The relationship between meaning in life and depression in young adult

Sarah Lynn Tuttle
THE RELATIONSHIP BETWEEN MEANING IN LIFE
AND DEPRESSION IN YOUNG ADULTS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Social Work

by
Sarah Lynn Tuttle
September 2006
THE RELATIONSHIP BETWEEN MEANING IN LIFE
AND DEPRESSION IN YOUNG ADULTS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

by
Sarah Lynn Tuttle
September 2006

Approved by:
Dr. Janet Chang, Faculty Supervisor
Social Work

Dr. Rosemary McCaslin,
M.S.W. Research Coordinator
ABSTRACT

The relationship between the existential constructs of meaning and purpose in life, assessed using Reker's (1992) Life Attitude Profile — Revised (LAP-R) instrument, and depression, assessed using Beck's Depression Inventory (BDI), was explored in young adults. It was hypothesized that as LAP-R scores corresponding to a greater sense of meaning and purpose in life increase, depression levels will decrease. Conversely, as LAP-R measures that correspond to a diminished sense of meaning and purpose in life increase, depression levels are similarly expected to increase. Results supported these hypotheses; it was found that greater levels of depression were associated with a less well-developed sense of meaning and purpose in life, while low levels of depression were associated with a strong sense of meaning and purpose in life in young adults. Differences were found in the strength of the correlations between LAP-R and BDI measures in Anglos and Latinos/Latinas. In Anglos, there were significant negative correlations between the LAP-R measures of Purpose, Coherence, Personal Meaning, and Existential Transcendence and BDI depression scores. In contrast, none of the LAP-R
variables were correlated with BDI depression scores among Latinos/Latinas.
ACKNOWLEDGMENTS

I am grateful for the California State University San Bernardino Social Work faculty for encouraging me to write and think critically. A heartfelt “thank you” to my classmates for tolerating my numerous class-time questions and comments. I adore each and every one of you and will hold dear the memory of sideways glances, laughter and rebellious comradery. Thank you, to my “wives” and family for their patience and support during these past three years I’ve spent attached to my computer and buried in books. Thank you Mom for raising me left-of-left. To my sweet, sweet boy Gus, thank you for the love notes that warmed your old mama’s heart. A huge debt of gratitude to my husband for his tireless assistance in keeping our family afloat, fed, and focused. My dear Allen, you never doubted me and always met me with open arms and generous compliments. I would have burned myself out without your endless feedback, consultation, and interest in my thesis. Besos, mi amor.
# TABLE OF CONTENTS

ABSTRACT .................................................................................. iii

ACKNOWLEDGMENTS .................................................................. v

LIST OF TABLES ......................................................................... ix

CHAPTER ONE: INTRODUCTION .................................................. 1
  Problem Statement .................................................................... 2
  Purpose of the Study ............................................................... 6
  Significance of the Project for Social Work ......................... 9

CHAPTER TWO: LITERATURE REVIEW
  Introduction .............................................................................. 14
  Theories Guiding Conceptualization .................................... 14
  Theory and Research on Meaning in Life ......................... 15
  Meaning in Life and Depression in Young Adults ............. 18

CHAPTER THREE: METHODS
  Introduction .............................................................................. 22
  Study Design ........................................................................... 22
  Sampling .................................................................................... 24
  Data Collection and Instruments ........................................ 26
  Procedures ................................................................................. 32
  Protection of Human Participants ....................................... 33
  Data Analysis ............................................................................ 33
  Summary .................................................................................. 36
| APPENDIX D: BECK'S DEPRESSION INVENTORY | 74 |
| APPENDIX E: DEBRIEFING STATEMENT | 78 |
| APPENDIX F: ITEM ANALYSES FOR THE LIFE ATTITUDE PROFILE - REVISED | 80 |
| APPENDIX G: ITEM ANALYSES FOR THE BECK'S DEPRESSION INVENTORY | 85 |
| REFERENCES | 87 |
LIST OF TABLES

Table 1. Demographic Characteristics of the Participants ........................................ 39

Table 2. Mean Scores for the Life Attitude Profile - Revised Dimensions and Composite Scales ........................................ 41

Table 3. Frequency and Percentage of Participants Scoring at Each Level of Depression on the Beck’s Depression Inventory ............... 42

Table 4. Bivariate Correlations Between the Life Attitude Profile - Revised Predictor Variables and Beck’s Depression Inventory Scores ........................................ 44

Table 5. Bivariate Correlations Between the Life Attitude Profile - Revised Predictor Variables and Beck’s Depression Inventory Scores in Latino/Latina and Anglo Groups ........................................ 47
CHAPTER ONE
INTRODUCTION

This chapter consists of a contextual exploration of the relationship between the constructs of meaning and purpose in life and their potential relationship to depression in young adults. An overview of the purpose and significance of the current research is also provided. The chapter begins with a statement of the research problem, providing a comprehensive exploration of the meaning and purpose in life constructs. The history and importance of studying what has been referred to as a universal human motive, the striving to understand the meaning of life (Frankl, 1963), is also described. The second part of the chapter presents the purpose and rational for the current study, which uses the correlational method to determine the strength of the relationship between different levels of meaning and purpose in life and current levels of depression. Here, the chapter explores the importance of having a sense of meaning and purpose and how having meaning in life may affect the mental well-being of social work clients. Finally, in describing the significance of the project...
for social work practice, it is argued that there is a vital need for studying the relationship between meaning in life and depression in young adults.

Problem Statement

Research on the meaning in life construct began when Crumbaugh and Maholick (1964), and later Maddi (1967), attempted to operationalize the theories developed by Viktor Frankl (1963) by developing the Purpose in Life Test (PIL). This instrument was used in many of the early studies exploring meaning in life. At the same time, a new theoretical and practice-based sub-discipline based on existential therapy was coming into favor.

Existential therapy developed in response to post World War II nihilistic suffering, and was profoundly influenced by the work of Frankl (1963). Frankl found, through his own experience and observation of others that endured and survived incarceration in Nazi concentration camps, that only those that managed to make meaning out of their suffering survived the camps. This led Frankl to postulate that we live in an age of "collective neurosis" and that this creates an "existential vacuum" in our collective and personal experiences (Frankl, 1963).
Additionally, Frankl suggested that many of us, especially those in crisis and living under oppression, may feel that "being has no meaning." He further asserted that "man's search for meaning is the primary motivation in his life" (Frankl, 1963). Studies exploring the relationship of personal meaning and its relationship to other important psychological constructs have confirmed much of Frankl's theoretical assertions.

The scope of meaning in life and its influence on other psychological measures encompass most of the life situations that social workers seek to help clients resolve. Existential meaning in life, as described by Reker and Chamberlain (2000), is "the processes of discovering, creating and searching for meaning including the core aspects of purpose in life, sense of coherence, life-goals framework, fulfillment of life goals and self transcendence." When the essential motivating construct of a search for meaning in life is not explored or remains unrealized, a person may suffer a dire personal crisis characterized by Reker and Fry (2003) as consisting of "boredom, hopelessness, depression and the loss of will to live."
Reker (1992) has shown that achieving high levels of meaning in life is associated with high levels of life satisfaction, morale, happiness, physical well-being, physical health, positive self-concept, self-esteem, internal locus of control, personal optimism, extroversion, conscientiousness, and sense of commitment. Conversely, lacking a sense of meaning is significantly correlated with the presence of psychopathology (Yalom, 1980, as cited in Reker, 1992); low self-esteem (Zika & Chamberlain, 1992, as cited in Reker, 2004), substance use and suicide ideation (Harlow et al., 1986, as cited in Reker, 2004), neuroticism (Marshall et al., 1994, as cited in Reker, 2004); anomie (Garfield, 1973, as cited in Reker, 2004), depression in the elderly (Reker, 2004), and poor physical health (Reker, 2004). A low sense of meaning in life is present among prison inmates (Reker, 1977) and schizophrenic patients (Crumbaugh, 1968), further suggesting a link between meaning in life and well-being.

Psychological well-being is positively correlated with high levels of personal meaning and is negatively correlated with low sense of personal meaning (Debats & Drost, 1995; Moomal, 1999; Scannell, Allen, & Burton,
Physical well-being, as assessed in terms of the response to stress, the ability to cope, and pain-management, also correlate with various measures of meaning in life (Antonovsky, 1987; Lazarus & DeLongis, 1983; Petrie & Azariah, 1990). Those with a strong sense of meaning, as determined by the Sense of Coherence (SOC) survey, which is strongly weighted toward meaning in life measures, are less likely to have stress-related health problems (Antonovsky, 1987). Short-term pain management is similarly mediated by the extent to which patients have a sense of meaning in life (Petrie & Azariah, 1990).

High levels of stress (Gold, Zakowski, Valdimarsdottir, & Bovbjerg, 2004), poor coping skills (Brownhill, 2004), and poor pain management (Petrie & Azariah, 1990) are linked to depression. As previously described, well-being has also been shown to be related to depression, where depressed individuals tend to report low levels of psychological or physical well-being (Gable & Nezlek, 1998). Given that depression can be seen as a reflection of poor psychological well-being, and that well-being and meaning in life are inter-related, it can be argued that
depression may partly be influenced by sense of meaning in life. Conversely, meaning in life may be influenced by depressive states. Although a causal relationship has yet to be empirically shown, a correlational relationship between the two has been established across a lifespan continuum. Because a sense of meaning in life directly relates to psychological and physical well-being, the need for further investigation by the social work discipline appears to be self-evident.

Purpose of the Study

The current research investigates the relationship between meaning in life and depression in young adults. Reker’s (1992) Life Attitude Profile – Revised (LAP-R) instrument was used to assess purpose and meaning in life, and Beck’s Depression Inventory (BDI) was used to assess current level of depression in young adults. Correlational analyses were used to test the hypothesis that as LAP-R scores corresponding to a greater sense of meaning and purpose in life (i.e., LAP-R dimensions of Purpose, Coherence, Choice/Responsibleness, Death Acceptance, and Goal Seeking, and the LAP-R composite scales of Personal Meaning Index and Existential
Transcendence) increase, depression levels will decrease. Conversely, as the LAP-R measure that corresponds to a diminished sense of meaning and purpose in life (i.e., Existential Vacuum) increases, depression levels are similarly expected to increase. If these meaning in life measures are correlated with depression scores in young adults as hypothesized, then incorporating assessment of attitudes towards life and working to improve perceived meaning and purpose in life may significantly enhance the social worker's effectiveness in working with young adults suffering from depression.

The LAP-R has been shown to have a high degree of reliability and validity as an operational measure of the construct of personal meaning in life (Reker, 1992, 2005). Furthermore, the LAP-R has been used in numerous studies among several populations where high levels of personal meaning have been found to correlate with positive experiences of physical and mental health and with high levels of well-being in general (Reker, 1992, 2005). The BDI has a long history as an established instrument for assessing depression with a high degree of validity and reliability. Together, these instruments should provide a meaningful assessment of the potential
relationship between one’s sense of meaning and purpose in life and their level of depression.

Most of the social work research on the meaning of life construct stems from the elderly’s experience of meaning and purpose within a life stage framework (Erikson, 1959; Manheimer, 2000). While meaning in life and its relation to depression has been shown in the elderly population (Reker, 1997), the current study was focused on the young adult population. Specifically, the study will explore the relationship between meaning in life and depression in young adults. It is argued that the current study will add to the social work literature base by providing a cross-sectional view of young adults and their sense of meaning and purpose in life as it relates to depression.

Additionally, some of the demographic data may further illuminate the constructs under investigation and their relationship to ethnicity. Because California State University San Bernardino has up to 32 percent Latino enrollment, the population of inquiry yields a large potential sample for examining depression and meaning in life in this understudied population.
Finally, studies have found conflicting data on meaning in life measures of males versus females. In a lifespan study evaluating participants ranging in age from 16 to 75 years old, Reker and colleagues (1987) found women to have a greater desire to find meaning in life than men. These authors speculate that the gap between women and men in meaning-seeking may be due to female role dissatisfaction or the "empty nest syndrome," rather than being due to something endemic to men. There is an obvious need for further study of those differences. In contrast, Scannell et al. (2002) found no gender differences on measures of meaning in life in a similar lifespan study comprised of participants aged 18 to 84 years old. So the current study may shed light on gender differences in the young adult population as well.

Significance of the Project for Social Work

According to Furman and Bender (2003), the social work literature base is deleteriously missing theoretically based research on depression from, among others, an existential perspective. They suggest that the literature is "dominated by reductionist, quantitatively based research studies" and that further studies may
illuminate the complexities of the problem of depression. The authors believe that the medicalization of depression may allow social work clients to settle on a medical explanation for their depression rather than addressing the larger context for depression in oppression and marginalization, thus diluting the political and social aspirations of both the individual and the population. The social work profession should take on the responsibility of directing appropriate treatments for depression in order to resist the “hegemony of managed care.” It is therefore argued that studying the potential relationship between existential well-being and depression can provide a significant contribution to the field of social work.

At the core of social work values as outlined in the first sentence of the preamble to the National Association of Social Workers’ code of ethics is that “the primary mission of the social work profession is to enhance human well-being...with particular attention to the needs of empowerment of people who are vulnerable, oppressed and living in poverty” (http://www.socialworkers.org/pubs/code/code.asp). In fact, research in social work has shown that low
socioeconomic status and perceived anticipated lack of future economic stability are correlated with existential meaning in life (Shek, 2003). Clearly, empowering clients to find meaning and purpose in life in order to improve well-being is at the core of social work values.

The social work profession serves clients across the lifespan continuum. Clients seeking or lacking a personal understanding of meaning and purpose may be seen in a micro context, for example in individual clinical therapy, or in a mezzo context, for example in family or group exploration of meaning and purpose and its relation to depression. Meaning in life may also be important to medical social workers, palliative care workers, as well as those working with immigrant populations. Behavior health agencies that see clients suffering from depression must assess and plan for treatment from an ecological perspective.

It is suggested that in evaluating the needs of depressed clients, recognizing the positive effect of having a strong sense of meaning in life and developing means of enhancing meaning in clients' lives may be a positive addition to the cognitive, behavioral and medical model therapies currently employed.
Interestingly, one study suggests that those expressing existentially caused depression respond well to cognitive therapy but respond poorly to behavioral therapy (Addis & Jacobson, 1996). These authors speculate that the global and abstract terms used by clients may be best fitted to cognitive therapy. As suggested by Hacker (1994), for example, clients could be directed to corrective measures to defend against meaninglessness such as “dedication to a cause, creativity, self actualization, and self-transcendence.”

The National Association of Social Workers notes that social workers see 60% of all mental health related cases in the United States (http://www.socialworkers.org). Of those cases, a majority are depression related. Existential therapy should be an avenue of assessment as well as clinical exploration used by social workers. This appears to be especially true given the connection between meaning in life and the many key factors relating to well-being that are so important to social workers.

The theoretical, philosophical, and empirical exploration of meaning has spread across disciplines. The social work discipline has investigated the importance of
existential theory and therapies (Klugman, 1997; Krill, 1978; Lantz & Gregoire, 2000a, 2000b; Lantz & Harper, 1990) and of social construction of meaning (Barrett, Thomas, & Hocevar, 1995; Dean, 1993; O’Connor, 2003). The social work field is also exploring meaning in life questions through the understanding of world view (Franklin, 2002) and spirituality (Henery, 2003).
CHAPTER TWO

LITERATURE REVIEW

Introduction

Chapter Two explores the literature base used to support the current study. The first part of the chapter reviews research on the meaning in life construct. Next, the potential relationship between meaning in life issues and depression in young adults is discussed. The latter half of the chapter concentrates on the theoretical literature providing the foundation for the current study. An exploration of the guiding theories as well as the constraints of the study and conflicting findings complete the review.

Theories Guiding Conceptualization

The theory base for the current study is grounded in the humanist tradition. The existential nature of the questions of meaning and the importance they have in many cultures stems from a value in seeing people as whole human beings that are alike one another. Most of the theoretical perspectives guiding past studies have come from the existential humanist tradition lead by Frankl, May, Yalom, and to an extent Erikson.
Existential therapy and its underlying philosophy has informed mental health treatment in a variety of ways. For example, Klugman (1997) expounds on the necessity to join cognitive and existential approaches in both therapeutic and philosophical undertakings. Hacker (1994) focuses on ways in which to operationalize existential empirical research on adolescents. Additionally, Hacker (1994) worked to compile a comprehensive view of adolescents from a holistic, existential perspective.

Other literature of importance regards the religious and spiritual implications of studying meaning in young adults. Also relevant to this study is research relating meaning in life and depression across different cultures. Lastly, literature on suicide and suicidal ideation informs this area of research. Each of these theoretical bases guiding the conceptualization of the current research are addressed in this chapter.

Theory and Research on Meaning in Life

The empirical research obtained to date is generally centered on the construct of meaning. Such studies have generated data on meaning in life and well-being (Debats
Much of the empirical research on the meaning in life construct has been with the elderly population. For example, the social work profession has evaluated the meaning in life construct in the elderly in the context of the Eriksonian life state of "ego integrity vs. despair" (Erikson, 1968; Manheimer, 2002; Pinquart, 2002). One study in particular found a statistically significant relationship between meaning in life and depression in the aged (Reker, 1997). This report suggested that meaning, choice, and optimism are strongly inversely linked to depression in the elderly population.

Another study investigating the positive relationship between meaning in life and general well-being was conducted by Zika and Chamberlain (1992) with a group of older mothers and a group of elderly. This study evaluated meaning in life using three measures of the meaning construct, the PIL, the Life Regard Index (LRI), another precursor to the LAP-R (Battista & Almond, 1973) and the Sense of Coherence Scale (SOC) (Antonovsky, 1987). Well-being was measured using the Mental Health Inventory (MHI) (Viet & Ware, 1983). These researchers
found that mothers (mean age 29) and the elderly (mean age 69) experienced a positive association between meaning in life and general well-being. Interestingly, these authors reported that “the relation between the strength of the life meaning and psychological health may remain constant regardless of where meaning is embedded.”

In addition to the meaning in life research done with the elderly, several qualitative studies have sought to understand adolescent and young adult world view with regard to existential questions (Adamson, Hartman, & Lyxell, 1999; Carlson, 2003; Pramling & Johansson, 1995; Scott, 2004) and to social construction (Furman, Jackson, Downey, & Shears, 2003).

The qualitative study of meaning in life in young adults has been complemented with a small number of quantitative studies. For example, meaning in life and its relationship with depression in young adults has been studied using the Purpose in life instrument (PIL) paired with the Minnesota Multiphasic Personality Inventory (MMPI) in a cross-sectional study of African college students with a mean age of 20 (Moomal, 1999). The findings of this study are consistent with the hypotheses presented in the current study, where a negative
correlation between the sense of meaning in life and depression is predicted. The Moomal (1999) study found that meaning in life correlated negatively with most of the clinical subscale of the MMPI. Well-being in general was found to have a positive relationship with meaning in life in this population.

Another cross sectional study using the Chinese version of the PIL the (C-PIL) (Shek, 1992) was undertaken with secondary students ranging in age from 11-20 years old. This study used the Beck Depression Inventory (BDI) as well as seven other instruments used to assess general health and well-being to explore the relationship of the two constructs (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The findings were similar to those in the Moomal (1999) study; all measures for well-being correlated positively with a sense of meaning in life as measured by the C-PIL.

Meaning in Life and Depression in Young Adults

The young adult population is unique for several reasons. Young adults are transitioning into adulthood, and they have been shown to have a high suicide rate second only to the elderly. Suicide rates increase from
early to late adolescence by almost 600% (Hacker, 1994). Recent studies of adolescence/young adulthood have pointed to the idea that identity formation, a process originally explored by Erikson (1963), may be extended into young adulthood. Erikson, perhaps by design, never attached an age limit to the life stage he defined as “identity versus role confusion” (Erikson, 1968).

It is possible that the transition from adolescence into adulthood may be culturally mediated and extended. This is seen as particularly likely in industrialized cultures (Arnett, 2000). Arnett suggests that the years after adolescence might also be included as a likely time of identity formation. He refers to the ages of 18-25 as a time of “emerging adulthood” (Arnett, 2000). Adamson and Lyxell (1996) found that adult interest in the expression of existential questioning was significantly related to self-concept in 18-20 year olds in their study. They referred to this age range as being part of a life stage referred to as “late adolescence.” This study, as well as a later study (Adamson et al., 1999), found that 16-19 year olds expressly needed an adult to talk with about questions of meaning and purpose as they relate to their future. Adamson and Lyxell (1996) assert
that "to find oneself in terms of an existential context may be considered as one of the last building blocks of an adult identity."

Twenty five percent of young adults will experience depression before or around the age of 24 (Van Voorhees, Fogel, Houston, Cooper, Wang, & Ford, 2005). Ironically, many of them will not get proper care for that depression. In the aforementioned study, 26% of participants stated their refusal to accept the diagnosis of depression. Van Voorhees et al. (2005) asserts that of those that prefer counseling treatment to pharmaceutical treatment, there is a tendency not to accept the depression diagnosis. Yet, they state that the "behaviorally based treatments used in counseling may be less acceptable than biological treatment approaches."

It might be that young adults seeking counseling have a world view that differs from that best suited for conventional cognitive behavior approaches. This may create special problems to the extent young adults also reject the medical model. These factors appear to signal the importance of developing alternative approaches to treatment. One such alternative involves exploring the
role that meaning and purpose in life may have in young adults with depression.

Goldstein and Rosselli (2003) discussed the ramifications of the media’s and clinical practitioner’s single-minded approach to depression assessment and treatment when the causes of depression are still under investigation. Their study found that the methodology employed in the treatment of depression significantly relates to issues of “empowerment, treatment preference and stigma.” In agreement with Szasz (1961) and Keen (2000), Goldstein and Rosselli (2003) suggest that adopting the position of biological model may reduce the patient’s empowerment to work towards resolution of the source of the depression. This has direct ramifications for social work practice empowering young adult clients with options for treatment modality seems essential for their self advocacy.
CHAPTER THREE

METHODS

Introduction

Chapter Three describes the methods used to study the relationship between meaning and purpose in life and depression in young adults in the current research. A review of the design of the study highlighting the rational for the hypotheses put forth in this study are outlined below. Specifically, the practical procedures for recruitment and protection of the sample are shown. A detailed description of the data collection methods, instrumentation, and data analyses employed in the study are also explored.

Study Design

The study was designed to explore and describe the relationship between young adults’ sense of meaning and purpose in life and their experience of depression. Correlational analyses were used to test the hypothesis that as scores on the LAP-R meaning and purpose in life survey increase (indicating a greater degree of meaning and purpose in life), depression scores on the Beck Depression Inventory (BDI) will decrease (indicating
lower levels of depression). The focus of this study is to determine not only if measures of meaning and purpose in life correlate with depression but to describe which aspects of the meaning in life construct show the strongest correlations with depression in young adults. The study also aims to illustrate potential differences in life attitudes or depression in young adult males and females, as well as to explore potential differences in these measures or their intercorrelations occurring as a function of membership within one of the prevalent cultural populations present in the participant pool, including Latino/Latina, African American, and Anglo groups. In this manner, this study strives to add to the social work literature base providing multi-cultural view of the meaning in life construct.

This study incorporates a correlational design to show the relationship between the LAP-R measures of meaning and purpose in life and the BDI measure of depression. This design involves a comparison of all six meaning in life dimensions and the two composite scales from the LAP-R to be compared with the BDI depression scores.
As with all correlational studies, the current study is limited in that it cannot show a causal relationship between the variables of life attitudes regarding meaning and purpose in life and of depression. To demonstrate such causality, of course, experimental manipulation is required. Also, the current research design cannot show changes in the population over time, as longitudinal measures were not obtained. Ideally, a longitudinal life span study examining changes in meaning in life sense and depression would be valuable. A study using the LAP-R and BDI instruments to explore the relationship between meaning in life and depression during extended adolescence, and then during another life phase within the same population, might reveal interesting changes in these measures or their intercorrelations over time.

Sampling

The sample is a convenience sample of 87 students from undergraduate university classes. Student participation in the study was voluntary; students were self-selected based on their willingness to serve as research participants in exchange for extra credit. The young adult population was chosen because of the
potential for stress leading to depression and the premise that this college population may have an extended experience of identity formation, making the topic of meaning in life especially salient. Young adults seeking higher education are in a unique position to question the direction of their lives, and their ratings on meaning in life measures may be especially likely to correlate with feeling depressed.

Surveys are routinely administered to students for extra credit toward their course work in the psychology department. The university is uniquely equipped to provide for a safe environment in which to ask students questions that could be challenging for them to reconcile. For example, the BDI instrument asks if the participant has ever contemplated suicide. The survey purports to be evaluative for two weeks, which should mean that a student that indicates that they have considered suicide recently may be in crisis. Attached to the instruments were the numbers and addresses of two on-campus service providers for counseling regarding suicide or other provocative concepts that may be unsettling to the students participating in this study.
Data Collection and Instruments

Participants were administered a packet containing the informed consent form (Appendix A), a demographic survey (Appendix B), the LAP-R survey (Appendix C), the BDI instrument (Appendix D), and the debriefing form (Appendix E). Data on participants’ sense of meaning in life was collected using Reker’s (1992) LAP-R instrument. Current level of depression was assessed using the BDI. Data on the demographics of the population under study, including age, ethnicity, and gender, were also collected. These instruments are described in some detail below. Additionally, data illustrating the validity and reliability of the LAP-R and the BDI are provided.

The LAP-R is a self-report instrument consisting of 48 items providing a multidimensional measure of existing levels of meaning and purpose in life, and of the motivation to find meaning and purpose in life. Each item is rated on a 7-point Likert scale, an ordinal level measure, where a value of 7 indicates that the respondent strongly agrees with the item statement, and 1 indicates that the respondent strongly disagrees with the item. The LAP-R is scored and profiled along six different dimensions, and two composite scales comprised of
different combinations of those dimensions. The six
dimensions of the LAP-R are Purpose, Coherence, Choice
Responsibleness, Death Acceptance, Existential Vacuum,
and Goal Seeking. The two composite scales are the
Personal Meaning Index, derived by summing the Purpose
and Coherence dimensions, and the Existential
Transcendence measure, derived by summing Purpose,
Coherence, Choice Responsibleness, and Death Acceptance,
and subtracting Existential Vacuum and Goal Seeking. The
LAP-R thus provides a total of eight variables per
participant. Each of these variables is potentially
meaningfully related to depression. Scale scores for the
six dimensions range from 8 to 56. Personal Meaning and
Existential Transcendence range from 16 to 112 and -80 to
208 respectively. High scores on dimensions represent the
degree to which the characteristic is present. Each of
the six dimensions and both of the composite scales was
correlated with the measure of depression derived from
summing the numerical responses on the BDI.

Reker, (1992) describes each of the six dimensions
and the two composite scales as follows:
Purpose (PU):
The Purpose dimension refers to having life goals, having a mission in life, having a sense of direction from the past, in the present, and toward the future. Implicit in purpose is the notion of worthwhileness and what is of central importance in a person's life. Purpose provides thrust and direction to one's life.

Coherence (CO):
The Coherence dimension refers to having a logically integrated and consistent analytical and intuitive understanding of self, others, and life in general. Implicit in coherence is a sense of order and reason for existence, a clear sense of personal identity, and greater social consciousness.

Choice Responsibleness (CR):
The Choice Responsibleness dimension refers to the perception of freedom to make all life choices, the exercise of personal responsibility, personal decision making, and internal control of life events. It is an operational index of the degree to which a
person perceives to have personal agency in directing his/her life.

Death Acceptance (DA):
The Death Acceptance dimension refers to the absence of fear and anxiety about death and the acceptance of death as a natural aspect of life. It is an operational index of the degree to which a person has achieved death transcendence.

Existential Vacuum (EV):
The Existential Vacuum dimension refers to having a lack of meaning in life, lack of goals, lack of direction, boredom, apathy, or feelings of indifference. It is an operational index of a frustrated “will to meaning.”

Goal Seeking
The Goal Seeking dimension refers to the desire to get away from the routine of life, to search for new and different experiences, to welcome new challenges, to be on the move, and an eagerness to get more out of life.
Personal Meaning Index (PMI):

The Personal Meaning Index was developed to provide a more focused measure of personal meaning. Personal meaning is a dual component construct defined as having life goals, having a mission in life, having a sense of direction from past, present, and future, and having a logically integrated and consistent understanding of self, other, and life in general. The PMI is derived by summing the purpose and Coherence dimensions. Personal Meaning Index (PMI) = Pu + CO

Existential Transcendence (ET):

Existential Transcendence is a global measure of attitudes toward life that takes into account both the degree to which meaning and purpose has been discovered and the motivation to find meaning and purpose. The individual who has achieved existential transcendence has a new perspective on life, has a good understanding of self, has come to accept the prospect of personal death, has an appreciation for the past, present, and future, and views
life as inevitable and meaningful. Existential transcendence is derived by summing the scores on the LAP-R dimensions of Purpose, Coherence, Choice Responsibleness, and Death Acceptance and subtracting the scores on Existential Vacuum and Goal Seeking. Existential Transcendence = Pu+CO+CR+DA-(EV + GS).

(pp. 14-20)

The BDI is a 21 item ordinal level instrument listing four different statements about mood and behavior for each item. These statements vary in severity or intensity and correspond to scores of 0, 1, 2, or 3. Using this scale, individual participants can obtain total BDI scores ranging from 0-63, where higher BDI scores indicate a greater degree of depression. The BDI scores are interpreted using a scale ranging from normal mood fluctuation, to mild mood disturbance, to borderline clinical depression, to moderate, severe, and finally to extreme depression.

Both the LAP-R and the BDI have well-established validity and reliability. The LAP-R when used in with young adults has been shown to have an internal consistency ranging from .77 for the Existential Vacuum
sub-scale to .91 for the Personal Meaning Index composite scale. The instrument shows consistency across age and gender, making data collected with the instrument generalizable to other populations. The test-retest reliability for all dimensions and composites ranges from .77 to .90. The LAP-R has consistently shown higher validity compared to the Purpose in Life test (PIL). Because the LAP-R tests for specific dimensions of meaning, it is generally perceived as a more useful measure than the unidimensional PIL. The LAP-R has not been used extensively study with different ethnicities, however, and it is possible that data collected using the LAP-R may not generalize across ethnic or cultural domains. The Beck’s depression scale has been the dominant depression instrument since 1961. It has a coefficient alpha of .90 and demonstrating high inter-item reliability.

Procedures

Surveys were distributed to students in class. Students that return completed surveys to their instructor were given extra credit points as deemed appropriate by the instructor.
The LAP-R can be filled out in 15 to 20 minutes and the BDI requires about 10 minutes to fill out. The demographic portion of the survey package took 1 to 2 minutes. The survey took participants approximately 35 minutes to complete outside of the classroom.

Protection of Human Participants

Students' confidentiality was assured as no identifying marks were assigned to the surveys. Students were informed of the intent of the study in class as surveys were being distributed. A separate informed consent form and debriefing statement was attached to the surveys along with appropriate contact information for psychological help. Contact information and hours of operation for the California State University San Bernardino Psychological Counseling Center, and for the Community Counseling Center on campus was provided on the debriefing form. Telephone numbers were also provided for a Crisis Suicide Intervention hotline and for a mental health hotline.

Data Analysis

Assessment of demographics included frequency analyses of age, gender, and ethnicity. Age was given in
years, gender was coded as male = 1, and female = 2, and ethnicity was grouped into six categories as follows: 1 = Latino/Latina, 2 = African American, 3 = Native American, 4 = Asian/Pacific Islander, 5 = Anglo, and 6 = Other.

Data from the six dimensions and two composite scales of the LAP-R and data from the BDI for each individual participant were analyzed using the bivariate correlational method. The six LAP-R dimensions include Purpose, Coherence, Choice Responsibleness, Death Acceptance, Existential Vacuum, and Goal Seeking. The two composite scales are the Personal Meaning Index, derived by summing the Purpose and Coherence dimensions, and the ET measure, derived by summing Purpose, Coherence, Choice Responsibleness, and Death Acceptance, and subtracting Existential Vacuum and Goal Seeking. The LAP-R thus provides a total of eight variables per participant. Each of these variables is potentially meaningfully related to depression. Depression was indexed by a single score on the BDI. In the current design, the LAP-R measures were treated as predictor variables and the BDI measure was treated as the criteria variable.
Each of the six dimensions and both of the composite scales from the LAP-R were correlated with a measure of depression derived from the BDI. It is hypothesized that the LAP-R dimensions reflecting a positive and highly developed meaning in life (i.e., Purpose, Coherence, Choice Responsibleness, Death Acceptance, and Goal Seeking), as well as the composite scales of Personal Meaning Index and Existential Transcendence, will negatively correlate with BDI scores; with increasing scores on meaning in life measures of Purpose, Coherence, Choice Responsibleness, Death Acceptance, Goal Seeking, Personal Meaning Index, and Existential Transcendence, depression levels are predicted to decrease. The LAP-R dimension of Existential Vacuum, which reflects a less developed sense of meaning in life, is expected to positively correlate with BDI scores; with increasing scores on Existential Vacuum, BDI scores are similarly expected to increase. Data were further analyzed using analysis of variance (ANOVA) to determine the influence of ethnicity on LAP-R measures and on BDI scores. Additionally, comparisons of the inter-correlations between these variables were made across different ethnicities. Finally, $r^2$ was calculated on correlations of
particular interest in order to quantify the amount of variance in BDI depression scores accounted for by various LAP-R measures.

Summary

Measures were put in place to safely study the relationship between meaning in life and depression in young adults. The study was designed to measure the variables in the most direct fashion using the appropriate statistical measures for data analysis and sampling procedure. All advisable precautions were taken to assure confidentiality of the sample population and the success of the study.
CHAPTER FOUR
RESULTS

Introduction

Descriptive statistics were calculated for the demographic variables of age, gender, and ethnicity. Data from the six dimensions and two composite scales of the LAP-R and data from the BDI for each individual participant were analyzed using the bivariate correlational method. The six LAP-R dimensions include Purpose, Coherence, Choice Responsibleness, Death Acceptance, Existential Vacuum, and Goal Seeking. The two composite scales are the Personal Meaning Index, derived by summing the Purpose and Coherence dimensions, and the Existential Transcendence measure, derived by summing Purpose, Coherence, Choice Responsibleness, and Death Acceptance, and subtracting Existential Vacuum and Goal Seeking. The LAP-R thus provides a total of eight variables per participant.

Potential differences in strength of the correlations between BDI scores and LAP-R measures as a function of ethnicity were also explored. Separate correlations between BDI scores and each of the six
dimensions and two composite scales from the LAP-R were calculated for each ethnic group (except for Native Americans, which had no respondents). Potential differences between ethnic groups in the strength of the correlations between BDI scores and LAP-R measures were also explored using correlational analyses on the data from separate ethnic groups. The values for $r^2$ were calculated on correlations of particular interest in order to quantify the amount of variance in BDI depression scores accounted for by various LAP-R measures.

Lastly, the overall influence of ethnicity on depression (as indexed by BDI scores), and on attitudes towards life (as assessed by LAP-R measures), was determined using ANOVA.

Demographic Characteristics of the Respondents

Table 1 shows the demographic characteristics of the 87 participants completing the demographic questionnaire, the BDI, and the LAP-R instruments. The age range of the sample was from 18 to 24, with an average age of 21. The majority (79%) of participants were female, with the remaining participants (21%) being male. The largest ethnic groups were Latino/Latina (41.4%) and Anglos.
(32.2%), with smaller groups of African Americans (9.2%),
Asian/Pacific Islanders (5.7%), and participants listed
as "other" (11.5%).

Table 1. Demographic Characteristics of the Participants

<table>
<thead>
<tr>
<th>Demographics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>11</td>
<td>12.6</td>
</tr>
<tr>
<td>19</td>
<td>9</td>
<td>10.3</td>
</tr>
<tr>
<td>20</td>
<td>10</td>
<td>11.5</td>
</tr>
<tr>
<td>21</td>
<td>24</td>
<td>27.6</td>
</tr>
<tr>
<td>22</td>
<td>13</td>
<td>14.9</td>
</tr>
<tr>
<td>23</td>
<td>13</td>
<td>14.9</td>
</tr>
<tr>
<td>24</td>
<td>7</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td>21.0</td>
</tr>
<tr>
<td>Female</td>
<td>69</td>
<td>79.0</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>36</td>
<td>41.4</td>
</tr>
<tr>
<td>African American</td>
<td>8</td>
<td>9.2</td>
</tr>
<tr>
<td>Asian/Pacific</td>
<td>5</td>
<td>5.7</td>
</tr>
<tr>
<td>Anglo</td>
<td>28</td>
<td>32.2</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>11.5</td>
</tr>
</tbody>
</table>
Descriptive Statistics of the Life Attitude Profile - Revised and Beck's Depression Inventory Instruments

The frequency of each response on the 7-point Likert scale, and the means for each item on the 48-item LAP-R instrument are shown in Appendix F. Participant responses on subsets of these items were used to calculate each of the six dimensions (Purpose, Coherence, Choice Responsibleness, Death Acceptance, Existential Vacuum, Goal Seeking) of the LAP-R according to the methods established by Reker (1992). Composite scales (Personal Meaning Index and Existential Transcendence) were then derived by combining specific LAP-R dimensions as described previously. Mean scores for these six dimensions and two composite scales are shown in Table 2. The highest mean score on the LAP-R dimensions occurred on the Choice Responsibleness dimension, and the lowest mean score occurred on the Existential Vacuum dimension.
Table 2. Mean Scores for the Life Attitude Profile - Revised Dimensions and Composite Scales

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>42.81</td>
</tr>
<tr>
<td>Coherence</td>
<td>41.03</td>
</tr>
<tr>
<td>Choice Responsibleness</td>
<td>44.77</td>
</tr>
<tr>
<td>Death Acceptance</td>
<td>33.57</td>
</tr>
<tr>
<td>Existential Vacuum</td>
<td>28.37</td>
</tr>
<tr>
<td>Goal Seeking</td>
<td>42.48</td>
</tr>
<tr>
<td>Personal Meaning Index</td>
<td>83.84</td>
</tr>
<tr>
<td>Existential Transcendence</td>
<td>91.26</td>
</tr>
</tbody>
</table>

The frequency of responses for each value of the 4 possible choices (0-3), and the means for each item on the 21-item BDI are shown in Appendix G. In calculating BDI scores, participant responses were summed to provide a total score. Increasing ranges of scores correspond to greater levels of depression. BDI scores can range from 0-63, with levels of depression ranging from normal "ups and downs" to "extreme depression" (Beck et al., 1961). BDI total scores from the participants in the current study ranged from 0-32. Table 3 shows the frequency and percentage of participants whose total BDI scores fell within the range considered normal "ups and downs"
(scores of 0-10), mild mood disturbance (scores of 11-16), borderline clinical depression (scores of 17-20), moderate depression (21-30), and severe depression (scores of 31-40). The majority (64.4%) of participants fell within the range considered normal ups and downs, 18.4% were considered to have mild mood disturbance, 8.0% had scores suggesting borderline clinical depression, 5.7% scored in the range of moderate depression, and 3.4% had scores consistent with severe depression. No participants had scores in the range corresponding to extreme depression.

Table 3. Frequency and Percentage of Participants Scoring at Each Level of Depression on the Beck's Depression Inventory

<table>
<thead>
<tr>
<th>Score</th>
<th>Level of Depression</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>These ups and downs are considered normal</td>
<td>56</td>
<td>64.4</td>
</tr>
<tr>
<td>11-16</td>
<td>Mild mood disturbance</td>
<td>16</td>
<td>18.4</td>
</tr>
<tr>
<td>17-20</td>
<td>Borderline clinical depression</td>
<td>7</td>
<td>8.0</td>
</tr>
<tr>
<td>21-30</td>
<td>Moderate depression</td>
<td>5</td>
<td>5.7</td>
</tr>
<tr>
<td>31-40</td>
<td>Severe depression</td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td>Over 40</td>
<td>Extreme depression</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Correlations Between Beck's Depression Inventory and Life Attitude Profile - Revised Measures

The correlations between BDI scores and each of the six dimensions (Purpose, Coherence, Choice Responsibleness, Death Acceptance, Existential Vacuum, Goal Seeking), and two composite scales (Personal Meaning Index and Existential Transcendence) from the LAP-R are shown in Table 4. To control for Type I error associated with conducting multiple correlation tests, the \( \forall \) value for these eight correlations was adjusted using the Bonferroni method (.05/8 = .01); this adjusted \( \forall \) value of .01 was used to determine significance for the correlations between BDI scores and each LAP-R variable. Correlation coefficients (r), as well as the coefficient of determination (r^2), are shown in Table 4.
Table 4. Bivariate Correlations Between the Life Attitude Profile - Revised Predictor Variables and Beck's Depression Inventory Scores

<table>
<thead>
<tr>
<th>Life Attitude Measure</th>
<th>Beck's Depression Inventory</th>
<th>r</th>
<th>r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>-.356*</td>
<td>.13</td>
<td></td>
</tr>
<tr>
<td>Coherence</td>
<td>-.399**</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>Choice Responsibleness</td>
<td>-.308*</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>Death Acceptance</td>
<td>-.069</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Existential Vacuum</td>
<td>.470**</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>Goal Seeking</td>
<td>.322*</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>Personal Meaning Index</td>
<td>-.409**</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>Existential Transcendence</td>
<td>-.513**</td>
<td>.26</td>
<td></td>
</tr>
</tbody>
</table>

*p < .01; ** p < .001.

Scores on the BDI were significantly correlated with scores on the LAP-R dimensions of Purpose (r = -.356, p < .001), Coherence (r = -.399, p < .001), Choice Responsibleness (r = -.308, p < .0047), Existential Vacuum (r = .470, p < .001), Goal Seeking (r = .322, p < .002), Personal Meaning Index (r = -.409, p < .001), and Existential Transcendence (r = -.513, p < .001). The strongest predictors of BDI depression scores were, therefore, the LAP-R dimension of Existential Vacuum, and the composite scales of Personal Meaning Index and Existential Transcendence. The correlation between BDI
depression scores and Existential Transcendence was the strongest. This correlation yielded a coefficient of determination ($r^2$) of .26. Variation in the values for Existential Transcendence, therefore, accounts for 26% of the variance in level of depression reported on the BDI in the young adult population sampled in the current study. The least predictive LAP-R measure was Death Acceptance, which was not significantly correlated with BDI scores.

To summarize, each dimension and composite scale was negatively correlated with BDI scores (where lower scores on these LAP-R dimensions and composite scores were associated with higher levels of depression), with the exception of Existential Vacuum and Goal Seeking, which were positively correlated with BDI scores (where lower scores on these LAP-R dimensions and composite scores were associated with lower levels of depression), and Death Acceptance scores, which were not significantly correlated with BDI scores. The LAP-R measures of Existential Vacuum, Personal Meaning Index, and Existential Transcendence were most strongly correlated with BDI depression scores.
Ethnicity-specific Correlations between Beck’s Depression Inventory and Life Attitude Profile - Revised Measures

In order to explore potential differences in the degree of correlation between depression, as indexed by BDI scores, and meaning and purpose in life, as reflected by the six dimensions and two composite scales derived from the LAP-R, separate correlational analyses were conducted on these variables for the Latino/Latina and Anglo ethnic groups. These correlations are shown in Table 5. The Bonferroni adjusted $\forall$ value of .01 was again used to determine significance for the correlations between BDI scores and each LAP-R variable within these ethnic groups. Because the number of participants identified as African American ($n = 8$) or Asian Pacific Islander ($n = 5$) was comparatively low, yielding low levels of statistical power, separate correlational analyses on these groups were not considered to be reliable and are therefore not reported here. Also, the ethnic group “Other” was not considered in these analyses, however, as ethnicity was not specified by these respondents.
Table 5. Bivariate Correlations Between the Life Attitude Profile - Revised Predictor Variables and Beck's Depression Inventory Scores in Latino/Latina and Anglo Groups

<table>
<thead>
<tr>
<th>Life Attitude Measure</th>
<th>Beck's Depression Inventory</th>
<th>$r^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>.088</td>
<td>.01</td>
</tr>
<tr>
<td>Anglo</td>
<td>-.629**</td>
<td>.40</td>
</tr>
<tr>
<td>Coherence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>-.097</td>
<td>.01</td>
</tr>
<tr>
<td>Anglo</td>
<td>-.579*</td>
<td>.34</td>
</tr>
<tr>
<td>Choice Responsibleness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>-.336</td>
<td>.11</td>
</tr>
<tr>
<td>Anglo</td>
<td>-.050</td>
<td>.00</td>
</tr>
<tr>
<td>Death Acceptance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>-.090</td>
<td>.01</td>
</tr>
<tr>
<td>Anglo</td>
<td>-.319</td>
<td>.10</td>
</tr>
<tr>
<td>Existential Vacuum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>.334</td>
<td>.11</td>
</tr>
<tr>
<td>Anglo</td>
<td>.438</td>
<td>.19</td>
</tr>
<tr>
<td>Goal Seeking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>.065</td>
<td>.00</td>
</tr>
<tr>
<td>Anglo</td>
<td>.419</td>
<td>.18</td>
</tr>
<tr>
<td>Personal Meaning Index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>-.003</td>
<td>.00</td>
</tr>
<tr>
<td>Anglo</td>
<td>-.649**</td>
<td>.42</td>
</tr>
<tr>
<td>Existential Transcendence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>-.238</td>
<td>.06</td>
</tr>
<tr>
<td>Anglo</td>
<td>-.674**</td>
<td>.45</td>
</tr>
</tbody>
</table>

*p < .01; ** p < .001.
Results from these correlational analyses show that for Latinos/Latinas, none of the LAP-R dimensions or composite scales correlated significantly with BDI scores. In contrast, Anglos showed significant negative correlations between BDI scores and the LAP-R dimensions of Purpose and Coherence, and the composite scales for Personal Meaning Index and Existential Transcendence. Thus, lower scores on these LAP-R dimensions and composite scores were associated with higher levels of depression in the Anglo group but not in the Latino/Latina group. The remaining LAP-R dimensions were not significantly correlated with BDI scores in either Latinos/Latinas or Anglos.

The coefficients of determination ($r^2$) for the LAP-R composite scales, which were most strongly correlated with BDI depression scores, were .42 and .45, respectively. Thus, variation in the values for Personal Meaning Index accounts for 42% and variation in the values for Existential Transcendence accounts for 45% of the variance in level of depression reported on the BDI in the Anglo population sampled in the current study. In contrast, Personal Meaning Index scores account for less than 1% and Existential Transcendence scores account for
only 6% of the variance in BDI depression scores in the Latino/Latina participants in this study.

Ethnicity-dependent Differences in Correlational Strength

As discussed above, significant correlations occurred between BDI scores and four of the LAP-R predictor variables (Purpose, Coherence, Personal Meaning Index, and Existential Transcendence) in the Anglo group, while no significant correlations occurred in the Latino/Latina group. Thus, the strength of the correlations between depression and various life attitude measures appeared to differ between the Latino/Latina and Anglo groups. This effect is also suggested by the large differences in the amount of variance in BDI scores accounted for by these LAP-R measures, as indicated by the corresponding coefficients of determination.

In order to determine whether the apparent differences in correlational strengths in the Latino/Latina and Anglo groups were statistically significant, a non-directional, two-tailed test based on z-scores obtained by r-to-z transformation test was conducted. Comparison of the z observed scores for Purpose (z_{obs} = 3.10), Coherence (z_{obs} = 2.10), Personal
Meaning Index ($z_{obs} = 2.88$), and Existential Transcendence ($z_{obs} = 2.16$) to the critical z value of ± 1.96 yielded significant differences ($p < .05$) between the Latino/Latina and Anglo groups in the strength of correlation on each of these variables. Thus, the strength of the negative correlations between BDI depression scores and the LAP-R measures of Purpose, Coherence, Personal Meaning Index, and Existential Transcendence measures in Anglos was significantly greater than in Latino/Latina respondents.

Effect of Ethnicity on Beck’s Depression Inventory Scores and Life Attitude Profile - Revised Measures

In order to determine whether ethnic groups differed on BDI measures of depression or on any of the LAP-R measures, an ANOVA was conducted using ethnicity as the independent variable, and BDI scores, LAP-R dimensions, and LAP-R composite scores as dependent variables. No ethnic group differences occurred in depression as assessed by BDI scores. However, significant between-group differences occurred on the LAP-R dimensions of Purpose ($F_{(1,4)} = 3.188, p < .017$), and Goal Seeking ($F_{(1,4)} = 2.748, p < .034$). Post hoc Tukey’s
analyses showed that the Asian/Pacific Islander group had lower Purpose scores than both the Latino/Latina (p < .025) and Anglo (p < .022) groups. The African American group had greater Goal Seeking scores than both the Latino/Latina (p < .041) and Anglo (p < .034) groups. No other significant between-group differences emerged either on the remaining LAP-R measures, and no post hoc differences occurred between Latino/Latina and Anglo groups on any measure.
CHAPTER FIVE

DISCUSSION

Introduction

This chapter presents the main findings from the correlational analyses of the LAP-R meaning and purpose in life measures and the BDI measure of depression in young adults. Outcomes in support of the hypotheses are described, as well as those outcomes that contradicted or otherwise failed to support the hypotheses. Additionally, a discussion of the influence of ethnicity on LAP-R measures, on the BDI measure of depression, and on their inter-correlations is provided. Interpretations and implications of the research findings are offered. Finally, limitations of the research and suggestions for future research are discussed.

Discussion

In a survey of young adult (aged 18-24) college students, statistically significant correlations were found between depression (BDI scores) and life attitudes as assessed by the LAP-R dimensions of Purpose, Coherence, Choice Responsibleness, Existential Vacuum, and Goal Seeking, and the LAP-R composite scales of
Personal Meaning Index and Existential Transcendence. As hypothesized, the LAP-R dimensions of Purpose, Coherence, and Choice Responsibleness, and the two composite scales, Personal Meaning Index, and Existential Transcendence were negatively correlated with BDI scores. Each of these dimensions and composite scales show higher scores in people with a relatively well-developed sense of purpose and meaning in life (Reker, 2005). Consequently, the negative correlations between these LAP-R scores and depression (BDI) scores demonstrate that participants with a strong sense of purpose and meaning in life tend to show lower levels of depression than participants with a less well-developed sense of purpose and meaning in life.

The LAP-R dimension of Existential Vacuum was positively correlated with BDI scores, as predicted. High scores on the Existential Vacuum measure indicate a lack of meaning in life, a lack of goals and direction, and a frustrated will to meaning. This positive correlation shows that when Existential Vacuum scores are elevated, indicative of a lack of meaning in life, the level of depression (BDI scores) is similarly high.
Death Acceptance refers to the absence of fear and anxiety about death, and the acceptance of death as a natural aspect of life. This dimension of the LAP-R was hypothesized to negatively correlate with depression. However, the negative correlation between BDI scores and Death Acceptance failed to reach statistical significance. Thus, the hypothesized relationship between depression and this LAP-R dimension was not supported.

The significant positive correlation between BDI scores and the Goal Seeking dimension of the LAP-R measure was opposite to the hypothesized relationship between these variables. Goal Seeking refers to the desire to get away from the routine of life, to search for new and different experiences, to welcome new challenges, to be on the move, and an eagerness to get more out of life. This LAP-R dimension was therefore hypothesized to be negatively correlate with depression. However, results showed that when BDI scores evidence increased depression level, Goal Seeking measures increase. One reason Goal Seeking may have shown a positive correlation with depression is that those exhibiting higher levels of depression may also have a
greater desire to escape their usual routine in an effort to reduce feelings of depression.

Overall, the results from correlational analyses of the attitudes towards life and depression levels in young adults supported the main hypotheses that those with a less robust sense of purpose and meaning in life will tend to show a greater level of depression, while those with a well-developed sense of purpose and meaning in life will tend not to suffer from depression. The relationship between attitudes towards the role of seeking meaning or having a sense of purpose in life and depression was strong when considering young adults as a whole. However, as discussed below, considerable variation in the strength of these correlations occur in different ethnic groups. This ethnicity-dependent variation in the relationship between existential variables and depression represents potentially rich source for further research.

Ethnicity, Depression, and Meaning in Life

No specific a priori hypotheses were made regarding potential ethnicity-dependent differences in depression (BDI scores) or in attitudes towards life (LAP-R
measures). However, post hoc exploratory analyses of the influence of ethnicity on the relationship between LAP-R measures and BDI scores found a distinct difference in how measures of purpose and meaning in life related to depression in Latino/Latina as compared to Anglos. Unfortunately, African American, Asian/pacific Islander, Native American, and those identifying as “other” were too few in number to analyze with a suitable level statistical reliability.

In Anglos, the LAP-R dimensions of Purpose and Coherence, as well as the composite scales of Personal Meaning Index and Existential Transcendence, were significantly negatively correlate with BDI scores. This relationship is consistent with the hypothesis that participants with less a well-developed sense of purpose and meaning in life will tend to show greater levels of depression. Latino/Latina participants, however, showed no statistically significant correlation between any of the six dimensions of the LAP-R or the two composite scores and BDI measures of depression. Furthermore, a comparison of the strength of the negative correlations between depression and the LAP-R measures of Purpose, Coherence, Personal Meaning Index, and Existential
Transcendence revealed that each of these correlations was significantly stronger in Anglos as compared to Latinos/Latinas. This difference is clearly revealed by the coefficients of determination based on these correlations; variation in the values for Personal Meaning Index accounts for 42% of the variance in level of depression, and variation in Existential Transcendence scores accounts for 45% of the variance in depression in the Anglo population sampled in the current study. In contrast, Personal Meaning Index scores account for less than 1% and Existential Transcendence scores account for only 6% of the variance in BDI depression scores in the Latino/Latino participants in this study.

The observed differences in correlational strength between BDI scores and Purpose, Coherence, Personal Meaning Index, and Existential Transcendence in the Latino/Latina and Anglo groups might have reflected preexisting differences in either LAP-R measures or BDI depression measures. However, ANOVA tests showed that the Latino/Latina group did not differ from the Anglo group on any of the LAP-R dimensions or composite scales, nor did differences in depression (BDI scores) occur as a function of ethnicity.
The lack of significant differences between Latino/Latina and Anglo groups on BDI scores and on the LAP-R measures demonstrates that the observed differences in the strength of correlation between BDI and the LAP-R measures of Purpose, Coherence, Personal Meaning Index, and Existential Transcendence were not attributable to overall differences in depression or attitudes towards life in these two groups. Instead, it appears that the Latino/Latina group is in some way protected against the potential influence of existential angst on depression, whereas existential crisis or lacking a sense of purpose and failing to find rich meaning in life is associated with higher levels of depression in the Anglo group in the current study.

Limitations

This study was limited by the demographic range of the population sample. A convenience sample of college students produced a sample population consisting of mostly female Anglo and Latino/Latina participants. Too few African American, Asian/pacific Islander, Native Americans, and male participants were surveyed to conduct meaningful statistical analyses on these sub-groups.
Broadening the sample pool through targeting classes that naturally attract a more diverse population could facilitate data collection from these ethnic groups, whereas specifically targeting males for data collection may be necessary to make adequate statistical comparisons based on gender. Additionally, as a correlational study, these data cannot address the question of directionality in the potentially causal relationship between attitudes towards meaning and purpose in life and depression. It remains to be discovered whether depression influences sense of purpose and meaning in life of young adult Anglos or the other way around. Another important question remaining to be answered is how Latinos/Latinas avoid suffering from depression even when their scores on the existential LAP-R instrument are low.

Recommendations for Social Work Practice, Policy, and Research

The results of this study confirm the importance of the constructs of meaning and purpose in life to social work practice, policy, and research. Social workers of all specializations need to understand the relevance of the meaning and purpose in life construct and its relationship to depression. Because the social work
profession serves clients across a life span continuum, social workers in all areas of the field are likely to encounter young adults suffering from depression.

The results from the current study demonstrate that a substantial part of young Anglo adults' depression is linked to their attitudes towards life and their level of achieved sense of meaning and purpose in life. In contrast, although not different from Anglos in terms of attitudes towards life and towards their own attainment of a sense of meaning or purpose, nor in terms of overall depression rates, Latinos/Latinas do not appear to show increased depression levels as a function of a decreasing sense of meaning and purpose in the current study.

For mental health workers, in particular, the connection between the meaning and purpose in life construct and depression could change treatment practices for clients experiencing depression. Results of this study clearly indicate the need to re-evaluate standard clinical social work assessment, planning, and implementation of treatment interventions for depressed clients. Further specialization of treatment for clinical depression of Latino/Latina clients is suggested.
The strength of the relationship between the meaning and purpose in life construct and depression in Anglos reflects the critical importance of addressing that construct in young Anglo adults experiencing mental health challenges. The further need to specialize the clinical treatment of depression in young adults is evidenced by the relative lack of importance that the meaning and purpose in life construct, as it relates to depression, holds for Latinos/Latinas. At present, the causes underlying the striking difference in the strength of the correlation between depression and life attitudes in Anglo and Latino/Latina groups remains to be explored.

Research in the Latino/Latina population has shown that familial social support has both a mediating and moderating effect on depression (Fernandez, Malcrane, & Ingram, 2004; Rivera, 2003). It is possible that familial support protects Latinos/Latinas from the potentially depressing influence of existential crisis. While existential variables do not appear to be related to depression level in Latinos/Latinas, gender and socioeconomic status have been cited as significant factors in Latino/Latina depression (Cuellar, 1997; Rivera, 2003). It is possible that other variables such
as these play a more substantial role than existential variables in determining depression in Latinos/Latinas. However, neither the role of familial and social support, nor the role of socioeconomic factors in depression in Latino/Latina young adults was addressed in the current study. It is suggested that future studies be conducted on the relationship between socioeconomic and familial or social support factors and depression in Latino/Latina young adults.

Conclusions

The medical model of depression is the predominant treatment modality in today’s society. Indeed, pharmacological treatments, combined with cognitive behavioral therapy, have become the norm for treating depression in young adults. Social workers educated in the ecological perspective are in a unique position to create new treatment policies that take into consideration the whole person in the environment. The research presented in this study provides clear evidence that existential variables are strongly associated with depression, at least in Anglos. It can be inferred that addressing those variables in depression treatment when
working with Anglos would be therapeutically beneficial. The opposite holds for Latino/Latina young adults; they are not likely to benefit from this same approach. This study shows that existential correlates of depression in young adults are mediated by ethnicity. Therefore, it would be a disservice to social work clients to implement ethnically-biased or culturally-insensitive treatment policies for depression when such policies may only benefit certain ethnic groups.

The results of this research issues a challenge to social work researchers to study the variables that are strongly correlated with depression in the Latino/Latina population. Cross-cultural studies of mediating, moderating and correlational factors in depression as influenced by ethnicity are crucial to understanding the full expression of depression in young adults as a whole. The social work profession has largely neglected the study of world view and existential context as they relate to depression. Social work practice, policy, and research should reflect the full spectrum of clients that we serve, as well as the environmental, cultural, factors that affect our clients' well-being.
APPENDIX A

INFORMED CONSENT
INFORMED CONSENT

The study in which you are being asked to participate, is designed to investigate the relationship between your views on meaning in life and your mood state. This study is being conducted by Sarah Tuttle under the supervision of Dr. Janet Chang, Associate Professor of Social Work. This study has been approved by the Social Work subcommittee of the Institutional Review Board, California State University, San Bernardino.

If you choose to participate in this study, you will be asked to read and respond to several survey questions. The questions should take about 30 to 40 minutes to complete. All of your responses will be held in the strictest of confidence by the researcher. Your name will not be reported with your responses. So do not write your name on the surveys. All data will be reported in group form only. You may receive the group results of this study upon completion after September, 2006. If you want to receive a copy of the study, it can be located at the Pfau Library.

Your participation in this study is totally voluntary. You are free to choose not to respond to any of the survey questions or to withdraw from this study without completing the surveys without penalty. After completion of the surveys you will find an attached debriefing statement describing the study in more detail. Included in the debriefing are resources in case you find you need to talk to a mental health professional because of the strong content of some of the survey questions. At your instructor’s discretion, you may receive extra credit for your participation.

If you have any questions or concerns about this study, contact Dr. Janet Chang at (909) 537-5184.

By placing a check mark in the box below, I acknowledge that I have been informed of, and that I understand, the nature and purpose of this study, and I freely consent to participate. I also acknowledge that I am at least 18 years of age.

Place check mark here

Today’s date: ____________________
APPENDIX B

DEMOGRAPHICS QUESTIONNAIRE
Please provide your age (in years) below.

Age:

Please circle the answer that is most applicable for each category below.

Gender:

Male
Female

Ethnicity:

Latino/Latina
African American
Native American
Asian/Pacifica Islander
Anglo
Other
APPENDIX C

LIFE ATTITUDE PROFILE — REVISED INSTRUMENT
LIFE ATTITUDE PROFILE-REVISED (LAP-R)

This questionnaire contains a number of statements related to opinions and feelings about you and life in general. Read each statement carefully, then indicate the extent to which you agree or disagree by circling one of the alternative categories provided. For example, if you STRONGLY AGREE, circle SA following the statement. If you MODERATELY DISAGREE, circle MD. If you are UNDECIDED, circle U. Try to use the undecided category sparingly.

STRONGLY AGREE = SA
AGREE = A
MODERATELY AGREE = MA
UNDECIDED = U
MODERATELY DISAGREE = MD
DISAGREE = D
STRONGLY DISAGREE = SD

1. My past achievements have given my life meaning and purpose.
   SA  A  MA  U  MD  D  SD

2. In my life I have very clear goals and aims.
   SA  A  MA  U  MD  D  SD

3. I regard the opportunity to direct my life as very important.
   SA  A  MA  U  MD  D  SD

4. I seem to change my main objectives in life.
   SA  A  MA  U  MD  D  SD

5. I have discovered a satisfying life purpose.
   SA  A  MA  U  MD  D  SD

6. I feel that some element which I can't quite define is missing from my life.
   SA  A  MA  U  MD  D  SD
7. The meaning of life is evident in the world around us.

8. I think I am generally much less concerned about death than those around me.

9. I feel the lack of and a need to find a real meaning and purpose in my life.

10. New and different things appeal to me.

11. My accomplishments in life are largely determined by my own efforts.

12. I have been aware of an all powerful and consuming purpose towards which my life has been directed.

13. I try new activities or areas of interest and then these soon lose their attractiveness.

14. I would enjoy breaking loose from the routine of life.

15. Death makes little difference to me one way or another.

16. I have a philosophy of life that gives my existence significance.

17. I determine what happens in my life.
18. Basically, I am living the kind of life I want to live.

19. Concerning my freedom to make my choice, I believe I am absolutely free to make all life choices.

20. I have experienced the feeling that while I am destined to accomplish something important, I cannot put my finger on what it is.

21. I am restless.

22. Even though death awaits me, I am not concerned about it.

23. It is possible for me to live my life in terms of what I want to do.

24. I feel the need for adventure and "new worlds to conquer".

25. I would neither fear death nor welcome it.

26. I know where my life is going in the future.

27. In thinking of my life, I see a reason for my being here.

28. Since death is a natural aspect of life, there is no sense worrying about it.
29. I have a framework that allows me to understand or make sense of my life.

30. My life is in my hands and I am in control of it.

31. In achieving life’s goals, I have felt completely fulfilled.

32. Some people are very frightened of death, but I am not.

33. I daydream of finding a new place for my life and a new identity.

34. A new challenge in my life would appeal to me now.

35. I have the sense that parts of my life fit together into a unified pattern.

36. I hope for something exciting in the future.

37. I have a mission in life that gives me a sense of direction.

38. I have a clear understanding of the ultimate meaning of life.

39. When it comes to important life matters, I make my own decisions.
40. I find myself withdrawing from life with an "I don't care" attitude.
   SA A MA U MD D SD

41. I am eager to get more out of life than I have so far.
   SA A MA U MD D SD

42. Life to me seems boring and uneventful.
   SA A MA U MD D SD

43. I am determined to achieve new goals in the future.
   SA A MA U MD D SD

44. The thought of death seldom enters my mind.
   SA A MA U MD D SD

45. I accept personal responsibility for the choices I have made in my life.
   SA A MA U MD D SD

46. My personal existence is orderly and coherent.
   SA A MA U MD D SD

47. I accept death as another life experience.
   SA A MA U MD D SD

48. My life is running over with exciting good things.
   SA A MA U MD D SD
APPENDIX D

BECK'S DEPRESSION INVENTORY
BECK INVENTORY: INSTRUCTIONS

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling in the PAST WEEK, INCLUDING TODAY. Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one.

Please be sure to read all the statements in each group before making your choice.

1) 0 I do not feel sad.
    1 I feel sad.
    2 I am sad all the time and I can't snap out of it.
    3 I am so sad or unhappy that I can't stand it.

2) 0 I am not particularly discouraged about the future
    1 I feel discouraged about the future.
    2 I feel I have nothing to look forward to.
    3 I feel that future is hopeless and that things cannot improve.

3) 0 I do not feel like a failure.
    1 I feel I have failed more than the average person.
    2 As I look back on my life, all I see is a lot of failures.
    3 I feel I am a complete failure as a person.

4) 0 I get as much satisfaction out of things as I used to.
    1 I don't enjoy things the way I used to.
    2 I don't get real satisfaction out of anything anymore.
    3 I am dissatisfied or bored with everything.

5) 0 I don't feel particularly guilty.
    1 I feel guilty a good part of the time.
    2 I feel quite guilty most of the time.
    3 I feel guilty all of the time.

6) 0 I don't feel I am being punished.
    1 I feel I may be punished.
    2 I expect to be punished.
    3 I feel I am being punished.
7) 0 I don't feel disappointed in myself.  
1 I am disappointed in myself.  
2 I am disgusted with myself.  
3 I hate myself.

8) 0 I don't feel I am any worse than anybody else.  
1 I am critical of myself for my weaknesses and mistakes.  
2 I blame myself all the time for my faults.  
3 I blame myself for everything bad that happens.

9) 0 I don’t have any thoughts of killing myself.  
1 I have thoughts of killing myself, but I would never carry them out.  
2 I would like to kill myself.  
3 I would kill myself if I had the chance.

10) 0 I don’t cry anymore than usual  
1 I cry more now than I used to.  
2 I cry all the time now.  
3 I used to be able to cry but now I can’t cry even though I want to.

11) 0 I am no more irritated by things than I ever was.  
1 I am slightly more irritated now than usual.  
2 I am quite annoyed or irritated a good deal of the time.  
3 I feel irritated all the time now.

12) 0 I have not lost interest in other people.  
1 I am less interested in other people than I used to be.  
2 I have lost most of my interest in other people.  
3 I have lost all of my interest in other people.

13) 0 I make decisions about as well as I ever could.  
1 I put off making decisions more than I used to.  
2 I have greater difficulty in making decisions than before.  
3 I can’t make decisions at all anymore.

14) 0 I don’t feel I look any worse than I used to.  
1 I am worried that I am looking old or unattractive.  
2 I feel there are permanent changes in my appearance that make me look unattractive.  
3 I believe I look ugly.
15) 0 I can work about as well as before. 
1 It takes an extra effort to get started at doing something. 
2 I have to push myself very hard to do anything. 
3 I can’t do any work at all. 

16) 0 I can sleep as well as usual. 
1 I don’t sleep as well as I used to. 
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep. 
3 I wake up several hours earlier than usual and find it hard to get back to sleep. 

17) 0 I don’t get more tired than usual. 
1 I get tired more easily than I used to. 
2 I get tired from doing almost anything. 
3 I am too tired to do anything. 

18) 0 My appetite is no worse than usual. 
1 My appetite is not as good as it used to be. 
2 My appetite is much worse now. 
3 I have no appetite at all anymore. 

19) 0 I have not lost much weight lately. 
1 I have lost more than 5 pounds. 
2 I have lost more than 10 pounds. 
3 I have lost more than 15 pounds. 

20) 0 I am no more worried about my health than usual. 
1 I am worried about physical problems such as aches and pains, upset stomach or constipation. 
2 I am very worried about physical problems and it’s hard to think of much else. 
3 I am so worried about my physical problems that I cannot think about anything else. 

21) 0 I have not noticed any recent change in my interest in sex. 
1 I am less interested in sex than I used to be. 
2 I am much less interested in sex now. 
3 I have lost interest in sex completely.
APPENDIX E

DEBRIEFING STATEMENT
The Relationship Between Meaning in Life and Mood State Debriefing Statement

The study you have just completed was designed to investigate the relationship between having a sense of meaning in life and how depression in young adults may be related to that sense of meaning. Overall, this study hopes to add weight to the findings of other such studies that have suggested that finding purpose and a sense of meaning in life may be a protective measure against depression as well as an enhancement to the individual's quality of life in general. Some studies in the elderly and other populations have found that participants that scored at the low end of range for having a sense of meaning in life on the Life Attitude Profile-Revised (LAP-R) survey tended to show a high score on the Becks Depression Inventory survey. Your participation in this study will help us to view how young adults understand having, searching for, and obtaining meaning in life and how depression may be understood in this context. If, after participating in this study, you feel that you would like to talk with a mental health care specialist, one may be reached at the Community Counseling Center, (909) 537-5569 or you can drop in or phone the CSUSB Psychological Counseling Center located in the Student Health Center Rm 136, (909) 885-5040.

Thank you for your participation and for not discussing the contents of the survey with other students until after both you and they have completed and turned in the surveys. If you have any questions about the study, please feel free to contact Sarah Tuttle or Associate Professor Janet Chang at (909) 537-5184. If you would like to obtain a copy of the group results of this study, it can be located at the Pfau Library after September, 2006.
APPENDIX F

ITEM ANALYSES FOR THE LIFE ATTITUDE PROFILE — REVISED
<table>
<thead>
<tr>
<th>Item</th>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My past achievements have given my life meaning and purpose.</td>
<td>0</td>
<td>1.1</td>
<td>1.1</td>
<td>4.6</td>
<td>14.9</td>
<td>47.1</td>
<td>31.0</td>
<td>6.0</td>
</tr>
<tr>
<td>2</td>
<td>In my life I have clear goals and aims.</td>
<td>0</td>
<td>0</td>
<td>2.3</td>
<td>3.4</td>
<td>23.0</td>
<td>37.9</td>
<td>33.3</td>
<td>6.0</td>
</tr>
<tr>
<td>3</td>
<td>I regard the opportunity to direct my life as very important.</td>
<td>0</td>
<td>1.1</td>
<td>0</td>
<td>3.4</td>
<td>10.3</td>
<td>43.7</td>
<td>41.4</td>
<td>6.2</td>
</tr>
<tr>
<td>4</td>
<td>I seem to change my main objectives in life.</td>
<td>9.2</td>
<td>29.9</td>
<td>16.1</td>
<td>11.5</td>
<td>16.1</td>
<td>11.5</td>
<td>5.7</td>
<td>3.5</td>
</tr>
<tr>
<td>5</td>
<td>I have discovered a satisfying life purpose.</td>
<td>0</td>
<td>3.4</td>
<td>5.7</td>
<td>18.4</td>
<td>17.2</td>
<td>33.3</td>
<td>21.8</td>
<td>5.4</td>
</tr>
<tr>
<td>6</td>
<td>I feel that some element which I can't quite define is missing from my life.</td>
<td>12.6</td>
<td>20.7</td>
<td>12.6</td>
<td>4.6</td>
<td>23.0</td>
<td>17.2</td>
<td>9.2</td>
<td>3.9</td>
</tr>
<tr>
<td>7</td>
<td>The meaning of life is evident in the world around us.</td>
<td>5.7</td>
<td>8.0</td>
<td>6.9</td>
<td>23.0</td>
<td>16.1</td>
<td>25.3</td>
<td>14.9</td>
<td>4.7</td>
</tr>
<tr>
<td>8</td>
<td>I think I am generally much less concerned about death than those around me.</td>
<td>5.7</td>
<td>17.2</td>
<td>12.6</td>
<td>18.4</td>
<td>16.1</td>
<td>17.2</td>
<td>12.6</td>
<td>4.2</td>
</tr>
<tr>
<td>9</td>
<td>I feel the lack of and a need to find a real meaning and purpose in my life.</td>
<td>23.0</td>
<td>29.9</td>
<td>16.1</td>
<td>11.5</td>
<td>6.9</td>
<td>6.9</td>
<td>5.7</td>
<td>2.9</td>
</tr>
<tr>
<td>10</td>
<td>New and different things appeal to me.</td>
<td>0</td>
<td>2.3</td>
<td>1.1</td>
<td>5.7</td>
<td>21.8</td>
<td>44.8</td>
<td>24.1</td>
<td>5.8</td>
</tr>
<tr>
<td>11</td>
<td>My accomplishments in life are largely determined by my own efforts.</td>
<td>1.1</td>
<td>0</td>
<td>2.3</td>
<td>2.3</td>
<td>11.5</td>
<td>44.8</td>
<td>37.9</td>
<td>6.1</td>
</tr>
<tr>
<td>12</td>
<td>I have been aware of an all powerful and consuming purpose towards which my life has been directed.</td>
<td>1.1</td>
<td>3.4</td>
<td>9.2</td>
<td>24.1</td>
<td>19.5</td>
<td>27.6</td>
<td>14.9</td>
<td>5.0</td>
</tr>
<tr>
<td>13</td>
<td>I try new activities or areas of interest and then these soon lose their attractiveness.</td>
<td>3.4</td>
<td>31.0</td>
<td>19.5</td>
<td>12.6</td>
<td>19.5</td>
<td>12.6</td>
<td>1.1</td>
<td>3.6</td>
</tr>
<tr>
<td>Item</td>
<td>Question</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>X</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>14</td>
<td>I would enjoy breaking loose from the routine of life.</td>
<td>1.1</td>
<td>6.9</td>
<td>9.2</td>
<td>9.2</td>
<td>23.0</td>
<td>33.3</td>
<td>17.2</td>
<td>5.1</td>
</tr>
<tr>
<td>15</td>
<td>Death makes little difference to me one way or another.</td>
<td>19.5</td>
<td>27.6</td>
<td>14.9</td>
<td>12.6</td>
<td>12.6</td>
<td>8.0</td>
<td>4.6</td>
<td>3.1</td>
</tr>
<tr>
<td>16</td>
<td>I have a philosophy of life that gives my existence significance.</td>
<td>1.1</td>
<td>3.4</td>
<td>4.6</td>
<td>18.4</td>
<td>25.3</td>
<td>24.1</td>
<td>23.0</td>
<td>5.3</td>
</tr>
<tr>
<td>17</td>
<td>I determine what happens in my life.</td>
<td>3.4</td>
<td>5.7</td>
<td>8.0</td>
<td>2.3</td>
<td>25.3</td>
<td>32.2</td>
<td>23.0</td>
<td>5.3</td>
</tr>
<tr>
<td>18</td>
<td>Basically, I am living the kind of life I want to live.</td>
<td>2.3</td>
<td>8.0</td>
<td>12.6</td>
<td>9.2</td>
<td>25.3</td>
<td>26.4</td>
<td>16.1</td>
<td>4.9</td>
</tr>
<tr>
<td>19</td>
<td>Concerning my freedom to make my choice, I believe I am absolutely free to make all life choices.</td>
<td>1.1</td>
<td>4.6</td>
<td>17.2</td>
<td>4.6</td>
<td>14.9</td>
<td>39.1</td>
<td>18.4</td>
<td>5.2</td>
</tr>
<tr>
<td>20</td>
<td>I have experienced the feeling that while I am destined to accomplish something important, I cannot put my finger on just what it is.</td>
<td>1.1</td>
<td>18.4</td>
<td>13.8</td>
<td>17.2</td>
<td>24.1</td>
<td>13.8</td>
<td>11.5</td>
<td>4.3</td>
</tr>
<tr>
<td>21</td>
<td>I am restless.</td>
<td>3.4</td>
<td>26.4</td>
<td>14.9</td>
<td>12.6</td>
<td>19.5</td>
<td>14.9</td>
<td>8.0</td>
<td>4.0</td>
</tr>
<tr>
<td>22</td>
<td>Even though death awaits me, I am not concerned about it.</td>
<td>12.6</td>
<td>11.5</td>
<td>18.4</td>
<td>8.0</td>
<td>18.4</td>
<td>20.7</td>
<td>10.3</td>
<td>4.1</td>
</tr>
<tr>
<td>23</td>
<td>It is possible for me to live my life in terms of what I want to do.</td>
<td>0</td>
<td>1.1</td>
<td>8.0</td>
<td>5.7</td>
<td>25.3</td>
<td>44.8</td>
<td>14.9</td>
<td>5.5</td>
</tr>
<tr>
<td>24</td>
<td>I feel the need for adventure and &quot;new worlds to conquer&quot;.</td>
<td>1.1</td>
<td>5.7</td>
<td>10.3</td>
<td>8.0</td>
<td>43.7</td>
<td>16.1</td>
<td>14.9</td>
<td>5.0</td>
</tr>
<tr>
<td>25</td>
<td>I would neither fear death nor welcome it.</td>
<td>5.7</td>
<td>14.9</td>
<td>6.9</td>
<td>21.8</td>
<td>17.2</td>
<td>20.7</td>
<td>12.6</td>
<td>4.4</td>
</tr>
<tr>
<td>26</td>
<td>I know where my life is going in the future.</td>
<td>3.4</td>
<td>3.4</td>
<td>5.7</td>
<td>9.2</td>
<td>39.1</td>
<td>26.4</td>
<td>12.6</td>
<td>5.1</td>
</tr>
<tr>
<td>27</td>
<td>In thinking of my life, I see reasons for my being here.</td>
<td>0</td>
<td>3.4</td>
<td>3.4</td>
<td>9.2</td>
<td>18.4</td>
<td>34.7</td>
<td>31.0</td>
<td>5.7</td>
</tr>
<tr>
<td>Item</td>
<td>Question</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>X</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>28</td>
<td>Since death is a natural aspect of life, there is no sense worrying about it.</td>
<td>6.9</td>
<td>10.3</td>
<td>24.1</td>
<td>6.9</td>
<td>16.1</td>
<td>25.3</td>
<td>10.3</td>
<td>4.3</td>
</tr>
<tr>
<td>29</td>
<td>I have a framework that allows me to understand or make sense of my life.</td>
<td>0</td>
<td>2.3</td>
<td>8.0</td>
<td>16.1</td>
<td>28.7</td>
<td>34.5</td>
<td>10.3</td>
<td>5.2</td>
</tr>
<tr>
<td>30</td>
<td>My life is in my hands and I am in control of it.</td>
<td>3.4</td>
<td>5.7</td>
<td>8.0</td>
<td>4.6</td>
<td>29.9</td>
<td>29.9</td>
<td>18.4</td>
<td>5.1</td>
</tr>
<tr>
<td>31</td>
<td>In achieving life’s goals, I have felt completely fulfilled.</td>
<td>1.1</td>
<td>12.6</td>
<td>16.1</td>
<td>14.9</td>
<td>28.7</td>
<td>20.7</td>
<td>5.7</td>
<td>4.4</td>
</tr>
<tr>
<td>32</td>
<td>Some people are very frightened of death, but I am not.</td>
<td>11.5</td>
<td>8.0</td>
<td>16.1</td>
<td>12.6</td>
<td>19.5</td>
<td>23.0</td>
<td>9.2</td>
<td>4.3</td>
</tr>
<tr>
<td>33</td>
<td>I daydream of finding a new place for my life and a new identity.</td>
<td>14.9</td>
<td>12.6</td>
<td>12.6</td>
<td>9.2</td>
<td>25.3</td>
<td>12.6</td>
<td>12.6</td>
<td>4.1</td>
</tr>
<tr>
<td>34</td>
<td>A new challenge in my life would appeal to me now.</td>
<td>1.1</td>
<td>11.5</td>
<td>11.5</td>
<td>13.8</td>
<td>28.7</td>
<td>26.4</td>
<td>6.9</td>
<td>4.6</td>
</tr>
<tr>
<td>35</td>
<td>I have the sense that parts of my life fit together into a unified pattern.</td>
<td>1.1</td>
<td>3.4</td>
<td>3.4</td>
<td>17.2</td>
<td>33.3</td>
<td>35.6</td>
<td>5.7</td>
<td>5.1</td>
</tr>
<tr>
<td>36</td>
<td>I hope for something exciting in the future.</td>
<td>0</td>
<td>0</td>
<td>3.4</td>
<td>10.3</td>
<td>36.8</td>
<td>49.4</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>I have a mission in life that gives me a sense of direction.</td>
<td>0</td>
<td>0</td>
<td>4.6</td>
<td>8.0</td>
<td>23.0</td>
<td>37.9</td>
<td>26.4</td>
<td>5.7</td>
</tr>
<tr>
<td>38</td>
<td>I have a clear understanding of the ultimate meaning in life.</td>
<td>6.9</td>
<td>3.4</td>
<td>9.2</td>
<td>17.2</td>
<td>19.5</td>
<td>25.3</td>
<td>18.4</td>
<td>4.9</td>
</tr>
<tr>
<td>39</td>
<td>When it comes to important life matters, I make my own decisions.</td>
<td>2.3</td>
<td>3.4</td>
<td>3.4</td>
<td>1.1</td>
<td>28.7</td>
<td>46.0</td>
<td>14.9</td>
<td>5.5</td>
</tr>
<tr>
<td>40</td>
<td>I find myself withdrawing from life with an “I don’t care” attitude.</td>
<td>21.8</td>
<td>21.8</td>
<td>12.6</td>
<td>10.3</td>
<td>24.1</td>
<td>5.7</td>
<td>3.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Item</td>
<td>Question</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>X</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>41</td>
<td>I am eager to get more out of life than I have so far.</td>
<td>0.0</td>
<td>3.4</td>
<td>8.0</td>
<td>8.0</td>
<td>21.8</td>
<td>32.2</td>
<td>26.4</td>
<td>5.5</td>
</tr>
<tr>
<td>42</td>
<td>Life to me seems boring and uneventful.</td>
<td>23.8</td>
<td>32.2</td>
<td>21.8</td>
<td>10.3</td>
<td>8.0</td>
<td>3.4</td>
<td>1.1</td>
<td>2.6</td>
</tr>
<tr>
<td>43</td>
<td>I am determined to achieve new goals in the future.</td>
<td>0.0</td>
<td>0.0</td>
<td>1.1</td>
<td>2.3</td>
<td>11.5</td>
<td>34.5</td>
<td>50.6</td>
<td>6.3</td>
</tr>
<tr>
<td>44</td>
<td>The thought of death seldom enters my mind.</td>
<td>10.3</td>
<td>10.3</td>
<td>18.4</td>
<td>13.8</td>
<td>21.8</td>
<td>14.6</td>
<td>10.3</td>
<td>4.1</td>
</tr>
<tr>
<td>45</td>
<td>I accept personal responsibility for the choices I have made in life.</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.1</td>
<td>18.4</td>
<td>44.8</td>
<td>35.6</td>
<td>6.1</td>
</tr>
<tr>
<td>46</td>
<td>My personal existence is orderly and coherent.</td>
<td>2.3</td>
<td>3.4</td>
<td>3.4</td>
<td>20.7</td>
<td>27.6</td>
<td>33.3</td>
<td>9.2</td>
<td>5.0</td>
</tr>
<tr>
<td>47</td>
<td>I accept death as another life experience.</td>
<td>3.4</td>
<td>9.2</td>
<td>9.2</td>
<td>11.5</td>
<td>25.3</td>
<td>20.7</td>
<td>20.7</td>
<td>4.9</td>
</tr>
<tr>
<td>48</td>
<td>My life is running over with exciting good things.</td>
<td>1.1</td>
<td>9.2</td>
<td>10.3</td>
<td>10.3</td>
<td>31.0</td>
<td>26.4</td>
<td>11.5</td>
<td>4.9</td>
</tr>
</tbody>
</table>
APPENDIX G

ITEM ANALYSES FOR THE BECK'S DEPRESSION INVENTORY
<table>
<thead>
<tr>
<th>Item</th>
<th>Question Content</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>level of sadness</td>
<td>63.2</td>
<td>31.0</td>
<td>3.4</td>
<td>2.3</td>
<td>.45</td>
</tr>
<tr>
<td>2</td>
<td>outlook on the future</td>
<td>77.0</td>
<td>18.4</td>
<td>3.4</td>
<td>1.1</td>
<td>.29</td>
</tr>
<tr>
<td>3</td>
<td>feelings of personal failure</td>
<td>82.8</td>
<td>13.8</td>
<td>3.4</td>
<td>0.0</td>
<td>.21</td>
</tr>
<tr>
<td>4</td>
<td>amount of self satisfaction</td>
<td>58.6</td>
<td>37.9</td>
<td>1.1</td>
<td>2.3</td>
<td>.47</td>
</tr>
<tr>
<td>5</td>
<td>feelings of guilt</td>
<td>71.3</td>
<td>26.4</td>
<td>2.3</td>
<td>0.0</td>
<td>.31</td>
</tr>
<tr>
<td>6</td>
<td>feeling punished</td>
<td>81.6</td>
<td>11.5</td>
<td>1.1</td>
<td>5.7</td>
<td>.31</td>
</tr>
<tr>
<td>7</td>
<td>feeling disappointment with self</td>
<td>67.8</td>
<td>29.9</td>
<td>0.0</td>
<td>2.3</td>
<td>.37</td>
</tr>
<tr>
<td>8</td>
<td>self evaluation</td>
<td>42.5</td>
<td>43.7</td>
<td>11.5</td>
<td>2.3</td>
<td>.74</td>
</tr>
<tr>
<td>9</td>
<td>suicidal thoughts</td>
<td>81.6</td>
<td>16.1</td>
<td>1.1</td>
<td>1.1</td>
<td>.22</td>
</tr>
<tr>
<td>10</td>
<td>amount of crying</td>
<td>71.3</td>
<td>20.7</td>
<td>3.4</td>
<td>4.6</td>
<td>.41</td>
</tr>
<tr>
<td>11</td>
<td>irritation level</td>
<td>42.5</td>
<td>44.8</td>
<td>9.2</td>
<td>3.4</td>
<td>.74</td>
</tr>
<tr>
<td>12</td>
<td>interest in others</td>
<td>60.9</td>
<td>29.9</td>
<td>8.0</td>
<td>1.1</td>
<td>.49</td>
</tr>
<tr>
<td>13</td>
<td>decision making</td>
<td>72.4</td>
<td>13.8</td>
<td>13.8</td>
<td>0.0</td>
<td>.41</td>
</tr>
<tr>
<td>14</td>
<td>personal appearance</td>
<td>65.5</td>
<td>21.8</td>
<td>8.0</td>
<td>4.6</td>
<td>.52</td>
</tr>
<tr>
<td>15</td>
<td>activity level</td>
<td>60.9</td>
<td>31.0</td>
<td>8.0</td>
<td>0.0</td>
<td>.47</td>
</tr>
<tr>
<td>16</td>
<td>quality of sleep</td>
<td>49.4</td>
<td>40.2</td>
<td>8.0</td>
<td>2.3</td>
<td>.63</td>
</tr>
<tr>
<td>17</td>
<td>feeling tired</td>
<td>32.2</td>
<td>56.3</td>
<td>11.5</td>
<td>0.0</td>
<td>.79</td>
</tr>
<tr>
<td>18</td>
<td>appetite fluctuation</td>
<td>77.0</td>
<td>20.7</td>
<td>2.3</td>
<td>0.0</td>
<td>.25</td>
</tr>
<tr>
<td>19</td>
<td>physical weight stability</td>
<td>83.9</td>
<td>12.6</td>
<td>0.0</td>
<td>3.4</td>
<td>.23</td>
</tr>
<tr>
<td>20</td>
<td>worry over physical health</td>
<td>72.4</td>
<td>21.8</td>
<td>5.7</td>
<td>0.0</td>
<td>.33</td>
</tr>
<tr>
<td>21</td>
<td>interest in sex</td>
<td>75.9</td>
<td>14.9</td>
<td>6.9</td>
<td>2.3</td>
<td>.36</td>
</tr>
</tbody>
</table>
REFERENCES


