveness. In J. Worthington (Ed.), *Handbook of forgiveness* (pp. 17-32). New

York, NY: Brunner-Routledge.

Debats, D. L. (1990). The life regard index: Reliability and validity. *Psychological Reports*, *67*(1), 27-34.

Debats, D. L. (1998). *The measurement of personal meaning: Theory, research and application*.

Debats, D. L., Van der Lubbe, P. M., & Wezeman, F. R. (1993). On the psychometric properties of the Life Regard Index: A measure of meaningful life. *Personality and Individual Differences*, *14*(1), 337-345.

Denham, S., Neal, K., Wilson, B., Pickering, S., & Boyatzis, C. (2005). *Handbook of forgiveness*. New York, NY: Routledge.

Dogra, A., Basu, S., & Das, S. (2008). The roles of personality, stressful life events, meaning in life, reasons for living on suicidal ideation. *Psychology and Mental Health*, *15*(1), 52-57.

Dogra, A., Basy, S., & Das, S. (2011). Impact of meaning in life and reasons for living to hope and suicidal ideation: A study among college students. *SIS Journal of Projective Psychology & Mental Health*, *18*, 89-102.

Doomen, J. (2012, Winter). Consistent nihilism. *Journal of Mind and Behavior*, *33*(1-2), 103-117.

Emmons, R. (1992). Abstract versus concrete goals: Personal striving level, physical illness and psychological well being. *Journal of Personality and Social Psychology*, *62*(2), 292-300.

Enright, R. D., & Coyle, C. T. (1998). Researching the process model of forgiveness

within psychological interventions. In E. L. Worthington (Ed.), *Dimensions of Forgiveness* (pp. 139-161). Radnor, PA: Templeton Foundation Press.

Enright, R. D., & Fitzgibbons, R. P. (2000). *Helping clients forgive: An empirical guide for resolving anger and restoring hope*. Washington, DC: American Psychological Association.

Enright, R. D., Gassin, E. A., & Wu, C. (1992). Forgiveness: A developmental view. *Journal of Moral Education*, *21*(2), 99-114.

Fisher, M. L., & Exline, J. J. (2006). Self forgiveness versus excusing: The roles of remorse, effort and acceptance of responsibility. *Self and Identity*, *5*(1), 127-146. doi:10.1080/15298860600586123

Frankl, V. E. (1959). *Man's search for meaning: An introduction to logotherapy*. New York, NY: Simon & Schuster.

Frankl, V. E. (1969). *The will to meaning. Foundations and applications of logotherapy*. New York, NY: Penguin Group.

Frankl, V. E. (1997). *Man's search for ultimate meaning*. Cambridge, MA: Perseus Publishing.

Frankl, V. E. (2000). *Recollections. An autobiography*. Cambridge, MA: Basic Books.

Frazier, P., Oishi, S., & Steger, M. (2003). Assessing optimal human functioning. In W. B. Walsh (Ed.), *Counseling psychology and optimal human functioning* (pp. 251-278). Mahwah, NJ: Erlbaum.

Freedman, S., & Enright, R. (1996). Forgiveness as an intervention goal with incest survivors. *Journal of Consulting and Clinical Psychology*, *64*(5), 983-992.

Ghaemi, N. (2001). Rediscovering existential psychotherapy. *American Journal of Psychotherapy*, *55*(1), 55-64.

Goldman, D., & Wade, N. (2012). Comparison of forgiveness and anger-reduction group treatments: a randomized controlled trial. *Psychotherapy Research*, *22*(5), 604-620. doi:10.1080/10503307.2012.692954

Gordon, K., & Baucom, D. (1998). Understanding betrayals in marriage: A synthesized model of forgiveness. *Family Process*, *30*(1), 425-449.

Gorsuch, R. L. (1988). Psychology of religion. *Annual Review of Psychology*, *39*(1), 201-221.

Granqvist, P., & Hagekull, B. (1999). Religiousness and perceived childhood attachment. *Journal for the Scientific Study of Religion*, *38*(2), 254-273.

Grunwald, H., & Mayhew, M. (2008). Using propensity scores for estimating causal effects. *Research in Higher Education*, *49*(8), 758-775.

Hall, J., & Fincham, J. (2005). Self forgiveness. *Journal of Social and Clinical Psychology*, *24*(1), 621-637.

Harlow, L. L., Newcomb, M. D., & Bentler, P. M. (1986). Depression, self derogation, substance use and suicide ideation: Lack of purpose in life as a meditational factor. *Journal of Clinical Psychology*, *42*(1), 5-21.

Harrisson, T. (2010). *Living through the blitz*. London, Britain: Faber and Faber Ltd.

Hebl, J., & Enright, R. (1993). Forgiveness as a psychotherapeutic goal with elderly females. *Psychotherapy*, *30*(1), 667-687.

Heisel, M., & Flett, G. (2008). Psychological resilience to suicidal ideation among older

adults. *Clinical Gerontologist*, *31*(4), 51-70. doi:10.1080/07317110801947177

Hirsch, J., Webb, J., & Jeglic, E. (2011). Forgiveness, depression, and suicidal behavior among a diverse sample of college students. *Journal of clinical psychology*, *67*(9), 896-906. doi:10.002/clp.20812

Hirsch, J., Webb, J., & Jeglie, E. (2012). Forgiveness as a moderator of the association between anger expression and suicidal behavior. *Mental Health, Religion and Culture*, *15(3*), 279-300. doi:10.1080/13674676.2011.571666

Hodgins, S. (1998). Epidemiological investigations of the associations between major mental disorders and crime: Methodological limitations and validity of the conclusions. *Social Psychiatry and Psychiatric Epidemiology*, *33*(1), S29-S37.

Hui, E., & Chau, T. S. (2009). The impact of a forgiveness intervention with Hong Kong Chinese children hurt in interpersonal relationships. *British Journal of Guidance and Counseling*, *37*(2), 141-156. doi:10.1080/03069880902728572

Jacobsen, B. (2007). Authenticity and our basic existential dilemmas. *Existential Analysis*, *18*(2), 288-296.

Jacobsen, B. (2007). Authenticity and our basic existential dilemmas. *Journal of the Society for Existential Analysis*, *18*(2), 288-296.

Joiner, T. E., & Rudd, M. D. (1996). Disentangling the intercorrelations between hopelessness, loneliness, and suicidal ideation. *Suicide and Life Threatening Behavior*, *26*(1), 19-26.

Jones, E., Woolven, R., Durodie, B., & Wessely, S. (2006). Public panic and morale: Second World War civilian responses examined in the light of the current anti-

terrorist campaign. *Journal of Risk Research*, *9*(1), 57-73. doi:10.1080/13669870500289005

Kenyon, G. M. (2000). *Philosophical foundations of existential meaning*. Thousand Oaks, CA: Sage.

Klemke, E. D. (Ed.). (2007). *Nothing Matters. The Meaning of Life*. New York, NY: Oxford University Press.

Krause, N., & Ellison, C. (2003). Forgiveness by god, forgiveness of others, and psychological well being in late life. *Journal for the Scientific Study of Religion*, *42*(1), 77-93.

Lang, P. (1979). A bio-informational theory of emotional imagery. *Psychophysiology*, *16*(6), 495-512.

Lin, W. N., Enright, R., & Klatt, J. (2013). A forgiveness intervention for Taiwanese young adults with insecure attachment. *Contemporary Family Therapy*, *35*(1), 105-120. doi:10.1007/s10591-012-9218-2

Linley, P. A., & Joseph, S. (2011). Meaning in life and posttraumatic growth. *Journal of Loss and Trauma*, *16*, 150-159. doi:10.1080/15325024.2010.519287

Lodge, R. (2007, July). The idea for which I can live or die: Another look at Kierkegaard's leap of faith. *Existential Analysis*, *18*(2), 212-219.

Lopez, S., & Gallagher, M. (2009). A case for positive psychology. In S. Lopez, & C. Snyder (Eds.), *The Oxford Handbook of Positive Psychology* (2 ed.). New York, NY: Oxford University Press.

Lowrie, W. (1962). *Kierkegaard*. New York, New York, NY: Harper.

Macaskill, A. (2012). Differentiating dispositional self forgiveness from other forgiveness: Associations with mental health and life satisfaction. *Journal of Social and Clinical Psychology*, *31*(1), 28-50.

Maltby, J., Macaskill, A., & Day, L. (2001). Failure to forgive self and others: A replication and extension of the relationship between forgiveness, personality, social desirability and general health. *Personality and Individual Differences*, *30*(1), 881-885.

Mascaro, N., & Rosen, D. (2005). Existential meaning's role in the enhancement of hope and prevention of depressive symptoms. *Journal of Personality*, *73*(1), 1467-1494.

Maslow, A. H. (1954). *Motivation and personality*. New York, NY: Brandeis University.

Mauger, P., Perry, J., Freeman, T., Grove, D., McBride, A., & McKinney, K. (1992). The measurement of forgiveness. *Journal of Psychology and Christianity, 11,* 170-180.

McCullough, M. (2000). Forgiveness as human strength: Theory, measurement and links to well being. *Journal of Social and Clinical Psychology*, *19*(1), 43-55.

McCullough, M. E., Pargament, K. I., & Thoresen, C. E. (2000). The psychology of forgiveness. In *Forgiveness. Theory, research and practice* (Ch. 1). New York, NY: The Guilford Press.

McCullough, M., Fincham, M., & Tsang, J. (2003). Forgiveness, forbearance, and time. *Journal of Personality and Social Psychology*, *84*(1), 540-557.

Monette, R., Sullivan, T., & DeJong, C. (2002). *Applied Social Research: Tools for the*

Human Services. Fort Worth, TX: Harcourt.

Muller, R. (2010, July). Satre on the ontological need for God. *The Humanistic Psychologist*, *38*(3), 236-243.

Mullet, E., Girard, M., & Bakhshi, P. (2004). Conceptualizations of forgiveness. *European Psychologist*, *9*(2), 78-86. Retrieved from

Mullet, E., Girard, M., & Bakhshi, P. (2004). Conceptualizations of forgiveness. *European Psychologist*, *9*(2), 78-86. doi:10.1027/1016-9040.9.2.78

Neuman, W. L. (2011). *Social research methods: Qualitative and quantitative approaches* (7th ed.). Boston, MA: Pearson.

Newcomb, M. (1986). Nuclear attitudes and reactions: Associations with depression, drug use, and quality of life. *Journal of Personality and Social Psychology*, *50*(5), 906-920.

Nietzsche, F. (1982). *Nietzsche Volume IV: Nihilism*. New York, NY: Harper Row Publishers.

O'Donnell, P. (2004). Days of atonement. *Science and Spirit*, *15*(3), 38-41.

Park, N., Park, M., & Peterson, C. (2010). When is the search for meaning related to life satisfaction? *Applied Psychology: Health and Well-Being*, *2*(1), 1-13. doi:10.1111/j.1758-0854.2009.01024x

Park, N., Park, M., & Peterson, C. (2010). When is the search for meaning related to life satisfaction? *Applied Psychology: Health and Well-Being*, *2*(1), 1-13. doi:10.1111/j.1758-0854.2009.01024.x

Pietrini, P., Guzzelli, M., Basso, G., Jaffe, K., & Grafman, J. (2000). Neural correlates of

imaginal aggressive behavior assessed by positron emission tomography in healthy subjects. *American Journal of Psychiatry*, *157*(1), 1772-1781.

Ponsaran, A. G. (2007). The philosophical foundations of Viktor Frankl's logotherapy. *Philippiniana Sacra*, *XLI I* (125), 339-354. Retrieved from http://search.ebscohost.com/

Rea, L., & Parker, R. (2005). *Designing and conducting survey research* (3rd ed.). San Francisco, CA: John Wiley & Sons.

Reed, G., & Enright, R. (2006). The effects of forgiveness therapy on depression, anxiety, and posttraumatic stress for women after spousal emotional abuse. *The Journal of Consulting and Clinical Psychology*, *74*(5), 902-929. doi:10.1037/0022-006x.74.5.920

Ritchey, F. (2008). *The statistical imagination* (2nd ed.). Boston, MA: McGraw-Hill.

Rusner, M., Carlsson, G., Brunt, D., & Nystrom, M. (2009). Extra dimensions in all aspects of life-the meaning of life with bipolar. *International Journal of Qualitative Studies on Health and Well-being*, *4*(1), 159-169. doi:10.1080/17482620902864194

Sartre, J. (1957). *Existentialism and human emotions*. New York, NY: Philosophical Library.

Schopenhauer, A. (1970). *Essays and aphorisms*. London, UK: Penguin Books.

Schulenberg, S. E., & Melton, A. M. (2010). A confirmatory factor-analytic evaluation of the Purpose in Life Test: Preliminary psychometric support for a replicable two factor model. *Journal of Happiness Studies*, *11*(1), 95-111. doi:10.1007/s10902-

008-9124-3

Schulenberg, S., Nassif, C., Hutzell, R., & Rogina, J. (2008). Logotherapy for clinical practice. *Psychotherapy Theory, Research, Practice and Training*, *45*(4), 447-463. doi:10.1037/a0014331

Schulenberg, S., Schnetzer, L., & Buchanan, E. (2010). The purpose in life test-short form: development and psychometric support. *Journal of Happiness Studies*, *12*(1), 861-876. doi:10.1007/s10902-010-9231-9

Schulenberg, S., Strack, K., & Buchanan, E. (2011). The meaning in life questionnaire: Psychometric properties with individuals with serious mental illness in an inpatient setting. *Journal of Clinical Psychology*, *67*(12), 1210-1219. doi:10.1002/jclp.20841

Scobie, E. D., & Scobie, G. (1998). Damaging events: The perceived need for forgiveness. *Journal for the Theory of Social Behavior*, *28*(4), 373-401.

Scott, D., & Happell, B. (2011). The high prevalence of poor physical health and unhealthy lifestyle behaviors in individuals with severe mental illness. *Issues in Mental Health Nursing*, *32*(1), 589-597. doi:10.3109/01642840.2011.569846

Seligman, M., & Csikszentmihalyi, M. (2000). Positive Psychology. *American Psychologist*, *55*(1), 5-14. doi:10.1037//0003-066x.55.1.5

Shadish, W., Cook, T., & Campbell, D. (2002). *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston, MA: Houghton Mifflin Co.

Slomp, M., Jacobs, P., Ohinmaa, A., Bland, R., Block, R., Dewa, C., & Wang, C. (2012). The distribution of mental health service costs for depression in the Alberta

population. *Canadian Journal of Psychiatry*, *57*(9), 564-569.

Snyder, L. Y., Hoffman, C. R., Michael, L., Rasmussen, H. N., Billings, L. S., & Roberts, D. E. (2005). Dispositional forgiveness of self, others, and situations. *Journal of personality*, *73*(1), 313-360. doi:10.111/j.1467-6494.2005.00311.x

Solomon, R. C. (2001). In *From Rationalism to Existentialism: The Existentialists and Their Nineteenth Century Backgrounds*. Lanham, Maryland: Rowman and Littlefield.

Steger, M. (2005). Development and validation of the meaning in life questionnaire: A measure of eudaimonic well-being. *ProQuest Dissertation and Theses*.

Steger, M. (2012). Experiencing meaning in life: Optimal functioning at the nexus of well-being, psychopathology and spirituality. In P. Wong (Ed.), *The human quest for meaning* (2nd ed., pp. 165-177). New York, NY: Routledge.

Steger, M. F., Frazier, P., Kaler, M., & Oishi, S. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, *53*(1), 80-93

Steger, M. F., Kashdan, T. B., Sullivan, B. A., & Lorentz, D. (2008). Understanding the search for meaning in life: Personality, cognitive style and the dynamic between seeking and experiencing meaning. *Journal of Personality*, *76*(2), 199-228. doi:10.1111/j.1467-6494.2007.00484.x

Steger, M., Mann, J., Michels, P., & Cooper, T. (2009). Meaning in life, anxiety, depression and general health among smoking cessation patients. *Journal of Psychosomatic Research*, *67*(1), 353-358. doi:10.1016/j.jpsychores.2009.02.006

Strack, K. (2009). Understanding empowerment, meaning, and perceived coercion in individuals with serious mental illness. *Journal of Clinical Psychology*, *65*(10), 1137-1148. doi:10.1002/jclp.20607

Synder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, *13*(1), 249-275. doi:10.111/j.1467-6494.2005.00336.x

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53-55.

Tempelaar, W., Otjes, C., Bun, C., Plevier, C., Van Gastel, W., MacCabe, J.,...Boks, M. (2014). Delayed school progression and mental health problems in adolescents: A population based study in 10, 803 adolescents. *BMC Psychiatry*, *14*(1), 1-12. doi:10.1186/s12888-014-0244-5

Thakur, K., & Basu, S. (2010). A probe of existential meaning in depression. *Psychology and Mental Health*, *17*(1), 56-62.

Thakur, K., & Basu, S. (2010). A study of reasons for living and suicidal ideations in college students. *Indian Journal of Clinical Psychology*, *33*, 40-46.

Thankur, K., & Basu, S. (2006). A study of reasons for living and suicidal ideation among college students. *Indian Journal of Clinical Psychology*, *33*(1), 40-46.

Thompson, L., Snyder, R., Micheal, T., Rasmussen, N., Billings, S., & Roberts, E. (2005). Dispositional forgiveness of self, others and situations. *Journal of Personality*, *73*(1), 313-360. doi:10.111/j.1467-6494.2005.00311.x

Togari, T., Yamazaki, Y., Nakayama, K., & Shimizu, J. (2007). Development of a short version of the sense of coherence scale for population survey. *Journal of*

Epidemiology Community Health, *61*(1), 921-922. doi:10.1136/jech.2006.056697

Toussaint, L., & Friedman, P. (2009). Forgiveness, gratitude and well-being: The mediating role of affect and beliefs. *Journal of Happiness Studies*, *10*(1), 635-654. doi:10.1007/s10902-008-9111-8

Toussaint, L., Marschall, J., & Williams, D. (2012). Prospective associations between religiousness/spirituality and depression and mediating effects of forgiveness in a nationally representative sample of the United States adults. *Depression Research and Treatment*, 1-10. doi:10.1155/2012/267820

Vaingankar, J., Subramaiam, M., Lim, Y., Sherbourne, C., Luo, N., Ryan, G.,...Chong, S. (2012). From well-being to positive mental health: Conceptualization and qualitative development of an instrument in Singapore. *Quality of Life Research*, *21*(1), 1785-1794. doi:10.1007/s11136-011-0105-3

Van Dyke, C., & Elias, M. (2007). How forgiveness, purpose, and religiosity are related to the mental health and well-being of youth: A review of the literature. *Mental Health, Religion and Culture*, *10*(4), 395-415. doi:10.1080/13674670600841793

Van Dyke, C. J., & Elias, M. J. (2007). How forgiveness, purpose and religiosity are related to the mental health and well-being of youth; A review of the literature. *Mental Health, Religion and Culture*, *10*(4), 395-415. doi:10.1080/13674670600841793

Vasiliadis, H., Lesage, A., Adair, C., & Boyer, R. (2005). Service use for mental health reasons: Cross provincial differences in rates, determinants and equity of access. *Canadian Journal of Psychiatry*, *50*(10), 614-619.

Volkert, J., Schulz, H., Levke Brutt, A., & Andreas, S. (2013). Meaning in life: Relationship to clinical diagnosis and psychotherapy outcome. *Journal of Clinical Psychology*, *70*(6), 528-535. doi:10.1002/jclp.22053

Westbrook, C., Davis, D., Griffin, B., Hook, J., DeBlaere, C., Ho, M., Bell, C., Tongeren, D., & Worthington, E. (2015). Forgiving the self and physical and mental health correlates: A meta-analytic review. *Journal of Counseling Psychology, 62*(2), 329-335. doi: 10.1037/cou0000063

Williams, R., & Williams, V. (1993). *Anger Kills*. New York, NY: Harper Perennial.

Witvliet, C. V., Ludwig, T., & Laan, K. V. (2001). Granting forgiveness or harboring grudges: Implications for emotion, physiology, and health. *Psychological Science*, *12*(2), 117-123.

Wong, H. (2008). Religiousness, love of money and ethical attitudes of Malaysian evangelical Christians in business. *Journal of Business Ethics*, *81*(1), 169-191.

Wong, P. T., & Fry, P. S. (1998). Implicit theories of meaningful life and the development of the personal meaning profile. *The human quest for meaning: A handbook of psychological research and clinical applications*. Mahwah, NJ: Lawrence Erlbaum Associates.

Worthington, E. (2006). *Forgiveness and reconciliation*. New York, NY: Routledge.

Worthington, J., & Scherer, M. (2004). Forgiveness is an emotion focused coping strategy that can reduce health risks and promote health resilience. *Psychology & Health*, *19*(1), 385-405. doi:10.1080/08870440044042000196674

Worthington Jr., E., Van Oyen Witvliet, C., Pietrini, P., & Miller, A. (2007). Forgiveness,

health and well being: A review of evidence for emotional versus decisional forgiveness, dispositional forgivingness and reduced unforgiveness. *Journal of Behavioral Medicine*, *30*(1), 291-302. doi:10.1007/s10865-007-9105-8

Yalom, I. (1931). *Existential Psychotherapy*. New York, USA: Basic Books.

Yalom, I. D. (1980). *Existential psychotherapy*. New York, NY: Basic Books.

Zalenski, R., & Raspa, R. (2006). Maslow's hierarchy of needs: A framework for achieving human potential in hospice. *Journal of Palliative Medicine*, *9*(5), 1120-1127.

Zika, S., & Chamberlain, K. (1987). Relation of hassles and personality to subjective well-being. *Journal of Personality and Social Psychology*, *53*(1), 155-162.

Zika, S., & Chamberlain, K. (1992). On the relation between meaning in life and psychological well-being. *British Journal of Psychology*, *83*(1), 133-145.

Appendix A: Meaning in Life Questionnaire (MLQ)

Please take a moment to think about what makes your life and existence feel important and significant to you. Please respond to the following statements as truthfully and accurately as you can, and also please remember that these are very subjective questions and that there are no right or wrong answers. Please answer according to the scale below:

Absolutely Untrue	**1**
Mostly Untrue	**2**
Somewhat Untrue	**3**
Can't Say True or False	**4**
Somewhat True	**5**
Mostly True	**6**
Absolutely True	**7**

_____1. I understand my life's meaning.
_____2. I am looking for something that makes my life feel meaningful.
_____3. I am always looking to find my life's purpose.
_____4. My life has a clear sense of purpose.
_____5. I have a good sense of what makes my life meaningful.
_____6. I have discovered a satisfying life purpose.
_____7. I am always searching for something that makes my life feel significant.
_____8. I am seeking a purpose or mission for my life.
_____9. My life has no clear purpose.
_____10. I am searching for meaning in my life.

Appendix B: Heartland Forgiveness Scale

Directions: In the course of our lives negative things may occur because of our own actions, the actions of others, or circumstances beyond our control. For some time after these events, we may have negative thoughts or feelings about ourselves, others, or the situation. Think about how you **typically** respond to such negative events. Next to each of the following items write the number (from the 7-point scale below) that best describes how you **typically** respond to the type of negative situations described. There are no right or wrong answers. Please be as open as possible in your answers.

1	2	3	4	5	6	7
Almost Always False of Me		More Often False of Me		More Often True of Me		Almost Always True of Me

1. Although I feel bad at first when I mess up, over time I can give myself some slack. ____

2. I hold grudges against myself for negative things I've done.____

3. Learning from bad things that I've done helps me get over them.____

4. It is really hard for me to accept myself once I've messed up.____

5. With time I am understanding of myself for mistakes I've made.____

6. I don't stop criticizing myself for negative things I've felt, thought, said, or done.____

7. I continue to punish a person who has done something that I think is wrong.____

8. With time I am understanding of others for the mistakes they've made____

9. I continue to be hard on others who have hurt me.____

10. Although others have hurt me in the past, I have eventually been able to see them as good people____

11. If others mistreat me, I continue to think badly of them.____

12. When someone disappoints me, I can eventually move past it.____

13. When things go wrong for reasons that can't be controlled, I get stuck in negative thoughts about it.____

14. With time I can be understanding of bad circumstances in my life.____

15. If I am disappointed by uncontrollable circumstances in my life, I continue to think negatively about them.____

16. I eventually make peace with bad situations in my life____

17. It's really hard for me to accept negative situations that aren't anybody's fault.____

18. Eventually I let go of negative thoughts about bad circumstances that are beyond anyone's control.____

Appendix C: Permission to Use Heartland Forgiveness Scale

Re: use of tools for dissertation

Thursday, August 21, 2014 11:40 AM

From:

"Dr. Thomson" <dr.thompson@heartlandforgiveness.com>

To:

"Shirley Karseboom" <sakarseboom@yahoo.ca>

Ms. Karseboom,

You may use the HFS for your dissertation. I wish you the best with your work.

Regards,
Laura

Laura Y. Thompson, Ph.D.

> On Aug 21, 2014, at 10:18 AM, Shirley Karseboom <sakarseboom@yahoo.ca> wrote:
>
> Hello,
>
> I am in the process of filling out the IRB form to get approval for my dissertation proposal and my chairperson informed me I need to attach written approval from the authors of the tools I would like to use. I would like to use the Heartland Forgiveness Scale as one of the tools. May I have written permission/approval to do so. Many thanks!
>
>
> Shirley Karseboom

Appendix D: Sociodemographic Factors

Please circle the answers that apply to you

1. What is your age?

18-27 28-38 39-49 40-50 51-61 62-72 73+

2. What is your sex?

Male Female

3. What is your race?

Caucasian Hispanic Métis First Nations African American Other

4. How many years of education do you have?

12 years 13 years 14 years 15 years 16 years 17 years+

5. What is your marital status?

Single Common-in-law Divorced Married Other

6. What is your income?

$10,000 or less $10,001 to $20,000 $20,001 to $30, 000 $30,001 to $40,000

$40,001 to $50,000 $50,001 or more

7. How many children do you have?

0 1 2 3 4 5+

Appendix E: Letter of Cooperation

GPRC Research Ethics Committee

CRI CENTRE FOR RESEARCH & INNOVATION

September 12, 2014

Research Involving Human Subjects

Ethics Reference Number	2014-10
Research Title	"Relationship between Meaning in Life and Dispositional Forgiveness"
Name of Researcher(s)	Shirley Karseboom
Name of Supervisor(s)	
Date of REB Meeting	September 8 2014

Dear Ms. Karseboom,

Thank you for submitting your application to Grande Prairie Regional College Research Ethics Board.

It is the decision of the board that your research proposal, as presented in the documents you have submitted, meets the minimum ethical requirements for research involving human subjects.

Therefore, I am pleased to inform you that the board approved your application to conduct the above titled research as outlined by your submission with the following requirement:

> Please ensure that the instructors of the classes from which you will be selecting your subjects are informed that you have received ethics approval from GPRC Ethics Board and your University Ethics Board.

Any changes that may occur in connection with this research that may have an impact on ethical consideration must be reported immediately to the Research Ethics Board.

This approval is valid for 3 years and is granted on the condition that the relevant principles in the GPRC Research and Ethics policy: Research Involving Humans (http://www.gprc.ab.ca/downloads/documents/Research_and_Ethics_Policy_Research_Involving_Humans.pdf) are strictly observed.

Sincerely,

Chair of the GPRC Research Ethics Board	OR	Coordinator of GPRC Ethics Research Board
		Sept 15 2014

Appendix F: Consent Form

You are invited to take part in a research study looking at meaning in life and dispositional forgiveness. The researcher is inviting any Grande Prairie Regional College students to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Shirley Karseboom, who is doctoral student at Walden University.

Background Information:
The purpose of this study is to see if there is a relationship between meaning in life and dispositional forgiveness.

Procedures:
If you agree to be in this study, you will be asked to:

- Fill out two surveys that will take a total of approximately 20 minutes or less

Here are some sample questions:

1. My life has a clear sense of purpose (possible answers are absolutely true, mostly true, somewhat true, can't say, somewhat true, mostly true or absolutely true).

2. I eventually make peace with bad situations in my life (possible answers are almost always false, more often false, more often true, almost always true)

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at Grande Prairie Regional College will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time. If you do not want to participate, please remain at your desk and do a quiet and self directed individual activity.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as becoming upset by answering some of the questions on the surveys. Taking these surveys should not pose any risk to your safety or wellbeing

Research shows there are numerous health benefits when engaging in the process of forgiveness. Examples of some of the benefits are a reduction of negative thought processes and emotions (Worthington, 2006). The benefits of forgiveness also extend to

an individual's ability to maintain intimate relationships by reparation from conflict caused by the effects of negative thought processes and emotions (Gordon & Baucom, 1998; Hebl & Enright, 1993). Having less meaning in life has been associated with greater need for therapy and more mental health issues as previously stated. Increasing our understanding of these well-being variables may be a stepping stone for future clinical interventions involving these variables.

Payment:
N/A

Privacy:
Any information you provide will be kept anonymous. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure at all time. All information gathered will be stored in a locked cabinet only accessible by the researcher. Only one computer will be used to analyze the data, and the computer is owned and solely used by the researcher. The computer is password protected.

Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now or when you are filling out the surveys and if you have questions later, you may contact the researcher via phone at 780-512-8812 or email at sakarseboom@yahoo.ca. If you want to talk privately about your rights as a participant, you can call Mr. Ali M. AL-Asadi. He is the Grande Prairie Regional College representative who can discuss this with you. His phone number is 780-539-2911. Grande Prairie Regional College approval number for this study 2014-10 and it expires on September 15, 2017.

Please keep this consent form for your records.

Statement of Consent:

I have read the above information and I understand the study well enough to make a

decision about my involvement. By returning the two completed surveys, I am agreeing

to the terms described above.