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The role of life meaning in psychotherapy

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The role of life meaning in psychotherapy

by

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ABSTRACT

This study investigates the association between meaning in life and outcome in therapy. Most current studies examining meaning and mental health have not examined these variables in the context of the therapeutic relationship. As well as examining how meaning in life relates to level of functioning and well-being, this study collected data from clients undergoing therapy at two time periods to assess the association between clients' perceptions of their meaning in life and outcome in therapy. It was hypothesized that the presence of meaning in life would be positively related to well-being variables and negatively related to problems or psychological symptoms. Alternatively, it was hypothesized that the search for meaning in life would be negatively related to well-being variables and positively related to problems or psychological symptoms. In addition, the presence of meaning in life was expected to increase as therapy progressed, while the search for meaning would decrease. It was also hypothesized that the presence of meaning in life at the beginning of counseling would predict therapeutic outcome while controlling for pre-test outcome scores, that the therapeutic bond would partially mediate the association between meaning and outcome, and that the presence of meaning would serve as a protective factor against high levels of psychological problems or low levels of functioning. Results indicated that although the presence of and search for meaning were related to outcome variables in the hypothesized directions, these associations were only moderate. In addition, the presence of meaning did significantly increase over the course of 2-3 sessions of therapy but the search for meaning did not decrease during this time. All other hypotheses were not supported, likely in part due to a small sample size $(N = 73)$ and thus low power to find small effects. Exploratory analyses indicated that the relationship between meaning in life and life satisfaction was

partially mediated by psychological functioning. These results along with limitations and

future directions of the study are discussed.

CHAPTER 1. INTRODUCTION

Finding meaning in life is one of those ultimate concerns with which philosophers and laypeople alike have struggled since the beginning of civilization. Although it has been the topic of much psychological scholarship throughout the history of psychology (Auhagen, 2000), only in the past several decades has empirical research been conducted (e.g., Elmore & Chambers, 1967; Reker, Peacock, & Wong, 1987; King, Hicks, Krull, & Del Gaiso, 2006). Yet this area of inquiry is especially salient for psychologists because meaning in life may play a crucial role in both healthy psychological development, and coping with and overcoming difficult life events (Frankl, 1966; Yalom, 1980). The importance of the meaning in life concept is coming to the forefront of psychological research, riding the wave of "positive psychology" (Seligman & Csikszentmihalyi, 2000). Meaning in life is seen as a positive human strength, and has been purported as a factor contributing to overall well-being in individuals (Lent, 2004; Ryff & Singer, 1998). In fact, in an article in *The Counseling Psychologist,* Frazier, Lee, and Steger (2006) listed meaning in life as one of four research areas where counseling psychologists could make significant contributions. In this article, they called for an increase in research in the area of meaning in life.

The concept of meaning in life has progressed through many different definitions, typically developed by researchers attempting to operationalize the abstract concept by creating measures. It has been defined as a sense of order or coherence that acts as a buffer for poor mental and physical health (Antonovsky, 1979), as a purpose in existence (Reker & Wong, 1988), as a set of life goals that one is working to fulfill (Battista & Almond, 1973), and as the significance felt toward one's existence (Steger, Frazier, Oishi, & Kaler, 2006). The development of the concept originated with various philosophers and writers in the early

1900's, but began expanding toward its current status in the middle of the century. Around this time, Viktor Frankl began writing about meaning in conjunction with his experiences as a Nazi concentration camp survivor, which was significant in popularizing the concept in psychological literature. After Frankl's initial works, other psychologists began to expand and revise the concept. Several questionnaires were developed to measure life meaning, including the Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964), the Life Regard Index (LRI; Battista and Almond, 1973), Sense of Coherence Scale (SOC; Antonovsky, 1979), the Life Attitude Profile (LAP; Reker & Peacock, 1981), and the Meaning in Life Questionnaire (MLQ; Steger et al., 2006). Each scale has been developed using its own specific definition of life meaning, and most scales were developed to improve upon the limitations of earlier scales.

Empirical work on meaning in life has mainly consisted of correlational studies relating meaning to several indicators of mental illness or mental health. Several studies have examined the relationship between meaning in life and well-being, and found that they are positively related (e.g., Fry, 2000; Reker & Wong, 1984; Vilchinsky & Kravetz, 2005; Zika & Chamberlain, 1992). However, most studies to date have used the three components of life satisfaction, positive affect, and negative affect to measure subjective well-being (SWB). This procedure is likely an ineffective way to measure well-being, especially when examining the concept in the therapeutic setting because of the static nature of the variables (Lent, 2004). Thus, the use of other, less static variables would likely be more useful when attempting to measure SWB in the therapeutic setting. Meaning in life has been negatively correlated with other measures of mental illness, such as depression and anxiety (Debats, van der Lubbe & Wezeman, 1993). In addition, it has been positively correlated with

psychosocial resources and measures of mental health such as self-esteem (Krause, 2003) and ego strength (Shek, 1992). Although these studies give us valuable information about life meaning and its correlates, very few studies have branched out to statistical methods other than correlations, and almost no studies have examined the role of meaning in the psychotherapeutic setting. Only one study to date has used a pre/post-test design to examine the relationship between mental health and life meaning in the counseling setting (Debats, 1996). This study found a relationship between meaning in life and counseling outcome, but did not expand on this discovery. Questions about the possible mediators and moderators of this relationship were left unanswered.

One possible variable that could mediate the relationship between meaning and therapeutic outcome is the bond between the therapist and client. Past research has found an association between meaning in life and quality relationships with friends and family members (e.g., DePaola & Ebersole, 1996). Thus, meaning in life might also be associated with the relationship between the client and therapist, measured by the therapeutic bond. In addition, much research has been conducted on the relationship between the bond and outcome, and a positive, moderate association has been found (Martin, Garske, & Davis, 2000). These associations lead to the hypothesis that the therapeutic bond may be a mediating factor that connects meaning in life to positive therapeutic outcome.

Given that more research in the area of life meaning has been called for (Frazier et al., 2006), and little empirical work on meaning in life in the counseling setting has been conducted, a study on how meaning is associated with psychotherapy is needed. The purpose of this study is to extend research on meaning in life by examining it within the therapeutic setting. It is hypothesized that the presence of meaning in life will be positively associated

with outcome variables while the search for meaning will be negatively associated with outcome variables. It is also hypothesized that clients' meaning in life will increase over the course of therapy. In addition, given that meaning is positively associated with several psychosocial resources (e.g., self-esteem, ego strength), it is hypothesized that those with greater meaning in life at the beginning of therapy will be more able to move efficiently through therapy, making more gains than those with less life meaning. Additionally, it is hypothesized that the therapeutic bond between the client and therapist will mediate the relationship between meaning in life and outcome. It was expected that meaning would make the development of the therapeutic bond more effective, and then would result in better outcomes. Finally, it was hypothesized that the presence of meaning would act as a protective factor for those with high psychological problems and low functioning to create better outcomes. The information garnered from this study will be of assistance to therapists when working with clients with many different issues, especially those struggling with feelings of meaninglessness.

CHAPTER 2. LITERATURE REVIEW

Many scholars have postulated that the search for meaning is a fundamental human motivation (Allport, 1961; Frankl, 1984; King, 2004; Maddi, 1970; Maslow, 1971). Experiencing meaning in life has been viewed as having great importance, as asserted by Jung (1966) who said, "The least of things with a meaning is always worth more in life than the greatest of things without it" (p. 45). The importance of having life meaning can be conceptualized by reflecting upon the opposite of meaning – meaninglessness. If one feels that life is meaningless, there is no apparent reason to live. These empty feelings are often what drive individuals to seek therapy, and scholars believe that many clients begin counseling to remedy these feelings of meaninglessness (Yalom, 1980). Therefore, empirical work evaluating life meaning, and especially the role of meaning in life in therapy, is necessary.

Definition of Meaning in Life

Throughout the years, scholars have proposed various hypotheses about the definition of meaning in life, and although these definitions are quite similar, there are notable differences. One difference in scholars' ideas about meaning is in the way meaning is obtained. Some scholars view life meaning as something that can be created or constructed (e.g., Reker & Wong, 1988), whereas others view it as something that is not created, but instead is found (e.g., Frankl, 1984). This distinction is relevant because each hypothesis implies different ideas about how individuals can obtain meaning. For example, the hypothesis that meaning is created implies that individuals are responsible for the construction of meaning and can create any meaning they wish. On the other hand, the

hypothesis that meaning is found implies that each individual is destined to have a specific meaning in life, and it is up to him or her to find that specific meaning.

Scholars have also hypothesized about where meaning may originate, and have produced several theories. Some of the hypothesized origins of meaning include being in a relationship with another person, engaging in meaningful activities, gaining an understanding of oneself and the world, creating a work or deed, and through the attitude taken toward unavoidable suffering (Frankl, 1984; King, 2004). Additionally, some scholars have hypothesized that meaning may be gained through focusing on hedonistic pleasure, realizing one's potential, serving others or devoting oneself to a larger cause, and through an ultimate, cosmic meaning (Reker & Wong, 1988). Scholars have also hypothesized about the different components that may make up the concept of meaning in life. Maddi (1970) suggested that there are two components to meaningfulness: a cognitive component and an affective component. The cognitive component is composed of one's beliefs and schemas; the affective component is composed of the feelings that accompany meaningfulness such as feeling good and alive, as well as the feelings that accompany meaninglessness, such as the experience of blandness and boredom. Reker and Wong (1988) agree with Maddi on these two components, but add a motivational component that encompasses the drive to achieve goals - a feeling of purpose. Yalom (1980) also proposed the existence of two different types of meaning: terrestrial and cosmic. Cosmic meaning refers to the type of meaning that is outside the individual - a transcendent meaning that is the same for all humans. In essence, this is the meaning *of* life. In contrast, terrestrial meaning is comprised of the specific conditions in an individual's life that make that person's life worthwhile. It is the meaning

that each person finds or creates in his or her life that helps bring purpose and fulfillment. This is the meaning *in* life.

Although there are differences between definitions, when examined together, two main components emerge. The first component includes a sense of order, coherence, or a framework that gives a person perspective on his or her life (Antonovsky, 1979; Battista & Almond, 1973; Reker & Wong, 1988). This component refers to an individual's set of life-goals he or she is attempting to reach. In addition, it is a balanced, consistent, but flexible feeling of confidence about one's life and actions. The other main component includes a feeling of purposefulness, engagement in meaningful activity, goal attainment, or the process toward self-actualization (Battista & Almond, 1973; Maslow, 1971; Reker & Wong, 1988; Ryff & Singer, 1998). This is the actual activity involved in reaching one's set of goals, and it is the motivation one feels when striving toward these goals.

Although there are many important components when explaining the composition of life meaning (i.e., cosmic vs. terrestrial, how it originates, where it is obtained, what it is composed of), one of the most important aspects of the definition of meaning in life is just having a felt sense of meaning, or a sense of some sort of purpose in life. It would be possible for a person to have this sense of meaning without the second component stated above, the engagement in meaningful activity, and still be psychologically healthy. This is because one would have the sense that he or she has something to live for, even though no activity is being undertaken. The research discussed in the following pages focuses on this main component of the presence of a felt sense of meaning. The definition used in this study follows from Steger et al. (2006): "…the sense made of, and significance felt regarding, the nature of one's being and existence" (p. 81). This definition also follows the idea that

meaning is unique to each individual and does not place conditions on whether meaning

needs to be found, created, or what it is composed of. It simply focuses on whether a person

feels there is something purposeful in his or her life – something to live for.

Development of the Concept of Meaning in Life

Predating formal psychological inquiry, philosophers and writers have wrestled with

the question of meaning in life and the existential frustration that often occurs when an

individual cannot find it. Although several philosophers have made the search for life

meaning the topic of philosophical thought and writing (e.g., Albert Camus, Friedrich

Nietzsche, Rollo May, James Bugental, Otto Rank, etc.), the focus of this literature review is

on the psychological history of life meaning rather than the philosophical history. Therefore,

only a few notable philosophers will be discussed. One quintessential example is the

philosopher Jean-Paul Sartre who said, "All existing things are born for no reason, continue

through weakness and die by accident…It is meaningless that we are born; it is meaningless

that we die" (as cited in Hepburn, 1981). Here Sartre was talking about the meaning *of* life

rather than finding a meaning *in* life, and obviously concluded that there is no external,

transcendent meaning to our existence. Another notable example was Leo Tolstoy. Tolstoy

outlined his struggles with meaninglessness and his contemplations of suicide in his literary

work *A Confession* (1929). In this work he stated, "Is there any meaning in my life which

will not be destroyed by the inevitable death awaiting me?" (p. 20). In addition, he

questioned the importance of many of his activities, ranging from his everyday activities, to

the importance of gaining wealth and fame, to educating his children. Tolstoy stated,

> The truth was that life is meaningless. I had as it were lived, lived, and walked,
>
> walked, till I had come to a precipice and saw clearly that there was nothing ahead of

me but destruction. It was impossible to stop, impossible to go back, and impossible to close my eyes or avoid seeing that there was nothing ahead but suffering and real death — complete annihilation. (p. 14)

For several years, Tolstoy struggled with the knowledge that there is no meaning to life, and often thought of committing suicide. Tolstoy finally, however, found meaning in his life through the Christian faith. He stated that faith was an irrational concept, but that faith gave answers to all of his questions, and gave him a reason to live. For Tolstoy, union with God in heaven was the one meaning in his life that could not be destroyed by death.

It was not until the 1950's that the concept of meaning in life appeared in mainstream psychological scholarship. Viktor Frankl was one of the first to pioneer psychological work on meaning in life. One of his first books, *Man's Search for Meaning* (1984), recounted his experiences as a Jew in Nazi concentration camps. Although he had been studying the concept of meaning before living through the terrors of the Holocaust, the experience provided new insights on the subject. Frankl believed that the search for meaning is the principal motivation in a person's life, and that each person's meaning is unique. Frankl termed this motivation the "will to meaning." According to Frankl (1984), if a person's will to meaning is blocked, existential frustration will result, and "noögenic neuroses" may result. Frankl defines noögenic neuroses as issues that emerge from existential problems rather than from conflicts between instincts or drives. In addition, Frankl termed the experience of meaninglessness the "existential vacuum." The existential vacuum is an individual's inability to perceive life and/or life experiences as meaningful. Frankl stated that his psychiatric patients frequently complained of experiencing an existential vacuum. Thus, he created

Logotherapy, a type of psychotherapy that focuses on the types of meanings the client can fulfill in the future. In essence, Logotherapy is meaning-centered therapy.

In conjunction with Frankl, other psychotherapists and social scientists wrote about the importance of life meaning during the middle of the twentieth century. Allport (1961) stated that people are inherently restless, and search for the meaning that will give purpose to their suffering, guilt, and death. In addition, Salvatore Maddi (1970) identified meaninglessness as a cognitive component of what he calls "existential sickness". He thought that all people search for meaning through "exercising symbolization, imagination, and judgment" (p. 153). In addition, Jung (1966) discussed the prevalence of clients in clinical practice who suffer because they feel their lives are meaningless. More recently, Irvin Yalom, in his book *Existential Psychotherapy* (1980), discussed meaninglessness as a clinical syndrome that therapists are confronted with more and more frequently in their work. Yalom discussed possible reasons that meaninglessness is becoming a more frequent clinical syndrome. He indicated "…meaninglessness is intricately interwoven with leisure and with disengagement" (p. 447), and when humans stopped being preoccupied with meeting basic needs, they became more able to examine their need for life meaning. Thus, as life became more leisurely, people became more able and eager to search for an overall perceptual framework or value system for their lives. In essence, people became more able to search for meaning.

As theories about meaning in life matured, so did the operationalization of the concept. The measures constructed to assess life meaning have great importance in the field because the majority of research on this concept concentrates on the construction and revision of these measures. In addition, the construction of the different scales paved the way

for revisions of the definition of life meaning. A history of the development of the measures is, therefore, important to cover in any review of the literature on meaning in life. These measures have helped shape the concept of meaning in life, and have been as influential as, if not more influential than, any other line of research in this area.

The first measure of meaning in life that was constructed was based on Frankl's concepts of "will to meaning" and "existential vacuum", and was entitled the Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964). For the PIL, purpose in life was defined as "the ontological significance of life from the point of view of the experiencing individual" (Crumbaugh & Maholick, 1964; p. 201). Crumbaugh and Maholick (1964) designed the measure to discriminate between those with and without existential vacuum, as well as discriminate patients from nonpatients. The PIL was found to have good reliability (Crumbaugh & Maholick, 1964; Meier & Edwards, 1974; Reker, 1977; Reker & Fry, 2003), but the validity of the PIL has been widely studied and criticized (Yalom, 1980). There is a great possibility that in addition to existential vacuum, the PIL taps into other psychological disorders, especially depression (Dyck, 1987). The PIL is also thought to be confounded with other variables such as life satisfaction (Yalom, 1980), and social desirability (Braun & Dolmino, 1978). This calls into question the findings that associate the PIL with these and other types of outcome measures. In addition, the PIL has been found to be biased toward Western, Protestant, middle-class values (Garfield, 1973). These flaws caused others to create measures of meaning in life, striving for more valid and reliable assessments.

In response to the limitations of the PIL, Battista and Almond (1973) created the Life Regard Index (LRI), which was to provide an unbiased operationalization of positive life regard or life meaning. Positive life regard is defined by Battista and Almond (1973) as the

belief that an individual is fulfilling a life goal or framework that provides a sense of purpose and value to the person's life. This definition is more detailed than that proposed by Crumbaugh and Maholick (1964), and was the first to describe life meaning as the sum of two components (i.e., fulfillment and framework). Similar variations of these two components have been used, either together or separately, to describe life meaning and have been influential in sculpting the current definition of life meaning. The two components of the definition assisted in the creation of the LRI's two subscales, framework and fulfillment. The framework subscale measures the presence of a set of life goals or framework, whereas the fulfillment subscale measures the extent to which an individual feels he or she is fulfilling those goals. The LRI has good reliability and validity (Battista & Almond, 1973; Chamberlain & Zika, 1988b; Debats, 1990; Reker & Fry, 2003). However, some scholars have found flaws with the LRI. Although the framework and fulfillment subscales are proposed to measure separate constructs, several scholars have found them to be highly related (Battista & Almond, 1973; Debats, 1990; Reker & Fry, 2003). In addition, some scholars have criticized the LRI for being confounded on an item level with variables they are correlated with in research such as suicidality and mood (Steger et al., 2006). For example, an item on the LRI asks respondents to rate the following statement: "With regard to suicide, I have thought of it seriously as a way out." Obviously, this statement is asking directly about suicide rather than assessing the presence of meaning in life. Finally, the LRI has been found to have varying factor structures from study to study (Steger et al., 2006). Thus, although the LRI was created to combat some of the limitations of the PIL, it appears as though it is rife with limitations itself.

Antonovsky (1979) created the Sense of Coherence Scale (SOC), another measure that is used to assess meaning in life. It was initially created not as a measure of meaning in life, but to assess the belief that a person's life is predictable and that things will work out positively, which is a worldview consistent with life meaning. The SOC is composed of three subscales: comprehensibility, manageability, and meaningfulness. The comprehensibility subscale assesses the perception that the world is predictable, ordered, and sensible. The manageability subscale measures the perception that personal resources are adequate to meet life demands. Finally, the meaningfulness subscale assesses the perception that the world makes sense, that life problems are worth working through, and that life challenges are accepted. This scale appears to build on the idea of a framework proposed by Battista and Almond (1973). The SOC is internally and temporally reliable over the short term (Antonovsky, 1985, 1993). However, the scale also has limitations that make its use questionable, such as inadequate long-term temporal stability (Eriksson & Lindström, 2005), and a factor structure that has not been supported by some researchers (Chamberlain & Zika, 1988a; Eriksson & Lindström, 2005).

The Life Attitude Profile (LAP; Reker & Peacock, 1981) is another measure of life meaning that has not received as much attention as the PIL or the LRI scales. Like the PIL, this measure was developed to assess meaning and purpose in life based on Frankl's concept of "will to meaning." The original LAP consisted of seven dimensions: Life Purpose, Existential Vacuum, Life Control, Death Acceptance, Will to Meaning, Goal Seeking, and Future Meaning. In 1992, Reker revised the LAP to produce the Life Attitude Profile, Revised (LAP-R). It consists of six subscales: Purpose, Coherence, Choice and Responsibleness, Death Acceptance, Existential Vacuum, and Goal Seeking. The LAP-R has

good reliability and validity (Konstam et al., 2003; Reker, 1992; Reker, 1997). This scale appears to be psychometrically sound, but has received little empirical attention. More examination of the measure is needed to ensure that it is valid and reliable.

One final measure that was developed in response to the limitations of the previous measures is the Meaning in Life Questionnaire (MLQ; Steger et al., 2006). This measure has not been used in many studies to date because of its recent creation, but it appears to be a promising scale. It is composed of two subscales that separately measure the presence of and search for meaning. The MLQ has good reliability and validity (Steger et al., 2006). As discussed previously, items in some older measures (i.e., the PIL, LRI) are confounded with other variables that meaning in life is often correlated with, such as life satisfaction and mood (Steger et al., 2006; Yalom, 1980). In addition, the factor structures of the older measures have not been stable, and have often varied from study to study (Steger et al., 2006). The MLQ better discriminates from other well-being measures such as life satisfaction, self-esteem, and optimism than the PIL and the LRI, the two most widely used meaning in life measures (Steger et al.). In addition, the factor structure of the MLQ was replicated with two independent samples (Steger et al.). Therefore, the MLQ is likely a more psychometrically sound measure than has been previously constructed, and, only having 10 items, is a more practical measure.

The construction and validation of these measures has led to much work on the association between meaning in life and different mental health variables. Many researchers use these types of variables to validate the meaning in life measures because it is assumed that meaning should be associated with the experience of a healthy life. Following is a summary of the research in this area.

Meaning in Life and Mental Health Studies

According to Frankl (1984) and others (e.g., Jung, 1966; Maddi, 1970; Tolstoy, 1929), psychological problems result from the lack of meaning. Conversely, many scholars have hypothesized that a sense of meaning contributes to good psychological and physical health (Antonovsky, 1987; Day & Rottinghaus, 2003; Ruffin, 1984; Ryff & Singer, 1998). Many studies have examined the associations between the presence of meaning in life and psychological health using variables such as psychological or subjective well-being, specific mental illnesses, and psychosocial resources.

Well-Being. According to Ryan and Deci (2001), "the concept of well-being refers to optimal psychological functioning and experience" (p. 142). This concept has been studied extensively separate from the concept of meaning in life, and the research extends from two perspectives: the hedonic approach and the eudaimonic approach. The hedonic perspective views well-being as pleasure or happiness, and is most often operationally defined in research as subjective well-being (SWB; Lent, 2004). Diener, a leading researcher in the area of SWB, posits that SWB is comprised of three components: life satisfaction or happiness, positive affect, and the absence of negative affect (Diener, Lucas, & Oishi, 2002). The assumption is that by measuring these three separate constructs, both the cognitive and affective aspects of SWB are being assessed (Lent, 2004). The eudaimonic view, on the other hand, posits that well-being involves the realization of one's "daimon" or true self (Lent, 2004). This perspective focuses on the actualization of one's potential, and concentrates on a person's thoughts and actions rather than his or her feelings. The operational definition of the eudaimonic view is often called psychological well-being (PWB), a concept proposed by Carol Ryff. In this view, happiness is not a main component of well-being, but an outcome of

a life that is well-lived (Ryff & Singer, 1998). In addition, eudaimonic theories claim that not all things that bring us happiness are good for us. Some things that we may strive to achieve are pleasurable, but do not bring us wellness. Ryff and Singer (1998) proposed six ideals that promote PWB in those that strive for them: autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relations with others. Another eudaimonic theory proposed by Ryan and Deci (2000), the "self-determination theory" (SDT), states that three psychological needs--autonomy, competence, and relatedness--promote PWB.

Of the two operational definitions of well-being, SWB has been the more empirically based definition, whereas PWB has been mainly theoretical. Thus, most studies linking the concept of well-being with meaning in life have used SWB as the measure of well-being. Following the guidelines for SWB stated above, these studies have mainly utilized measures of life satisfaction or happiness, and positive and negative affect to assess SWB. Researchers have found meaning in life to be positively associated with happiness (Debats, 1996; Fleer, Hoekstra, Sleijfer, Tuinman, & Hoekstra-Weebers, 2006; Scannell, Allen, & Burton, 2002), and life satisfaction (Chamberlain & Zika, 1988b; Halama & Dědová, 2007; Langeland, Wahl, Kristoffersen, Nortvedt, & Hanestad, 2007; Zika & Chamberlain, 1987, 1992). Krause (2003) found that there is a positive association between life satisfaction and "religious meaning", which is the "…process of turning to religion in an effort to find a sense of purpose in life, a sense of direction in life, and a sense that there is a reason for one's existence" (p. S160). In a related study by Steger and Frazier (2005), meaning in life mediated the relationship between religiousness (i.e., frequency of attendance at religious services, frequency of prayer) and life satisfaction. Therefore, perhaps it is not just the

participation in religious activities, but also the meaning found through those activities that enhances well-being.

Other researchers have found support for a positive association between meaning in life and positive affect, and a negative association between meaning in life and negative affect (Chamberlain & Zika, 1988b; King et al., 2006; Zika & Chamberlain, 1987, 1992). Research by King et al. (2006) examines the relationship between positive affect and meaning in life in two samples of undergraduate students (n = 194 and n = 99). Their findings implied that positive affect increases the experience or perception of meaning in life. It may be that when individuals evaluate their current level of life meaning, they use their current positive feelings to gauge how much life meaning they have. Additionally, King et al. (2006) found that when a positive mood was induced in some participants (i.e., they read a happy story), their reported meaning in life was significantly higher than those for whom a negative or neutral mood was induced. Therefore, perhaps positive affect causes individuals to report having high meaning in life.

Finally, some researchers have used general measures of well-being rather than the three measures of life satisfaction, and positive and negative affect to assess well-being. One study used a measure of well-being developed for the study that assessed depressed mood, anxious mood, happy mood, and self-esteem (Fry, 2000), whereas another study used a measure of well-being that measured morale (Wiesmann & Hannich, 2008). Both studies found life meaning to be a significant predictor of well-being as assessed by these measures. Another study used the Perceived Well-Being Scale (PWB; Reker & Wong, 1984), which is a measure of the presence of positive and negative emotions, and found that life purpose predicted well-being. Two other studies used the Mental Health Inventory (MHI; Viet &

Ware, 1983) to assess a range of psychological well-being factors including depression, anxiety, and loss of emotional or behavioral control (Vilchinsky & Kravetz, 2005; Zika & Chamberlain, 1992). Both studies found a significant association between the MHI and meaning in life. Finally, a study by Low and Molzahn (2007) found that meaning in life and purpose in life were both significantly related to a general measure of quality of life.

Mental Illness. A few studies have examined the differences in meaning in life of various groups, such as criminals and noncriminals, and those with mental illness and those without. Not surprisingly, criminals (n = 140; crimes unspecified except for 15 drug offenders) had significantly lower levels of meaning in life than noncriminals (n = 306) (Addad, 1987). Similarly, psychotherapeutic patients had a significantly lower degree of meaning in life than nonpatients (Debats, 1999). Two studies conducted in India examined differences in meaning in life for individuals with schizophrenia (*n* = 60 and *n* = 30 respectively), neurotic anxiety (*n* = 60 and *n* = 30 respectively), and individuals without mental illness (*n* = 60 and *n* = 60 respectively; Chaudhary & Sharma, 1976; Gonsalvez & Gon, 1983). Both studies found that those with mental illness had significantly lower levels of meaning in life than those without mental illness. Thus, the trend seems to be that individuals with fewer severe issues in their lives tend to have higher meaning in life.

Several studies have examined correlations between specific types of mental illness and meaning in life. For example, meaning in life has consistently been negatively associated with depression (Debats et al., 1993; Elmore & Chambers, 1967; Garner, Bhatia, Dean, & Byars, 2007; Mascaro & Rosen, 2005, 2006; Moomal, 1999; Shek, 1992; Wang, Lightsey, Pietruszka, Uruk, & Wells, 2007). One study proposed a model hypothesizing that depression leads to a lack of purpose in life, which in turn leads to suicidal ideation and substance use

(Harlow, Newcomb, & Bentler, 1986). The authors of the study found that the model accurately accounted for the data, but differed between males and females. Females were more likely to turn to substance use and males were more likely to consider suicide in response to feelings of meaninglessness. Another study that investigated meaning in individuals with HIV found that purpose in life was a predictor of depressive symptoms over and above HIV disease severity (Lyon & Younger, 2001). In other words, participants' experience of depression was more highly associated with meaninglessness than with the severity of their illness. Another study found that meaning in life is predictive of fewer depressive symptoms after two months when taking baseline depression levels into account (Mascaro & Rosen, 2005). A few authors (Mascaro & Rosen, 2006) have also studied spiritual meaning, defined as the belief that life has meaning that can be discovered as well as participated in, and the feeling that one has been called to pursue this particular purpose. This concept of spiritual meaning, which is very similar to the definition of personal meaning, moderated the relationship between stress and depression. Therefore, it is possible that meaning in life is a buffer from the negative effects of stress on one's life.

Other concepts related to depression have also been examined in conjunction with meaning. For example, one study examined the concept of "mental pain" in relation to life meaning, and found the two concepts to be negatively associated (Orbach, Mikulinger, Gilboa-Schechtman, & Sirota, 2003). In a related vein, several scholars have examined the association between hopelessness and meaning in life, and found that they are negatively correlated (Grygielski, Januszewska, Januszewski, Juros, & Oles, 1984; Harris & Standard, 2001). Edwards and Holden (2003) found that meaning in life negatively correlates with suicidal ideation and likelihood of future suicidal behavior. The same authors found that the

lack of meaning in life and sense of coherence contributed significantly to the occurrence of suicide attempts and future suicidal behavior, beyond what was contributed by hopelessness. Other mental health issues associated with meaning in life include anxiety (Debats et al., 1993; Moomal, 1999; Shek, 1992; Zika & Chamberlain, 1992), "psychological distress" as measured by a revised version of the Symptom Checklist-90 (SCL-90-R; Derogatis, 1977) (Debats, 1996; Debats et al., 1993) or the MHI (Vilchinsky & Kravetz, 2005; Zika & Chamberlain, 1992), and hope (Mascaro & Rosen, 2006).

Several psychosocial resources have also been examined in conjunction with meaning in life. Meaning in life has been positively associated with self-esteem (Krause, 2003; Halama & Dĕdová, 2007; Scannell et al., 2002; Steger & Frazier, 2005; Weismann & Hannich, 2008), optimism (Krause, 2003; Steger & Frazier, 2005), positive attitude (Reker & Cousins, 1979), ego strength (Shek, 1992), self-image (Shek, 1992), self-efficacy (Weismann & Hannich, 2008), internal locus of control (Zika & Chamberlain, 1987), extraversion, agreeableness, conscientiousness (Mascaro & Rosen, 2005), and assertiveness (Zika & Chamberlain, 1987). Finally, a negative association was found between meaning in life and neuroticism (Francis & Hills, 2008; Mascaro & Rosen, 2005).

All of these studies provide information about the relationship between mental health and meaning in life. Meaning in life has a consistent positive relationship with mental health and psychosocial resources, and a negative relationship with mental illness. Because the individuals who are suffering with mental health issues are likely candidates for therapy, it makes sense that those who enter into a counseling relationship are likely to have lower levels of meaning in life than those who do not enter therapy. In addition, as clients progress through therapy, and they become more mentally healthy, their meaning in life may also

increase. Furthermore, because those with high meaning in life also appear to have more psychosocial resources (e.g., self-esteem, optimism, positive attitude, ego strength, positive self-image, self-efficacy, assertiveness) than those with low meaning, those with greater meaning in life at the beginning of therapy may respond more quickly to treatment and show better outcomes. It is also likely that these psychosocial resources will assist clients in building a bond with their therapist, as well as assisting with progress through therapy.

Despite all the previous research on meaning in life, only one study has examined the associations between meaning in life and psychological well-being during therapy (Debats, 1996). The study's author hypothesized that different aspects of meaning in life would correlate with well-being and affect well-being independently, that meaning would be associated with improvement in therapy, and that meaning at pre-treatment would predict outcome at post-treatment. Debats (1996) used the LRI to measure meaning in life, and use measures of happiness, self-esteem, and a symptoms checklist to assess well-being in participants. A total of 192 participants were asked to volunteer for this pre/post-test design study, 114 (75%) completed and returned pre-test materials, and 69 participants (36%) completed and returned both the pre and post-test measures. Both subscales of the LRI (fulfillment and framework) correlated significantly with the well-being measures. However, fulfillment correlated with well-being when controlling for framework, whereas framework did not correlate with well-being when controlling for fulfillment. In addition, Debats (1996) found that for those who were labeled as "improved" in terms of psychological distress from pre to post-test, scores on the fulfillment subscale of the LRI were also significantly improved. There was no difference on the framework subscale between the "improved" and "not improved" groups, and although there was a difference in fulfillment scores, the

difference was small. Therefore, those that showed improvement in terms of psychological distress also slightly improved on the fulfillment aspect of meaning but not the framework aspect. In addition, Debats (1996) found that high pre-treatment fulfillment and framework scores significantly predicted low psychological distress scores and high happiness scores following treatment while holding constant the pre-treatment scores on these measures. High fulfillment prior to treatment also significantly predicted high self-esteem after treatment even after controlling for self-esteem at pre-treatment. This same prediction was not found with framework. Thus, it appears that high fulfillment and framework scores were predictive of most outcome measures of treatment at post-test.

Although this study is significant because it provides information about the association between meaning in life and positive outcomes due to therapy, it has several limitations. For example, the response rate of 36% obtained in this study is low. In addition, those who did not participate and were referred out of the counseling center had lower scores on the framework subscale, and were older than those who participated in the study. It is likely that since they were referred out of the counseling center and had lower framework scores, they had more severe psychological symptoms than those who participated. These differences between participants and non-participants on framework scores, age, and possible symptom severity suggest that a selection bias may have skewed the results of this study. If those older non-participants with lower meaning scores had participated in the study, the results may have been different. In addition, because the participants volunteered for the study, it is possible that only those interested in the life meaning concept participated in the study.

Another limitation with the study by Debats (1996) was that the general change in life meaning throughout therapy was not examined. Debats (1996) examined whether life meaning changed when a participant's psychological well-being improved, but did not examine whether, on average, participants' life meaning changed. In addition, the LRI was used as the measure of life meaning. As discussed earlier, the LRI may be confounded on an item level with variables it has been correlated with, such as depression or happiness, and the factor structure of the LRI often varies from study to study (Steger et al., 2006). These flaws make the utility of the LRI in this study questionable. Finally, Debats (1996) did not examine how meaning in life may affect the outcomes of therapy. It was established that meaning in life is in some way associated with outcome, but no process variables were examined to determine how life meaning affects therapeutic outcome.

Working Alliance

One process variable that has not been examined in conjunction with meaning in life in the therapeutic setting is the bond between the therapist and client. The history of the working alliance concept begins with Sigmund Freud. Freud's "positive transference" in his early papers was described as a distortion of the therapeutic relationship, or a relationship that was not "real." Positive transference refers to the unconscious act of the client linking the supportive therapist with supportive individuals in his or her past. This transference was seen as something that needed interpretation in order for therapy to progress. Later analytic theorists, however, conceded that a "real" relationship between the therapist and client could be developed, and that this bond could allow the client to resolve neurotic attachment patterns in a safe environment (Zetzel, 1956).

Another psychologist who promoted the development of the working alliance was Carl Rogers. Rogers (1951) promoted the importance of the bond between the therapist and client, and asserted that three conditions, all rooted in the therapeutic relationship, were necessary and sufficient for therapeutic change. Empathy, congruence, and unconditional positive regard provided by the therapist would guide the client toward positive change. In addition, Rogers asserted that the relationship between the client and therapist is equally valuable in all different types of therapy. This concept was foreign to those practicing other types of therapy (e.g., psychoanalysis, behavioral therapy) that viewed the relationship as a mechanism for change to happen, but not the actual mechanism of change. Rogers' ideas paved the way for other theorists to develop the concept of working alliance as a common therapeutic factor. Up to this point, however, the term "working alliance" had not been used to describe any part of the relationship between the therapist and client. It was not until 1965 when Greenson coined the term and proposed that it was one of three components of the therapeutic relationship. These three components were the "unreal" relationship (i.e., transference), the "real" relationship, and the working alliance (Gelso & Carter, 1985).

The discovery that therapeutic change may be caused by curative factors common among most types of therapy intensified the focus on the working alliance. In this line of thought, the working alliance is a pantheoretical factor that is in large part responsible for client change. In 1979, Bordin expanded the pantheoretical definition of the working alliance by proposing three components of the concept: the bond between the client and therapist, the tasks agreed upon by both therapist and client that will be completed in therapy, and the goals conceived by therapist and client that the client works toward. In his definition, Bordin (1979) perceived the working alliance as providing the environment for change to occur, as

well as the actual agent of change. Since the construction of this definition and the development of the Working Alliance Inventory (Horvath & Greenberg, 1989), a measure constructed to assess Bordin's definition of the working alliance, research on the concept has increased.

Much research on the working alliance has concentrated on the association between the alliance and therapeutic outcome. In a meta-analysis of 24 studies on the association between the alliance and outcome, Horvath and Symonds (1991) found a moderate effect size of $r = .26$ linking the quality of the alliance to outcome. In another meta-analysis of 79 studies, Martin, Garske, and Davis (2000) found that outcome and alliance correlated .22 when weighted by sample size, with a weighted effect size of .23 for this relationship. The outcome measures used in the 79 studies included mood scales such as the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996), symptom scales such as the Symptom Checklist-90, outcome scales specific to a certain disorder such as drug use, and global assessments of change. The researchers also found that the relationship between alliance and outcome was not moderated by variables such as the type of outcome measure, the type of alliance rater (i.e., client, therapist, or observer), the type of outcome rater, when the alliance rating was made, quality of the methodology, or the type of psychotherapy. Other studies have concurred that few factors influence the alliance-outcome association (Horvath & Symonds, 1991). These two meta-analyses are descriptive of most studies conducted on the association between the alliance and outcome. A moderate but consistent association is most often found (Sexton & Whiston, 1994).

No studies have been conducted that examine the relationship between life meaning and the therapeutic bond. However, several meaning theorists have studied the association

between life meaning and relationships with family and friends. Relationships with others have been identified by several researchers as a source of meaning (Debats, 1999; DePaola & Ebersole, 1996; Fletcher, 2004; Jenerson-Madden, Ebersole, & Romero, 1992; Taylor & Ebersole, 1993). It is often hypothesized that having quality relationships creates meaning; however, it is also possible that meaning provides the impetus to build meaningful and fulfilling relationships. In support of this directionality from meaning to relationships, a recent article found that meaning significantly explained a person's level of social functioning (Fleer et al., 2006). Even though the direction of the relationship is still in question, an association between meaning and quality relationships has received empirical support. In addition, researchers have found that those who are able to develop relationships with family (Kokotovic & Tracey, 1990) and friends (Moras & Strupp, 1982) are more likely to develop a strong alliance with their therapist. Therefore, if meaning is associated with quality relationships with others, and having relationships with others is predictive of alliance strength, it can be hypothesized that life meaning would be associated with therapeutic alliance.

As discussed earlier, the association between meaning in life and therapy outcome has been minimally examined (Debats, 1996). The findings by Debats (1996) in addition to the multitude of studies showing a negative association between mental illness and life meaning suggests that meaning in life might increase as therapy progresses, and that meaning in life at the beginning of therapy may be predictive of therapeutic outcome. Furthermore, a moderate association has been found between alliance and outcome, and although it has not been studied, it is possible that life meaning and the therapeutic bond are also associated. Given these assertions, it is possible that the association between life meaning and outcome

is mediated by the therapeutic bond between the therapist and client. This study was constructed to test this, and other, assertions.

Rationale for the Study

The search for meaning is often the subject or goal of therapy. Many of the problems that bring clients to therapy, such as identity development and career exploration, require the search for meaning in the client's life. Whether or not it is made explicit, many people seeking therapy are searching for meaning in their lives, and attend therapy to receive help in this endeavor. Therefore, it is important to know about the role of life meaning in counseling so therapists can effectively help their clients when meaning in life is a salient concern. The purpose of the study discussed here is to examine the role of meaning in life in counseling. I examine the relationship between meaning and well-being before a client enters therapy, as well as how meaning in life changes over the beginning phase of counseling. I also examine differences in outcome between clients with high meaning in life and low meaning in life at the beginning of counseling, and the association between the therapeutic bond and meaning in life, investigating whether the bond mediates the relationship between meaning and outcome. Finally, the current research examines whether meaning in life is a protective factor for those with high psychological symptoms and low functioning.

The hypotheses of the study are as follows:

1) The presence of meaning will be positively related to well-being variables and negatively related to problems or psychological symptoms. Alternately, the search for meaning will be negatively related to well-being variables and positively related to problems or psychological symptoms.

2) Meaning in life will increase as counseling progresses, and the search for meaning will decrease. In addition, this change in presence and search for meaning will be predictive of change in outcome scores.

3) The presence of meaning in life at Time 1 will predict Time 2 psychological symptoms, functioning, and well-being, holding Time 1 measures of these outcome variables constant.

4) The therapeutic bond between the client and counselor at Time 2 will partially mediate the relationship between meaning at Time 1 and outcome at Time 2.

5) The presence of meaning will serve as a protective factor, and those with high levels of meaning and either low functioning or high psychological problems will have better outcomes than those with low levels of meaning and either low functioning or high psychological problems.

Hypotheses two, four, and five have not been previously tested. In addition, although the third hypothesis has been examined in one study conducted in 1996 (Debats), this study has several limitations that have been highlighted previously in this literature review. In addition to replicating the findings from Debats' (1996) study, this study will compensate for these limitations by using a more psychometrically sound measure of life meaning and by expanding on the amount of knowledge that can be gained through such an investigation. Furthermore, the present study will examine the relationships presented in hypotheses two, four, and five, which were not investigated by Debats (1996).

CHAPTER 3. METHOD

Participants

Three hundred and seventy-five students receiving counseling from the counseling center of a large Midwestern university volunteered to participate in this study. Due to difficulties with data collection, 104 participants only completed the second questionnaire packet mentioned below, which did not include demographic information. The reasons why these 104 participants did not complete the first questionnaire packet are unknown. It can be hypothesized that these participants chose to not complete a questionnaire at their first session because of the large amount of paperwork required at this session, but then were able to complete the questionnaire at a subsequent session when not as much paperwork was required. Or, perhaps clients were not given the chance to complete the questionnaire due to office staff forgetting to hand it out. No matter the reason, these 104 participants were excluded from analyses because no measures were completed before the first counseling session. In addition, twelve participants were excluded from analyses due to a large amount of missing data (as described below). Therefore, the number of participants that analyses were based upon was 259. This sample is composed of 63% females ($n = 163$) and 37% males ($n = 96$). This was different from the gender split of all clients receiving therapy at the counseling center during the time data was collected. Out of all clients receiving therapy at the center, 52% were females and 48% were males. Therefore, females volunteered to participate in the study more often than males. In addition, 84.6% identified themselves as Caucasian ($n = 219$), 2.7% African-American ($n = 7$), 3.5% Asian-American ($n = 9$), 2.7% Mexican-American ($n = 7$), 1.5% Hispanic ($n = 4$), .4% Latino/Latina ($n = 1$), 1.2% Middle Eastern ($n = 3$), .4% Native American ($n = 1$), 1.5% Biracial ($n = 4$), and 1.5% ($n = 4$) did not

give their ethnicity. In addition, 81.5% of participants (*n* = 211) identified themselves as single, 8.1% (*n* = 21) as married, 2.3% (*n* = 6) as engaged, 1.5% (*n* = 4) as divorced, .4% (*n* = 1) as separated, 3.5% (*n* = 9) as in a committed relationship, and 2.7% (*n* = 7) did not report their marital status. Ages of participants ranged from 18 to 52 years, with a mean age of 22 (*SD* = 5) years.

Procedure

Participants became aware of the study through office staff at the university counseling center at Iowa State University. All clients had the chance to participate in the study, and all clients over the age of 18 who signed the consent form were included in the study. When clients arrived for their screening session (Time 1), they read an informed consent document given to them by office staff at the university counseling center. If they chose to participate, they signed the informed consent. They then filled out a questionnaire that included the Meaning in Life Questionnaire (MLQ; Steger et al., 2006), the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), and the Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM; Barkham et al., 1998, 2001; Barkham, Gilbert, Connell, & Marshall, 2005; Evans et al., 2002; see Appendix). Participants did not write any identifying information on this packet, with the exception of the last four digits of their social security number, their counselor's name, their email address, and some demographic information (i.e., age, gender, ethnicity, and marital status). The first two pieces of information were used to match the client's responses at Time 1 to responses at Time 2. Difficulties with data collection led to two different methods of collecting data at Time 2. These difficulties included participants filling out a questionnaire at either Time 1 or Time 2, but not both, as well as not getting clients to consent to complete

a packet at either time point. One method of collecting data at Time 2 included the client

filling out a questionnaire packet with the MLQ, the SWLS, the CORE-OM, and the Bond

subscale of the Working Alliance Inventory, Short Form (WAI-S; Tracey & Kokotovic,

1989; see Appendix) at the beginning of the third session (Time 2), and again at the sixth

session if the client attended that many sessions. The number of sessions after which a

questionnaire was handed out was decided based on the procedures already in place at the

counseling center. In addition, research has shown that the alliance between the therapist and

client is typically established in the first five sessions of therapy, and peaks at the third

session (Saltzman, Leutgert, Roth, Creaser, & Howard, 1976); therefore, three sessions

appeared to be adequate.

The other method of collecting data at Time 2 included an email to the client a few

weeks after filling out the first questionnaire prompting him or her to fill out an online survey

that included the same measures as those on the paper and pencil version of the questionnaire

(i.e., the MLQ, SWLS, CORE-OM, and Bond subscale of the WAI-S). Although this method

led to variation in the amount of sessions received before completing the online survey, when

asked how many sessions had been completed to date, the mean answer for the participants

who completed an online survey was 2.3 ($SD = 1.5$). After completing the packet at the

beginning of the third and possibly the sixth session or online, participants received a

debriefing form telling them about the study. Approval by the Iowa State University internal

review board was granted for this procedure before data collection began.

Instruments

Meaning in Life Questionnaire (MLQ). The MLQ (Steger et al., 2006) consists of 10

items (scored on a 7-point Likert type scale), five of which compose the Presence of Meaning

subscale (MLQ-P), and five of which compose the Search for Meaning subscale (MLQ-S).

The MLQ-P measures the subjective sense that one leads a meaningful life, whereas the

MLQ-S measures the drive to find meaning in one's life. High scores on the presence

subscale indicate a high sense of having meaning in life, and high scores on the search

subscale indicate high levels of searching for meaning. Alpha coefficients for the MLQ range

from .81 to .86 for the Presence subscale, and .86 to .92 for the Search subscale (Steger et al.,

2006). One-month test-retest stability coefficients were .70 for the MLQ-P and .73 for the

MLQ-S (Steger et al., 2006). The MLQ has been shown to correlate with other measures of

meaning and purpose, such as the Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964;

.60 and .70) and the Life Regard Index (LRI; Battista & Almond, 1973; .66 and .74),

showing convergent validity. In the present sample the estimated internal reliability was .92

for Time 1 MLQ-P, .90 for Time 2 MLQ-P, .89 for Time 1 MLQ-S, and .93 for Time 2

MLQ-S.

Satisfaction with Life Scale (SWLS). The SWLS (Diener et al., 1985) consists of five

items that are responded to using a 7-point scale. The SWLS is a widely used measure of life

satisfaction, and has demonstrated good reliability and validity (Pavot & Diener, 1993).

Diener et al. (1985) found test-retest reliability to be .82, and found that the SWLS was able

to discriminate from social desirability as well as being positively related to a measure of

self-esteem, which serves as discriminate and convergent validity respectively. Internal

consistency estimates have ranged from .84 (Steger et al., 2006) to .87 (Diener et al., 1985).

In the present sample the estimated internal reliability was .84 for Time 1 and .90 for Time 2.

Clinical Outcomes in Routine Evaluation Outcome Measure (CORE_OM). The

CORE-OM (Barkham et al., 1998, 2001, 2005; Evans et al., 2002) was designed to measure

general psychological disturbance and distress. The measure consists of 34 items that are rated on a five-point Likert type scale, and that are distributed into four domains. The Well-Being (WB) domain (four items) is said to measure the core concept of well-being. The Problems domain (12 items) is comprised of items assessing depression, anxiety, physical symptoms, and symptoms of trauma. The Functioning domain (12 items) measures general functioning as well as close relationships and other social aspects. Finally, the Risk domain (6 items) measures risk to self and others. Higher scores indicate more distress on all domains, however, for this study, the WB and Functioning subscales were reverse scored so that higher scores would indicate higher levels of well-being and functioning. The CORE-OM has adequate internal reliability, with alpha coefficients ranging from .70 to .90 for the four domains, and from .93 to .95 for the entire measure (Barkham et al., 2001, 2005). One-week test-retest stability coefficients were .88 for Subjective Well-Being, .87 for Problems, .87 for Functioning, .64 for Risk, and .90 for all the items (Barkham et al., 2001, 2005). The CORE-OM is correlated with measures of depression, including the BDI-II (.75), and the Hamilton Rating Scale for Depression (.67; Cahill et al., 2006). Barkham et al. (2001) found the domains of the CORE-OM to be correlated with different measures of psychological functioning. The BDI-II was significantly correlated with the WB domain (.77), with the Problems domain (.78), and with the Functioning domain (.78). In addition, the Beck Anxiety Inventory was significantly correlated with the Problems domain (.68), the Brief Symptom Inventory was correlated with the Problems domain (.76) and the Functioning domain (.71), and the Inventory of Interpersonal Problems-32 was correlated with the Functioning domain (.65; Barkham et al., 2001). Because this study is only concerned with general functioning and well-being, and to reduce the amount of total items in the questionnaire packet, the Risk

domain was not utilized. In the present sample the estimated internal reliabilities were .93 and .96 for Time 1 and Time 2 of the CORE-OM Total, respectively, .74 and .81 for the Time 1 and Time 2 of the WB domain, respectively, .86 and .93 for Time 1 and Time 2 of the Problems domain, respectively, and .84 and .87 for Time 1 and Time 2 of the Functioning domain, respectively.

Working Alliance Inventory-Short Form. The WAI-S measures the alliance between the counselor and the client. The original WAI (Horvath & Greenberg, 1989) consists of 36 items rated on a seven-point Likert type scale. Tracey and Kokotovic (1989) developed a short form of the WAI that consists of 12 items, divided into three subscales: Task, Bond, and Goal. Each subscale consists of four items. Because we were only interested in the bond between the counselor and client in this study and because only a limited number of items could be used when doing data collection through the counseling center, only the Bond subscale was used. The WAI-S Bond subscale is internally consistent, with alpha coefficients ranging from .80 to .86 (Busseri & Tyler, 2003; Leibert, Archer, Munson, & York, 2006). In addition, the WAI and the WAI-S have shown a moderate degree of convergence between therapist and client ratings of the therapeutic bond as shown by Busseri and Tyler (2003). The WAI and the WAI-S also have similar predictive validity. Client and therapist ratings on the WAI and the WAI-S were correlated with a composite improvement index, and the correlations were comparable. In the present sample the estimated internal reliability was .92 for Time 2 data.

CHAPTER 4. RESULTS

Preliminary Analyses

The Statistical Package for the Social Sciences (SPSS) for Windows 15.0 was used for all analyses. If data was missing from a participant's responses, the percentage of items completed in the subscale was calculated. If the participant had completed 70% or more of the subscale, the average score for that participant on the subscale was imputed for the missing data. If less than 70% of the data had been completed, that participant's responses were omitted from the analyses. In the entire sample, means of subscales were imputed into single items for 4% of the participants, and 4% were eliminated due to large amounts of missing of data. Single variable and multivariate outliers as well as out of range data were identified. In order to identify single variable outliers, the mean and standard deviation of each subscale of each measure was computed, and a confidence interval of three standard deviations below and above the mean was calculated. Multivariate outliers were identified by calculating Mahalanobos distances and considering those with a χ^2 value at $p < .001$ as multivariate outliers (Tabachnick & Fidell, 2001). Only two participants were found to include data that were over three standard deviations above the mean, both on the Functioning domain of the CORE-OM. However, based on their individual responses to items, it appeared as though the participants were not responding randomly, and so these participants were not omitted from analyses. No multivariate outliers were identified. The normality of responses for each subscale were also examined, and although there was a ceiling effect for the WAI-S Bond subscale and the total score and subscale scores of the CORE-OM were positively skewed for the second time point, none of these were skewed enough to warrant a transformation to normalize the data.

Of the 259 participants who completed a packet with demographic information and who were not excluded due to large amounts of missing data, only 73 completed a questionnaire packet or online survey at Time 2. Thus, the attrition rate for this study was 72%. This high an attrition rate is likely due to several things, including clients exiting counseling after the screening session, choosing not to fill out questionnaire packets after the screening session, not being asked by office staff to complete a questionnaire after the screening session, and mistaking the email to prompt them to fill out the online survey as spam email. There is no way to tell the primary reason for the high attrition rate. The demographic information for the 73 participants who completed questionnaires at two time points was compared to demographic information for the 186 participants who completed a questionnaire at Time 1 but not at Time 2 using independent sample t-tests for continuous variables (e.g., age) and Chi-square for discrete variables (e.g., gender, marital status, ethnicity). The two samples were not found to significantly differ from each other on any demographic variable. The means of each of the main variables under exploration were also compared between the two samples using independent sample t-test, and again, no significant differences were found. In the following analyses, if only Time 1 data were used, the number of participants was 259, whereas if Time 2 data were used, the number of participants was 73.

Main Analyses

Differences on subscales and total scale scores as a function of gender, marital status, and ethnicity were examined using independent sample t-tests. Because the majority of participants were single and White, multiple non-single marital status and non-Caucasian ethnicity categories had to be combined in order to have enough participants in the groups to

run analyses. Those who identified themselves as single, divorced, and separated were put into one group ($n = 216$) and those who reported they were married, in a committed relationship, or engaged were put into another group ($n = 36$). Additionally, those who identified as White/Caucasian were put into one group ($n = 219$) and all other ethnicities were put into another group ($n = 36$).

When comparisons by demographic groups were conducted, some notable differences emerged. Males and females differed significantly on the MLQ-P at Time 1 and on the CORE-OM Subjective Well-Being domain, with females reporting more meaning, but males reporting higher well-being. Additionally, there was a significant difference between single individuals and those in a committed relationship on the MLQ-P at Time 1 as well as the total score on the CORE-OM and the well-being domain of the CORE-OM at Time 1. On these scales, those in a committed relationship had a significantly higher presence of meaning, and those who were single scored higher on the CORE-OM total score (indicating greater distress) and lower on well-being. Table 1 shows the means, standard deviations, t values and levels of significance for the scales and subscales that showed significant differences. No other differences were found between any demographic categories. Because differences were found as a function of gender and marital status, these variables were used as covariates when computing the regression equations discussed later that used only Time 1 data. When these differences were testing using the sample of 73 participants who completed questionnaires at both time points, only the presence of meaning was significantly different between males and females, with females again having a significantly higher meaning in life. Therefore, when computing regression equations using the sample of 73 participants who completed questionnaires at both time points, only gender was used as a covariate.

Table 1. Differences Among Scales and Subscales Between Genders and Marital Statuses

		Mean	SD	*t*	*p*	Mean Difference	Std. Error of Difference
MLQ-P	Males	19.22	7.66	-3.50	.001	-3.15	.90
	Females	22.37	6.50				
CORE-OM-W	Males	1.85	0.93	-2.95	.003	-0.33	0.11
	Females	2.18	0.81				
MLQ-P	Committed	23.64	7.14	2.21	.028	2.81	1.28
	Single	20.83	7.06				
CORE-OM Tot	Committed	1.43	0.58	-2.05	.046	-0.26	0.13
	Single	1.76	0.69				
CORE-OM-W	Committed	1.60	0.85	-2.84	.005	-0.44	0.16
	Single	2.11	0.86				

Note. For males *n* = 96, for females *n* = 163, for those in a committed relationship *n* = 36, and for those who identified as single *n* = 216. All measures were completed at Time 1. MLQ-P = Presence subscale of the Meaning in Life Questionnaire; CORE-OM–W = Well Being subscale of the Clinical Outcomes in Routine Evaluation Outcome Measure; CORE-OM Tot = total score of the Clinical Outcomes in Routine Evaluation Outcome Measure. Only results of comparisons that were statistically significant are listed in this table. Groups that were not significantly different from each other are not listed.

Means, standard deviations, and alpha coefficients for all measures and subscales as well as correlations among all variables at both time points are shown in Table 2. All alpha coefficients were in the moderate to high range. Table 2 also shows that all correlations were in the hypothesized direction, and the correlations between the meaning measures and the measures of functioning and well-being ranged from weak to moderately strong. The significant correlations support the first hypothesis that the presence of meaning would be

Table 2. Means, Standard Deviations, Alpha Coefficients, and Correlations Among Meaning in Life and Well-Being Measures

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. MLQ-P, T1	21.20	7.14	*.92*	-.43*	-.38*	.43*	.37*	-.27*	.55*	.80*	-.34*	-.37*	.45*	.38*	-.27^	.57*	.16
2. MLQ-S, T1	23.65	6.86		*.89*	.30*	-.28*	-.26*	.27*	-.26*	-.29*	.72*	.23	-.26^	-.24^	.18	-.24^	.22
3. CORE-OM Tot, T1	1.72	0.70			*.93*	-.91*	-.89*	.93*	-.63*	-.48*	.35*	.70*	-.67*	-.64*	.66*	-.54*	-.15
4. CORE-OM-F, T1	1.54	0.69				*.84*	.75*	-.72*	.61*	.49*	-.29^	-.61*	.66*	.54*	-.54*	.53*	.15
5. CORE-OM-W, T1	2.06	0.88					*.74*	-.80*	.59*	.47*	-.33*	-.65*	.61*	.66*	-.60*	.56*	.13
6. CORE-OM–P, T1	1.79	0.79						*.86*	-.54*	-.38*	.35*	.67*	-.59*	-.61*	.68*	-.45*	-.12
7. SWLS, T1	18.70	6.75							*.84*	.55*	-.23	-.46*	.50*	.47*	-.39*	.83*	.11
8. MLQ-P, T2	21.79	6.56								*.90*	-.27^	-.48*	.56*	.46*	-.38*	.61*	.41*
9. MLQ-S, T2	23.48	6.80									*.93*	.31*	-.26^	-.35*	.29^	-.17	.24^
10. CORE-OM Tot, T2	1.43	0.78										*.96*	-.94*	-.94*	.97*	-.52*	-.32*
11. CORE-OM–F, T2	1.35	0.69											*.87*	.86*	-.83*	.55*	.36*
12. CORE-OM–W, T2	1.59	0.94												*.81*	-.88*	.53*	.20
13. CORE-OM–P, T2	1.46	0.92													*.93*	-.44*	-.30^
14. SWLS, T2	20.07	7.41														*.90*	.23^
15. WAI-S-B, T2	22.96	4.50															*.92*

Note. ^ $p < .05$; * $p < .01$. $N = 259$ for Time 1 variables, $N = 73$ for Time 2 variables. Estimated internal consistency reliabilities (Cronbach's alphas) are reported in italics along the diagonal. MLQ-P, T1, T2 = Presence subscale of the Meaning in Life Questionnaire at Time 1 and Time 2 respectively; MLQ-S, T1, T2 = Search subscale of the Meaning in Life Questionnaire at Time 1 and Time 2 respectively; CORE-OM Tot, T1, T2 = total score of the Clinical Outcomes in Routine Evaluation Outcome Measure at Time 1 and Time 2

Table 2. (continued)

respectively; CORE-OM-F, T1, T2 = Functioning subscale of the Clinical Outcomes in Routine Evaluation Outcome Measure at Time 1 and Time 2 respectively; CORE-OM–W, T1, T2 = Well Being subscale of the Clinical Outcomes in Routine Evaluation Outcome Measure at Time 1 and Time 2 respectively; CORE-OM–P, T1, T2 Problems or Symptoms subscale of the Clinical Outcomes in Routine Evaluation Outcome Measure at Time 1 and Time 2 respectively; SWLS, T1, T2 = Satisfaction with Life Scale at Time 1 and Time 2 respectively; WAI-S-B, T2 = Bond subscale of the Working Alliance Inventory-Short Form at Time 2.

positively related to well-being variables and negatively related to problems or psychological symptoms, and the search for meaning would be negatively related to well-being variables and positively related to problems or psychological symptoms.

Multiple regression analyses using both the MLQ-P and the MLQ-S (measured at Time 1) as well as the covariate of gender as predictor variables and each of the measures of functioning and well-being at Time 2 as criterion variables were conducted to determine which measure of meaning (i.e., the presence or search) was a better predictor of the outcome variables. In each of the regression analyses, the MLQ-P remained a significant predictor of each criterion variable, whereas the MLQ-S was not a significant predictor for any of the criterion variables over and above the prediction of the MLQ-P (see Table 3). Thus, the MLQ-P appears to be a better predictor of the outcome variables than the MLQ-S.

To test the hypotheses that meaning in life will increase as counseling progresses, and the search for meaning will decrease, paired sample t-tests were conducted. Only the difference between the MLQ-P was significant between Time 1 and Time 2. The difference between Time 1 and Time 2 MLQ-S was not significant. As one can see in Table 4, the score

Table 3. Multiple Regressions of Meaning in Life Subscales on Outcome Measures

	F	R^2	adj R^2	MLQ-S		MLQ-P	
				β	t	β	t
CORE-OM Total, T2	4.27	.16	.12	.06	.51	-.39*	-2.93
CORE-OM-F, T2	6.37	.22	.18	-.06	-.53	.46*	3.56
CORE-OM-W, T2	5.19	.18	.15	-.06	-.46	.43*	3.27
CORE-OM-P, T2	2.27	.09	.05	.06	.46	-.29^	-2.07
SWLS, T2	11.29	.33	.30	.02	.22	.62*	5.18

Note. ^ $p < .05$; * $p < .01$. $N = 73$. MLQ-P = Presence subscale of the Meaning in Life Questionnaire at Time 1; MLQ-S = Search subscale of the Meaning in Life Questionnaire at Time 1; CORE-OM Total, T2 = Clinical Outcomes in Routine Evaluation Outcome Measure total score at Time 2; CORE-OM-F, T2 Functioning subscale of the Clinical Outcomes in Routine Evaluation Outcome Measure at Time 2; CORE-OM-W, T2 = Well Being subscale of the Clinical Outcomes in Routine Evaluation Outcome Measure at Time 2; CORE-OM-P, T2 = Problems or Symptoms subscale of the Clinical Outcomes in Routine Evaluation Outcome Measure at Time 2; SWLS, T2 = Satisfaction with Life Scale at Time 2.

of the MLQ-P significantly increased throughout therapy (see Table 4 also for means, standard deviations, t scores, and levels of significance of the differences). Although not part of the hypotheses, paired sample t-tests were also conducted to determine whether there was a significant improvement in outcome scores over the course of therapy. There was significant improvement in the total score and all three subscales of the CORE-OM, as well as the SWLS at Time 2, indicating a greater level of functioning and well-being, fewer psychological problems or symptoms, and greater life satisfaction (see Table 4).

Table 4. Differences Between Time 1 and Time 2 Levels of Meaning in Life and Outcome

	Mean Difference	Std. Deviation of the Difference	t	Sig.
MLQ-P	1.47	4.43	2.84	.006
MLQ-S	-.75	5.12	-1.26	.212
CORE-OM Total	.33	.59	4.73	.000
CORE-OM-F	.23	.58	3.36	.001
CORE-OM-W	.50	.74	5.70	.000
CORE-OM-P	.37	.70	4.49	.000
SWLS	1.08	4.23	2.19	.032

Note. $N = 73$. MLQ-P = Presence subscale of the Meaning in Life Questionnaire; MLQ-S = Search subscale of the Meaning in Life Questionnaire; CORE-OM Total Clinical Outcomes in Routine Evaluation Outcome Measure total score; CORE-OM-F = Functioning dimension of the Clinical Outcomes in Routine Evaluation Outcome Measure; CORE-OM-W = Well Being dimension of the Clinical Outcomes in Routine Evaluation Outcome Measure; CORE-OM-P = Problems or Symptoms dimension of the Clinical Outcomes in Routine Evaluation Outcome Measure; SWLS = Satisfaction with Life Scale.

In addition, it was hypothesized that changes in presence and search for meaning would be predictive of changes in outcome scores. Because the search for meaning did not significantly decrease throughout therapy, this hypothesis was not tested using the search for meaning. To test this hypothesis for the presence of meaning a step-wise regression analyses was conducted with the covariate of gender in the first step, Time 1 presence of meaning and each outcome variable at Time 1 separately in the second step, and Time 2 presence of meaning in the third step. Each outcome variable measured at Time 2 was used separately as a criterion variable. These analyses showed that the change in meaning in life is a significant

predictor of change in well-being (R^2 = .48, ΔR^2 = .04, $\Delta F(4,68)$ = 15.88, $p < .001$, β = .34, t = 2.29, $p < .05$) functioning (R^2 = .53, ΔR^2 = .08, $\Delta F(4,68)$ = 19.07, $p < .001$, β = .48, t = 3.40, $p < .01$), psychological problems (R^2 = .49, ΔR^2 = .03, $\Delta F(4,68)$ = 16.57, $p < .001$, β = -.29, t = -1.99, $p \leq .05$), and life satisfaction (R^2 = .72, ΔR^2 = .04, $\Delta F(4,68)$ = 44.63, $p < .001$, β = .32, t = 2.94, $p < .01$).

To test the third hypothesis that meaning in life at Time 1 will predict Time 2 psychological symptoms, functioning, well-being, and life satisfaction while holding Time 1 measures of these outcome variables constant, a simultaneous multiple regression analysis was used for each outcome measure. These equations consisted of the covariates of gender and marital status, Time 1 presence of Meaning, and Time 1 psychological symptoms, functioning, well-being, and life satisfaction as the predictor variables. Time 2 psychological symptoms, functioning, well-being, and life satisfaction were the criterion variables. The presence of meaning was not found to be a significant predictor with any outcome variable while holding outcome at Time 1 constant.

The fourth hypothesis that the therapeutic bond between the client and counselor at Time 2 will partially mediate the relationship between the presence of meaning at Time 1 and outcome at Time 2 was not tested. One of the criteria for this hypothesis was that the presence of meaning would be a significant predictor of outcome at Time 2 when holding outcome at Time 1 constant, and because this hypothesis was not verified (as described in the previous paragraph), the fourth hypothesis could not be tested. In addition, this hypothesis was not tested because the correlation between the presence of meaning (MLQ-P) at Time 1 and the therapeutic bond (WAI-S-B) at Time 2 was not significant (see Table 2). This was another criterion that had to be met in order for the fourth hypothesis to be tested.

Finally, the fifth hypothesis that the presence of meaning will serve as a protective factor was examined. It was hypothesized that those with higher levels of meaning and either low functioning or high psychological problems will have better outcomes than those with low levels of meaning and low functioning or high psychological problems. To test this hypothesis, the interaction between life meaning and psychological problems was computed by multiplying the Time 1 MLQ-P score by the Time 1 problems or symptoms domain score of the CORE-OM, and the interaction between life meaning and functioning was computed by multiplying the Time 1 MLQ-P score by the Time 1 functioning domain score of the CORE-OM. Regression equations were conducted where the demographic variable of gender was entered into the first step, Time 1 MLQ-P score and either the functioning or psychological problems scale were entered in the second step, and the interaction terms were entered in the third step. The criterion variables were the well-being, functioning, or problems subscales of the CORE-OM, or the SWLS at Time 2. Not one of the interaction terms was a significant predictor of either the well-being or functioning domains of the CORE-OM. This indicates that having a felt sense of meaning may not protect someone from having poor outcomes.

Exploratory Mediation Analysis

In addition to the main analyses, exploratory analyses were conducted to examine additional questions beyond the main set of hypotheses. Because of these questions and analyses being exploratory and not part of the initial set of hypotheses, I acknowledge their tentative nature and offer them simply as a guide for future research in this area.

A hypothesis that level of functioning as measured by the CORE-OM could be a mediator between the presence of meaning in life and life satisfaction was identified and

tested. The basis for this hypothesis is that it is possible that if a person feels he or she has

meaning in life, he or she will have more psychosocial resources and will be able to function

on a higher level than those without a felt presence of meaning. In turn, because that person

is able to function on a higher level, he or she likely also experiences a higher level of life

satisfaction. Thus, functioning may be a full or partial mediator in the relationship between

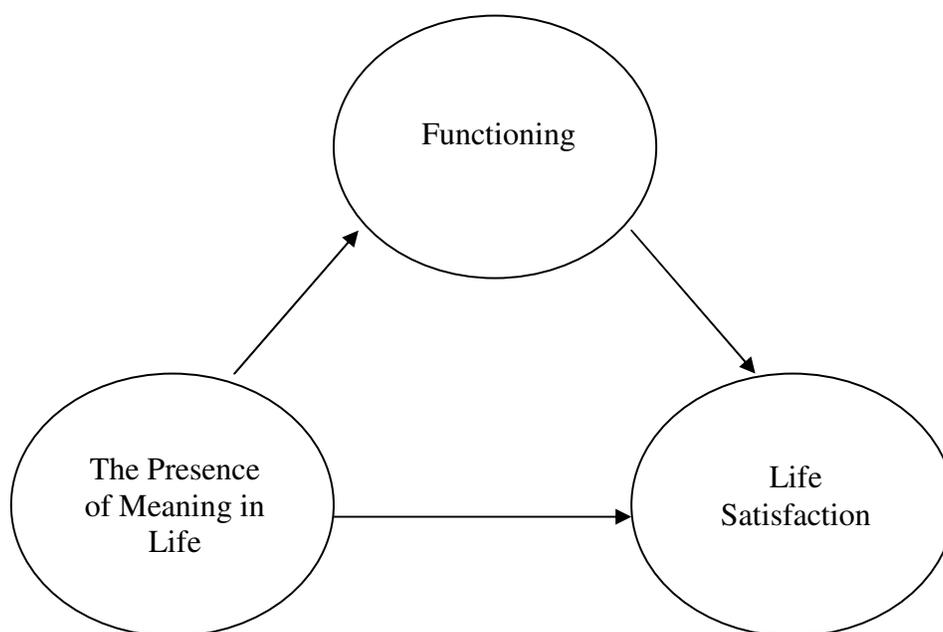the presence of meaning in life and life satisfaction (see Figure 1).

Figure 1. The mediation of functioning in the relationship between the presence of
meaning in life and life satisfaction

Previous research in this area supports this hypothesis of a mediation of functioning

in the relationship between life meaning and life satisfaction. Research has found that

meaning in life may be related to multiple psychosocial resources (i.e., intra and interpersonal strengths that promote positive coping and functioning), including positive self-esteem (Debats, 1996; Krause, 2003; Scannell, Allen, & Burton, 2002), ego strength, a positive self-perception (Shek, 1992), and self-efficacy (Baumeister, 1989). This research appears to indicate that meaning in life is associated with a constellation of positive outcomes, indicating that meaning in life may be a bellwether for optimal human functioning. In addition, we might expect that the more highly one is functioning, the more satisfaction he or she may get from life. Various indicators of adequate functioning have been found to correlate with life satisfaction in the research, including self-esteem (Chen, Cheung, Bond, & Leung, 2006; Diener et al., 1985; Diener & Diener, 1995; Yetim, 2003), sociability or social functioning (Diener et al, 1985; Eller & Mahat, 2007), feelings of mastery over the environment (Yetim, 2003), and social self-efficacy beliefs in adolescents (Vecchio, Gerbino, Pastorelli, Del Bove, & Caprara, 2007). Research has also supported the existence of a relationship between meaning in life and life satisfaction (Chamberlain & Zika, 1988b; Zika & Chamberlain, 1987, 1992; Langeland et al., 2007). The existence of the three relationships between life meaning and indicators of functioning, functioning and life satisfaction, and meaning and life satisfaction indicates the possibility that functioning may be a partial mediator in the relationship between life meaning and life satisfaction. Additional support for this mediation model was provided by Brandau & Wade (2008), who found that alexithymia or emotional expression and social self-efficacy were significant mediators in the relationship between life meaning and relationship satisfaction, which could be said to be a form of life satisfaction.

This hypothesis was tested by a series of regression equations as stated in Baron and Kenny (1986) and again in Kenny, Kashy, and Bolger (1998). All variables used when testing this hypothesis were administered at Time 1, therefore, the sample size was 259. All regression equations included the covariates of gender and marital status as predictor variables.

The first step to show mediation consisted of a regression equation with the presence of meaning in life as a predictor, and life satisfaction as a criterion variable (see Table 5).

Table 5. Regression Equations Testing the Mediation of Functioning in the Relationship Between Meaning in Life and Life Satisfaction

		F	R^2	Adj. R^2	β	t	Sig.
Step 1	MLQ-P → SWLS	36.23	.31	.30	.55	10.01	.000
Step 2	MLQ-P → CORE-OM-F	19.50	.19	.18	.43	7.35	.000
Step 3	MLQ-P → SWLS	56.02	.48	.47	.35	6.64	.000
	CORE-OM-F → SWLS				.46	8.97	.000

Note. N = 259. MLQ-P = Presence subscale of the Meaning in Life Questionnaire; CORE-OM-F = Functioning subscale of the Clinical Outcomes in Routine Evaluation Outcome Measure; SWLS = Satisfaction with Life Scale.

This step established that there is a relationship between the presence of meaning and life satisfaction. The second step consisted of a regression equation with the presence of meaning in life as the predictor variable, and functioning as the criterion variable. The presence of

meaning as measured by the MLQ-P was found to be a significant predictor of functioning as measured by the functioning domain of the CORE-OM (see Table 5). This established the relationship between meaning and functioning. The third step is intended to establish that functioning is associated with life satisfaction. Both the MLQ-P and the functioning domain of the CORE-OM were significant predictors of the SWLS, which shows that functioning and life satisfaction are associated while controlling for the presence of meaning in life (see Table 5). Finally, the effect of the presence of meaning in life on life satisfaction was examined to identify whether the effect of meaning on life satisfaction when controlling for functioning is zero. If zero, functioning would be a full mediator in the relationship between the presence of meaning in life and life satisfaction. The beta weight of the effect of the presence of meaning on life satisfaction was greater than zero (.35), indicating that functioning is not a full mediator of the relationship. However, the reduction of the coefficient from .55 to .35 indicates that although not a full mediator, functioning is influential in the relationship between meaning in life and life satisfaction. The following analyses examine whether functioning is a partial mediator in the relationship between the presence of meaning and life satisfaction.

In addition to this series of regression equations, a bootstrap procedure was conducted. The bootstrap procedure recommended by Shrout and Bolger (2002) was used to test the significance levels of the indirect effect of meaning in life on life satisfaction through functioning. The bootstrap procedure begins with the creation of 10,000 bootstrap samples from the original sample ($N = 259$) using random sampling with replacement. The mediation model was then conducted 10,000 times in the SPSS program using the bootstrap samples to produce 10,000 estimations of each path coefficient. The output of the 10,000 estimations of

each path coefficient was then used to calculate the estimations of the indirect effects in the mediation model. This was done by multiplying 10,000 pairings of the path coefficients from meaning in life to functioning to life satisfaction. If zero is not included in the 95% confidence interval (CI) for the estimate of the indirect effect, the statistical significance of the indirect effect at the .05 level can be reported (Shrout & Bolger, 2002). The method for conducting the bootstrap procedure is outlined in Shrout and Bolger (2002) and Preacher and Hayes (2004). This bootstrapping method compensates for the limitations of the process suggested by Baron and Kenny (1986). The limitations stem from the assumption that the sampling distribution is normal, and therefore the process suggested by Baron and Kenny (1986) may be inaccurate when the distribution is skewed. The bootstrapping method is designed for use with non-normal samples that are small to medium in size (Shrout & Bolger, 2002). This bootstrapping method confirmed the analyses of the regression equations in the previous paragraphs (see Table 6).

The mean indirect effect from the presence of meaning in life through functioning to life satisfaction (b = .19 [95% CI: .13, .25]) was significant. In addition, the estimated direct effect of meaning on life satisfaction when controlling for functioning is significant with a coefficient of .33 (see Table 6). This indicates that although the indirect effect through functioning is significant, the direct effect in the relationship between life meaning and life satisfaction is also significant when functioning is present. This shows that functioning is a partial mediator in the relationship between meaning in life and life satisfaction.

Table 6. Direct and Total Effects of the Exploratory Mediation Model Using the Bootstrap Procedure

	β	t	Sig.
MLQ-P → SWLS	.52	10.62	.000
MLQ-P → CORE-OM-F	.50	7.73	.000
MLQ-P → SWLS	.33	7.02	.000
CORE-OM-F →	.37	9.16	.000

Note. N = 259. MLQ-P = Presence subscale of the Meaning in Life Questionnaire; CORE-OM-F = Functioning dimension of the Clinical Outcomes in Routine Evaluation Outcome Measure; SWLS = Satisfaction with Life Scale.

CHAPTER 5. DISCUSSION

Although only two of the original hypotheses were confirmed, the results in this study present information on how the meaning in life does, or does not, interact with other variables throughout the course of therapy. The results of each hypothesis and the exploratory analyses are discussed.

Main Analyses

Differences between males and females were found on the MLQ-P at Time 1, indicating that females generally have a higher degree of meaning in life. This difference corroborates the findings of Reker (2005) who also found that females had a significantly higher level of personal meaning compared to males. The fact that this difference was not evident at Time 2 may indicate that therapy helped males increase their felt presence of meaning in life. However, this may also be due to the fact that there may not have been enough participants to provide sufficient power to find this same significant difference at Time 2. One interesting finding was that although females were found to have a higher presence of meaning in life than males at Time 1, they were also found to have a lower sense of well-being than males as measured by the Well-Being domain of the CORE-OM at Time 1. This occurred even though well-being was positively associated with the MLQ-P indicating that greater well-being is associated with a greater presence of meaning in life. Perhaps factors other than meaning in life need to be present in order for a person to feel a sense of well-being, and perhaps this applies more so to females than males.

Additionally, those in a committed relationship reported having higher presence of meaning in life and a higher sense of well-being than single individuals. This could indicate that either being in a relationship with another person creates meaning in a person's life or

that if one has a greater sense of meaning he or she is more able to be in a committed relationship. In concurrence with this finding, previous research has identified relationships with others as one of the most important sources of meaning. In studies on the aspects of life that people spontaneously report as meaningful, relationships were consistently the single most frequently rated source of meaning, ranging from 36% to 70% of the responses (DePaola & Ebersole, 1995; DeVogler & Ebersole, 1980, 1981; Jenerson-Madden, Ebersole, & Romero, 1992; Taylor & Ebersole, 1993) In addition, Debats, Drost, and Hansen (1995) found that meaningful situations often involved positive contact with others, whereas meaningless situations often involved alienation from others. Krause (2007) found that among older adults, greater anticipated support from others and greater emotional support were associated with a deeper sense of meaning, whereas negative interactions with others were found to lower the sense of life meaning. Again among older adults, Low and Molzahn (2007) found that emotional support was a significant predictor of purpose in life. Finally, Fleer et al. (2006) found that among testicular cancer survivors, those who had a partner had significantly higher scores on life meaning than those who did not have a partner. All the findings in these studies are supported by the current findings that those in a committed relationship have a higher felt sense of meaning than those identified as single.

In addition, it appears as though those in a committed relationship had a greater sense of well-being before therapy began than those who were classified as single, divorced, or separated. This difference may be due to the additional support a person gains from a partner in a committed relationship that helps buffer against the effects of psychological problems, and in turn increases well-being and functioning. Previous research has found that social support is positively associated with life satisfaction (Laudet, Morgen, & White, 2006) and

subjective well-being (Zhang & Huang, 2007). Again, these differences between those classified as single and those classified as in a committed relationship were only found for Time 1 measures. This may be because these differences dissipated throughout therapy, or they may be due to the fact that there were not enough participants at Time 2 to find a significant effect.

Results supported the first hypothesis regarding meaning and well-being and psychological symptoms. Specifically, participants who felt they had a greater amount of meaning in life had fewer problems or symptoms, were more highly functioning, had a greater sense of well-being, and were more satisfied with their lives. Conversely, those who reported that they were searching for meaning in life reported experiencing more problems or symptoms, functioned less well, had a lower sense of well-being, and were less satisfied with their lives. Although all these relationships were significant, they ranged from weak to moderately strong, indicating that for most outcome variables there are factors other than the presence or search for meaning that influence therapeutic outcomes.

One implication of these results is that meaning in life is likely not a major factor in determining whether someone is functioning adequately, which means that counselors should not focus solely on increasing a client's felt presence of life meaning in order to increase quality of life. Although increasing the experience of life meaning can be a focus in therapy, counselors or therapists should not rely only on this variable to improve the client's life. This supposition that meaning is not a major factor in determining functioning seems to be contradictory to previous work by notable scholars such as Jung (1966), Yalom (1980), and Fankl (1984) who determined life meaning to be an important concept that often drives individuals into therapy. This supposition, however, is not a direct contradiction to the ideas

of these prominent scholars. It is still assumed that meaning in life is an important component of a person's well-being, however, it is likely not the only thing that determines functioning or well-being. Perhaps an increase in meaning has to be followed by a decrease in depression or anxiety, or an increase in happiness in order for functioning and well-being to increase. Or perhaps an increase in meaning must influence certain psychosocial resources such as self-esteem or ego strength in order for a person to increase in functioning. As other researchers have hypothesized (e.g., Day & Rottinghaus, 2003, Ruffin, 2984; Ryff & Singer, 1998), results from this hypothesis support the idea that a sense of meaning contributes to good psychological health. However, it does not support the idea that a sense of meaning is the sole reason for adequate functioning.

Multiple regression analyses indicate that the search for meaning is not as highly related to measures of well-being, psychological symptoms, functioning, and life satisfaction as is the presence of meaning. Analyses of the search for and presence of meaning in life on each outcome measure separately showed that although the presence of meaning in life was statistically significant in explaining variance in each outcome measure, the search for meaning was not statistically significant in explaining any outcome measure. This indicates that the search for meaning in life does not explain a client's level of functioning or life satisfaction as well as his or her presence of meaning in life. Therefore, perhaps it is the presence rather than the search for meaning that causes one to function more adequately and have a more satisfactory life. It may be that searching for meaning does not necessarily mean that one is dissatisfied with life. Some individuals who are searching for meaning in life may be happy, content, and functioning well in life, but may be curious in an ongoing way about what life has in store for them. This could be especially true for college students who are

pursuing career choices, intimate partners, and in general may be exploring their environment and finding their individuality. This is consistent with Erik Erikson's (1950, 1968) theory of psychosocial stages. Erikson postulated that during adolescence (ages 10 to 20), individuals are faced with the crisis of finding out who they are and where they may be going in life, and during early adulthood (ages 20 to 40), individuals find others with whom to form intimate relationships. Thus, searching for individuality or meaning in life is a natural developmental process, and it does not have to follow that it leads to unhappiness or a lack in adequate functioning. On the other hand, perhaps some individuals who are struggling with finding a meaning to life are dissatisfied and not functioning well. Therefore, the search for meaning may not be a straight-forward variable and future research may have to identify the nature of the search for meaning in order to determine its effect on an individual. Another explanation for this finding is that adequate functioning or satisfaction with life increases the presence of meaning more than it reduces the search for meaning, perhaps for the same reasons listed above (e.g., that searching for meaning does not necessarily mean that one is dissatisfied with life). An implication of these results is that since the search for meaning appears to be less influential than feeling one has meaning in life, counselors working with clients should focus on increasing the felt presence of meaning in life, and should not be concerned if a client reports that he or she is still searching for meaning.

Results also indicated that the presence of meaning significantly increased throughout therapy, which supports the first part of the second hypothesis. However, the search for meaning did not significantly decrease as therapy progressed, which does not support the second part of this hypothesis. Perhaps the presence of meaning in life is a more sensitive measure than the search for meaning, and if more participants were included in the analyses,

power would have been increased, and the difference in the search for meaning might have been evident. Alternatively, perhaps therapy increases the presence of meaning more so than it decreases the search for meaning. This would intuitively make sense because therapy is often a time of search and discovery of what is meaningful in life. Perhaps given more time and more therapy sessions, participants' search for meaning would have decreased as they neared the end of their therapeutic work when searching for meaning would not be as important. Additional analyses showed that over the course of therapy, clients' functioning and experience of well-being increased, and their report of psychological problems decreased. These are important findings even though they were not part of the hypotheses of this research paper because it showed that clients did improve with therapy. However, because there is no control group it is impossible to tell whether any of these changes are due to the therapeutic intervention rather than just the passage of time.

In addition, results supported the third part of hypothesis two, that the change in meaning in life over therapy would be predictive of change in outcome scores over therapy. This indicates that if a client's presence of meaning is increasing, it is also likely that he or she is also increasing in well-being, functioning, and life-satisfaction, and decreasing in symptoms or problems. It could be that changes in the presence of meaning cause improvements in the outcome variables. Conversely, it could be that improvement in those variables of functioning and satisfaction cause a person to feel that life is more meaningful. No matter the direction of the relationship, it is interesting to note that a change in the presence of meaning is related to changes in outcome scores, which means that it may not just be the initial level of presence of meaning that determines outcome, but instead the

increase in presence of meaning that causes improvements in functioning, well-being, and life satisfaction.

The third hypothesis that meaning in life at Time 1 would predict Time 2 psychological symptoms, functioning, well-being, and life satisfaction while holding Time 1 measure of these outcome variables constant was not supported. It is possible that this was due to a lack of power to identify these effects. The relationships between the outcome variables at Time 1 and Time 2 were strong, and Time 1 measures of these variables accounted for the majority of the variance explained in the regression equations of meaning and Time 1 outcome on Time 2 outcome. This finding is not consistent with the one other study that has examined the predictive power of meaning in life on outcomes in therapy over an average of eight sessions (Debats, 1996). This study used the Life Regard Index (LRI; Battista & Almond, 1973) to measure life meaning, and the outcome variables measured were happiness, self-esteem, and a symptom checklist. Debats found that both the fulfillment and framework subscales of the LRI measured at pre-test were predictive of post-test happiness and the symptom checklist while controlling for pre-test measures of these variables. In addition, pre-test fulfillment was a significant predictor of post-test self-esteem while holding pre-test measures of this variable constant, while the framework subscale was not a significant predictor for self-esteem. One possible reason for the discrepancy between the present findings and the findings of Debats is that two different questionnaires were used to measure life meaning. As stated earlier, the LRI is thought to be confounded on an item level with variables such as depression, happiness, and suicide, which suggests stronger relationships between these types of variables and the LRI than they should actually be if only meaning in life were being measured. Therefore, it is possible that this inflated

relationship erroneously caused the significant findings in the Debats study. The fact that the questionnaire used in this study to measure life meaning, the Meaning in Life Questionnaire (MLQ; Steger et al., 2006), is better than the LRI at discriminating meaning from well-being (Steger et al., 2006) may account for the lack of significant findings in this study. Perhaps the relationship between meaning in life and mental health outcomes is just too small to be a significant predictor of outcome in therapy, and the significant findings by Debats were largely due to the limitations of the LRI. Perhaps the present findings are more accurate because a more pure measure of life meaning was used. Another reason for the discrepancy in findings between this study and the Debats study is the differences in average number of sessions. In Debats, the average number of sessions was 8.1, whereas in the present study it was 2.9. Perhaps given more sessions, client meaning in life and outcome scores would have increased more dramatically, and results testing this hypothesis would have been significant.

Since support of the third hypothesis was required in the examination of the fourth hypothesis and the third hypothesis was not supported, the fourth hypothesis was also not supported by the data. The fourth hypothesis was that the therapeutic bond mediated the relationship between Time 1 presence of meaning and Time 2 outcome. Since Time 2 presence was not a significant predictor of Time 2 outcome, there was no relationship to mediate, and therefore further analyses were not necessary. In addition, the correlation between Time 1 presence of meaning and Time 2 bond was not significant, which was another requirement in the analyses to test the fourth hypothesis.

The fifth hypothesis that the presence of meaning would serve as a protective factor, and those with high levels of meaning and either low functioning or high psychological problems will have better outcomes than those with low levels of meaning and either low

functioning or high psychological problems was also not supported. Those who had high levels of meaning and either low functioning or high problems did not significantly differ in terms of outcome (functioning, problems, and well-being) from those who had low levels of meaning and either low functioning or high problems.

The three domains of the CORE-OM are correlated moderately to highly with each other from Time 1 to Time 2 (correlations ranging from .54 to .68), which likely caused the Time 1 CORE-OM domain scores to account for a great portion of the variance when predicting Time 2 CORE-OM domain scores, leaving little for the presence of meaning to predict. This may be due to the fact that there were few sessions in between data collection at Time 1 and Time 2 (an average of 2.9 sessions overall), giving little time for meaning to have an effect and for outcome scores to show clinically significant change. Research has shown that there is a positive relationship between outcome in therapy and the number of sessions attended (Draper, Jennings, Baron, Erdur, & Shankar, 2002; Korobkin, Herron, & Ramirez, 1998), and the number of sessions needed to produce clinically significant amounts of change in 50% of participants examined has ranged from 8 sessions (Howard, Kopta, Krause, & Orlinsky, 1986) to 14 sessions (Wolgast, Lambert, & Puschner, 2003). For 75% of participants to reach clinically significant amounts of change in outcome, time spans have ranged from 26 sessions (Howard et al., 1986) to one year (Kopta, Howard, Lowry, & Beutler, 1994). Therefore, perhaps clients in this study were not given enough time to experience clinically significant amounts of change in outcome in order for these changes to produce statistically significant findings. As it is, however, the hypothesis that the presence of meaning in life serves as a protective factor in the face of low functioning or high problems to produce a more positive outcome was not supported.

Exploratory Mediation Analysis

The mediation analyses showed that functioning is a partial mediator in the relationship between the presence of meaning in life and life satisfaction. This provides some support for the hypothesis that meaning in life leads to increased levels of functioning, which in turn leads to increases in life satisfaction. Although it cannot be said that the presence of life meaning causes higher functioning which then causes higher life satisfaction, it can be said that the presence of life meaning helps explain a person's level of functioning, which in turn helps explain a person's satisfaction with life. In addition, a person's presence of life meaning directly helps explain his or her sense of satisfaction with life. This finding is important because it points out that it is not just an increase in life meaning that is related to an increase in life satisfaction, it is also an increase in life meaning that is related to an increased ability to function in life, which then is related to an increase in life satisfaction. In other words, it is not enough to simply find or create meaning for oneself. This increase in meaning also has to be accompanied with an increase in functioning in order to get the full benefits of the increase in life meaning. These results will impact future studies on the relationship between life meaning and life satisfaction. In addition to functioning, it may be important to examine whether other psychosocial resources are mediators in the relationship. Previous research has indicated that self-esteem is moderately to strongly positively associated with life meaning (Debats, 1996; Halama & Dĕdová, 2007; Krause, 2003; Scannell, Allen & Burton, 2002) and life satisfaction (Chen, Cheung, Bond, & Leung, 2006; Diener et al., 1985; Diener & Diener, 1995; Yetim, 2003), which makes it a likely psychosocial resource that mediates this relationship between life meaning and life satisfaction. In addition, relationships with others (Debats et al., 1995; DePaola & Ebersole,

1995; Jenerson-Madden et al., 1992; Taylor & Ebersole, 1993), social support (Low & Molzahn, 2007; Krause, 2007), and social functioning (Fleer et al., 2006) have been shown to relate to life meaning, whereas social functioning or social self-efficacy beliefs have been shown to correlate with life satisfaction (Diener et al, 1985; Eller & Mahat, 2007; Vecchio et al., 2007). Thus, social support, social functioning, relationships with others, or social self-efficacy beliefs may also be possible mediators that warrant future examination.

Limitations and Future Directions

There are several limitations to this study that need to be addressed in future research. One of the most important limitations is that the sample was not large enough to adequately detect anything more than a very large effect between the meaning in life variables and the Time 2 outcome measures while controlling for Time 1 outcome measures. However, getting enough clients who are actually in therapy for personal problems to detect these smaller effects is often difficult in clinical settings. In an effort to increase effect size, researchers might identify and focus on more specific aspects of psychotherapy processes and outcomes with which meaning in life might be related rather than using general measures of well-being, problems, or functioning. For example, life meaning has been found to correlate moderately to highly with depression (Debats et al., 1993; Elmore & Chambers, 1967; Garner et al., 2007; Mascaro & Rosen, 2005, 2006; Moomal, 1999; Shek, 1992; Wang et al., 2007) and anxiety (Debats et al., 1993; Moomal, 1999; Shek, 1992; Zika & Chamberlain, 1992). In addition to being empirically justified, the variables of depression and anxiety also have theoretical bases. For example, anxiety can easily result when Frankl's (1984) idea of existential frustration, or a blocked will to meaning, occurs. If a person can no longer work toward finding a meaning in life, he or she may feel anxious about the future and about his or

her ability to find a meaning in life. In addition, Frankl's concept of existential vacuum indicates a sense of inner emptiness as well as a lack of awareness of a meaning worth living for, which, to mental health professional and lay people alike, can easily be mistaken for depression. Therefore, perhaps future researchers should focus on anxiety and depression as indicators of outcome with the hope that these variables will result in a larger relationship with life meaning as well as a larger effect size.

A related limitation was the large attrition rate seen in this study (72%). The fact that so many participants either dropped out or could not be used for analyses begets the question of whether different results would have been obtained if all participants had completed the measures at both time points. Perhaps those participants who dropped out of the study or did not complete all measures were qualitatively different from those who stayed in it and completed the measures correctly. This is unlikely, however, based on analyses comparing the sample of participants in this study who completed measures at both time points to those who completed measures at one time point. These analyses found that there were no significant differences in demographic or measured variables between the two groups. Nevertheless, perhaps there was some variable or variables not measured that made the groups of participants different from each other in some way.

In addition, clients at the counseling center chose whether or not to participate in the study, and therefore were self-selected for participation. It is unknown whether those who chose to participate in the study were qualitatively different from those who chose not to participate at all. It is possible that these groups were different from each other, and thus the results may be biased. Future research should implement methods of collecting the data that create smaller attrition rates and attract more participants to engage in completing the

measures. The method used in this research study using an email prompting a client to fill out an online survey a few weeks after filling out the first questionnaire at his or her first counseling session was a more effective method, with an attrition rate of 58% (36 out of 85 participants completed questionnaires at 2 time points). Using this or a similar method in which data is collected online would likely result in lower attrition rates and would attract more participants with its increased ease of participation.

A third important limitation was the low average number of sessions completed by participants from Time 1 to Time 2. The average number of sessions completed by participants in this study was 2.9, and as discussed previously, in order to see clinically significant changes in 50% of a group of clients, at least 8 sessions of therapy are needed (Howard et al., 1986). It is possible that if more sessions were completed by participants in this study, greater changes in life meaning and outcome scores would have been exhibited, which may have made a difference in the detection of significant results for some hypotheses. In support of this argument, Debats (1996) found that meaning in life predicted changes in self-esteem, happiness, and psychological distress over a period of eight sessions. In addition, Langeland et al. (2007) found that a sense of coherence predicted life satisfaction among people with mental health problems recruited from a community health care system after a period of a year. Thus, future researchers examining the effects of life meaning on outcomes in therapy should strive to make the average number of sessions between pre- and post-test measures to be at least eight.

A fourth limitation of these analyses was that no control group was formed to determine whether changes from Time 1 to Time 2 were due to therapeutic intervention and not simply due to the passage of time. It cannot be said with certainty that the changes in the

outcome measures and in the presence of meaning of life over the course of therapy sessions are due to therapy without the use of a control group. Future research in this area should institute the use of a control group so that it can be said with certainty that it was the therapy that produced changes in clients' functioning, well-being, symptomatology, and presence of meaning.

Fifth, the mediation of functioning in the relationship between the presence of meaning in life and life satisfaction is limited by the fact that all variables used were collected at one time point. Therefore, causation cannot be inferred, and it cannot be said whether meaning in life causes life satisfaction or vice versa. In order to provide evidence for causation, life satisfaction would have had to have been collected at a later time point, and controlled for by using life satisfaction collected at the same time as meaning in life as a predictor variable. This analysis between meaning in life and life satisfaction using life satisfaction collected at Time 2 was examined in the third hypothesis of this study, and meaning in life was not found to be a significant predictor of life satisfaction at Time 2 while controlling for Time 1 life satisfaction. This may have been due to a lack of power due to a small sample size, or it may have been due to a lack of a large enough relationship between meaning in life and life satisfaction to cause a significant effect in the prediction. Future research working to break down the relationship between meaning in life and life satisfaction should focus on collecting enough data at two time points in order to determine whether the presence of life meaning actually leads to life satisfaction.

Caution should be used when generalizing results of this research to diverse populations because the diversity of this sample was limited (e.g., the great majority of participants were Caucasian, 84.6%). Although no differences were found between ethnic or

racial groups in the subscales or scales used, it would be important not to assume that all racial or ethnic groups would obtain the same results found in this study. It may be that if larger samples of ethnic or racial minorities had been obtained, the presence or search for meaning would have been either more or less of a significant predictor of outcome. It may be that for people of minority cultures, meaning in life is either more or less important, is created or found in different ways, or is more avidly searched for than for White people. Future research could examine the differences in the presence and search for meaning between ethnic or racial groups. Also, future research could concentrate on obtaining larger samples of minority ethnic or racial groups so the sample more closely approximates the general population.

In addition, caution should be used when generalizing results to noncollege students. It is logical that meaning in life might vary depending on age and phase of life. In a cross-sectional study, Reker, Peacock, and Wong (1987) found support for the idea that meaning changes over time by showing that different subscales of the Life Attitude Profile (Reker & Peacock, 1981) changed over the life span. Specifically, Death Acceptance and Purpose increased with age, whereas Goal Seeking and Future Meaning decreased. In addition, Reker (2005) found that personal meaning increases with age. Therefore, since meaning in life may change over the lifespan, the results of this study should not be generalized to any age group other than the 18-22 age group.

Finally, all measures used in this study were self-report measures and therefore only included the participants' perspectives. Future studies should conduct these analyses using other methods of data collection (e.g., observation, survey of family members, etc.) to verify the generalizability of the results found in this study across multiple perspectives.

Despite the limitations stated above, this study adds important information to the meaning in life literature. It provides information on how the presence and search for meaning in life interact with other outcome variables over the course of therapy, and presents some new ideas as to how future research in this area should be approached. This study confirms previous research on the relationship between meaning in life and outcome variables, and confirms that although meaning in life is not predictive of positive outcomes, it does increase throughout therapy. Although it cannot be said that therapists or counselors should focus on increasing a client's meaning in life as a way to bring about positive outcomes, it can be said that if a client's felt presence of meaning appears to be rising, this is a good sign that his or her overall functioning may be improving as well. This study also showed that the outcome variables of well-being, functioning, and life satisfaction increased throughout therapy while psychological problems decreased. These findings add to the literature that says that therapy is beneficial to those who partake in it.

In addition, this study provided substantiation for the hypothesis that the relationship between meaning in life and life satisfaction is mediated by functioning. This finding is meaningful because it breaks down the relationship between meaning in life and life satisfaction, and provides a jumping-off point for those doing research in this area.

Although it has many limitations, this study provides valuable information about how meaning in life changes throughout therapy, and how it interacts with other variables throughout therapy. This is a very valuable area of research because it could provide therapists and counselors with important knowledge about the use of meaning-focused therapeutic work.

APPENDIX. QUESTIONNAIRES

Meaning in Life Questionnaire

Please take a moment to think about what makes your life feel important to you. Please respond to the following statements as truthfully and accurately as you can. Also, please remember that these are very subjective questions and that there are no rig'Life Satisfaction answers. Please answer according to the scale below.

Absolutely Untrue	Mostly Untrue	Somewhat Untrue	Can't say True or False	Somewhat True	Mostly True	Absolutely True
1	2	3	4	5	6	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.

Satisfaction With Life Scale

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

1. ____ In most ways my life is close to my ideal.
2. ____ The conditions of my life are excellent.
3. ____ I am satisfied with my life.
4. ____ So far I have gotten the important things I want in life.
5. ____ If I could live my life over, I would change almost nothing.

Clinical Outcomes in Routine Evaluation-Outcome Measure

Below are 28 statements about how you have been **OVER THE LAST WEEK**. Please read each statement and think how often you felt that way last week. Then indicate your response in the line preceding that item.

Not at All	Only Occasionally	Sometimes	Often	Most or All the Time
1	2	3	4	5

1. ____ I have felt terribly alone and isolated.
2. ____ I have felt tense, anxious or nervous.
3. ____ I have felt I have someone to turn to for support when needed
4. ____ I have felt O.K. about myself.
5. ____ I have felt totally lacking in energy and enthusiasm.

6. ____ I have felt able to cope when things go wrong.
7. ____ I have been troubled by aches, pains or other physical problems.
8. ____ Talking to people has felt too much for me.
9. ____ Tension and anxiety have prevented me doing important things.
10. ____ I have been happy with the things I have done.

11. ____ I have been disturbed by unwanted thoughts and feelings.
12. ____ I have felt like crying.
13. ____ I have felt panic or terror.
14. ____ I have felt overwhelmed by my problems.
15. ____ I have had difficulty getting to sleep or staying asleep.

16. ____ I have felt warmth or affection for someone.
17. ____ My problems have been impossible to put to one side.
18. ____ I have been able to do most things I needed to.
19. ____ I have felt despairing or hopeless.
20. ____ I have felt criticized by other people.

21. ____ I have thought I have no friends.
22. ____ I have felt unhappy.
23. ____ Unwanted images or memories have been distressing me.
24. ____ I have been irritable when with other people.
25. ____ I have thought I am to blame for my problems and difficulties.

26. ____ I have felt optimistic about my future.
27. ____ I have achieved the things I wanted to.
28. ____ I have felt humiliated or shamed by other people.

Working Alliance Inventory-Short Form

Below are four statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. Your responses will be kept confidential, and only the investigators of this study will view them.

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

1. ____ I believe my counselor likes me.
2. ____ I am confident in my counselor's ability to help me
3. ____ I feel that my counselor appreciates me.
4. ____ My counselor and I trust one another.

REFERENCES

Addad, M. (1987). Neuroticism, Extraversion, and meaning of life: A comparative study of criminals and non-criminals. *Personality and Individual Differences, 8*(6), 879-883.

Allport, G. W. (1961). *Pattern and growth in personality.* New York: Holt, Rinehart and Winston.

Antonovsky, A. (1979). *Health, stress and coping.* San Francisco: Jossey-Bass Publishers.

Antonovsky, A. (1985). The life cycle, mental health and the sense of coherence. *Israel Journal of Psychiatry and Related Sciences, 22*(4), 273-280.

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

Antonovsky, A. (1993). The structure and properties of the Sense of Coherence Scale. *Social Science and Medicine, 36,* 725-733.

Auhagen, A. E. (2000). On the psychology of meaning of life. *Swiss Journal of Psychology, 59*(1), 34-48.

Barkham, M., Gilbert, N., Connell, J., & Marshall, C. (2005). Suitability and utility of the CORE-OM and CORE-A for assessing severity of presenting problems in psychological therapy services based in primary and secondary care settings. *British Journal of Psychiatry, 186,* 239-246.

Barkham, M., Evans, C., Margison, F., McGrath, G., Mellor-Clark, J., Milne, D., & Connell, J. (1998). The rationale for developing and implementing core outcome batteries for routine use in service settings and psychotherapy outcome research. *Journal of Mental Health, 7,* 35-47.

Barkham, M., Margison, F., Leach, C., Lucock, M., Mellor-Clark, J., Evans, C., Benson, L., Connell, J., Audin, K., & McGrath, G. (2001). Service profiling and outcomes benchmarking using the CORE-OM: Toward practice-based evidence in the psychological therapies. *Journal of Consulting and Clinical Psychology, 69*(2), 184-196.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology, 51,* 1173-1182.

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

Baumeister, R. F. (1989). Social intelligence and the construction of meaning in life. In Wyer, R S., Jr., & Srull, T. K. (Eds.), *Social intelligence and cognitive assessments of personality. Advances in social cognition,* (Vol. 2, (pp.71-80). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Beck, A.T., Steer, R.A., & Brown, G.K. (1996). *Manual for Beck Depression Inventory-II.* San Antonio, TX: Psychological Corporation.

Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research and Practice, 16,* 252-260.

Brandau, D. M., & Wade, N. G. (2008). *Modeling meaning in life, psychosocial resources, and relationship satisfaction.* Manuscript submitted for publication.

Braun, J., & Dolmino, G. (1978). The purpose in life test. In O. K. Buros (Ed.), *The seventh mental measurements yearbook.* Highland Park, NJ: Gryphon.

Busseri, M. A., & Tyler, J. D. (2003). Interchangeability of the Working Alliance Inventory and Working Alliance Inventory, Short Form. *Psychological Assessment, 15*(2), 193-197.

Cahill, J., Barkham, M., Stiles, W. B., Twigg, E., Hardy, G. E., Rees, A., & Evans, C. (2006). Convergent validity of the CORE measures with measures of depression for clients in cognitive therapy for depression. *Journal of Counseling Psychology, 53*(2), 253-259.

Chamberlain, K., & Zika, S. (1988a). On the structure of subjective well-being. *Social Indicators Research, 20,* 581-604.

Chamberlain, K. & Zika, S. (1988b). Religiosity, life meaning and well-being: Some relationships in a sample of women. *Journal for the Scientific Study of Religion, 27*(3), 411-420.

Chaudhary, P. N., & Sharma, U. (1976). Existential frustration and mental illness: A comparative study of purpose in life in psychiatric patients and normals. *Indian Journal of Clinical Psychology, 3,* 171-174.

Chen, S. X., Cheung, F. M., Bond, M. H., & Leung, J. (2006). Going beyond self-esteem to predict life satisfaction: The Chinese case. *Asian Journal of Social Psychology, 9*(1), 24-35.

Crumbaugh, J., & Maholick, L. T. (1964). An experimental study in existentialism: The psychometric approach to Frankl's concept of noogenic neurosis. *Journal of Clinical Psychology, 20*, 200-201.

Day, S., & Rottinghaus, P. (2003). The healthy personality. In W. B. Walsh (Ed.),

    Counseling psychology and optimal human functioning (pp. 1-23). Mahwah, NJ:

    Erlbaum.

Debats, D. L. (1990). The Life Regard Index (LRI): Reliability and validity. *Psychological*

    Reports, 67, 27-34.

Debats, D. L. (1996). Meaning in life: Clinical relevance and predictive power. *British*

    Journal of Clinical Psychology, 35, 503-516.

Debats, D. L. (1999). Sources of meaning: An investigation of significant commitments in

    life. *Journal of Humanistic Psychology, 39*(4), 30-57.

Debats, D. L., Drost, J., & Hansen, P. (1995). Experiences of meaning in life: A combined

    qualitative and quantitative approach. *British Journal of Psychology, 86,* 359-375.

Debats, D. L., van der Lubbe, P. M., & Wezeman, F. R. A. (1993). On the psychometric

    properties of the Life Regard Index (LRI): A measure of meaningful life. *Personality*

    and Individual Differences, 14(2), 337-345.

DePaola, S. J., & Ebersole, P. (1996). Meaning in life categories of elderly nursing home

    residents. *International Journal of Aging and Human Development, 40*(3), 227-236.

Derogatis, L. R. (1977). SCL-90: Administration, scoring and procedures manual-1 for the

    R(evised) Version. Baltimore, MD: Johns Hopkins University School of Medicine,

    Clinical Psychometrics Research Unit.

DeVogler, K. L., & Ebersole, P. (1980). Categorization of college students' meaning in life.

    Psychological Reports, 46, 387-390.

DeVogler, K. L., & Ebersole, P. (1981). Adults' meaning in life. *Psychological Reports, 49,*

    87-90.

Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology, 68*(4), 653-663.

Diener, E., Emmons, R. A., Larsen, R. J., Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessments, 49*(1), 71-75.

Diener, E., Lucas, R. E., & Oishi, S. (2002). Subjective well-being: The science of happiness and life satisfaction. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 63-73). New York: Oxford University Press.

Draper, M. R., Jennings, J., Baron, A., Erdur, O., & Shankar, L. (2002). Time-limited counseling outcome in a nationwide college counseling center sample. *Journal of College Counseling, 5*(1), 26-38.

Dyck, M. J. (1987). Assessing logotherapeutic constructs: Conceptual and psychometric status of the Purpose in Life and Seeking of Neotic Goals Tests. *Clinical Psychology Review, 7,* 439-447.

Edwards, M. J. & Holden, R. R. (2003). Coping, meaning in life, and suicidal manifestations: Examining gender differences. *Journal of Clinical Psychology, 59*(10), 1133-1150.

Eller, L. S., & Mahat, G. (2007). Predictors of life satisfaction in HIV-positive Nepali women. *JANAC: Journal of the Association of Nurses in AIDS Care, 18*(5), 17-26.

Elmore, T. M. & Chambers, E. D. (1967). Anomie, existential neurosis, and personality: Relevance for counseling. *Proceedings, 75th Annual Convention, APA,* 341-342.

Erikson, E. H. (1950). *Childhood and society.* New York: W. W. Norton.

Erikson, E. H. (1968). *Identity: Youth and crisis.* New York: W. W. Norton.

Eriksson, M., & Lindström, B. (2005). Validity of Antonovsky's Sense of Coherence Scale: A systematic review. *Journal of Epidemiology and Community Health, 59,* 460-466.

Evans, C., Connell, J., Barkham, M., Margison, F., McGrath, G., Mellor-Clark, J., & Audin, K. (2002). Towards a standardized brief outcome measure: Psychometric properties and utility of the CORE-OM. *British Journal of Psychiatry, 180,* 51-60.

Fleer, J., Hoekstra, H. J., Sleijfer, D. T., Tuinman, M. A., Hoekstra- Weebers, J. E. H. M. (2006). The role of meaning in the prediction of psychosocial well-being of testicular cancer survivors. *Quality of Life Research, 15,* 705-717.

Fletcher, S. K. (2004). Religion and life meaning: Differentiating between religious beliefs and religious community in constructing life meaning. *Journal of Aging Studies, 18,* 171-185.

Francis, L. J., & Hills, P. R. (2008). The development of the Meaning in Life Index (MILI) and its relationship with personality and religious behaviors and beliefs among UK undergraduate students. *Mental Health, Religion & Culture, 11*(2), 211-220.

Frankl, V. E. (1966). What is meant by meaning? *Journal of Existentialism, 7,* 21-28.

Frankl, V. E. (1984). *Man's search for meaning.* New York: Pocket Books.

Frazier, P. A., Lee, R. M., & Steger, M. F. (2006). What can counseling psychology contribute to the study of optimal human functioning? *The Counseling Psychologist, 34*(2), 293-303.

Fry, P. S. (2000). Religious involvement, spirituality and personal meaning for life: Existential predictors of psychological wellbeing in community-residing and institutional care elders. *Aging & Mental Health, 4*(4), 375-387.

Garfield, C. (1973). A psychometric and clinical investigation of Frankl's concept of existential vacuum and anomie, *Psychiatry, 36*, 396-408.

Garner, C., Bhatia, I., Dean, M., & Byars, A. (2007). Relationships between measures of

    meaning, well-being, and depression in an elderly sample. *The International Forum*

    for Logotherapy, 30, 73-78.

Gelso, C. J., & Carter, J. A. (1985). The relationship in counseling and psychotherapy:

    Components, consequences, and theoretical antecedents. *The Counseling*

    Psychologist, 2, 155-243.

Gonsalvez, G., & Gon, M. (1983). A comparative study of purpose-in-life in

    psychopathological and normal groups. *Indian Journal of Clinical Psychology, 10,*

    211-218.

Greenson, R. R. (1965). The working alliance and the transference neuroses. *Psychoanalysis*

    Quarterly, 34, 155-181.

Grygielski, M., Januszewska, E., Januszewski, A., Juros, A., & Oles, P. (1984). Meaning in

    life and hopelessness: Interrelationships and intergroup differences. *Polish*

    Psychological Bulletin, 15(4), 277-284.

Halama, P., & Dĕdová, M. (2007). Meaning in life and hope as predictors of positive mental

    health: Do they explain residual variance not predicted by personality traits? *Studia*

    Psychologica, 49, 191-200.

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 mediational factor.

    Journal of Clinical Psychology, 42(1), 5-21.

Harris, A. H. S., & Standard, S. (2001). Psychometric properties of the Life Regard Index-

    Revised: A validation study of a measure of personal meaning. *Psychological*

    Reports, 89, 759-773.

Hepburn, R. W. (1981). Questions about the meaning of life. In E.D. Klemke (Ed.), *The meaning in life* (pp. 213-233). New York: Oxford University Press.

Horvath, A. O., & Greenberg, L. W. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology, 36*(2), 223-233.

Horvath, A. O., & Symonds, B. D. (1991). Relation between working alliance and outcome in psychotherapy: A meta-analysis. *Journal of Counseling Psychology, 38,* 133-138.

Howard, K. I., Kopta, S. M., Krause, M. S., & Orlinsky, D. E. (1986). The dose-effect relationship in psychotherapy. *American Psychologist. Special Issue: Psychotherapy Research, 41*(2), 159-164.

Jenerson-Madden, D., Ebersole, P., & Romero, A. M. (1992). Personal life meaning of Mexicans. *Journal of Social Behavior and Personality, 7*(1), 151-161.

Jung, C. (1966). *Collected works: The practice of psychotherapy* (vol. XVI). Bollingen Series. New York: Pantheon.

Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 1, 4th ed., pp. 233-265). Boston, MA: McGraw-Hill.

King, L. A., Hicks, J. A., Krull, J. L., & Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *Journal of Personality and Social Psychology, 90*(1), 179-196.

King. G. A. (2004). The meaning of life experiences: Application of a meta-model to rehabilitation sciences and services. *American Journal of Orthopsychiatry, 74*(1), 72-88.

Kokotovic, A. M., & Tracey, T. J. (1990). Working alliance in the early phase of counseling. *Journal of Counseling Psychology, 37,* 16-21.

Konstam, V., Holmes, W., Wilczenski, F., Baliga, S., Lester, J., Priest, R. (2003). Meaning in the lives of caregivers of individuals with Parkinson's disease. *Journal of Clinical Psychology in Medical Settings, 10*(1), 17-26.

Kopta, S. M., Howard, K. I., Lowry, J. L., & Beutler, L. E. (1994). Patterns of symptomatic recovery in psychotherapy. *Journal of Consulting and Clinical Psychology, 62*(5), 1009-1016.

Korobkin, S. B., Herron, W. G., & Ramirez, S. M. (1998). Severity of symptoms of depression and anxiety as predictors of duration of psychotherapy. *Psychological Reports, 82*(2), 427-433.

Krause, N. (2003). Religious meaning and subjective well-being in late life. *Journal of Gerontology, 58B*(3), S160-S170.

Krause, N. (2007). Longitudinal study of social support and meaning in life. *Psychology and Aging, 22*(3), 456-469.

Langeland, E., Wahl, A. K., Kristoffersen, K., Nortvedt, M. W., & Hanestad, B. R. (2007). Sense of coherence predicts change in life satisfaction among home-living residents in the community with mental health problems: A 1-year follow-up study. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care & Rehabilitation, 16*(6), 939-946.

Laudet, A. B., Morgen, K., & White, W. L. (2006). The role of social supports, spirituality, religiousness, life meaning, and affiliation with 12-step fellowships in quality of life

satisfaction among individuals in recovery from alcohol and drug problems. *Alcoholism Treatment Quarterly, 24*(1-2), 33-73.

Leibert, T., Archer, Jr., J., Munson, J., & York, G. (2006). An Exploratory Study of Client Perceptions of Internet Counseling and the Therapeutic Alliance. *Journal of Mental Health Counseling, 28*(1), 69-83.

Lent, R.W. (2004). Toward a unifying theoretical and practical perspective on well-being and psychosocial adjustment. *Journal of Counseling Psychology, 51*(4), 482-509.

Low, G., & Molzahn, A. E. (2007). Predictors of quality of life in old age: A cross-validation study. *Research in Nursing & Health, 30,* 141-150.

Lyon, D. E., & Younger, J. B. (2001). Purpose in life and depressive symptoms in persons living with HIV disease. *Journal of Nursing Scholarship, 33*(2), 129-133.

Maddi, S. R. (1970). The search for meaning. In M. Page (Ed.), *Nebraska symposium on motivation* (pp. 137-186). Lincoln: University of Nebraska Press.

Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Counseling and Clinical Psychology, 68*(3), 438-450.

Mascaro, N., & Rosen, D. H. (2005). Existential meaning's role in the enhancement of hope and prevention of depressive symptoms. *Journal of Personality, 73*(4), 985-1013.

Mascaro, N., & Rosen, D. H. (2006). The role of existential meaning as a buffer against stress. *Journal of Humanistic Psychology, 46*(2), 168-190.

Maslow, A. H. (1971). *The further reaches of human nature.* New York: Viking.

Meier, A., & Edwards, H. (1974). Purpose in Life Test: Age and sex differences. *Journal of Clinical Psychology, 30,* 384-386.

Moomal, Z. (1999). The relationship between meaning in life and mental well-being. *South African Journal of Psychology, 29*(1), 42-48.

Moras, K., & Strupp, H. H. (1982). Pretherapy interpersonal relations, patients' alliance and the outcome in brief therapy. *Archives of General Psychiatry,* 405-409.

Orbach, I., Mikulincer, M., Gilboa-Schechtman, E., & Sirota, P. (2003). Mental pain and its relationship to suicidality and life meaning. *Suicide and Life-Threatening Behavior, 33*(3), 231-241.

Pavot, W. G., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment, 5*, 164-172.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36*(4), 717-731.

Reker, G. T. (1977). The Purpose-in-Life Test in an inmate population: An empirical investigation. *Journal of Clinical Psychology, 33,* 688-693.

Reker, G. T. (1997). Personal meaning, optimism, and choice: Existential predictors of depression in community and institutional elderly. *The Gerontologist, 37,* 709–716.

Reker, G. T. (1992). *Manual of the Life Attitude Profile – Revised.* Peterborough, Ontario Canada: Student Psychologists Press.

Reker, G. T. (2005). Meaning in life of young, middle-aged, and older adults: Factorial validity, age, and gender invariance of the Personal Meaning Index (PMI). *Personality and Individual Differences, 38,* 71-85.

Reker, G. T. & Cousins, J. B. (1979). Factor structure, construct validity and reliability of the seeking of noetic goals (SONG) and purpose in life (PIL) tests. *Journal of Clinical Psychology, 35*(1), 85-91.

Reker, G. T., & Fry, P. S. (2003). Factor structure and invariance of personalmeaning measures in cohorts of younger and older adults. *Personality and Individual Differences, 35*, 977-993.

Reker, G. T., & Peacock, E. J. (1981). The Life Attitude Profile (LAP): A multidimensional instrument for assessing attitudes toward life. *Canadian Journal of Behavioral Science*, *13,* 264–273.

Reker, G. T., Peacock, E. J., & Wong, P. T. P. (1987). Meaning and purpose in life and well-being: A life-span perspective. *Journal of Gerontology, 42*(1), 44-49.

Reker, G. T. & Wong, P. T. P. (1984). Psychological and physical well-being in the elderly: The Perceived Well-Being Scale (PWB). *Canadian Journal on Aging, 3,* 23-32.

Reker, G. T., & Wong, P. T. P. (1988). Aging as an individual process: Toward a theory of personality meaning. In J. E. Birren & V. L. Bengston (Eds.), *Emergent Theories of Aging* (pp. 214-246). New York: Springer.

Rogers, C. R. (1951). *Client-cenetered therapy.* Cambridge, MA: Riverside Press.

Ruffin, J. E. (1984). The anxiety of meaninglessness. *Journal of Counseling and Development, 63,* 40-42.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55,* 68-78.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52,* 141-166.

Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry, 9*(1), 1-28.

Saltzman, C., Leutgert, M.J., Roth, C.H., Creaser, J., & Howard, L. (1976). Formation of a therapeutic relationship: Experience during the initial phase of psychotherapy as predictors of treatment duration and outcome. *Journal of Consulting and Clinical Psychology*, *44*(4), 546–555.

Scannell, E. D., Allen, F. C. L., & Burton, J. (2002). Meaning in life and positive and negative well-being. *North American Journal of Psychology, 4*(1), 93-112.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5-14.

Sexton, T. L., & Whiston, S. C. (1994). The status of the counseling relationship: An empirical review, theoretical implications, and research directions. *The Counseling Psychologist, 22*(1), 6-78.

Shek, D. T. L. (1992). Meaning in life and psychological well-being: An empirical study using the Chinese version of the Purpose in Life Questionnaire. *The Journal of Genetic Psychology, 153*(2), 185-200.

Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods, 7*(4), 422-445.

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (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., & Frazier, P. (2005). Meaning in life: One link in the chain from religiousness to well-being. *Journal of Counseling Psychology, 52*(4), 574-582.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using Multivariate Statistics* (4th ed.). Boston, MA: Allyn & Bacon.

Taylor, S. J., & Ebersole, P. (1993). Young children's meaning in life. *Psychological Reports, 73,* 1099-1104.

Tolstoy, L. (1929). *My confession, my religion, the gospel in brief.* New York: Charles Scribner.

Tracey, T. J., & Kokotovic, A. M. (1989). Factor structure of the Working Alliance Inventory. *Psychological Assessment: A Journal of Consulting and Clinical Psychology, 1*(3), 207-210.

Vecchio, G. M., Gerbine, M., Pastorelli, C., Del Bove, G., & Caprara, G. V. (2007). Multi-faceted self-efficacy beliefs as predictors of life satisfaction in late adolescence. *Personality and Individual Differences, 43*(7), 1807-1818.

Viet, C. T., & Ware, J. E. (1983). The structure of psychological distress and well-being in general populations. *Journal of Consulting and Clinical Psychology, 51,* 730-742.

Vilchinsky, N., & Kravetz, S. (2005). How are religious belief and behavior good for you? An investigation of mediators relating religion to mental health in a sample of Israeli Jewish students. *Journal for the Scientific Study of Religion, 44*(4), 459-471.

Wang, M., Lightsey, O. R., Pietruszka, T., Uruk, A. C., & Wells, A. G. (2007). Purpose in life and reasons for living as mediators of the relationship between stress, coping, and suicidal behavior. *The Journal of Positive Psychology, 2*(3), 195-204.

Wiesmann, U., & Hannich, H. (2008). A salutogenic view on subjective well-being in active elderly persons. *Aging & Mental Health, 12*(1), 56-65.

Wolgast, B. M., Lambert, M. J., Puschner, B. (2003). The dose-response relationship at a college counseling center: Implications for setting session limits. *Journal of College Student Psychotherapy, 18*(2), 15-29.

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

Yetim, U. (2003). The impacts of individualism/collectivism, self-esteem, and feeling of mastery on life satisfaction among the Turkish university students and academicians. *Social Indicators Research, 61*(3), 297-317.

Zetzel, E. R. (1956). Current concepts of transference. *International Journal of Psychoanalysis, 37,* 369-376.

Zhang, J., & Huang, Y. (2007). The correlation between social support, coping style, and subjective well-being of college students. *Chinese Journal of Clinical Psychology, 15*(6), 629-631.

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,* 133-145.