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Dysfunctional Career Thinking as a Predictor of Depression and Hopelessness in Students Seeking Career Services

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DYFUNCTIONAL CAREER THINKING AS A PREDICTOR OF DEPRESSION AND
HOPELESSNESS IN STUDENTS SEEKING CAREER SERVICES

By

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This dissertation is dedicated to the memory of Joel Driver.
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ABSTRACT

While there has been research on the integration of mental health and career counseling, there has been little that has looked at both areas in relation to depression and hopelessness. There is literature linking depression and dysfunctional career thinking (Saunders et al., 2000), and there is also literature linking depression and hopelessness to risk for suicide and suicidal behavior (Beck et al., 1990). This study investigated the relationship among dysfunctional career thinking, depression, and hopelessness. Participants included 147 undergraduate and graduate students seeking drop-in or individual career counseling services at a university career center. The Career Thoughts Inventory (CTI) was used to measure dysfunctional career thoughts, the Beck Depression Inventory – II (BDI-II) was used to measure depression, and the Beck Hopelessness Scale (BHS) was used to measure hopelessness. Pearson correlations were utilized to determine the relationship among the variables. One stepwise multiple regression analysis was conducted to determine the amount of variance of depression that was accounted for by dysfunctional career thinking. A second stepwise multiple regression analysis was conducted to determine the amount of variance of hopelessness that was accounted for by dysfunctional career thinking. Two aspects of dysfunctional career thinking, Decision-Making Confusion (DMC) and Commitment Anxiety (CA), were found to account for a significant amount of variance in depression. One aspect of dysfunctional career thinking, Decision-Making Confusion (DMC), was found to account for a significant amount of variance in hopelessness. The potential intervening variables of gender, age, and minority status failed to yield significant increases in variation for BDI-II scores and for BHS in both stepwise regression models. Additionally, a cut score for the BDI-II was used in regression equations to determine what T-scores on DMC and CA would predict that cut score. Similarly, a cut score for the BHS was used in a regression equation to determine what T-score on DMC would predict that cut score. Results of this study indicate that there is a positive relationship among all indicators of dysfunctional career thinking, depression, and hopelessness. Also, some aspects of dysfunctional career thinking can be used to predict depression and hopelessness in undergraduate and graduate students seeking career services. Findings suggest that using the CTI total score, CTI raw scores, and including other
instruments in the prediction model may help improve the understanding of the relationship among dysfunctional career thoughts, depression, and hopelessness.
CHAPTER 1

Introduction

The purpose of this chapter is to introduce the reader to the study, “Dysfunctional career thinking as a predictor of depression and hopelessness in students seeking career services.” This chapter includes an introduction, the statement of the problem, the purpose of this study, the general question of interest, assumptions, definition of terms, and delimitations.

Psychologists, in some cases, have had a bias of neglecting vocational problems in favor of addressing personal problems (Spengler, Bluestein, & Strohmer, 1990). Krumboltz (1993) suggested that by distinguishing between career counseling and personal counseling, we create a sharp distinction despite the reality that career and emotional issues are strongly connected. Career decision making involves complex psychological processes, which affect all aspects of life, and will require career counselors to adopt approaches that consider these psychological processes (Corbishley & Yost, 1989; Yost & Corbishley, 1997). Given these concerns about an artificial demarcation between career and mental health issues, recently there has been a trend in vocational psychology to embrace a more holistic approach to career counseling that includes mental health counseling (Blustein, 2008; Hinkelman & Luzzo, 2007; Krumboltz, 1993; Lenz, Peterson, Reardon, & Saunders, 2010; Savickas, 2003; Zunker, 2008). Savickas (2003) stated that advancing a more holistic theory is one of the major objectives of career counseling professionals for the future. However, Hinkelman and Luzzo (2007) pointed out that there is very little research that considers the potential reciprocal effects of mental health and career development issues on students. These authors also pointed out that practitioners in career centers, as well as college counseling centers, affirmed that students often present with both types of issues. “Integrating vocational and non-vocational issues in counseling and psychotherapy seems to be a logically compelling idea for clients who present with work-related issues in tandem with psychosocial challenges” (Bluestein, 2006, p. 273). A study by Fouad, Guillen, Harris-Hodge, Henry, Novakovic, Terry, and Kantamneni (2006) of 694 university students found that a large portion of those students not only had career decision difficulties, but also had simultaneous psychological distress, further supporting the idea that students are likely to present with both mental health and career concerns. Anderson and Niles (1995) found that for clients seeking career services, over one third of their concerns were non-career issues,
suggesting that non-career concerns are important in career counseling. Similar findings by Anderson and Niles (2000) showed that clients valued self-exploration, emotional support, and discussing general issues in the course of career counseling. Zunker (2008) suggested that while personal and career counseling have traditionally been viewed as separate entities, they should be viewed through an integrative approach that takes into account 1) career, 2) affective, 3) cognitive-behavioral, and 4) cultural needs.

Some theorists have made the effort to integrate career and mental health issues in counseling theory. Blustein (1987) presented conceptual foundations synthesized from a career counseling and psychotherapy literature review, and provided a clinical illustration as an example of how to systematically integrate career counseling and psychotherapy. In this example, group counseling was employed with two objectives: create a forum to consider issues involved in returning to work and continue psychotherapy within the domain of career planning and vocational functioning. Overall, this model framed vocational issues in the context where they were clearly connected to the client’s other major issues in treatment. By proposing a domain-sensitive approach (an approach in which the counselor is aware of, values, and focuses on both the client’s career and non-career/psychological experiences), Blustein and Spengler (1995) hoped to address the needs of clients who could not easily be categorized as having career or non-career issues. More recently, Lenz et al. (2010) presented a model that combines career and mental health counseling in a university career services setting using a cognitive information processing theory.

Statement of the Problem

There is evidence that university students are experiencing poorer emotional health than in the past (Pryor, Hurtado, DeAngelo, Palucki Blake, & Tran, 2011). Pryor et al. found that only 52% of college freshmen rated their emotional health high or above average, down 12% in the past 25 years to an all-time low. Smith, Dean, Floyd, Silva, Yamashita, Durtschi, and Heaps (2007) found that 36% of individuals seeking services at university counseling centers were experiencing severe distress. Half of those students were experiencing distress so great that they were deemed unlikely to remain in school without appropriate therapeutic intervention. It is also possible that there are a large number of individuals experiencing severe distress who are not seeking services at university counseling centers.
College students often experience career decision difficulty and psychological distress when making career decisions (Fouad et al., 2006). Mental health issues have emerged as a source of difficulty in the career decision-making process (Lucas, Skokowski, & Ancis, 2000) and can also influence one’s ability to function in society, leading to work impairment (Zunker, 2008). Lowman (1991) indicated that those who are unhappy with their work are unhappy with their lives, as well. Lowman went on to say that mental health issues associated with career concerns should not be underestimated because psychological conflict during the career decision-making process is inevitable. It is possible that individuals seeking career assistance also have, present with, or will experience a mental health issue during the career counseling process, as well.

In these instances, where mental health and career problems are present, one can assume that seeking career assistance could be a result of the urgency of the individual’s needs being related to a career issue, or it could be because seeking services at a career center may carry less stigma for the individual than first going to a counseling center. There is the possibility that some individuals seeking services from career centers have more serious mental health issues, such as depression and hopelessness. Zunker (2008) pointed out that an individual’s whole life, including the work role, can be affected by depression. Individuals with high levels of depression and/or hopelessness are considered to be in greater need of mental health services and possibly even greater risk for self-harm behavior than the average individual (Beck, Brown, Berchick, Stewart, & Steer, 1990; D’Zurilla, Chang, Nottingham, & Faccini, 1998; Huth-Bocks, Kerr, Ivey, Kramer, & King, 2007; Kumar & Steer, 1995; Priester & Clum, 1993; McKay, 2007; Weber, Metha, & Nelson, 1997). Because of the link between mental health and work issues, counselors need to use the same care and precision with career counseling clients as with mentally troubled patients because of the multifaceted needs of clients (Lowman, 1991).

Practitioners have many different concerns to address in the course of treating an individual, in addition to the integration of career and mental health issues. Some practitioners are challenged to effectively treat both career concerns and a plethora of personal concerns (Zunker, 2008). With the push to integrate the treatment of mental health and career issues, practitioners may feel themselves stretched beyond their resources. Practitioners, who desire to be more holistic, by treating mental health and career issues together, may want to consider how to make better use of the assessment resources to which they have access. Finding more data
about emotional functioning from a career assessment tool may be indicated for centers facing economic difficulties, who cannot afford to use separate mental health and career assessment measures. Finding out more information about clients’ emotional functioning from career assessment data may be invaluable for practitioners in the integration of career and mental health services and for cost efficiency.

By using a measure that is already administered in career service settings to screen for depression and hopelessness in addition to career thinking, at-risk individuals may more readily be treated or referred appropriately. In the course of providing services, career centers may administer intake instruments that not only assess skills, interests, values, and similar characteristics, but also instruments that assess clients’ emotional and cognitive states. Identifying possible depression and hopelessness with a career assessment tool could help improve services to a depressed client, who may be at risk for self-harm, who has not sought treatment for depression and hopelessness, but has sought career counseling services. Using career assessments as depression and hopelessness screeners may help identify students who need a greater level of care and enable university staff in student service settings to respond in a more appropriate and timely way.

**Purpose of the Study**

The purpose of this study was to examine the relationship among dysfunctional career thinking, depression, and hopelessness. If a strong, statistically significant relationship between scores on a measure of dysfunctional career thinking and measures of depression and hopelessness can be determined, data from a career assessment may further inform appropriate treatment or referrals for these clients. Significant, predictive relationships among scores on dysfunctional career thinking, depression, and hopelessness measures will allow for improved utilization of selected career assessment measures in practice.

**General Question of Interest**

It is believed that a better understanding about the relationship among dysfunctional career thinking, depression, and hopelessness will contribute to improved practice in the field of counseling and vocational psychology. Considering the contribution that increased understanding about the relationship among dysfunctional career thinking, depression, and hopelessness would add to the integration of career and mental health counseling, the following research question was posed: In a sample of individuals seeking career services at a university career center, what
is the relationship among scores on measures of dysfunctional career thinking, depression, and hopelessness?

**General Methods**

This was a co-relational design. Data were collected from undergraduate and graduate students seeking career services at a university career center. Pearson correlations were employed to help determine the magnitude of correlations between the variables of interest and stepwise regression analyses were conducted to determine the amount of variance of depression and of hopelessness accounted for by the subscales on the *Career Thoughts Inventory* (CTI).

**Assumptions**

In conducting this study there were several assumptions made about the assessment of constructs and the participants:

1) The constructs of dysfunctional career thinking, depression, and hopelessness can be assessed through self-report.

2) The *Beck Depression Inventory-II* (Beck, Steer, & Brown, 1996) provides an accurate measure of participants’ depression.

3) The *Beck Hopelessness Scale* (Beck, 1993) provides an accurate measure of participants’ hopelessness.

4) The *Career Thoughts Inventory* (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996a) provides an accurate measure of participants’ dysfunctional career thinking.

5) Participants will openly and honestly respond to the self-report questionnaires.

**Definition of Terms**

There are terms used throughout this study that may not be used frequently or may be used differently in everyday language. For clarity of understanding, terms used in this study are defined below.

- **Career** - “time extended working out of a purposeful life pattern through work undertaken by the person” (Reardon, Lenz, Sampson, & Peterson, 2008, p. 6).

- **Decision-making** - “problem-solving, along with the cognitive and affective processes needed to develop a plan for implementing the solution and taking risks involved in following through to complete the plan” (Sampson, Reardon, Peterson, & Lenz, 2004, p. 6).

- **Depression** - the presence of some or all of the following symptoms: feeling sad or empty, diminished interest or pleasure in most activities, poor appetite or overeating, inadvertent
weight fluctuations, sleep disturbances, psychomotor retardation or agitation, fatigue, low self-esteem, feelings of worthlessness or excessive or inappropriate guilt, diminished concentration or indecisiveness, hopelessness, and recurrent thoughts of death (American Psychiatric Association, 2000).

Dysfunctional Career Thinking - this is dysfunctional information processing that interferes with and blocks the effective engagement in the career decision-making process causing individuals to avoid or inappropriately engage in career problem-solving and decision making behaviors (Sampson et al., 1996a).

High-risk - for the purpose of this study this term describes an individual who is more likely to have particular emotional states (e.g., depression, hopelessness, suicidal ideation) or is more likely to engage in particular behaviors (e.g., self-injurious or suicidal).

Hopelessness - cognitive schemas of negative expectancy about the short- and long-term future (Stotland, 1969), which corresponds to the third component of Beck’s (1967) cognitive model of depression, a negative outlook for the future.

Neuroticism (N) - contrast between adjustment or emotional stability and maladjustment or neuroticism, which includes depression (Costa & McCrae, 1992).

Problem-solving - “series of thought processes in which information about a problem is used to arrive at a plan of action necessary to remove the gap between an existing and a desired state of affairs” (Sampson et al., 2004, p. 5).

Suicidal Behavior - for purposes of this study, this term refers to engaging in self-injurious behaviors or actual suicide attempts.

Suicidal Ideation - for purposes of this study, this term refers to having thoughts about committing suicide which may or may not include a plan for carrying out suicide.

Suicidality - for purposes of this study this term can include suicidal ideation, suicidal behavior, or the general likelihood of attempting suicide.

Delimitations

This study did not attempt to address all potential correlates and predictors of dysfunctional career thinking, depression, and hopelessness. This study focused on the relationship among dysfunctional career thinking, depression, and hopelessness in students seeking career advising and individual counseling in a career center. The generalizability of this study is limited to samples with similar characteristics. The motivation and characteristics of the
volunteers in this sample differ from those of a non-volunteer sample. This study did not measure these above variables from all possible perspectives or operationalizations. For example, this study operationalized dysfunctional career thinking using cognitive information processing theory (Peterson, Sampson, & Reardon, 1991; Sampson et al., 2004). Also, this study operationalized depression and hopelessness based on Beck’s (1967) theory.
CHAPTER 2

Review of the Literature

This study examined the relationship among dysfunctional career thinking, depression, and hopelessness. Depression and hopelessness were operationalized using Beck’s cognitive model of depression (Beck, 1967; Beck & Alford, 2009), and dysfunctional career thinking was operationalized based on cognitive information processing theory (CIP; Peterson et al., 1991; Sampson et al., 2004). This chapter familiarizes the reader with related literature relevant to the proposed study. First, Beck’s theory of depression and hopelessness is reviewed, and literature relating to the Beck Depression Inventory-II (BDI-II; Beck et al., 1996) and Beck Hopelessness Scale (BHS; Beck, 1993) is included. Selected research related to depression and hopelessness was also reviewed. Finally, CIP was reviewed, and literature on the Career Thoughts Inventory (CTI; Sampson et al., 1996), which was used to measure dysfunctional thinking, was also reviewed. Selected research related to career development and career thinking was also reviewed. This chapter concludes with an analysis of the literature.

Beck’s Cognitive Model: Depression and Hopelessness

The theory base used to operationalize depression and hopelessness was Beck’s cognitive theory (Beck, 1963; Beck, 1967; Rush & Beck, 1978; Beck & Alford, 2009). There are three specific notions to explain depression in Beck’s cognitive model. These notions are the cognitive triad, schemas, and cognitive errors. Beck’s theory also suggests that depression is the activation of three major cognitive patterns that lead individuals to view themselves, the world, and the future in a negative manor, known as the negative triad (Beck, 1967; Beck & Alford, 2009).

As the name would indicate, the negative triad is comprised of three components, negative view of the world, self, and future (Beck, 1967; Beck & Alford, 2009). The first component is the consistent interpretation of one’s environment as representing defeat, deprivation, or disparagement, and seeing life as filled with burdens, obstacles, or traumas that all detract from the self. The pattern of the second component is to view oneself in a negative way; these individuals see themselves as deficient, inadequate, or unworthy and attribute their problems to physical, mental or moral defects. These views of the self lead to feeling undesirable and worthless, leading to self-rejection. Finally, the third component is viewing the future in a negative way, with unremitting hardships, frustration, and deprivation. There is anticipation that
the negativity experienced will continue indefinitely. This pessimistic outlook on the future is known as hopelessness; this means that hopelessness in Beck’s theory is representative of the third component of the negative triad (Beck, 1993). These cognitive patterns affect emotions and motivation.

A negative view of the world, self, and future is likely to have an impact on affect, motivation, and physical symptoms (Beck, 1967; Beck & Alford, 2009). The affective state, a depressed mood, is a consequence of one’s views of self and environment. Along with a depressed mood, the negative triad impacts one’s motivation; there may be a loss of spontaneous motivation known as paralysis of will, escape or avoidance wishes, suicidal wishes, and increased dependency. Finally, the negative triad may lead to physical symptoms such as inertia, physical delay (e.g., psychomotor retardation), agitation, and fatigability.

The second notion to explain depression from Beck’s cognitive model (Beck, 1967; Rush & Beck, 1978; Beck & Alford, 2009) is that of schemas. Schemas are structures for screening, coding, and evaluating stimuli. This is how environments are broken down and organized into psychologically relevant facets. Particular stimuli can trigger a schema relevant to the stimuli. These schemas convert raw data into cognitions, mental activity with verbal content (e.g., automatic thoughts). These cognitions can include ideas, judgments, self-instructions, self-criticisms, and verbally-articulated wishes. Schemas also include structure and logical elements that include premises, assumptions, and logical arguments. However, these schemas may include inaccuracies, misinterpretations, and distortions that lead to psychopathology. Schemas also have qualities such as flexibility, inflexibility, openness, closedness, permeability, impermeability, concreteness, and abstractness. One other aspect of schemas that can affect depressiveness is that a schema may be inactive at any time, not impacting the thought process, but it can become active, and remain active, due to input from the environment. A depressed individual has schemas that present data from the world in a way that reinforces a negative view of the world, self, and future. As one’s thinking becomes more negative, there is less realization that negative interpretations are erroneous, and negative schemas interfere with reality testing that causes systematic errors in thinking.

Systematic errors in thinking, known as cognitive errors, include arbitrary inference, selective abstraction, overgeneralization, magnification or minimization, and personalization (Beck, 1963; Rush & Beck, 1978). Arbitrary inference is drawing specific conclusions without
supporting evidence or drawing specific conclusions even in the face of contradictory evidence. Selective abstraction is conceptualizing situations based on detail taken out of context while also ignoring other contradictory evidence. Overgeneralization refers to forming a general rule from a single incident and applying it too broadly and to unrelated situations. Magnification and minimization is when one sees something as far more or far less significant than it actually is. Personalization is attributing external events to oneself without a basis for such a connection.

Beck’s theory (Beck, 1967; Rush & Beck, 1978; Beck & Alford, 2009) proposes that cognitions are a major determinant of an individual’s feelings and behaviors. Beck believed that early experiences lead to negative views about the world, self, and the future which in turn contributes to depression. Self-talk and internal communications are often identified as automatic thoughts, the conscious or unconscious dialogue one has, to and about the self. These automatic thoughts, as well as assumptions about the world, lead to the formation of schemas, the structure that one has for viewing the world. Critical events in an individual’s life activate those schemas which lead to negative attitudes. When these negative attitudes become too great there are systematic errors in logic known as cognitive errors (Beck, 1963). Since these concepts of depression and hopelessness are subjective and not directly observable phenomena, objective measures are needed to identify these concepts. In Beck’s cognitive model the BDI-II and BHS are used to operationalize depression and hopelessness. These measures are described below.

The Beck Depression Inventory-II and the Beck Hopelessness Scale. The Beck Depression Inventory-II (BDI-II; Beck et al., 1996) was developed to measure the severity of depression in adults and adolescents. The BDI-II assesses symptoms of depression in accordance with the diagnostic criteria laid out by the APA (2000). The Beck Hopelessness Scale or Hopelessness Scale (BHS; Beck, 1993) was developed to measure the extent of negative attitudes about the future in adults and adolescents. The hopelessness measured by the BHS corresponds to the third component of the negative triad, a negative view of the future. Originally the BHS was developed for use with those considered to be suicidal risk but is now also used with normal populations. Having reviewed Beck’s theory and the instruments used to operationalize depression and hopelessness, the next section addresses selected studies that have been done in the areas of depression and hopelessness that may better inform the present study.
Depression and Hopelessness in Research

Below is a review of literature that will help the reader to have a better understanding of dysfunctional thinking, depression, and hopelessness. The role of dysfunctional thinking in depression and hopelessness is explored. Also, the relationship among depression, hopelessness, and suicide, across various age groups and treatment levels, is reviewed.

**Dysfunctional thinking in depression and hopelessness.** It is important to establish that dysfunctional thinking, negative cognitions, and/or cognitive distortions relate to depression and hopelessness to further understand how dysfunctional career thoughts may predict depression and hopelessness. Several studies show that cognitive distortions or dysfunctional thinking relate to depression. In one study, symptomatic depressed patients were found to have more dysfunctional attitudes and negative automatic thoughts than a control group (Eaves & Rush, 1984). Murgai and Sathyavathi (1987) found that individuals diagnosed with neurotic depression scored significantly higher on measures of cognitive distortions than did a control group. These depressed individuals reported a significantly higher degree of the following cognitive distortion, self-rated inferiority, loneliness, feeling trapped, being indecisive, being bored, feeling hopeless about the future, and feeling detached from other people and activities. Marton, Churchard, and Kutcher (1993) found that adolescents with depression had significantly greater cognitive distortions than those without depression. Marton and Kutcher (1995) found, in a sample of depressed adolescents, that cognitive distortions were associated with greater severity of depressive symptoms. This research provided some support for the assertion that dysfunctional thinking and depression are interrelated.

Thoughts relate to and may also predict depression. De Graaf, Huibers, Cuijpers, and Arntz (2010) found that both the form (i.e., perfectionism or dependency) and content of dysfunctional thinking played a general role in depression for the general Dutch population; as form (i.e., greater perfectionism and/or dependency) and content of dysfunctional thinking (i.e., more negative thoughts) increased so did the severity of the type of depression. In another study, self-devaluative thinking was shown to significantly predict level of depression in a non-clinical sample of 924 adult women (Dent & Teasdale, 1988). Further elaborating the point that dysfunctional thoughts predict depression, negative automatic thoughts, dysfunctional attitudes, hopelessness, and helplessness were found to be significantly associated with greater levels of depressive symptoms in adolescents (Garber, Weiss, & Shanley, 1993). Similarly, a study of
Japanese university students found that dysfunctional thoughts predicted automatic thoughts which, while working as a mediator, predicted depression (Tanaka, Uji, Hiramura, Chen, Shikai, & Kitamura, 2006). Not only are dysfunctional thoughts predictive of depression, they may also be predictive of outcomes.

Beevers, Wells, and Miller (2007) found that negative cognitions mediated the relationship between the number of major depressive episodes and a worse response to treatment (i.e., negative cognitions predicted a poor response to treatment). These authors went on to say that these dysfunctional thoughts and negative information processing may become more pervasive and severe over multiple episodes. Thus, one's amount of dysfunctional thoughts will increase, information processing will become negative, and recovery will be more difficult. A similar study found that the mood state of dysphoric individuals after three days and recovery from depression after five weeks could be predicted based on their globally negative thinking (Dykman, 1996). Not surprisingly then, self-devaluative thinking in non-clinical women was shown to significantly predict a slower recovery from depression (Dent & Teasdale, 1988). However, some research has shown that recovery is possible if the focus is on reduction of dysfunctional thoughts. For example, Marton et al. (1993) found that for adolescents the remission of depression was significantly associated with the reduction of cognitive distortions. Now that the relationship among dysfunctional thinking, depression, and hopelessness has been reviewed it is important to look at how depression and hopelessness interrelate.

**The relationship between depression and hopelessness.** Since one purpose of this study was to identify high-risk clients during screening for career services, both depression and hopelessness were considered high-risk. Both are risk-factors for thoughts of self-harm or self-harm behaviors (i.e., suicide attempts and suicidal ideation). Due to a concern about high-risk behaviors, it is important to first look at the relationship between depression and hopelessness in college students and adolescents.

Velting (1998) found a significant positive relationship between hopelessness and neuroticism in a sample of 191 undergraduates. Specifically, he found that among the six facets of Neuroticism from the NEO-PI-R, depression was the most related to hopelessness, while vulnerability and impulsiveness also contributed to hopelessness. These findings suggested that feelings of dejection, discouragement, guilt, worthlessness, and dysphoria are characteristic of a hopeless individual (Velting, 1998).
Johnson and McCutcheon (1981) found that hopelessness scores were significantly correlated with depression scores in a sample of 97 nonclinical adolescents. However, a study with a sample of 439 clinically depressed adolescents, ages 12 to 17 years old, found that depression alone was not a significant predictor of hopelessness (Becker-Weidman, Reinecke, Jacobs, Martinovich, Silva, & March, 2009). However, these authors did find that cognitive variables, such as views of the self and the world, may contribute highly to level of hopelessness in adolescents. Interestingly, Alford, Lester, Patel, Buchanan, and Giunta (1995) found for a sample of 83 females and 71 male university students, hopelessness was a predictor of future depression. Similarly, Joiner, Wingate, and Otamendi (2005) found that in 169 normal university students hopelessness explained increases in depressive symptoms. This finding supported the notion that a causal relationship may exist between hopelessness and depression. The apparently contradictory findings from these studies could be a result of the different samples used; it is possible that depression and hopelessness are related for nonclinical adolescents but not for clinically treated adolescents.

The relationship between depression and hopelessness is explored at greater lengths in subsequent sections of this literature review. A large portion of the literature includes other variables such as suicidal ideation, attempts, and behaviors. Discussing these variables together provides more clarification about the relationship between depression and hopelessness and their relevance as indicators of high-risk clients. Prior to looking at depression, hopelessness, and suicide together, there are reviews of the relationship between depression and suicide and the relationship between hopelessness and suicide.

**The relationship between depression and suicide.** The body of literature looking at the relationship between depression and suicide is large but typically includes hopelessness in addition to depression. This is a brief review of selected articles which primarily provide support for the relationship between depression and suicide.

One study found that in a sample of 168 non-clinical undergraduates, Zung Self-rating Depression Scale (Zung, 1965) scores were a significant predictor of suicidal behavior, accounting for 14% of the variance of suicidal behavior, while hopelessness was not a significant predictor of suicidal behavior (Dean & Range, 1996). In a sample of 152 non-clinical college students, Lester (1999) found that BDI and Zung scores were significant predictors of current and past suicidality. Similarly, Chioqueta and Stiles (2005) found that in a sample of 219
Norwegian university student volunteers, *Hopkins Symptom Check List* (Derogatis, Lipman, & Covi, 1973) depression scores were a strong predictor of suicidal ideation, providing further evidence for the association between depression, as measured with multiple instruments, and suicidal ideation in university students. Having looked at the relationship of depression and suicide, the following section looks at the relationship of hopelessness and suicide.

**The relationship between hopelessness and suicide.** This section is a review of the literature relating to hopelessness and suicide. The following studies are subdivided based on sample characteristic - a broad age range or adolescents and college students. Across all of the age ranges reviewed, the participants were receiving varying levels of treatment or no treatment.

**Broad age range.** These studies look at a broad age range, not just adolescents and college students, and can provide a basis for understanding what has been found regarding the relationship between hopelessness and suicide. In one study that followed 207 psychiatric inpatients over five or 10 years, hospitalized for suicidal ideation without a recent attempt, 91% of eventual suicides could be identified by BHS scores of 10 or greater (Beck, Steer, Kovacs, & Garrison, 1985). This study showed that by identifying individuals with a score greater than or equal to 10, one could distinguish those more likely to actually commit suicide. Similar results have also been found for psychiatric outpatients, as shown below.

Beck, Brown, Steer, Dahlsgaard, and Grisham (1999) found that in a sample of 3,701 psychiatric outpatients, an individual’s suicidal ideation, at his or her worst point, was a more powerful predictor of ultimate suicide than hopelessness. However, these authors suggested that assessing hopelessness periodically may be a better predictor of suicide than current hopelessness. Assessing hopelessness longitudinally can show the progression and stability of one’s pessimism about the future rather than just at a point of crisis (Beck et al, 1999). Considering that assessing hopelessness over time may have more utility as a predictor of suicide than assessing for hopelessness just during crisis, early prediction of hopelessness may be an important indicator of need for early intervention rather than assessing hopelessness after an individual has suicidal ideation (Beck et al., 1999). These findings by Beck et al. (1999) suggested that BHS scores can be useful in predicting ultimate suicide, but early assessment with the BHS is a better predictor of suicide than assessment after suicidal ideations have occurred, for clinical populations. Other studies’ findings may be useful for identifying non-fatal self-harm behavior in addition to eventual suicide.
Research on the risk for self-harm behavior and suicidal behavior is also important to review in the context of this study. In a meta-analysis, that included six studies and 1216 participants, examining non-fatal self-harm behavior, McMillan, Gilbody, Beresford, and Neilly (2007) found that for the pooled self-harm studies, the standard cut-off point of nine established for the BHS did identify individuals at increased risk of future self-harm behavior. This is similar to the findings by Beck et al. (1985) that cut-off scores may be useful in identifying high risk individuals, be the risk suicide or self-harm behavior. Also, in a sample of 66 adult individuals who were hospitalized following a deliberate drug overdose, as either suicidal behaviors or attempts, who were followed for 12 months, the BHS was valuable as a short-term predictor of future suicidal behavior (Sidley, Calam, Wells, Hughes, & Whitaker, 1999). The findings from these studies indicated the value of using the BHS as a predictor of dangerous behaviors in clinical samples.

Adolescents and college students. Because the current study focused on individuals in a college setting, selected literature on hopelessness and suicide in adolescents and college students was reviewed. This review includes studies that look at clinical samples and studies that looked at non-clinical samples.

There is research that examined suicidal behaviors in clinical samples. In a study that looked at 100 university students with suicidal behavior histories and 100 without suicidal behavior histories, participants with a suicidal behavior history had lower scores on the Hope Scale than did students without suicidal behavior histories (Grewal-Sandhu, 2008). McKay (2007) found that scores on the BHS and the Hope Scale were negatively correlated. Since hope is anticipation that one may feel better in the future (Peretz, 1970) and hopelessness is a negative view about the future (Beck, Kovacs, & Weissman, 1975), low Hope Scale scores may suggest hopelessness, consistent with McKay’s findings. Similarly, in his study that used 130 undergraduate volunteers from a psychology course and 125 undergraduates seeking therapy, Cole (1988) found that BHS scores related significantly to suicidal behaviors for undergraduates seeking treatment, but there were no significant findings to suggest that hopelessness can predict suicidal behaviors in a non-clinical undergraduate sample.

The findings in studies of hopelessness and suicide with non-clinical samples of college students are similar to the findings in studies with clinical samples of college students and adolescents. In the National College Health Assessment 2003 study of 630 undergraduates,
hopelessness was found to be a significant predictor of suicidal ideation for both males and for females (Stephenson, Pena-Shaff, & Quirk, 2006). Also, Terzi-Unsal and Kapci (2005) found, as part of a path analysis, that in a sample of 605 Turkish adolescents ages 14 to 20, hopelessness was one of the factors that predicted suicidal ideation and, in turn, suicidal behavior. Dean, Range, and Goggin (1996) found that in a sample of 114 undergraduate students, hopelessness accounted for 69% of the variance in suicidal ideation, making it one of the best, if not the best, predictor(s) of suicidality in nonclinical college students. Finally, in a study of 312 Italian undergraduates, elevated BHS scores were associated with higher risk-taking behavior (e.g., sky diving, using drugs, and other dangerous activities with possible risk for physical harm) in men and women (Pompili, Lester, Innamorati, Narciso, Vento, De Pisa, Tatorelli, & Girardi, 2007). The authors suggested that these results further the knowledge on a range of “suicide spectrum” behaviors in common with self-destructiveness. Simply put, students who engaged in risk-taking behaviors were more likely to be hopeless, which could eventually lead to suicide. The results from these studies indicated that even for non-clinical or “normal” undergraduate and adolescent populations, hopelessness may be an important indicator of high-risk behaviors and suicidality. The following section not only looks at the relationship between hopelessness and suicide or depression and suicide, but the relationship among depression, hopelessness, and suicide together.

The relationship among depression, hopelessness, and suicide. By reviewing studies that include depression and hopelessness which also include suicidality, the interactions and interrelationships can be more fully explored. This section addresses broad age ranges of clinically treated individuals, as well as non-clinical college samples. The benefit of this is to explore how depression, hopelessness, and suicidality are related for more acute populations and compare that against a college population which was the focus of this study.

Clinically treated individuals. One large-scale longitudinal study, that covered approximately seven years and followed 1,958 outpatient clients, found that patients who committed suicide scored significantly higher on both the BHS, as well as the BDI, than those who did not commit suicide (Beck et al., 1990). This study showed that with a cutoff score of nine or above on the BHS, individuals could be identified who were 11 times more likely to commit suicide than a low-risk group. Furthermore, with this cutoff score, Beck et al. (1990) found that this group of individuals was twice as likely to commit suicide as the high- and low-
risk groups defined by the BDI. One shortcoming of using this cutoff score was the large proportion of false positives for prediction of ultimate suicide (59.0%). While this study looked at actual deaths, other studies with clinical populations looked more at suicidal ideation, thoughts, risk, behaviors, and concerns.

In a study of 289 psychiatrically hospitalized adolescents age 12 to 17 years-old, depression, hopelessness, suicidal ideation, and general risk were all significantly interrelated across the total sample and all subgroups within the total sample (Huth-Bocks et al., 2007). The authors also found that measures of depression, hopelessness, suicidal ideation, and general risk were significant in predicting if a youth had suicidal thoughts or behaviors one to approximately six months after discharge from the hospital and if suicide was attempted by the time of the follow-up assessment. Similarly, in Kumar and Steer’s (1995) study of 121 inpatient adolescents, the BHS and BDI explained 52% of the variance in Beck Scale for Suicide Ideation (BSS; Beck, & Steer, 1991) scores, suggesting that hopelessness and depression were good predictors of suicidal ideation. This study also confirmed that hopelessness was a more important predictor of suicidal ideation than depression in an adolescent inpatient population, much like the findings by Beck et al. (1990) that the BHS was a better predictor in a general clinical population of ultimate suicide than the BDI.

For young adults who are already severely suicidal, a causal relationship between depression, hopelessness, and suicidality does not appear to exist; rather a single psychiatric syndrome of “suicidal depression” appears to result from the convergence of these three constructs (Shahar, Bareket, Rudd, & Joiner, 2006). These findings suggest that depression, hopelessness, and suicidality cannot be looked at independently, but must be assessed simultaneously with severely suicidal clients. These authors used a severely disturbed population which over time may have changed the nature of the association between the participants’ depression, hopelessness and suicidality. However, the possibility of a causal relationship between depression and/or hopelessness and the initial onset of suicidality still exists which may be the case for a general population (Shahar et al., 2006). Such a possibility would indicate the need for the assessment of depression and hopelessness before individuals are identified as overtly suicidal.

While the evidence for the relationship of hopelessness and depression to suicidality is more direct in non-collegiate samples, there are some relevant findings for a clinical college
sample. In a study at a large urban university counseling center looking at between 165 and 180 students who were seeking treatment, there was a significant association between hopelessness and suicidal concerns, and depression was one of the most common presenting problems (Williams, Galanter, Dermatis, & Schwarts, 2008). This study also found that hopelessness had significant positive associations with psychological stress in general, being diagnosed with an anxiety or depressive disorder, and being treated with psychotropic medications. Below is a review of results for selected studies with non-clinical samples.

**Non-clinical samples.** Aside from those in treatment, there are many findings regarding college students from non-clinical samples. In a sample of 303 college freshmen, Priester and Clum (1993) found strong, significant correlations between depression and hopelessness, depression and suicidal ideation, and hopelessness and suicidal ideation. Chioqueta and Stiles (2005) found that in a sample of 219 Norwegian university students, depression was a strong predictor of suicidal ideation, providing further evidence for the association between depression and suicidal ideation in university students. These authors also found significant correlations between depression and suicidal ideation, depression and hopelessness, and hopelessness and suicidal ideation, re-confirming the findings by Priester and Clum (1993). While these studies focused on the concept of suicidal ideation, other studies focused on different suicide concerns.

Other concepts focused on in the literature include suicidal risk, suicidal behavior, and suicide resilience. D’Zurilla et al. (1998) found that in a sample of 283 undergraduate students, problem-solving deficits, depression, and hopelessness were large, significant predictors of suicidal risk. McKay’s (2007) dissertation which used a sample of 135 university students found that hopelessness and depression were positively correlated with suicidal behaviors and negatively correlated with the *Hope Scale* and suicide resilience. This author also found that the *Hope Scale* and suicide resilience were negatively correlated with suicidal behaviors. These studies provide some evidence that depression and hopelessness are interrelated with the risk for suicide, suicide resilience, and suicidal behaviors.

**Clinical and non-clinical sample comparisons.** The literature presented above suggested that for different age ranges and for clinically treated and non-clinical populations, there is a relationship among hopelessness, depression, and suicidality. Hopelessness was a greater predictor of suicide (Beck et al., 1990) and suicidal ideation (Kumar & Steer, 1995) than depression, in clinically treated samples. However, some studies showed that this is not the case
for non-clinical college students. Konick and Gutierrez (2005) found that in a sample of 345 undergraduates, depression and hopelessness were direct predictors of suicidal ideation. Similar to findings by Cole (1988) and Dean and Range (1996), Konick and Gutierrez (2005) found that depression was a better predictor of suicidal ideation in normal college students than hopelessness was, as opposed to the prior studies that show the inverse when clinical populations are used (Beck et al., 1990; Kumar & Steer, 1995). Konick and Gutierrez (2005) also found significant results with a path analysis that had depression as a direct predictor of suicidal ideation, with an indirect effect through hopelessness, and a path analysis with hopelessness as a direct predictor of suicidal ideation with an indirect effect through depression. The results from these path analyses suggested that either depression or hopelessness could serve as a precursor of the other when accounting for suicidal ideation in non-clinical or pre-clinical populations. Not dissimilarly, Weber et al. (1997) found that in a sample of 185 undergraduates, depression, loneliness, and hopelessness were the most important risk factors for suicide ideation. They also found that depression had a much higher correlation with suicidal ideation than hopelessness. However, these authors did find a meaningful correlation between hopelessness and suicidal ideation. Considering the risk factors found for suicidal ideation, Weber et al. (1997) suggested that it is important for university counseling centers to assess for hopelessness and loneliness but primarily for depression. Both Konick and Gutierrez (2005) and Weber et al. (1997) found a meaningful relationship among depression, hopelessness, and suicidal ideation, and depression was a better indicator of suicidality than hopelessness, in non-clinical samples. Contrary to the other studies that looked at nonclinical samples, DeLisle (2007) found hopelessness but not depression to be significantly associated with suicide risk for university students. Having looked at the relationship among depression, hopelessness, and depression, the below summarizes all of the above sections on depression and hopelessness.

**Summary of Depression and Hopelessness**

The theory base used to operationalize depression and hopelessness was Beck’s cognitive theory (Beck, 1963, 1967; Beck & Alford, 2009). This theory describes depression as the activation of negative cognitive patterns, one of which is a negative view of the future, known as hopelessness. To operationalize depression and hopelessness, Beck created the BDI-II and BHS. The *Beck Depression Inventory-II* (BDI-II; Beck et al., 1996) was developed to measure the severity of depression in adults and adolescents in accordance with the diagnostic criteria laid out
by the APA (2000). The *Beck Hopelessness Scale* (BHS; Beck, 1993) was developed to measure the extent of negative attitudes about the future in adults and adolescents. Much of the research on depression and hopelessness draws from Beck’s work, including research regarding negative thought patterns.

Depression has been consistently linked to negative thought patterns (e.g., dysfunctional thoughts, cognitive distortions, negative automatic thoughts, and dysfunctional attitudes) and poor treatment outcomes in both adolescents and adults. Negative thought patterns have been associated with depression and the severity of depression for adolescents (Garber et al., 1993; Marton et al., 1993; Marton & Kuthcer, 1995). Those diagnosed as depressed have also been shown to have greater amounts of negative thought patterns (Eaves & Rush, 1984; Murgai & Sathyavathi, 1987). For non-clinical individuals, increased negative thinking has been predictive of depression (Dent & Teasdale, 1988; Tanaka et al., 2006), as well as the depression’s severity (De Graaf et al., 2010). Another important series of findings is that negative thought patterns have an impact on treatment. Negative thought patterns predicted worse or slower response to treatment and recovery for those with depression and the general population (Beevers et al., 2007; Dent & Teasdale, 1988; Dykman, 1996) while reducing negative thought patterns in adolescents was associated with the remission of depression (Marton et al., 1993). These findings inform the current study that depression may exist if an individual displays a large amount of negative thought patterns such as dysfunctional career thoughts. Also, if an individual has a great degree of negative thought patterns, treatment should focus to resolve these thoughts, or the recovery process may be inhibited by lingering depression. There are also important considerations to review regarding the relationship among depression, hopelessness, and suicide.

Depression, hopelessness, and suicide appear to be linked. Alford et al. (1995) and Johnson and McCutcheon (1981) found a significant relationship between depression and hopelessness. Also, there have been several studies which showed that there is a significant relationship among depression, hopelessness, and suicide (Beck et al., 1990; D’Zurilla et al., 1998; Williams et al., 2008; Huth-Bocks et al., 2007; Konick & Gutierrez, 2005; Kumar & Steer, 1995; McKay, 2007; Weber et al, 1997; Priester & Clum, 1993). The literature also suggested that for clinical samples, hopelessness is a better predictor of suicidality than depression (Beck et al., 1990; Kumar & Steer, 1995) while the results are mixed in studies that examined nonclinical college students. Some studies indicated that depression has a stronger relationship, than
hopelessness has, with suicidality (Konick & Gutierrez, 2005; Weber et al, 1997) while Dean et al., (1996) found that much like in clinical samples, hopelessness might be the more valuable predictor of suicide risk in college students. However, Shahar et al. (2006) found that depression and hopelessness cannot truly be separated in the assessment of suicidality, for more severe cases. A sample of individuals seeking services in a career center may have similarities with both clinical and nonclinical populations, and both depression and hopelessness are important predictors of suicidal ideation and behaviors. Attempting to predict both depression and hopelessness should provide more precision in determining the client needs (i.e., treatment focus, referral, or crisis intervention). Having reviewed selected literature regarding depression and hopelessness, below is a review of relevant literature on cognitive information processing theory and the connection between mental health concepts (e.g., depression, hopelessness) and career variables.

**Cognitive Information Processing Theory: Dysfunctional Career Thinking**

The theory used to operationalize dysfunctional career thinking was cognitive information processing (CIP; Peterson et al., 1991; Sampson et al., 2004). The goals of CIP theory are to enhance self-knowledge, increase options knowledge, and assist individuals by providing a generic model for problem solving and decision-making. Some key assumptions of CIP theory are that career problem solving and decision-making involves thinking and feeling, knowing and doing, and is a skill that can be learned and improved. Another assumption is that one’s perceptions about self and the world are evolving, and one creates schemas to process this information. There are two main constructs in CIP, the Pyramid of Information Processing and CASVE Cycle.

**The Pyramid of Information Processing and CASVE Cycle.** The Pyramid of Information Processing has three domains which are described below (Peterson et al., 1991; Sampson et al., 2004). The Knowledge Domain, which is the base of the pyramid, is split into two sections, self-knowledge and options knowledge. Self-knowledge includes one’s values, interests, skills, and occupational preferences. Options knowledge includes one’s occupations knowledge, schema for the world of work, and educational and vocational opportunities. The middle portion of the pyramid is the Decision-Making Domain which includes the CASVE Cycle, a generic model for problem solving and decision-making. The apex of the pyramid is the Executive Processing Domain or Metacognitions. This domain includes self-talk, the internal
dialogue one has about the career problem solving and decision-making process; self-awareness, the insight one has about his or her location in the career problem-solving and decision-making process; and one’s ability to monitoring where he or she is at in the decision-making process and the control one has over the information allowed into his or her schemas.

Figure 2.1. Pyramid of Information Processing Domains (Peterson et al., 1991).

CASVE Cycle is the generic model for problem solving and decision-making from the Decision Making Domain of the Pyramid of Information Processing (Peterson et al., 1991; Sampson et al., 2004). CASVE is an acronym that is described below. The first phase is Communication, where one recognizes that there is gap between where one is and where one wants to be, as well as internal and external cues that a decision needs to be made. Analysis, the second phase, is where one gathers information about self-knowledge and options knowledge as well as insight about the impact of metacognitions on the career problem solving and decision-making process. The third phase, Synthesis, has two parts: elaboration is where one expands the list of potential options while crystallization is where one narrows the list of potential options down to between three and five. After Synthesis is the Valuing phase, where one does a cost-benefit analysis to self, others, and the society at large and then ranks the options. Finally, the Execution phase is where one considers the first option ranked from the Valuing phase and
implements a plan of action. Because CASVE is a cycle, one can enter and return to different phases as needed, and once one decision is completed and evaluated, individuals can re-enter the cycle for another decision. To assess aspects of the decision-making process CIP uses the CTI.

**Figure 2.2.** Stages of CASVE Cycle (Peterson et al., 1991).

**The Career Thoughts Inventory (CTI).** The CTI (Sampson et al., 1996a) was created to assess all aspects of the pyramid of information processing, including the dysfunctional career thoughts found in the executive processing domain, for high school students, college students, and adults. CTI items load on all areas of the pyramid and CASVE cycle. The purposes of the CTI are for screening, by examining the total score; for needs assessment, by looking at the subscales scores; and for learning, through using the CTI Workbook (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996b) which helps individuals to identify, challenge and correct dysfunctional career thought. The CTI Workbook’s cognitive therapy approach is based on Beck’s Cognitive Therapy (Beck, 1976; Beck, Emery, & Greenberg, 1985; Beck, Rush, Shaw, &
Emery, 1979). The CTI is not only an assessment tool, but can also be used as an intervention (Sampson et al., 1996a), along with the CTI Workbook. The CTI total score (TS) assesses the total amount of dysfunctional career thoughts, as well as one’s ability to engage the career decision-making process. The CTI’s three subscales highlight key aspects of dysfunctional career thinking. The Decision-Making Confusion (DMC) scale measures one’s inability to start or sustain the career decision-making process due to emotions or lack of understanding. The Commitment Anxiety (CA) scale measures one’s inability to commit and generalized anxiety about the outcome. Finally, the External Conflict (EC) scale measures one’s inability to separate self-perception from others’ input, causing a reluctance to assume responsibility for making a decision. When looking at CTI subscale scores in relation to the CASVE Cycle, the Decision-Making Confusion subscale is most associated with the first three phases: Communication, Analysis, and Synthesis (Peterson et al., 1991; Sampson et al., 2004). The External Conflict subscale is most associated with the Valuing phase of the CASVE Cycle. Finally, The Commitment Anxiety subscale is most associated with the Execution phase of the CASVE Cycle. Now that CIP theory and the CTI have been reviewed, it is also important to look at research that has concurrently looked at depression and aspects of CIP. Having reviewed CIP theory and the CTI, the instrument used to operationalized dysfunctional career thoughts, the following section reviews selected studies which may better inform relationship between mental health and career counseling concerns.

Dysfunctional Career Thinking and Related Constructs in Career Counseling Literature

The following sections discuss selected literature to highlight the link between mental health and career counseling issues. There currently is very little in the literature about the relationship of hopelessness, depression, and career development. For purposes of the current study, research that has looked at depression and hopelessness in relation to career counseling is important to review, as well as studies that looked at constructs related to various aspects of dysfunctional career thinking.

**Depression in relation to CIP.** Some research studies have found support for the idea that depression is related to dysfunctional career thinking, within the context of CIP theory. In a study of 215 university students, depression was found to be a significant predictor of career indecision (Saunders, 1997; Saunders, Peterson, Sampson, & Reardon, 2000). There was a significant, positive relationship between depression and dysfunctional career thinking, as
measured by the CTI TS. However, a more pertinent finding for the current study was that of the Pearson correlations between the BDI, the CTI TS, the Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, & Koschier, 1987), and My Vocational Situation (MVS; Holland, Daiger, & Power, 1980). Saunders et al. (2000) found significant, positive correlations for career indecision and for dysfunctional career thinking with depression and a significant, negative correlation between vocational identity and depression. Specifically, these studies found a correlation of 0.374 (p < 0.001) between the BDI and the CTI TS. These results suggest that depression has a significant relationship with several aspects of career decision-making.

Confirming the results found by Saunders et al. (2000), a study involving 170 college students found significant, positive relationships between the BDI-II and all CTI scores (Dagenhart, 2004). This study found significant correlations between the BDI-II and the CTI TS (r = 0.405, p < 0.01), DMC (r = 0.339, p < 0.01), CA (r = 0.342, p < 0.01), and EC (r = 0.355, p < 0.01). A similar study by Walker and Peterson (in press) found significant correlations between the BDI-II and the CTI TS (r = 0.42, p < 0.001), DMC (r = 0.51, p < 0.001), CA (r = 0.40, p < 0.001), and EC (r = 0.39, p < 0.001). This study also found that the CTI DMC subscale was a significant predictor of BDI-II scores. While these studies reinforced the general idea that depression relates to aspects of career development, they specifically showed that depression has a meaningful relationship with dysfunctional career thoughts.

Table 2.1. Significant Correlations Among the CTI and BDI/BDI-II

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<th>TS</th>
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<th>CA</th>
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<tbody>
<tr>
<td>BDI</td>
<td>0.374**</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>BDI-II</td>
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<td>0.42**</td>
<td>0.51**</td>
<td>0.40**</td>
<td>0.39**</td>
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</table>

* p < 0.01  
** p < 0.001  

a (Saunders, 1997; Saunders et al., 2000)  
b (Dagenhart, 2004)  
c (Walker & Peterson, in press)

The studies mentioned above (Saunders et al., 2000; Dagenhart, 2004; Walker & Peterson, in press) were an important base for the current study. Initially a significant correlation
was found between the BDI and CTI TS (Saunders et al., 2000); then significant correlations were found between the BDI-II and each of the CTI scores (Dagenhart, 2004). However, neither of these studies attempted to predict depression using scores from the CTI to determine if a career counseling client is having depression without adding extra assessment tools. While also finding similar correlations to the prior studies, Walker and Peterson (in press) took the next step to form a predictive model. These authors found that DMC was a significant predictor of BDI-II total scores using a stepwise regression model. The findings from Saunders et al. (2000), Dagenhart (2004), and Walker and Peterson (in press) suggested that depression is associated with all stages of the CASVE cycle. In addition, Walker and Peterson (in press) found that DMC is predictive of depression. These authors also went on to extrapolate a specific score range, using a linear regression formula, to determine that a specific DMC T-score range from 68 to 75 could predict a BDI-II score of 16, suggesting mild depression. Walker and Peterson (in press) suggested that “venturing into the realm of mental health issues has the potential to reveal severe or chronic pathological states or even suicide ideation...for which career counselors should be adequately prepared to manage” (p. 13). One shortcoming of these prior studies linking CIP and depression is that they used volunteer samples from classes (i.e., introduction to psychology, first year studies, and career development) rather than individuals seeking mental health or career counseling services. Another shortcoming in the Walker and Peterson study was the removal of item number 9 on the BDI-II (which specifically asks about suicidal ideation and intent). In addition to the studies explicitly relating depression to dysfunctional career thinking, there are other studies that link depression to career counseling issues that may relate to the concepts in CIP theory.

**Other research on depression in career counseling.** The relationship between depression and career variables has been looked at in past studies; this is a brief look at the literature on depression in relation to career variables. As previously mentioned, Saunders et al. (2000) found that BDI scores correlated with CDS and MVS scores and specifically that career indecision was a positive predictor of depression. In a sample of 388 university students, individuals who had made a career decision were significantly less depressed than those who were undecided (Rottinghaus, Jenkins, & Jantzer, 2009). Conversely, that study indicated that career undecided individuals were more depressed, possibly due to a belief that they will not be able to achieve their life goals. Similarly, Walker and Peterson (in press) found that individuals
who had made an occupational decision exhibited much less depressed symptoms than those where were undecided. In another study, which included 81 male and 69 female undergraduates, Sweeney and Schill (1998) found significant, positive correlations for career indecision, career choice anxiety, and general indecision with BDI scores for male participants. There were significant, positive correlations for career choice anxiety and generalized indecision with BDI scores for female participants. Also, there were significant, negative correlations for vocational identity and need for self-knowledge with BDI scores for both males and females. These results suggest that depression has a significant relationship with several career decision-making variables for both male and female students. These studies supported the notion that depression has a meaningful relationship with career development variables, and the below section will provide support for a link between hopelessness and career concerns.

**Research on hopelessness in relation to career counseling.** Very few studies were found that looked at career issues and hopelessness. As Savickas (2003) noted, career development relies on the belief that one has a future worth preparing for, and preparing will improve the future. Without this sense of a real future that one can prepare for, people may feel pessimistic and hopeless. A national longitudinal study of 201 African-American adolescents who were 16 to 24 years-old at the initial interview and 19 to 28 years-old at the follow-up, found that 23% were discouraged about finding a job and hopeless (Bowman, 1984). This study reported that participants displayed both discouragement about finding a job as well as hopelessness, but not a specific relationship between hopelessness and discouragement about finding a job. Also, in a report of two studies looking at 143 and 250 college students, the authors found that hassles contributed to the prediction of both hopelessness and suicidal ideation (Dixon, Rumford, Heppner, & Lips, 1992). Hassles, or frustrating demands of everyday transactions (e.g., “troublesome neighbors,” “too much noise,” “misplacing or losing things,” and “financial worries”), were measured using the *Hassles Scale* (Kanner, Coyne, Schaefer, & Lazarus, 1981). One of the largest correlations in the study by Dixon et al. (1992) was between negative life events (e.g., deaths in the family and illness) and hassles; the authors suggested that negative life events could lead to hassles. The authors went on to suggest that “the occurrence of negative life events such as ‘the loss of a job’ may result in everyday hassles such as ‘financial worries’” (Dixon et al., 1992, p. 347). However, this suggestion by Dixon et al. is speculative, not directly or specifically linking hopelessness and suicidal ideation to job loss. Marshak (1985)
found that the BHS scores for adolescents had a significant, negative correlation \((r = -0.40, p < 0.05)\) with active involvement in the process of making a career choice, using the Attitude Scale for the \textit{Career Maturity Inventory} (CMI; Crites, 1978). Similarly, Haldeman (1992) found that BHS scores for adolescents had a significant, negative correlation with the CDS Certainty subscale \((r = -0.36, p < 0.05)\) and a significant, positive correlation with the CDS Indecision subscale \((r = 0.38, p < 0.05)\). These studies by Marshak and Haldeman suggest that hopelessness is related to a lack of participation in and certainty in the career-decision making. There is some research that has been done exploring the relationship among selected career variables, depression, and hopelessness. To gain a better picture of the relationship between mental health and career concerns, the next sections review selected literature that relate to the different aspects of dysfunctional career thinking.

\textbf{Constructs related to dysfunctional career thinking.} As noted above, a key component of CIP theory is the impact of dysfunctional career thinking on various career constructs (e.g., exploring self-knowledge, option knowledge, decision making, etc). CIP theory operationalizes dysfunctional thinking using the CTI and its three subscales Decision-Making Confusion, Commitment Anxiety, and External Conflict (Sampson et al., 1996a). There has been research to show how various aspects of dysfunctional career thinking relate to difficulties in the career decision-making process. The literature below highlights how mental health and career concerns may relate to dysfunctional career thinking.

\textbf{Emotional distress and control.} There has been some research that has looked at the relationship among emotional distress, a lack of control in the decision-making process, and career variables. Through use of meta-analysis, Brown, Hacker, Abrams, Carr, Rector, Lamp, Tlander, and Siena (2012) confirmed that a four-factor model which includes negative affectivity (or emotional distress), commitment anxiety, lack of readiness, and interpersonal conflict factors “may represent a comprehensive, empirically meaningful, and practically useful way of conceptualizing career decision-making difficulties” (p. 15). A descriptive study of 694 undergraduates found that many students have career decision difficulties, as well as psychological distress, including anxiety, depression, and loss of behavioral and emotional control (Fouad et al., 2006). Lease (2004) found that “an external career locus of control was associated with decision-making difficulties” (p. 239). Heppner, Fuller, and Multon (1998), in a sample of 371 adults who were laid off, found that neuroticism (e.g., anger, hostility, depression)
was a negative predictor of the readiness, confidence, control, and perceived support that adults felt during involuntary career transitions. Higher levels of neuroticism, lower career decision self-efficacy, and greater external locus of control were associated with higher emotional and personality-related career decision making difficulties in young adults (Gati, Gadassi, Saka, Hadadi, Anseng, Friedman, & Asulin-Peretz, 2011). Thus, emotional difficulties, including depression and anxiety, and a poor sense of internal control over making decisions impacted career decision-making abilities. Constantine and Flores (2006) examined a sample of 329 African American, Asian American, and Latino/Latina American undergraduates, and found that greater levels of psychological distress (e.g., depression, anxiety, somatization) predicted higher levels of career indecision and in turn lower career certainty. These findings indicated that emotional factors and a sense of control in career direction are interrelated with aspects of dysfunctional thinking such decision-making confusion.

**Fear and anxiety.** The dysfunctional thinking associated with anxiety is an area that the literature has shown to relate to the career decision-making process. Fear of commitment is part of maladaptive thoughts about vocation for college students (Betz & Serling, 1993). Specifically, fear of commitment strongly predicted career indecision for college students in a study by Leong and Chervinko (1996). Serling and Betz (1990) found that a sample of undecided university students had higher levels of fear of commitment than decided students and that fear of commitment relate positively to state and trait anxiety. Also, Saunders et al. (2000) found that dysfunctional career thinking correlated significantly with state and trait anxiety. Anxiety is also related to different aspects of the career decision-making process.

One way in which anxiety may impact the decision-making process is in the exploratory phase. A study of French high school students found that general trait anxiety inhibited exploratory activity and negatively related to aspects of career exploration satisfaction (Vignoli, Croit-Belz, Chapeland, Fillipis, & Garcia, 2005). A study of college students by Healy (1991) showed that trait anxiety interfered directly and indirectly with the acquisition of career decision-making skills and with vocational identity. Daniels, Clifton, Perry, Mandzuk, and Hall (2006) found that career anxiety was also related to poorer perceptions of competence and career certainty. Similarly, Fuqua, Newman, and Seaworth (1988) found that in undergraduate students the lack of self- and career information, uncertainty about fit between self and career, and specific barriers to a previous choice all related to state and trait anxiety. As anxiety impacts the
exploratory process, it is likely to impact the decision-making process. Fuqua, Blum, and Hartman (1988) found that high school students with moderate career indecision also had increased state and trait anxiety. O’Hare and Tamburri (1986) found that college students with higher state and trait anxiety, who lacked coping skills, were less likely to make a career decision. In a study of college freshmen, those who had not yet decided on a career direction had higher state anxiety than those who had already made a career decision (Brown & Strange, 1981). A study by Hartman, Fuqua, and Blum (1985) of graduate and high school students found that trait anxiety had a direct and an indirect effect on career indecision through individual identity and locus of control for both groups. Since anxiety impacts the decision-making process it may also be a detriment to career decision satisfaction, as well. State anxiety was an indicator of undergraduate student's lack of success in the career planning process (Berger-Gross, Kahn, & Weare, 1983). Kimes and Troth (1974) found that college students who were not satisfied with their career decision had the highest trait anxiety scores while Newman, Fuqua, and Minger (1990) found that those who made a choice that they were uncomfortable with had career indecision and state and trait anxiety similar to undecided individuals. In addition to fear and anxiety there are other studies that look at how family and other relationships relate to career concerns.

**Relationships.** There are a number of studies that suggest that one's family and significant relationships may impact dysfunctional career thinking. CIP theory (Sampson, et al., 2004) describes ways in which the influence of significant others can have both a negative and positive affect on career choice readiness. In one qualitative study of 18 women with depression who sought career counseling services, career decision-making dilemmas were primarily described in regards to strained relationships with family and significant others (Lucas et al., 2000). Another way family factors may impact career thinking is in relation to attachment style. One study of college students found that parental attachment variables (e.g., trust and communication) were found to be significantly predictive of individual’s self-efficacy beliefs about career searching (Ryan, Solberg, & Brown, 1996). In college students, early separation from one parent appeared to lead to less achievement than for those whose parents stayed together (Berrios-Allison, 2005). Another way in which family may impact career thinking is through interaction patterns. Family dysfunction was found to be significantly predictive of individuals’ self-efficacy beliefs about career searching (Ryan et al., 1996). A study of
undergraduate students that found that as conflict in families increase, self-efficacy about the ability to make career decisions decreases (Hargrove, Creagh, & Burgess, 2002). Parenting style was found to significantly contribute to the prediction of career decision-making difficulties in Greek adolescents (Koumoundourou, Tsaousis, & Kounenou, 2011). Specifically, permissive and authoritarian parenting styles for males and an authoritarian parenting style for females were found to predict career decision-making difficulties. Also, intrusive families may contribute to an undecided state, while intrusive and controlling families may lead to diffusion in the decision-making process (Berrios-Allison, 2005). There is also a body of literature that looks at the relationship among family, anxiety, and career, not just relationships or anxiety and career.

**Relationships and anxiety.** Family variables and anxiety have both been found to be related to career thinking. A Finnish longitudinal study found that risk factors which accumulate in childhood (e.g., anxiety, family adversity such as parental drinking, low SES) accounted not only for career instability but also a sense of failure (Rönkä, Kinnunen, & Pulkkinen, 2000). Similarly, neglectful parenting style and general anxiety related negatively to career exploration in girls (Vignoli et al., 2005). A study of Iranian high school students found that other risk factors such as having a father with a lower level of education can lead to anxiety about career (Salimi, Mirzamani, & Shahiri-Tabarestani, 2005). For males, high parental expectations can decrease self-esteem and increase anxiety about career (Salimi et al., 2005), while fear of disappointing parents related positively to career exploration (Vignoli et al., 2005). College students' state anxiety related positively to several specific career concerns which included conflicts with parents (Berger-Gross et al., 1983). Family conflict related to anxiety and career concerns for non-white college students (Constantine & Flores, 2006). These authors found that higher psychological distress (e.g., depression, anxiety, somatization) predicted higher career indecision which was associated with greater perceived family conflict and lower career certainty. These studies show how relationship variables and anxiety variables may impact career thinking.

It also appears that the interplay between relationship variables and anxiety variables may contribute to dysfunctional career thinking. Larson and Wilson (1998) found that trait anxiety mediated the influence that family fusion and intimidation had on career decision problems in young adults. That means that family fusion and intimidation may lead to trait anxiety which contributes to career decision-making problems. Also, Wolfe and Betz (2004) found that career
decision-making self-efficacy and career indecisiveness were related to quality of bonds with parents and peers. Specifically, they found that career decision-making self-efficacy negatively related to a dismissive attachment style, while fear of commitment negatively related to fearful and preoccupied attachment styles.

**Summary of Dysfunctional Career Thinking**

CIP theory (Peterson et al., 1991; Sampson et al., 2004) is concerned with enhancing self-knowledge, increasing options knowledge, and assisting individuals by providing a generic model for problem solving and decision-making. CIP theory uses the *Career Thoughts Inventory* (Sampson et al., 1996a) to assess dysfunctional career thinking that may impact career problem solving and decision making.

Several studies, drawing from CIP theory, found that for college students, depression has a significant relationship with dysfunctional career thinking (Saunders et al., 2000; Dagenhart, 2004; Walker & Peterson, in press). Walker and Peterson (in press) found that CTI DMC T-scores of 68 to 75 can predict an elevated BDI-II score. However, all of these studies used student volunteers from classes rather than actual clients. Walker and Peterson (in press) did use students in a career development class, but it is unclear how well those students generalize to a client population. Another concern is that these authors removed an item from the BDI-II which could change the psychometric characteristics of the measure while the Saunders study (1997; Saunders et al., 2000) used the BDI which differs from the BDI-II. Regardless of these concerns, there is evidence that dysfunctional thinking is related to depression, and may have a predictive relationship, which is consistent with the focus of the current study.

Studies have also shown that there is a relationship among depression, hopelessness, other emotional distress issues, and career concerns. Not only does depression predict career indecision (Saunders, 1997; Saunders et al., 2000), but undecided individuals are more depressed than decided individuals (Rottinghaus et al., 2009). Also, those who are having difficulty finding a job may also be hopeless (Bowman, 1984) or even suicidal (Dixon et al., 1992). Several studies have shown that a broad range of psychological distress such as anxiety, loss of control, external locus of control, neuroticism, and indecision are associated with career decision-making difficulties (Constantine & Flores, 2006; Fouad et al., 2006; Gati et al., 2011; Heppner et al., 1998; Lease, 2004). These studies consistently showed that depression and general emotional distress were related to, and hopelessness was concurrent with, career concerns. Many of these
studies used depression or other psychological distress variables as predictors of career concerns (Constantine & Flores, 2006; Heppner et al., 1998; Saunders, 1997; Saunders et al., 2000), but there has been no evidence to explicitly indicate that career concerns might predict depression aside from Walker and Peterson (in press). If, as suggested above, negative thought patterns predict worse or slower response to treatment of depression (Beevers et al., 2007; Dent & Teasdale, 1988; Dykman, 1996), it might be important to predict for psychological distress such as depression and hopelessness so these problems can be resolved to prevent any inhibition of the career decision-making process. Some aspects of negative thought patterns that relate to career concerns include anxiety and relationships.

Some studies reviewed looked primarily at anxiety or relationships while others included both anxiety and relationships, in relation to career concerns. Fear of commitment and anxiety have consistently been shown to relate to career indecision in college students (Brown & Strange, 1981; Kimes & Troth, 1974; Leong & Chervinko, 1996; Newman et al., 1990; O’Hare & Tamburri, 1986; Sterling & Betz, 1993). Also, anxiety has been consistently shown to relate to the acquisition of skills, uncertainty about decisions, and competency (Berger-Gross et al., 1983; Daniels et al., 2006; Fugua, Newman, & Seaworth, 1988; Healy, 1991). There have also been many family variables such as separation, family dysfunction, boundaries, and parenting styles that have been shown to relate to problems in the career decision-making process (Berríos-Allison, 2005; Hargrove et al., 2002; Koumoundourou et al., 2011; Ryan et al., 1996). Studies that look at relationships and anxiety have found similar results. Conflicts with parents, poor quality of bonds, and parenting styles in combination with increased anxiety relate to problems in career exploration and career decision-making (Berger-Gross et al., 1983; Larson & Wilson, 1998; Vignoli et al., 2005; Wolfe & Betz, 2004). The literature reviewed suggests that some variety of anxiety is likely related to many types of career concerns. Also, the impact of one’s relationships cannot be disregarded when considering career development. Often times there are both anxiety and relationship concerns that impact career development. If this is the case, it is important to consider the impact that anxiety and relationship concerns have on dysfunctional career thinking. Having summarized the literature on dysfunctional career thinking it is now important to consider how all of the literature above relates for the purpose of this study.
Analysis of the Literature Review

The theory base used to operationalize depression and hopelessness was Beck’s cognitive theory (Beck, 1963, 1967; Beck & Alford, 2009), and CIP (Peterson et al., 1991; Sampson et al., 2004) was the theory base used to operationalize dysfunctional career thinking. To operationalize depression and hopelessness, Beck created the BDI-II and BHS. The *Beck Depression Inventory-II* (BDI-II; Beck et al., 1996) was developed to measure the severity of depression in adults and adolescents in accordance with the diagnostic criteria laid out by the APA (2000). The *Beck Hopelessness Scale* (BHS; Beck, 1993) was developed to measure the extent of negative attitudes about the future in adults and adolescents. The CTI (Sampson et al., 1996a) was created to assess dysfunctional career thinking based on CIP. Below is a summary and analysis of the literature.

There is a significant relationship among depression, hopelessness, and suicide (Beck et al., 1990; D’Zurilla et al., 1998; Williams et al., 2008; Huth-Bocks et al., 2007; Konick & Gutierrez, 2005; Kumar & Steer, 1995; McKay, 2007; Weber et al, 1997; Priester & Clum, 1993). While both depression and hopelessness have been found to be predictors of suicide, the literature also suggests that for clinical samples, hopelessness is a better predictor of suicidality (Beck et al., 1990; Kumar & Steer, 1995). In studies that examined nonclinical college students, one study found depression to be a better predictor of suicidal behavior (Dean & Range, 1996) while another study found hopelessness to be a better predictor of suicide risk (DeLisle, 2007). Dean et al. (1996) found that for normal undergraduates, hopelessness might be the more valuable predictor of suicide risk. Since the literature shows that both depression and hopelessness are important predictors, despite inconsistency within samples regarding which is a greater predictor, both depression and hopelessness are important to assess for to determine if a client is at risk. Since depression and hopelessness are associated with a risk for self-harm, it might be important to understand the relationship between depression and hopelessness in career counseling.

Studies have also shown that there is a relationship among depression, other emotional distress issues, and career concerns. Depression predicts career indecision (Saunders, 1997; Saunders et al., 2000), and undecided individuals are more depressed than decided individuals (Rottinghaus et al., 2009). Also, those who are having difficulty finding a job may also be hopeless (Bowman, 1984) or even suicidal (Dixon et al., 1992). Several studies have shown that
psychological distress is associated with career decision-making difficulties, and depression and general emotional distress are associated with career concerns and hopelessness (Constantine & Flores, 2006; Fouad et al., 2006; Gati et al., 2011; Heppner et al., 1998; Lease, 2004). Several studies found that for college students, depression has a significant relationship with dysfunctional career thinking (Saunders, 1997; Saunders et al., 2000; Dagenhart, 2004; Walker & Peterson, in press). Walker and Peterson (in press) found that DMC T-scores of 68 to 75 can predict an elevated BDI-II score. It should be no surprise then that depression is associated with career concerns such as dysfunctional career thinking.

Dysfunctional or negative thought patterns have been associated with depression and the severity of depression for adolescents (Garber et al., 1993; Marton et al., 1993; Marton & Kuthcer, 1995). For non-clinical individuals, rises in negative thinking have predicted depression (Dent & Teasdale, 1988; Tanaka et al., 2006), as well as severity of depression (De Graaf et al., 2010). Since negative thought patterns predict worse or slower response to treatment of depression (Beevers et al., 2007; Dent & Teasdale, 1988; Dykman, 1996), it might be important to predict for psychological distress such as depression and hopelessness. Treatment should then focus to resolve negative thought patterns, or the recovery process may be inhibited by lingering depression. Other aspects of negative thought patterns that relate to career concerns include anxiety and relationships.

Both anxiety and relationship issues relate to career concerns from a CIP perspective, hence the inclusion of the Commitment Anxiety and External Conflict scales on the CTI (Sampson et al., 1996a). Fear of commitment and anxiety have consistently been shown to relate to career concerns in college students (Berger-Gross et al., 1983; Brown & Strange, 1981; Daniels et al., 2006; Fugua, Newman, & Seaworth, 1988; Healy, 1991; Kimes & Troth, 1974; Leong & Chervinko, 1996; Newman et al., 1990; O’Hare & Tamburri, 1986; Sterling & Betz, 1993). There have also been many family variables such as separation, family dysfunction, boundaries, and parenting styles that have been shown to relate to problems in the career decision-making process (Berrios-Allison, 2005; Hargrove et al., 2002; Koumoundourou et al., 2011; Ryan et al., 1996). Conflicts with parents, poor quality of bonds, and parenting styles in combination with increased anxiety relate to problems in career exploration and career decision-making (Berger-Gross et al., 1983; Larson & Wilson, 1998; Vignoli et al., 2005; Wolfe & Betz, 2004). The literature reviewed suggested that some variety of anxiety is likely related to most, if
not all, career concerns. Also, the impact of one’s relationships cannot be disregarded when considering career development. It is important to consider the impact that anxiety and relationship concerns have on explaining dysfunctional career thinking.

The literature reviewed above included research on the relationships found among depression, hopelessness, and career variables. There was a review of Beck’s model of depression and hopelessness as well as the relationship among depression, hopelessness, and suicide. There was also a review of the CIP approach and the integration of mental health and career counseling. The literature suggested that there is a link between depression and dysfunctional career thinking (e.g., Saunders et al., 2000; Walker & Peterson, in press). There is also literature linking depression and hopelessness to risk for suicide and suicidal behavior (e.g., Beck et al., 1990). A sample of individuals seeking services in a career center may have similarities with both clinical and nonclinical populations, and both depression and hopelessness are important predictors of suicidal ideation and behaviors. A growing interest has been on research and service delivery that integrating mental health and career counseling (Savickas, 2003; Zunker, 2008). The purpose of this study was to examine the relationship among dysfunctional career thinking, depression, and hopelessness as an extension of the research on the integration of mental health and career counseling. By using the CTI as a screening tool, a practitioner may identify an individual’s level of depression and hopelessness in addition to the emotions inhibiting his or her ability to start or sustain the career decision-making process, his or her inability to commit and generalized anxiety about the outcome, and his or her reluctance to assume responsibility for making a decision. Attempting to predict both depression and hopelessness can provide more precision in determining client needs (i.e., treatment focus, referral, or crisis intervention).

**Gaps in the Research**

The ultimate goal for research is how it informs practice. This study addressed emotional distress that may be present during the career decision-making process as well as the concern of client safety in the delivery of career services. There is a body of literature that supports more holistic counseling models that integrate mental health and career counseling, and there is a body of research linking depression and hopelessness to high-risk behavior such as self-harm and suicide. However, there is very limited research connecting career-related issues and high-risk behaviors (e.g., self-harm and suicide attempts). By looking at dysfunctional career thinking in
relation to depression and hopelessness in a sample of college students, the current study addressed this gap in the literature.

**Research Questions**

After reviewing the literature and exploring gaps in the research, the following research questions were addressed in this study:

R1: What is the relationship between dysfunctional career thinking as measured by the *Career Thoughts Inventory* subscales and symptoms of depression as measured by the *Beck Depression Inventory – II* among individuals seeking career services?

R2: What is the relationship between dysfunctional career thinking as measured by the *Career Thoughts Inventory* subscales and hopelessness as measured by the Beck Hopelessness Scale among individuals seeking career services?

R3: Can subscale scores on the *Career Thoughts Inventory* be used to predict scores on the *Beck Depression Inventory – II*?

R4: Can subscale scores on the *Career Thoughts Inventory* be used to predict scores on the *Beck Hopelessness Scale*?
CHAPTER 3

Methodology

This chapter describes the methods for this study. Included are information on the general question of interest, research questions, hypotheses, participants, variables, instrumentation, procedures, and research design and data analysis.

General Question of Interest

A better understanding about the relationship among dysfunctional career thinking, depression, and hopelessness will contribute to improved practice in the fields of counseling and vocational psychology. Considering the contribution that increased understanding about the relationship among dysfunctional career thinking, depression, and hopelessness would add to the integration of career and mental health counseling, the following general research question was posed: In a sample of students seeking career services at a university career center, what is the relationship among scores on measures of dysfunctional career thinking, depression, and hopelessness? This general question yielded the following specific research questions:

R1: What is the relationship between dysfunctional career thinking as measured by the Career Thoughts Inventory (CIT) subscales and symptoms of depression as measured by the Beck Depression Inventory – II (BDI-II) among individuals seeking career services?

R2: What is the relationship between dysfunctional career thinking as measured by the Career Thoughts Inventory (CIT) subscales and hopelessness as measured by the Beck Hopelessness Scale (BHS) among individuals seeking career services?

R3: Can subscale scores on the Career Thoughts Inventory (CIT) be used to predict scores on the Beck Depression Inventory – II (BDI-II)?

R4: Can subscale scores on the Career Thoughts Inventory (CIT) be used to predict scores on the Beck Hopelessness Scale (BHS)?

Hypotheses

The following hypotheses are presented based on the literature which informed the General Question of Interest and the subsequent Research Questions.

H1: There will be statistically significant, positive correlations between the Beck Depression Inventory – II, Decision-Making Confusion, Commitment Anxiety, and External Conflict, respectively.
H2: There will be statistically significant, positive correlations between the *Beck Hopelessness Scale*, Decision-Making Confusion, Commitment Anxiety, and External Conflict, respectively.

H3: The *Career Thoughts Inventory* subscale scores will be a significant, positive, predictor of scores on the *Beck Depression Inventory – II*. There will be significant variance of *Beck Depression Inventory – II* scores accounted for by scores on the *Career Thoughts Inventory* subscales.

H4: The *Career Thoughts Inventory* subscale scores will be a significant, positive, predictor of scores on the *Beck Hopelessness Scale*. There will be significant variance of *Beck Hopelessness Scale* scores accounted for by the *Career Thoughts Inventory* subscales.

**Participants**

**Sampling.** To determine the necessary sample size, an a priori power analysis was conducted using G*Power 3.1.2 software. With an alpha of 0.05, a medium effect size, and an adequate power set at 0.8, the sample size required for the analyses planned for this study was 77 participants. Data were collected during the Summer 2011 and Fall 2011 semesters. Research packets were handed out to 150 students over the age of 18 seeking career advising or individual counseling services at a large, public university career center. Of the packets handed out, 147 packets (98%) were returned. While 147 packets were returned, 145 individuals completed the CTI, 139 completed the BDI-II, and 147 completed the BHS. Based on the returned packets there were 137 useable participants for RI and R3 and 145 for R2 and R4.

**Population.** The population for which the findings, discussion, and implications of the research can be generalized consists of university students seeking career advising or individual counseling services. Students in this population included undergraduates, Master students, Specialist students, and students in other types of degree programs. No packets were returned from individuals reporting to be Doctoral students.

**Participant Characteristics.** No data were collected regarding the unreturned packets. However, the 2% rate of unreturned packets should not affect the generalizability of the findings. Two participants failed to complete the CTI. Eight participants did not complete the back side of the BDI-II.
Table 3.1 presents demographic data for the sample and the university’s Fall 2010 student population (Office of Institutional Research, Fall 2011). The sample was split evenly between males and females, with ages ranging from 18 – 57 years-old ($M = 22.01$, $SD = 4.6$). Participants identified themselves as African-American ($n = 29$, 19.7%), Asian/Pacific Islander ($n = 2$, 1.3%), Hispanic/Latino(a) ($n = 17$, 11.6%), White, non-Hispanic ($n = 96$, 65.3%), Multiracial ($n = 2$, 1.4%), and “other” ($n = 1$, 0.7%). Undergraduates accounted for a majority of the sample ($n = 127$, 86.4%), Master’s students accounted for a portion of the sample ($n = 11$, 7.5%), and persons who selected “other” accounted for the remaining portion of the sample ($n = 9$, 6.1%).

There were notable differences between the sample collected and the university population as a whole. There was a greater balance in gender in the study sample compared to the university population from Fall 2010. There were more African-American participants in the sample than in the university population while White, non-Hispanic and Asian/Pacific Islanders were all slightly lower in the sample when compared to the population. The sample demographics were similar to that of the university’s student population where the data was collected, aside from those areas noted above.
Research Design and Variables

This study used a co-relational design, and included the following variables: depression, hopelessness, and dysfunctional career thinking which includes decision-making confusion, commitment anxiety, and external conflict. Depression is the presence of some or all of the following symptoms: feeling sad or empty, diminished interest or pleasure in most activities, poor appetite or overeating, inadvertent weight fluctuations, sleep disturbances, psychomotor retardation or agitation, fatigue, low self-esteem, feelings of worthlessness or excessive or inappropriate guilt, diminished concentration or indecisiveness, hopelessness, and recurrent thoughts of death (American Psychiatric Association, 2000). Depression was operationalized using the BDI-II total score. Hopelessness was defined as cognitive schemas of negative expectancy about the short- and long-term future (Stotland, 1969), which corresponds to the third component of Beck’s (1967) cognitive model of depression, a negative outlook for the future. Hopelessness was operationalized using the BHS total score. Dysfunctional career thinking was measured using the subscales of the CTI. The CTI DMC scale measures one’s inability to start or sustain the career decision-making process due to emotions or lack of understanding. The CA scale measures one’s inability to commit and generalized anxiety about the outcome. Finally, the EC scale measures one’s inability to separate self-perception from others’ input, causing a reluctance to assume responsibility for making a decision. All variables are continuous. For R3 and R4 DMC, CA, and EC served as predictor variables, and depression (BDI-II total score) and hopelessness (BHS total score) served as criterion variables, respectively.

Instrumentation

The Beck Depression Inventory-II (BDI-II). The BDI-II (Beck et al., 1996) was developed to measure the severity of depression in adults and adolescents aged 13 years-old and older. The BDI-II was normed on four different psychiatric outpatient clinics and one college-student sample. The BDI-II assesses symptoms of depression in accordance with the diagnostic criteria laid out by the APA (2000). The BDI-II is a revised version of the Beck Depression Inventory (BDI-IA; Beck et al., 1979) which replaced the original Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Four items from the BDI-IA were dropped and replaced on the BDI-II, two other items were changed to allow for increases or decreases in appetite and sleep, and the other symptoms were reworded, making the BDI-II a substantial revision from the BDI (Beck et al., 1996). There are 21 items rated on a 4-point scale
ranging from 0 to 3. For each item, the individual endorses one of four statements, corresponding to the 4-point scale, which best describes severity of symptomatology. The scores from each item are summed for the total score, with a maximum total score of 63. The BDI-II manual provides cut scores to help clinicians detect for depression in order to decrease the probability of any false negatives. See Table 3.2 for recommended cut scores.

Psychometric information for the BDI-II can be found in the professional manual (Beck et al., 1996), including reliability and validity information. The BDI-II yielded an internal consistency coefficient alpha of 0.92 for counseling outpatients and 0.93 for non-clinical college students, in comparison to a coefficient alpha of 0.86 for the BDI-IA (Beck et al., 1996). Estimated stability was based on respondent scores administered at the time of their first session and their second session approximately one week apart. The one-week test-retest stability coefficient for the BDI-II was 0.93. Also, there was a correlation of 0.93 between the BDI-IA and BDI-II for individuals who had been administered both instruments. In regards to content validity, the BDI-II was developed to assess the symptoms of depression listed in the DSM-IV-TR (American Psychological Association, 2000) as criteria for Major Depressive Disorder. With regard to validity, the BDI-II manual discusses convergent and discriminant validities. For convergent validity, the BDI-IA and the BDI-II were both administered to outpatients in two studies for validation, and the correlations between the BDI-IA and BDI-II were 0.84 for one study and 0.93 for the other study. The BDI-II was also found to have significant correlations of 0.68 and 0.71 with the BHS and the Hamilton Psychiatric Rating Scale for Depression (HRSD; Hamilton, 1960), respectively. Only a 0.47 correlation was found between the BDI-II and the Hamilton Psychiatric Rating Scale for Anxiety (HARS; Hamilton, 1959), suggesting that the BDI-II has good discriminant validity as a measure of depression, not anxiety.

The Beck Hopelessness Scale (BHS). The BHS (Beck, 1993) was originally developed in 1974 to measure the extent of negative attitudes about the future in adults and adolescents aged 17 years-old and older. The hopelessness measured by the BHS corresponds to the third component of the negative triad, a negative view of the immediate and long-range future. Originally the BHS was developed for use with those considered to be a suicidal risk, but is now also used with normal populations. It has particular utility as an indicator of suicide risk for those who are depressed or have made past suicide attempts. There are 20 true-false statements scored as 1 or 0. Nine of the items are keyed FALSE while 11 are keyed TRUE; item scores are
The total score can range from 0 to 20, with the high scores indicate greater pessimism about the future. The BHS manual provides cut scores to provide general guidelines for interpretation. See Table 3.2 for recommended cut scores.

The following details and psychometric information can be found in the BHS professional manual (Beck, 1993). For internal consistency on the BHS, Kuder-Richardson (KR-20) reliabilities were used. The KR-20 reliability ratings for suicide ideators, suicide attempters, alcoholics, heroin addicts, single-episode Major Depressive Disorders, recurrent-episode Major Depressive Disorders, and Dysthymic Disorders were 0.92, 0.93, 0.91, 0.82, 0.92, 0.92, and 0.87, respectively. KR-20 reliability ratings for college students may be as low as 0.65 (Durham, 1982). Results from a one-week test-retest yielded a Pearson product-moment correlation of 0.69, and results from a six-week test-retest yielded a correlation of 0.66. Content validity for the BHS is supported by the fact that it was developed to follow Stotland’s (1969) concept of hopelessness as negative attitudes about the future. Clinician ratings of BHS and BDI scores were compared as evidence for concurrent validity (Beck, Weissman, Lester, & Trexler, 1974). Correlations between clinician ratings and BHS scores were 0.74 and 0.62 for general and suicide attempter populations, respectively; interrater reliability was 0.86. Beck also found significant correlations between the BHS and the BDI total score as well as between the BHS and the BDI’s pessimism item \( r = 0.63 \). The BHS manual states that the BHS was not developed to discriminate between different diagnoses, but Beck, Riskind, Brown, and Steer (1988) were able to use the BHS to differentiate between the DSM depressive disorders and Generalized Anxiety Disorder. Research studies have shown that the BHS is a better predictor of suicidal intent than depression (Beck et al., 1961; Minkoff, Bergman, Beck, & Beck, 1973), supporting construct validity.

<table>
<thead>
<tr>
<th>Table 3.2. BDI-II and BHS Recommended Cut Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>BDI-II(^a)</td>
</tr>
<tr>
<td>BHS(^b)</td>
</tr>
</tbody>
</table>

\(^a\)(Beck et al., 1996)
\(^b\)(Beck, 1993)
The Career Thoughts Inventory (CTI). The CTI (Sampson et al., 1996a) provides a global indicator of dysfunctional career thinking in career problem solving and decision making while also providing three subscales: Decision-Making Confusion (DMC), Commitment Anxiety (CA), and External Conflict (EC). The total score (TS) assesses the total amount of dysfunctional career thoughts, as well as one’s ability to engage the career decision-making process. DMC scale measures one’s inability to start or sustain the career decision-making process due to emotions or lack of understanding. CA scale measures one’s inability to commit to a choice and generalized anxiety about the outcome. Finally, EC scale measures one’s inability to separate self-perception from others’ input, causing a reluctance to assume responsibility for making a decision. There are 48 items with response options ranging from strongly disagree to strongly agree, on a four point scale. There are 19 general questions related to dysfunctional career thinking, 14 items measuring DMC, 10 items for CA, and 5 items for EC. The CTI was normed for use with 11th and 12th grade high school students, college students, and adults. Raw scores are converted to T-scores using the normative group for a participant.

The following details and psychometric information can be found in the CTI professional manual (Sampson et al., 1996a). The CTI yielded internal consistency coefficient alphas between 0.93 and 0.97 for the total score. As for the subscales, the alphas range from 0.90 to 0.94 for DMC, 0.79 to 0.91 for CA, and 0.74 to 0.81 for EC. Four-week test-retest stability coefficients for the total scores are 0.77 overall (0.86 for college students). Four-week test-retest stability coefficients for the subscales scores are 0.77, 0.75, and 0.63 overall for DMC, CA, and EC, respectively (0.82, 0.79, and 0.74 for college students). CTI items and subscales were developed to have congruence with CIP theory content dimensions, providing evidence for content validity. Sampson et al. (1996a) also found evidence of criterion validity because the CTI was able to sufficiently identify between client and non-clients. Conclusions about the CTI’s construct validity are that the three-factor model is the most appropriate for generalizing across all populations as indicators of dysfunctional career thinking. There is sufficient evidence to support convergent validity of the CTI with other career instruments and personality trait measures, such as the Identity scale, Occupational Information, and Barriers categories of MVS; the Certainty and Indecision scales of the CDS; the Decidedness, Comfort, Self-Clarity, Knowledge about Occupations & Training, Decisiveness, and Career Choice Importance scale of
the Career Decision Profile (Jones, 1989); and the Neuroticism domain of the NEO PI-R (Costa & McCrae, 1992).

**Procedures**

All procedures for this study were approved by the university’s institutional review board for collecting data from human subjects. Prior to collecting data, the researcher provided data collection training for the career advising staff. During the training, career advisors were instructed how to recruit participants, how to check research packets, how to protect participants’ identities, and what the protocol was to follow in the event that a participant endorsed item number 9 on the BDI-II. Career advisors also received informational handouts regarding the data collection process. One handout instructed the career advisors who to collect data from, where to collect data, what to do, how to do it, when to do it, why to do it, and where to direct questions, in the event that a participant needed further debriefing (Appendix A). In an effort to maintain uniformity, career advisors were also given a script to follow when offering individuals an opportunity to participate in this study (Appendix B). Finally, career advisors were given a handout outlining the protocol for managing suicide risk using the Suicide Assessment Decision Tree (Joiner, Walker, Rudd, & Jobes, 1999) in the event that a participant endorsed item number 9 on the BDI-II (Appendix C). While career advisors were instructed to direct suicide risk participants to a supervisor, all advisors were instructed in the appropriate protocol for managing such a situation.

Participants were given a packet by a career advising staff member who read an administrator script (Appendix B). The packet included two informed consent forms (Appendix D) so the client could keep one, a demographic survey (Appendix E), a CTI, a BDI-II, a BHS (inclusion of published instruments in the appendices would be a violation of the publishers’ user agreements and/or copyright laws), and a mental health referral sheet (Appendix F). The packets were arranged with the three inventories in varied sequence to control for order effect. However, the informed consent, demographic survey, and mental health referral sheet always preceded the formal inventories. Participants were asked to return the packet to one of the career advising staff members on duty. Any career advisor or professional staff member employed in the career center’s career advising unit could review participants’ completed research forms and assessments. Reviewing the packets ensured that the informed consent form was signed, and allowed the career advising staff member to review item number 9 on the BDI-II regarding
suicidal thoughts or wishes. Checking item number 9 on the BDI-II helped to ensure the safety of participants and provided an opportunity for appropriate referrals to campus and community services. Participants were required to complete an informed consent form prior to participation. Only the informed consent forms, which were removed from the packets after being signed, listed participant names. Other materials used a personal identification number. A list matching the participant names to their personal identification numbers was locked in a secure file. The informed consent was kept separate from the completed inventories and survey to ensure confidentiality, except in cases in which there appeared to be a risk for suicide. Completed research packets were maintained in a locked file cabinet in the career center where client files are kept.

Once participants completed the research packets, career advisors followed the procedures laid out in Appendix A and C (if necessary). In the event that participants needed further debriefing, they were instructed to contact the researcher or one of the supervisory staff in the career center per the instructions in Appendix A. In some cases, participants completed their packets prior to receiving career services while others completed their packets during or after receiving services. No specific instructions or further follow-up was recommended after completion unless the individual was determined a risk for suicide or had a request for further debriefing.

Statistical Analysis

To test H1 and H2, a Pearson product moment correlation was used to determine the strength of the relationships between all variables. Pearson correlations help to determine the magnitude of correlations and their statistical significance among DMC, CA, EC, BDI-II, and BHS. To test H3 and H4, a series of stepwise regression analyses were conducted to determine the amount of variance of depression and of hopelessness accounted for by the respective CTI subscales. A similar study by Walker and Peterson (in press) used stepwise regression to determine the amount of variation and the best predictor of BDI-II scores among DMC, CA, and EC. Walker and Peterson (in press) and Dagenhart (2004) have previously shown that the strongest correlations between BDI-II scores and CTI subscale scores in descending order are DMC, CA, and EC. Since the present study’s purpose was to determine the amount of variation and the best predictor of BDI-II scores and BHS scores among DMC, CA, and EC, stepwise models were implemented. CA and EC were included despite not being included in the Walker
and Peterson study, because the sample for this study consisted of individuals seeking career services, rather than students in a class. The subscales were entered as variables in the stepwise regression models based on sizes of correlations to BDI-II and BHS total scores, larger correlations going first. Potential intervening effects of age, gender, and minority status were partitioned through stepwise regression models to determine if these variables by themselves were significantly related to BDI-II and BHS scores. Age and gender were entered into the stepwise regression models as coded, but minority status required the recoding of ethnicity. Dummy variables were created for “majority” which included individuals self-identifying as “white, non-Hispanic,” and for “minority” which included all other ethnicities.
CHAPTER 4

Results

Several statistical analyses were conducted to examine the research questions and hypotheses posed in the prior chapters. Analyses of the measures were conducted to provide descriptive statistics. This chapter contains detailed descriptions of the results and data from the statistical analyses that were conducted.

Initial Findings

Descriptive statistics for the CTI TS, DMC, CA, EC, BDI-II, and BHS are presented in Table 4.1. Overall, participants’ average T-scores and standard deviations on the CTI TS, DMC, CA, and EC were similar to the instrument’s normative data for college students, suggesting that the sample for this study reflects the CTI’s college student normative sample. The BDI-II and BHS manuals only provide means and standard deviations at the item level, not means and standard deviations for the total scores to compare to those found in the present study. However, BDI-II and BHS means found in Table 4.1 can be compared to cut scores from Table 3.2. The participants’ mean scores on the BDI-II fell in the “minimal” cut score range for patients diagnosed with major depression, and participants’ mean scores on the BHS also fell in the “minimal” cut score range.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTI Total Score</td>
<td>145</td>
<td>28 – 75</td>
<td>49.25</td>
<td>10.83</td>
</tr>
<tr>
<td>DMC Score</td>
<td>145</td>
<td>35 – 78</td>
<td>48.34</td>
<td>11.22</td>
</tr>
<tr>
<td>CA Score</td>
<td>145</td>
<td>27 – 80</td>
<td>49.76</td>
<td>12.24</td>
</tr>
<tr>
<td>EC Score</td>
<td>145</td>
<td>35 – 80</td>
<td>53.35</td>
<td>12.61</td>
</tr>
<tr>
<td>BDI-II Total Score</td>
<td>139</td>
<td>0 – 35</td>
<td>7.78</td>
<td>7.30</td>
</tr>
<tr>
<td>BHS Total Score</td>
<td>147</td>
<td>0 – 17</td>
<td>2.75</td>
<td>2.90</td>
</tr>
</tbody>
</table>

Prior to testing the hypotheses for this study, internal consistency coefficient analyses of the measures were performed. The participant alpha coefficients found for the CTI subscales were as follows: Decision-making Confusion (α = 0.940), Commitment Anxiety (α = 0.882), and External Conflict (α = 0.723). The following participant alpha coefficients were found for the criterion variables: BDI-II (α = 0.895) and BHS (α = 0.801). The participant alpha coefficients...
indicated adequate internal consistency ($\alpha \geq 0.70$), sufficient for research (Nunnaly, 1978). Since the participant alpha coefficients were all greater than 0.70, further analyses were performed to test the four hypotheses posed for this study.

### Research Questions and Hypotheses

This section presents the four hypotheses and the findings related to the four research questions. Despite large correlations among several of the predictor variables for R1 and R2, as seen in Table 4.2, none of these correlations reach a threshold of $r = 0.75$, suggesting that there was no concern of multicollinearity among key variables for multivariate predictive models.

#### Table 4.2. Correlation Matrix for Variables of Interest

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CTI Total Score</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. DMC Score</td>
<td>0.921*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. CA Score</td>
<td>0.853*</td>
<td>0.676*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. EC Score</td>
<td>0.714*</td>
<td>0.616*</td>
<td>0.504*</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. BDI-II Total Score</td>
<td>0.477*</td>
<td>0.434*</td>
<td>0.428*</td>
<td>0.387*</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>6. BHS Total Score</td>
<td>0.479*</td>
<td>0.491*</td>
<td>0.373*</td>
<td>0.270*</td>
<td>0.594*</td>
<td>1.000</td>
</tr>
</tbody>
</table>

*p < 0.01

**Research question 1.** The first research question queried: What is the relationship between dysfunctional career thinking as measured by the *Career Thoughts Inventory* subscales and symptoms of depression as measured by the *Beck Depression Inventory – II* among individuals seeking career services?

Significant correlations were found between each CTI subscale and the BDI-II total score, as seen in Table 4.2 and Table 4.3. DMC ($r = 0.434$, $p < 0.01$), CA ($r = 0.428$, $p < 0.01$), and EC ($r = 0.387$, $p < 0.01$) all had significant, medium to large, positive relationships with the BDI-II. The correlations between the CTI subscales and the BDI-II for this study differed only minimally from those found in prior studies, as seen in Table 4.3.

These results support H1. There is a statistically significant, positive correlation between the *Beck Depression Inventory – II*, Decision-Making Confusion, Commitment Anxiety, and External Conflict, respectively.
Table 4.3. Correlation Comparisons for CTI Subscales and BDI-II

<table>
<thead>
<tr>
<th></th>
<th>DMC</th>
<th>CA</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDI-II(^a)</td>
<td>0.434*</td>
<td>0.428*</td>
<td>0.387*</td>
</tr>
<tr>
<td>BDI-II(^b)</td>
<td>0.51**</td>
<td>0.40**</td>
<td>0.39**</td>
</tr>
<tr>
<td>BDI-II(^c)</td>
<td>0.339*</td>
<td>0.373*</td>
<td>0.355*</td>
</tr>
</tbody>
</table>

\(^*\) \(p < 0.01\)
\(^{**}\) \(p < 0.001\)
\(^a\) (Present study)
\(^b\) (Walker & Peterson, in press)
\(^c\) (Dagenhart, 2004)

Research question 2. The second research question queried: What is the relationship between dysfunctional career thinking as measured by the *Career Thoughts Inventory* subscales and hopelessness as measured by the *Beck Hopelessness Scale* among individuals seeking career services?

Significant correlations were found between each CTI subscale and the BHS total score, as seen in Table 4.4. Decision-Making Confusion \((r = 0.491, p < 0.01)\) had significant, moderate, positive relationships with the BHS. Commitment anxiety had a significant, medium to large, positive relationship with the BHS \((r = 0.373, p < 0.01)\). External conflict had a significant, small to moderate, positive relationship with the BHS \((r = 0.270, p < 0.01)\).

The results in this section support H2. There is a statistically significant, positive correlation between the *Beck Hopelessness Scale*, Decision-Making Confusion, Commitment Anxiety, and External Conflict, respectively.

Table 4.4. Correlations for CTI Subscales and BHS

<table>
<thead>
<tr>
<th></th>
<th>DMC</th>
<th>CA</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHS</td>
<td>0.491*</td>
<td>0.428*</td>
<td>0.270*</td>
</tr>
</tbody>
</table>

\(^*\) \(p < 0.01\)

Research question 3. The third research question queried: Can subscale scores on the *Career Thoughts Inventory* be used to predict scores on the *Beck Depression Inventory – II*?
A stepwise linear regression analysis was conducted to ascertain the best predictors of depression among the CTI subscales. Observation of unstandardized residuals for this stepwise regression indicated that the residuals formed a normal distribution. In the first stepwise model, DMC alone was found to capture a significant amount of variation in the model ($R^2 = 0.188$, $p < 0.01$). In the second stepwise model DMC and CA together were found to capture a significant amount of variation in the model ($R^2 = 0.221$, $p < 0.05$); DMC ($\beta = 0.266$) and CA ($\beta = 0.247$) capture similar levels of variation in the BDI-II scores. DMC and CA captured the greatest variation in the prediction model, while EC was found to not be a significant contributor to the prediction model for the BDI-II. Based on the correlations and the variance accounted for, when using the CTI, DMC and CA combined yield the best predictor of depression.

The results in this section only partially supported H3. While the DMC and the CA subscales were significant, positive predictors of scores on the BDI-II in this model, the EC subscale was not a significant, positive predictor of the BDI-II.

Table 4.5. Stepwise Regression Analysis of CTI Subscales as BDI-II Predictors

<table>
<thead>
<tr>
<th>Model</th>
<th>$r$</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>$R^2$ Change</th>
<th>$B$</th>
<th>$\beta$</th>
<th>$F$</th>
<th>$F$ Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DMC</td>
<td>0.434**</td>
<td>0.434**</td>
<td>0.188**</td>
<td>0.182**</td>
<td>0.280**</td>
<td>0.434**</td>
<td>31.349**</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>DMC</td>
<td>0.434**</td>
<td>0.470*</td>
<td>0.221*</td>
<td>0.210*</td>
<td>0.033*</td>
<td>0.172*</td>
<td>19.032**</td>
<td>5.637*</td>
</tr>
<tr>
<td></td>
<td>CA</td>
<td>0.428**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.146*</td>
<td>0.247*</td>
</tr>
</tbody>
</table>

* $p < 0.05$
** $p < 0.01$

Table 4.6. Excluded Variables from R3 Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>t</th>
<th>Significance</th>
<th>Partial Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CA</td>
<td>0.247</td>
<td>2.374</td>
<td>0.019</td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>0.195</td>
<td>2.022</td>
<td>0.045</td>
</tr>
<tr>
<td>2</td>
<td>EC</td>
<td>0.163</td>
<td>1.684</td>
<td>0.094</td>
</tr>
</tbody>
</table>

Research question 4. The fourth research question queried: Can subscale scores on the Career Thoughts Inventory be used to predict scores on the Beck Hopelessness Scale?
A stepwise linear regression analysis was conducted to ascertain the best predictor of hopelessness among the CTI subscales. Observation of unstandardized residuals for this stepwise regression indicated that the residuals formed a normal distribution. When DMC was entered first it was the only variable to capture a significant amount of variation in the model ($R^2 = 0.241$, $p < 0.01$); once included with DMC, CA and EC were non-significant predictors of BHS. DMC had the highest correlation with the BHS, and DMC had the greatest variation in the prediction model. Based on the correlations and the variance accounted for, when using the CTI, DMC is the best predictor of hopelessness.

The results in this section only partially supported H4. While the DMC subscale was a significant, positive predictor of scores on the BHS in this model, the CA and EC subscales were not significant, positive predictors of the BHS.

<table>
<thead>
<tr>
<th>Model</th>
<th>r</th>
<th>R</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>B</th>
<th>$\beta$</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DMC</td>
<td>0.491*</td>
<td>0.491*</td>
<td>0.241*</td>
<td>0.236*</td>
<td>0.127*</td>
<td>0.491*</td>
</tr>
</tbody>
</table>

* $p < 0.01$

Table 4.8. Excluded Variables from R4 Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>t</th>
<th>Significance</th>
<th>Partial Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CA</td>
<td>0.076</td>
<td>0.764</td>
<td>0.446</td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>-0.052</td>
<td>-0.558</td>
<td>0.578</td>
</tr>
</tbody>
</table>

Additional Analyses

**Correlations for CTI TS with BDI-II and BHS scores.** The relationship among the CTI TS, BDI-II, and BHS was not included in the research questions or hypotheses, but there were correlations found among these scores. The CTI TS and BDI-II total score yielded a significant, medium to large, positive relationship ($r = 0.477$, $p < 0.01$). The correlations between the CTI TS and the BDI-II for this study differed only minimally from those found in prior studies, as seen in Table 4.9. The CTI TS and the BHS total score yielded a significant, moderate, positive relationship ($r = 0.479$, $p < 0.01$). In addition to correlations among the CTI TS, BDI-II, and BHS other analyses were run to evaluate possible intervening variables.
Table 4.9. Correlation Comparisons for CTI TS with BDI-II, BDI, and BHS

<table>
<thead>
<tr>
<th></th>
<th>BDI-II(^a)</th>
<th>BDI-II(^b)</th>
<th>BDI-II(^c)</th>
<th>BDI(^d)</th>
<th>BHS(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS</td>
<td>0.477*</td>
<td>0.42**</td>
<td>0.405*</td>
<td>0.374**</td>
<td>0.479*</td>
</tr>
</tbody>
</table>

\(*p < 0.01\\**p < 0.001\\(Present study)\\(Walker & Peterson, in press)\\(Dagenhart, 2004)\\(Saunders, 1997; Saunders et al., 2000)\\

**Demographic variables.** The inclusion of gender, age, and minority status (i.e., ethnic majority or minority) as additional predictors of BDI-II scores in separate stepwise regression models showed that each potential intervening variable failed to yield significant increases \(p < 0.05\) in variation when DMC and CA were also included (see Table 4.10). Also, entering gender, age, or minority status as additional predictors of BHS scores in separate stepwise regression models showed that each potential intervening variable failed to yield significant increases \(p < 0.05\) in variation when DMC was also included (see Table 4.11). These findings suggest that the DMC scale and the CA scale are indicators of possible depression while only the DMC scale is an indicator of possible of hopelessness, in college students who present with a career problem. Furthermore, gender, age, and minority status effects appear to be insignificant as potential intervening variables when using the CTI subscales to predict depression and hopelessness.

Table 4.10. Demographic Variables Results for Final R3 Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>t</th>
<th>Significance</th>
<th>Partial Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.014</td>
<td>0.182</td>
<td>0.856</td>
<td>0.980</td>
</tr>
<tr>
<td>Age</td>
<td>-0.042</td>
<td>-0.554</td>
<td>0.580</td>
<td>-0.048</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.107</td>
<td>1.392</td>
<td>0.166</td>
<td>0.120</td>
</tr>
</tbody>
</table>
Table 4.11. Demographic Variables Results For Final R4 Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>t</th>
<th>Significance</th>
<th>Partial Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-0.091</td>
<td>-1.249</td>
<td>0.214</td>
<td>-0.104</td>
</tr>
<tr>
<td>Age</td>
<td>0.063</td>
<td>0.866</td>
<td>0.388</td>
<td>0.073</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-0.141</td>
<td>-1.938</td>
<td>0.055</td>
<td>-0.161</td>
</tr>
</tbody>
</table>

**Predicting depression and hopelessness.** The findings from this study can be used to help practitioners identify clients seeking career services in a university setting who may be depressed or hopeless. From this study, the best method for assessing depression and hopelessness using the CTI would be to implement a regression equation to find cut scores on the CTI that predict scores on the BDI-II and BHS. The formulas used for these predictions are dependent on the number of predictors in the final regression models. For R3 the final model used DMC and CA as predictors of BDI-II scores, and R4 used only DMC as a predictor of BHS. Cut scores for the BDI-II and BHS from Table 3.2 may be employed to determine the cut scores on the CTI subscales. Cut scores on the BDI-II were set at 16 in the mild level, as previously set by Walker and Peterson (in press) to indicate individuals experiencing emotional discomfort. Cut scores on BHS for the regression equation were set at 6, also in the mild level. In addition to using the standard used by Walker and Peterson for depression, predicting for a mild level of hopelessness will allow practitioners to identify individuals with distress before clients score in the range that is considered at risk for self-harm, which is in the moderate level. Table 4.12 shows the increased risk for self-harm and suicide for individuals who score in the moderate range on the BHS.

Table 4.12. BHS Recommended Cut Scores for High Risk

<table>
<thead>
<tr>
<th>Cut Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥9</td>
<td>Increased risk for future self-harm behavior&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>11 times more likely to commit suicide than low-risk group, and twice as likely to commit suicide as high- and low-risk groups defined by the BDI&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>≥10</td>
<td>Potential for eventual suicide&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup>Individuals with non-fatal self-harm behavior histories (McMillan et al., 2007).

<sup>b</sup>Psychiatric outpatients (Beck et al., 1990).

<sup>c</sup>Psychiatric inpatients (Beck et al., 1985).
To predict for BDI-II scores two regression equations were used. Table 4.13 presents the slopes and constants from the stepwise multiple regression analysis for R3. Based on Walker and Peterson’s (in press) cut off, a T-score of 78 on DMC and 72 on CA would predict a 16 on the BDI-II. So, any CTI profile with a DMC T-score greater than 78 and CA T-score greater than 72 would suggest that the individual has at least a mild level of depression and the existence of emotional discomfort attributed to or associated with a career problem. Setting a BDI-II cut score higher than 16 will cause DMC predictor cut score to be greater than 80; T-scores of 80 on DMC could represent any BDI-II score from 17 to 63.

Table 4.13. Slopes and Constants for Predictors of BDI-II

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>β</th>
<th>Constant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DMC</td>
<td>0.280**</td>
<td>0.434**</td>
</tr>
<tr>
<td>2</td>
<td>DMC</td>
<td>0.172*</td>
<td>0.266*</td>
</tr>
<tr>
<td></td>
<td>CA</td>
<td>0.146*</td>
<td>0.247*</td>
</tr>
</tbody>
</table>

* p < 0.05
**p < 0.01

To predict for the BHS scores, only one regression equations was needed. Table 4.14 presents the slopes and constants from the stepwise multiple regression analysis for R4. Based on these results, a T-score of 74 on DMC would predict a 6 on the BHS. So, any CTI profile with a DMC T-score greater than 74 would suggest that the individual has at least a mild level of hopelessness and the existence of emotional discomfort attributed to or associated with a career problem. Setting a BHS cut score higher than 6 will cause DMC predictor cut score to be greater than 80; T-scores of 80 on DMC could represent any BHS score from 7 to 20.

Table 4.14. Slopes and Constants for Predictors of BHS

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>β</th>
<th>Constant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DMC</td>
<td>0.127*</td>
<td>0.491*</td>
</tr>
</tbody>
</table>

*p < 0.01
CHAPTER 5
Discussion

The purpose of this study was to examine the relationship among dysfunctional career thinking, depression, and hopelessness. The Career Thoughts Inventory (CTI) subscales Decision-Making Confusion (DMC), Commitment Anxiety (CA), and External Conflict (EC) were used to measure dysfunctional career thoughts. The Beck Depression Inventory – II (BDI-II) was used to measure depression while the Beck Hopelessness Scale (BHS) was used to measure hopelessness.

This chapter provides a summary of the findings as they relate to each research question and additional results, limitations of the study, implications of the study for future practice and future research, and some conclusions about the findings.

Summary of Results

The following sections summarize the research results. Also, there is a summary of additional findings regarding using the results from R3 and R4 in prediction equations.

Research question 1. It was hypothesized that there would be statistically significant, positive correlations between the Beck Depression Inventory – II, Decision-Making Confusion (DMC), Commitment Anxiety (CA), and External Conflict (EC), respectively.

DMC, CA, and EC all yielded significant, medium to large, positive correlations with the BDI-II. The findings that DMC, CA, and EC were all significant positive correlates with BDI-II total scores were consistent with correlations found in previous studies that used the CTI and the BDI-II (Dagenhart, 2004; Walker & Peterson, in press). Dagenhart (2004) found medium correlations between DMC ($r = 0.339, p < 0.01$), CA ($r = 0.373, p < 0.01$) and EC ($r = 0.355, p < 0.01$) and the BDI-II which may be a result of the general, undergraduate population used in that study. The present study found the largest correlation between the CTI TS ($r = 0.477, p < 0.01$) and the BDI-II followed by DMC ($r = 0.434, p < 0.01$), CA ($r = 0.428, p < 0.01$), and EC ($r = 0.387, p < 0.01$), respectively. However, Walker and Peterson (in press) found DMC ($r = 0.51, p < 0.001$) to be the strongest correlate with BDI-II scores. Walker and Peterson’s results are more similar to the findings from the present study, than were Dagenhart’s findings. Two possible explanations for these
similarities are: 1) both the present study and the Walker and Peterson (in press) study collected data at the same university, and/or 2) while the present study collected data from actual clients seeking career services, participants in the Walker and Peterson study were in a career development course, which could indicate that those participants had similar career service needs as clients seeking services in a career center. The correlation between CA and the BDI-II are similar to Sweeny and Schill’s (1998) finding that career choice anxiety and BDI scores were significantly, positively correlated. Generally, the findings in the current study are consistent with prior studies that indicate that components of dysfunctional career thinking correlate significantly in a positive direction with depression.

**Research question 2.** It was hypothesized that there would be statistically significant, positive correlations between the *Beck Hopelessness Scale*, Decision-Making Confusion, Commitment Anxiety, and External Conflict, respectively.

DMC had significant, moderate, positive relationships with the BHS. CA had a significant, medium to large, positive relationship with the BHS. EC had a significant, small to moderate, positive relationship with the BHS. The finding that dysfunctional career thinking correlates to hopelessness was expected. Rottinghaus et al. (2009) suggested that individuals who are undecided are more depressed due to a belief that they will never achieve their goals; such a belief is a negative expectation for the future, or hopelessness. Hopelessness is dysfunctional thinking that can impact career thinking and one’s ability to make a decision.

**Research question 3.** It was hypothesized that the *Career Thoughts Inventory* subscale scores would be a significant, positive, predictor of scores on the *Beck Depression Inventory – II*. There will be significant variance of *Beck Depression Inventory – II* scores accounted for by scores on the *Career Thoughts Inventory* subscales.

Independently, DMC captured a significant, moderate amount of variation in BDI-II scores (~18%). However, together DMC and CA captured a significant, moderate to large amount of variation of BDI-II scores (~21%). EC was not a significant contributor in predicting BDI-II scores. These findings indicate that as individuals experience an inability to start or sustain the career decision-making process due to emotions or lack of understanding, as well as an inability to commit and generalized anxiety about the outcomes of their decisions, they may also become depressed. Also, individuals’ inability to separate self-perception from others’ input and reluctance to assume responsibility for making a decision did not contribute to predicting
elevations in depression. These results were similar to the Walker and Peterson (in press) results in that DMC was the best predictor of BDI-II scores. However, because of the smaller correlation between DMC and BDI-II, in the present study, the variance of BDI-II scores accounted for by DMC scores was much lower than in Walker and Peterson’s study. Another key difference between the present study and the Walker and Peterson study is that the present study also found CA to contribute to the prediction model. These findings indicate that scores on DMC and CA can be used together to predict symptoms of depression by predicting BDI-II scores.

**Research question 4.** It was hypothesized that the *Career Thoughts Inventory* subscale scores will be a significant, positive, predictor of scores on the *Beck Hopelessness Scale*. There will be significant variance of *Beck Hopelessness Scale* scores accounted for by the *Career Thoughts Inventory* subscales.

Independently, DMC captured a significant, moderate to large amount of variation of BHS scores (~24%). CA and EC were not significant contributors for the prediction of BHS scores. These findings suggest that as individuals experience an inability to start or sustain the career decision-making process due to emotions or lack of understanding they may become more hopeless, having a negative outlook for the future. Also, individuals’ inability to commit and generalized anxiety about the outcomes of their decisions, as well as their inability to separate self-perception from others’ input and reluctance to assume responsibility for making a decision did not contribute to predicting elevations in hopelessness. These findings suggest that DMC scores can be used to predict symptoms of hopelessness by predicting BHS scores.

**Additional results.** While not included as a variable in R1 or H1, the CTI TS yielded a significant, moderate, positive correlation with the BDI-II. Both Dagenhart (2004) and Walker and Peterson (in press) found medium to large correlations between the CTI TS and BDI-II. Interestingly, the correlation between the CTI TS and BDI-II is smallest for the Dagenhart study and largest for the present study. These findings suggest that as the sample went from a general undergraduate sample, to an undergraduate sample in a career course, to an undergraduate and graduate sample seeking career services, the correlation between dysfunctional career thinking and depression increased. In the Saunders et al. (2000) study, the CTI TS was correlated with the BDI, not unlike the present study. While there was a medium to large correlation between these variables, it is problematic to assume that correlations between the BDI and the CTI TS are equivalent to correlations between the BDI-II and CTI TS because the BDI reflects different
items and psychometric characteristics than the BDI-II. Similarly, while not included as a variable in R2 or H2, the CTI TS yielded a significant, moderate to large, positive correlation with the BHS, even greater than the correlation between the CTI TS and the BDI-II. In addition to findings that the CTI TS correlated to BDI-II and BHS total scores, there are practical results from the regression models.

The findings from this study can help practitioners identify career service clients who may be depressed or hopeless by using a regression equation to find cut scores on the CTI that predict scores on the BDI-II and BHS. Any CTI profile with a DMC T-score greater than 78 and CA T-score greater than 72 would predict a BDI-II score of 16, suggesting that the individual has at least a mild level of depression and the existence of emotional discomfort attributed to or associated with a career problem. Any CTI profile with a DMC T-score greater than 74 would predict a BHS score of 6, suggesting that the individual has at least a mild level of hopelessness and the existence of emotional discomfort attributed to or associated with a career problem.

Limitations of the Study

There are several limitations in the present study that could impact internal and external validity. The following sections explore potential limitations in the sample, in the measures, and in the data analysis.

**Limitations in the sampling.** There were several factors in the sample that limit generalizability to the population as a whole. First, this was a sample of undergraduate and graduate students, thus can only be generalized to such populations. While the percentage breakdown of the sample for education level is similar to the university population at large, there were no doctoral students in the present sample. The lack of doctoral students in the present sample indicates that these findings should not be generalized to doctoral students. The gender and ethnicity of the sample fairly accurately represented the university population as a whole, but African-Americans were slightly over represented while Asian/Pacific Islanders were slightly underrepresented.

Individuals who participated in this study were seeking career services in a university-based career center. These results may not generalize to students seeking service in counseling centers or career development classes. However, the career center in which data were collected is unique in that it offers individual career counseling, drop-in services (e.g., choosing a major, writing a resume, choosing a career, etc.), and other career preparation services (e.g., mock
interviewing, job search workshops, etc.). Not all students utilizing career services at this center have difficulties making a career decision. Because this career center offers such a wide array of services not typical in other career service settings, the clientele visiting this career center may differ from individuals seeking help in other career service settings.

**Limitations in the measures.** The psychometric qualities of the measures used in the present study were adequate. The participant alpha coefficients for the CTI subscales in this study were all similar (within 0.017) of those found in the *CTI Professional Manual* (Sampson et al., 1996a). The internal and external validity of the findings from this study could be threatened by the reliability coefficient of the CTI’s EC (0.723) subscale. While the participant alpha coefficient for EC is above the 0.70 threshold recommended by Nunnaly (1978), it is still rather low. This low participant alpha coefficient is likely a result of EC scale only including five items. Because of the borderline-low coefficient on EC, results regarding this variable should be interpreted with caution. Another limitation of the measures were the degree of prediction possible using the CTI to predict BDI-II and BHS scores.

The BDI-II and BHS cut off thresholds for this study were set to the highest level while maintaining CTI predictor T-scores below 80. These mild level cut offs should be sufficient to identify individuals with depression and hopelessness. Individuals with CTI T-scores above 80 could represent a wide range of levels of depression and hopelessness. With the current measures and results it is not possible to predict for individuals in the moderate or severe cut score ranges on the BDI-II or BHS, which are at the highest risk for self-harm and suicide. All analyses used in this study were re-run using CTI raw scores rather than T-scores to determine if raw scores might yield more robust findings, predicting for higher BDI-II and BHS scores. There is a wide range of possible raw scores that may fall at T-score of 80 (i.e., a raw scores of 109 through 144 on the TS equal a T-score of 80). These analyses and regression equation calculations yielded no practical change from the reported results that were obtained using T-scores.

**Limitations in the data analysis.** The correlations and stepwise regression models used in this study focused primarily on the CTI’s three subscales: DMC, CA, and EC. While the CTI is a 48-item scale, only 29 items comprise DMC, CA, and EC scales. There are 19 items that are not calculated in any of the CTI subscales. The absence of these items could have resulted in an underestimation of the predictive validity of each stepwise regression model.
Implications of the Study

There are several implications of the present study. The following sections explore potential implications for practice and implications for future research.

Implications for practice. Students are rating their emotional health as poorer than in the past (Pryor et al., 2011), and a large percentage of students seeking services in university counseling centers are experiencing severe distress (Smith et al., 2007). The literature has shown that career development difficulties and psychological distress are increasingly interrelated (Anderson & Niles, 1995; Fouad et al., 2006; Lucas et al., 2000). It is important for practitioners working in settings that deliver career services to be able to assess and treat, if not at least triage, students that are increasingly distressed and have interrelated career and mental health concerns.

When conducting an initial screening, practitioners can look at high CTI scores and know that the CTI TS, DMC, CA, and EC all have significant correlations with BDI-II and BHS scores. The inability to start or sustain the career decision-making process due to emotions or lack of understanding, to commit and generalized anxiety about the outcome, and to separate self-perception from others’ input, causing a reluctance to assume responsibility for making a decision all are related to depression and hopelessness. The relationships between each of the CTI subscales and Beck scales suggest that depression and hopelessness occur during all phases of CASVE Cycle (e.g., high scores on the EC scale suggest that an individual may be experiencing depression and hopelessness in relation to their valuing, or prioritizing, alternatives). These findings point to the need for practitioners to query for signs of distress in clients with these levels.

For a more precise method of evaluating level of depression and/or hopelessness using the CTI, practitioners could use the cut scores derived from the regression equations. For the BDI-II, practitioners can look at DMC and CA scores. If the T-scores are 78 for DMC and 71 for CA the individual may also have a mild level of depression, as those scores seem to predict a 16 on the BDI-II. If practitioners want to predict for a BDI-II score of 14, the lowest score that represents a mild level of depression, they can use a T-score of 71 for DMC and 66 for CA. For the BHS, practitioners can consider DMC scores. If the T-score is 74, the individual may also have a mild level of hopelessness, as those scores predict a 6 on the BHS. If practitioners want to predict for a BHS score of 4, the lowest score that represents a mild level of hopelessness, they can use a T-score of 59 for DMC.
Using the cut scores found with the regression equations holds potential benefits for practitioners. Practitioners can evaluate CTI scores and address emotional distress that could be interfering with the career decision-making process. This builds on the finding by Saunders et al. (2000) that both dysfunctional career thinking and depression are related to career indecision. Using the CTI to identify emotional distress allows the practitioner to treat the client in a more holistic manner and not artificially separate emotional and career concerns as was suggested by Zunker (2008) and Lenz et al. (2010). Krumboltz (1993) suggested that it is erroneous to artificially partition off aspects of an individual’s life in counseling and not treat the individual as a whole. The present study focused on addressing the suggestion in literature that career counseling become more holistic (e.g., Savickas, 2003). Another benefit of using cut scores to predict depression and hopelessness is for risk-management. Individuals with mild depression and/or hopelessness might not be at as great a risk for self-harm, but if individuals have T-scores greater than 80 for both DMC and CA, they might be experiencing mild to severe depression and hopelessness. If individuals have high scores on these scales, career practitioners, with proper training, should consider doing a risk assessment to further explore mental health concerns that may be present. In settings where career practitioners lack the skills and training to do risk assessment or treat individuals presenting with mental health concerns, procedures should be in place for referring clients to counseling and related mental health services. Settings with the resources may additionally choose to administer measures such as the BDI-II, BHS, or BSS if a client has high CTI scores. This added step will provide documentation of the mood state and reinforce the need to treat the emotional distress or refer for more intensive treatment. There are also added benefits for practitioners working from a CIP theoretical approach.

Those working from a CIP approach can look at the predicted level of depression and hopelessness based on CTI scores and how these score relate to CASVE Cycle. If a client has elevations on DMC above 78 and above 71 on CA, the practitioner should look for depressed cognitions that could inhibit the client’s ability to communicate that a decision needs to be made, analyze and synthesize information, and follow through with a decision. Similarly, if a client has and elevation on DMC above 74, the practitioner should look for negative thoughts about the future that could inhibit the client’s ability to communicate that a decision needs to be made, as well as analyze and synthesize information. Working to address depressed cognitions, negative
thoughts about the future, and dysfunctional career thoughts together will yield the greatest results in reducing the emotional distress associated with making a career decision.

**Implications for research.** There are several implications that the current study has for future research. One implication for future research comes from the finding that the CTI TS produced significant, positive, moderate to large correlations with both the BDI-II and BHS. Future studies may want to look at models that use the CTI TS as a predictor of depression and hopelessness. Using the CTI TS as a predictor of depression may be particularly indicated since Saunders et al. (2000) found a significant, positive, moderate correlation between the TS and BDI, and the current study as well as the Dagenhart (2004) study both found the TS to have a larger correlation coefficient with the BDI-II than did DMC. Also, the TS may yield cut scores that predict a BDI-II and/or BHS score in a higher range than just the mild cut off range, to identify individuals are greater risk for self-harm and suicide. It would be beneficial to run analyses and regression equations using raw scores and T-scores when examining the TS to see if there is a difference in prediction thresholds. In addition to using a different variable from the CTI as a predictor, other career measures may be included in the prediction model.

Since other career measures are frequently used in career centers, the inclusion of other predictor variables may benefit the prediction model. The *Self-Directed Search* (SDS; Holland, Fritsche, & Powell, 1994) is one of the most frequently used career assessments in career centers. The SDS uses sums of raw scores; Fuller, Holland, and Johnston (1999) suggested that elevations in these sums of raw scores relate to personality variables, such as depression (i.e., low elevations correspond to depression). Past studies have found depression to have significant, negative correlations with the sum of SDS scores for men and women (Holland, Johnston, & Asama, 1994; Fuller et al., 1999). Bullock (2006) suggested using the BDI to see if interest profile elevation relates significantly to depression. Future studies could include SDS interest profile elevations as a predictor with the CTI for depression and hopelessness. In addition to changing the variables in the prediction model, changing the sample may be indicated for future studies.

The present sample included graduate students in addition to undergraduate students and drop-in career service clients, as well as those seeking individual career counseling. Future studies could focus on more homogenized samples and comparison samples. Having a larger sample of graduate students would allow for comparisons between graduate and undergraduate
students. Another alternative to having a larger graduate student sample would be to include only graduate or only undergraduate students. Similarly, if the total sample had larger portions of students in individual career counseling, comparisons could be made between the drop-in versus individual counseling clients. Alternatively, the sample could include only those in individual career counseling services or only those in drop-in career services. The abovementioned changes to sampling would help improve generalizability and precision in prediction of depression and hopelessness. Another step that future researchers might take to improve the understanding of the relationship among dysfunctional career thoughts, depression, and hopelessness would be to use more complex statistical modeling.

Future studies could use structural equation modeling to include both depression and hopelessness as dependent variables. By using the three CTI subscales to run simultaneous multiple regressions, the relationship among the CTI subscales and the BDI-II and BHS can be examined in one model. A secondary alternative would be to include SDS profile elevations, as previously suggested, as an independent variable with either the CTI TS or the three CTI subscale scores. Using different scales, samples, measures, and/or statistical methods might improve practitioners’ understanding of the relationship among dysfunctional career thinking, depression and hopelessness.

Conclusion

There are several findings from this study that should be highlighted. First, the CTI DMC, CA, and EC scores all had significant, positive correlations with the BDI-II total scores and with the BHS total scores, as hypothesized. These findings indicate that there is a meaningful relationship between dysfunctional career thinking and depression, and there is a meaningful relationship between dysfunctional career thinking and hopelessness. Also, DMC and CA scores were found to contribute significantly to the variance in BDI-II scores; about 21% of BDI-II scores can be accounted for by DMC and EC. Another finding was that DMC scores contribute significantly to the variance in BHS scores; about 24% of BHS scores can be accounted for by DMC. In addition to the findings for the research questions, there were additional finding about prediction.

CTI scores can be used to predict mild levels of depression and hopelessness. DMC T-scores of 78 and CA T-scores of 71 can be used to predict a score of 16 on the BDI-II. Also, a DMC T-score of 74 can be used to predict a score of 6 on the BHS. Furthermore, if practitioners
wish to use a lower threshold for the cut off on either the BDI-II or the BHS, they can simply input the desired BDI-II or BHS score into the regression equations to determine what CTI T-scores are needed to predict for those BDI-II or BHS cut scores.

The results that dysfunctional career thinking correlated with and predicted depression and hopelessness should not be a surprise based on the theoretical similarities between Beck’s theory and CIP. Those with depressed symptoms have been found to have more dysfunctional attitudes, thoughts, and cognitive distortions (Eaves & Rush, 1984; Murgai & Sathyavathi, 1987) while dysfunctional career thinking includes negative self-talk, poor self-awareness, poor insight, low self-monitoring, and poor control of the information allowed into one’s schemas (Peterson et al., 1991; Sampson et al., 2004). Negative internal communications or mega-cognitions may contribute to the formation or reinforcement of negative schemas (Beck, 1967; Rush & Beck, 1978; Beck & Alford, 2009). So, difficulty in the career decision-making process is likely to involve dysfunctional career thinking, which in turn may contribute to a generally negative schema about career, self, the world, and the future.

The belief that one is ineffective in making career decisions may lead to feeling depressed and hopeless about future prospects or activate underlying feelings of depression or hopelessness about the future. An individual could have an inactive schema which is triggered by the career decision-making process, which may lead to a pessimistic view of career prospects and future and ultimately lead to depression. Considering the findings from this study, it appears that as an individual engages in the career decision-making process, he or she must clarify the nature of the decision, gather information about the decision, define alternatives, prioritize the alternatives, and then make a decision; any of the steps along this process may trigger active or inactive schemas about the self, world, and future. If the individual has negative thinking related to these schemas, he or she may not only have dysfunctional thinking about career decision-making, but possibly also about the self, world, and future, in general. Negative cognitions about one area (e.g., career) appear to impact, activate, or translate into negative cognitions in other areas (e.g., hopelessness and depression). The results from this study also have implications for practice and for future research.

There are two major types of implications from this study - practice and research. The models in the current study can be used by practitioners to identify when a client has an increased level of emotional distressed intertwined with his or her career-related concern, and
how the steps in CASVE Cycle may be related to depression and hopelessness. Practitioners can also identify items to focus on in the CTI Workbook that are most related to depression and hopelessness. Also, identifying emotional distress in the career counseling process will allow practitioners to treat clients using a more holistic approach or improve the referral process to other services, as needed for clients’ safety. While BDI-II and BHS scores were generally low in this study’s sample, it is better to use the current prediction models to over-identify individuals as being depressed and/or hopeless than to pass over individuals who may be in distress and need intervention. This is similar to the finding by Beck et al. (1990) which used hopelessness scores to accurately predict future suicide but did over identify potential suicides. It is better to be cautious and protect clients than to disregard the results due to the lower BDI-II and BHS scores in this sample. One implication for future research is to expand on what was done in this study. The utilization of CTI raw scores, the CTI total score, and the inclusion of other measures into the prediction model are all ideas that may improve our knowledge of the relationship between career and emotional concerns. Also, following up on these implications for future research may improve the prediction models. If better prediction models can be created based on the recommendations for future research, then the prediction of emotional distress and triage services will be more accurate.
APPENDIX A

Career Advisor Handout

Who?
- Offer participation to any student entering the Career Center: this includes all new or potential individual clients as well as anyone coming in for any type of drop-in services, but exercise judgment (e.g., someone in crisis may not be appropriate).
- Participants must be a student over the age of 18!

Where?
- You can offer participation in your individual sessions.
- You can offer participation to individuals who are waiting for a CA in the waiting area.
- You can offer participation at the table when you are working with an individual.
- Keep the client in the Career Center until you ensure the Informed Consent is signed and Item 9 is 0 on the BDI-II.

What?
- Give the participant a packet and ask him or her to return the packet to any CA on duty. Make sure they do not leave without checking the packet first.
- Any CA will be able to review participants’ completed research forms and assessments. This will ensure that the consent form has been signed, and will allow CA to review item number 9 on the BDI-II regarding suicidal thoughts or wishes.
- Inform participants that they are not required to answer any questions that they do not wish to and that they may end their participation in the study at any time.
- If a participant feels discomfort he or she can talk with a CA or go to the counseling center. All participants will be given phone numbers for mental health resources.
- With a score of 1, 2, or 3 on item number 9, get one of the fulltime staff members to engage the decision tree for suicidal risk (Dr. Carr, Dr. Garis, Dr. Lenz, Kathy, or Joel).

How?
- If the participant has already completed a CTI, copy his or her responses onto the bubble sheet for the research version of the CTI to be placed in the packet with the other data.
- If the participant completes the research version of the CTI for the study, first, but you want to use the CTI in his or her advising, copy the responses from the bubble sheet onto the regular version of the CTI for your use.

When?
- Data collection will begin at the beginning of summer.

Why?
- This research will hopefully expand our knowledge about the relationship between dysfunctional career thoughts, depression, and hopelessness.
- Depending on the outcome, this may help us to better predict emotional difficulties with the CTI that we may want to address in our career counseling services.

Questions?
- If a client has a question that you cannot answer, they can get my contact information off of the informed consent and you should direct them to Dr. Carr, as well.
- If you have a question for me, send me an e-mail at...
APPENDIX B

Career Advisor Administrator Script for Participants

You are invited to participate in a research study examining the relationship of career variables to depression and hopelessness. As such, you will be asked to complete three inventories and a demographics survey. The three inventories you will be asked to complete are the Career Thoughts Inventory, the Beck Depression Scale – II, and the Beck Hopelessness Scale. Each inventory should take between 5 to 10 minutes.

You will need to read and sign the Informed Consent form; this is saying that you are a willing participant in this study. Once you have signed the Informed Consent and completed the inventories and survey, you will place them back in the unsealed packet and return them to a career advising staff member. Only the Informed Consent form, which will be removed from the packet after it is signed, will have your name on it. All other material will only have a personal identification number. A list matching your name to the personal identification number will be locked in a secure file. The Informed Consent and the completed inventories and survey will be kept separate to ensure confidentiality, except in cases in which there appears to be a risk for suicide.

Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty; it will not negatively affect your services. Once confirmation is made of completion, the packet will be sealed to ensure confidentiality. Your name will not be used and your personal information will be held confidential.

If you do not wish to participate, please do not take a packet. Or if you take a packet but do not complete the inventories, please return any unused items to the career advising staff member.

Ultimately, this knowledge may contribute to the development of protocols to serve individuals with depression or hopelessness who have first sought help for a career related problem. The results of the research study may be published, but your name will not be used.

[Demonstration on how to complete the inventories will be unscripted]
APPENDIX C

Staff Member Protocol for Managing Suicide Risk Assessment

Participants’ scores on the BDI-II will be checked before they leave; participants whose scores on the item number 9 indicate present suicidality will be further interviewed by a professional staff member using the following method to evaluate risk severity (Joiner et al., 1999).

1. An individual’s risk for suicide is designated nonexistent if he or she has no current suicidal symptoms, no history of suicide, and no or few other risk factors.

2. Risk for suicide is considered mild if the individual is a multiple attempter with no other risk factors or is a non-multiple attempter experiencing suicidal ideation of limited intensity and duration, no or mild Resolved Plans and Preparation, and no or few other risk factors.

3. An individual is designated at moderate risk if he or she is a multiple attempter with any other significant risk factor. A non-multiple attempter with moderate to severe Resolved Plans and Preparations or moderate to severe Suicidal Desire and Ideation accompanied by at least two other risk factors is also considered to be at moderate risk for suicide.

4. A multiple attempter with two or more risk factors or a non-multiple attempter with moderate to severe symptoms of Resolved Plans and Preparations accompanied by one other risk factor is designated at severe risk for suicide.

5. An individual is at extreme risk for suicide if he or she is a multiple attempter with severe Resolved Plans and Preparation or is a non-multiple attempter with Resolved Plans and Preparations and two or more other risk factors.

Once an individual has been assessed for suicide risk, we will take the following actions, as suggested by Joiner et al. (1999).

1. If an individual endorses “I don’t have any thoughts of killing myself” he or she will be allowed to carry on with only the “Referral Sources For Mental Health” sheet from the packet.

2. A person who endorses “I have thoughts of killing myself, but I would not carry them out” or “I would like to kill myself” will be given a list of steps to follow in case of emergency (which will contain phone numbers for Positive Alternative to Hospitalization [PATH] 850-523-3333, an appropriate mental health provider for suicidal crisis, 911, 211 (Tallahassee’s crisis line), 1-800-273-TALK (National Suicide Prevention Lifeline), and the FSU Psychology Clinic). He or she will also be given an offer to go to an individual counseling room with the career advisor or to the FSU Counseling Center for further care, if desired. The professional staff will use clinical judgment to determine if further precautions should be taken as described below.

3. Someone who endorses “I would kill myself if I had the chance” will be given an offer to go to an individual counseling room with the career advisor or to the FSU Counseling Center for further care. If the risk is imminent and serious, then either PATH or the University’s Crisis Management Unit (appropriate mental health providers for suicidal crisis) will be contacted. If he
or she refuses such hospitalization (or further care at the FSU Career Center), the staff member will call 911 so that the police can escort the participant to PATH.
APPENDIX D

Informed Consent

This research is being conducted by Daniel Dieringer, M.A., a doctoral candidate in the Ph.D. in Counseling Psychology and School Psychology under the direction of major professor Janet G. Lenz, Ph.D. of the Department of Educational Psychology and Learning Systems, College of Education, Florida State University. The purpose of this research is to study the relationship of career variables to depression and hopelessness. If at any time I have questions concerning this study, I can contact Daniel Dieringer (hidden for privacy) or Dr. Janet Lenz (850-644-9547 or jlenz@fsu.edu).

I have been selected for participation in this study because I have career concerns that indicate a career decision or a concern that goes beyond information provision which requires an Individual Learning Plan and/or individual career counseling. My participation will involve the completion of the Career Thoughts Inventory, the Beck Depression Inventory – II, and the Beck Hopelessness Scale, as well as a demographic survey. Each inventory should take between 5 to 10 minutes. My participation in this study is voluntary. If I choose not to participate or to withdraw from the study at any time, there will be no penalty and will not affect my career services.

Data will be collected in a manner that will ensure confidentiality. My name and personal information will be held confidential, to the extent allowed by law. Once completed, the inventories and survey will be placed back in the envelope and returned to a career advisor. Only this informed consent form will have my name on it; it will be removed from the packet after I sign it. All other material will only have a personal identification number. A list matching my name to the personal identification number will be locked in a secure file. This informed consent and the completed inventories and survey will be kept separate to ensure confidentiality, except in the case in which I appear to be a risk for suicide. The results of the research study may be published, but names will not be used.

There is no more than minimal risk of discomfort if I agree to participate in the study. I may feel a little discomfort when I complete the inventories because of the personally sensitive nature of some of the questions. If I feel discomfort at any time during this process I may speak with a career advisor, who has appropriate graduate training to help with such discomfort. Also, I will be provided with a list of referral sources where I can receive services, if needed; some of these services are free. If risk for self-harm is revealed the following may take place, based on severity: 1) I may be instructed to use self-control strategies and to seek out social support in the event that I become suicidal. If these strategies fail, I will be instructed to contact an emergency mental health resource or go to the emergency room, the phone numbers for which will be provided. OR 2) I will be given a list of steps to follow in case of emergency. I will also be given an offer to go to an individual counseling room with the career advisor or to the FSU Counseling Center for further care, if desired. OR 3) I will be given an offer to go to an individual counseling room with the career advisor or to the FSU Counseling Center for further care. If the risk is imminent and serious, then either PATH or the University’s Crisis Management Unit (appropriate mental health providers for suicidal crisis) will be contacted. If I refuses such hospitalization (or further care at the FSU Career Center), a career advisor will call the police who can escort me to PATH.

Although there may be no direct benefit to me, the possible benefit of my participation is the expansion of the field of knowledge regarding the relationship between career variables and depression and hopelessness. Ultimately, this knowledge may contribute to the development of protocols to serve individuals with depression or hopelessness who have first sought help for a career related problem.

I acknowledge that I am at least 18 years of age, and I freely and voluntarily and without element of force or coercion, give my consent to participate in the above study.

Participant’s First and Last Name: ______________________________________

Participant’s Signature: ______________________________________ Date: ____________

FSU Human Subjects Committee Approved on 2/10/11. Void after 12/17/11. HSC# 2010.5434
If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Vice President for the Office of Research at (850) 644-8633.
APPENDIX E

DEMOGRAPHIC SURVEY

Age: __________      Sex: Male□ Female□; Other ________________________________

Disability? Yes□ No□; If yes, what type? _______________________________________

Marital Status: Single□; Married□; Separated□; Divorced□; Widowed□; Other ______

Ethnic Group: African-American/Black□; Asian (Far East, Southeast Asia, Pacific Islands)□; Native American/American Indian/Eskimo□; Hispanic/Latina(o)/Chicana(o)□; White/Non-Hispanic□; Bi/Multiracial□; Other ______________

Highest year of formal schooling you have received:

High School: 9□; 10□; 11□; 12□

Undergraduate: 1st year□; 2nd year□; 3rd year□; 4th year□; 5th year□; Other _________

Graduate: MA□; MS□; PhD□; Other ________________________________

If you are a currently enrolled student, what is your field of study? __________________

Are you currently employed? Yes□ No□

Occupation: ________________________________________________________________
             (if other than student)

List all occupations you are considering right now:

__________________________________   ________________________________________

__________________________________   ________________________________________

__________________________________   ________________________________________

Which occupation is your first choice? (If undecided, write “undecided.”) ______________

How well satisfied are you with your first choice?

☐ 1. Well satisfied with choice        ☐ 4. Dissatisfied, but intend to remain

☐ 2. Satisfied, but have a few doubts ☐ 5. Very dissatisfied and intend to change

☐ 3. Not sure                        ☐ 6. Undecided about my future career

Participant Identification Number: __________ }
APPENDIX F

Referral Sources for Mental Health

University Counseling Center: 201 Askew Student Life Building
942 Learning Way, Tallahassee, FL 32306-4175
Phone: 644-2003  Fax: 644-3150  Website: http://counseling.fsu.edu/  Hours: M-Fri 8a-5p
Types of services provided: individual counseling, small group therapy, outreach programs, couples counseling, crisis intervention, psychiatric consultation, psychotropic medication, referrals. Persons eligible for services: FSU and TCC students. Fees for services: none for enrolled FSU students. FSU students enrolled the immediate previous semester and TCC students must purchase a health fee card.

Career Center: Dunlap Student Success Center
100 South Woodward Avenue, Tallahassee, FL 32306-4162
Phone: 644-6431  Fax: 644-3273  Website: http://www.career.fsu.edu  Hours: Drop-in career advising, M-F 9a-4:30p (except Fri.1:30-2:30p); Tues. evenings until 8p in fall and spring
Provides comprehensive career services. Career advising is provided on a drop-in basis. Individual counseling appointments are available at select times. Persons eligible for services: anyone. Fees for services: none

Human Services Center: College of Education, 2207 Stone Building
1114 W. Call Street, Tallahassee FL 32306
Phone: 644-3857  Fax: 644-8776  Hours: call for days and hours
The clinic provides counseling services, at no cost, to children, adolescents and adults in the Tallahassee community and surrounding areas, to students attending FSU and local colleges, and to FSU employees. We provide individual, couples, and family counseling and parent training. We do not provide emergency or walk-in appointments, group therapy, psychological evaluations, competency evaluations, psychiatric evaluations, medication management, or child custody evaluations. Counselors are graduate students in rehabilitation counseling, mental health counseling, and doctoral students in the combined program in counseling psychology and school psychology. Fees for services: none

Crisis Management Unit: FSU Police Department, 108 PSF (Tanner Building)
Phone: 644-1234  Hours: 24 hours a day
Provides emergency services for mental health crises on and off campus such as crisis intervention, stabilization, referral and Baker Acts, if necessary, for emergency evaluation. Types of services provided: crisis intervention 24 hours a day; referrals are provided as part of the crisis intervention. Persons eligible for services: students, University faculty/staff or their dependents; services are provided to members of the community if they are on campus. Fees for services: none
Thagard Student Health Center
Phone: 644-0579    Fax: 644-1491    Website: http://www.tshc.fsu.edu    Hours: fall and spring, M-Th 8a-8p, Fri. 9a-5p, Sat. 10a-4p; summer, M-Th 8a-5p, Fri. 9a-5p
Types of services provided: individual counseling, outreach programs, crisis intervention, psychiatric consultation, psychotropic medication, referrals, health enhancement outreach programs; on-site crisis intervention; psychotropic medication provided by psychiatrists and general physicians. Persons eligible for services: FSU and TCC students and FSU student dependents. Fees for services: no charge for physician and psychiatric office visits for enrolled FSU students. TCC students and FSU student dependents must purchase a health fee card to access psychiatric and general medical services.

Big Bend 211
Phone: 211 or 224-6333 (local); (877)211-7005 (toll-free)
24-hour crisis help line and referral services for the Tallahassee Community

Positive Alternative to Hospitalization [PATH]: Apalachee Center
2634-J Capital Circle NE, Tallahassee, FL 32308
Phone: 523-3333    Website: http://www.apalacheecenter.org(PATH.htm
PATH is an appropriate mental health provider for suicidal crisis. PATH is a short-term inpatient program designed to prevent hospitalization and stabilize the crisis. PATH offers the following services: Walk-in evaluation, Psychiatric evaluation, Physical Assessment, Multi-disciplinary treatment team, Group therapy and therapeutic activities, Aftercare planning.

1-800-273-TALK (National Suicide Prevention Lifeline)

Psychology Clinic: Psychology Building
1107 W. Call Street, Tallahassee, FL 32306-4303
Phone: 644-3006    Fax: 644-0924    Website: http://www.psy.fsu.edu/community/clinic/    Hours: M-Th 8a-9p, Fri 8a-4p
The FSU Psychology Clinic offers affordable outpatient mental health services. We provide individual therapy, couples therapy, family therapy, child services, parent training, assessment services, and group therapy. We do not provide emergency or walk-in appointments, on-site psychiatric evaluations, or child custody evaluations. Fees for services: Call or check the website for fees.
APPENDIX G

Use of Human Subjects in Research - Approval Memorandum

Office of the Vice President for Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 2/11/2011

To: Daniel Dieringer

Address: [Redacted]
Dept.: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
EXPLORING THE RELATIONSHIP BETWEEN DYSFUNCTIONAL THINKING, DEPRESSION AND HOPELESSNESS

The application that you submitted to this office in regard to the use of human subjects in the research proposal referenced above has been reviewed by the Human Subjects Committee at its meeting on 12/08/2010. Your project was approved by the Committee.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 12/7/2011 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any
unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Janet Lenz, Advisor
HSC No. 2010.5434
REFERENCES


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BIOGRAPHICAL SKETCH

Daniel Dean Dieringer was born in DeLand, Florida, and he grew up primarily in metro Atlanta, Georgia. Daniel graduated from Cedarville University in Cedarville, Ohio in 2003 with a Bachelor of Arts in Psychology and minors in Bible and History. In 2005 Daniel graduated from the Psychological Studies Institute (renamed to Richmont Graduate University in 2008) in Atlanta, Georgia with a Master of Arts in Professional Counseling and a secondary emphasis in Christian Counseling. Daniel is a candidate for an APA accredited Doctor of Philosophy in Counseling Psychology and Human Systems, a combined program in Counseling Psychology and School Psychology, at the Florida State University in Tallahassee, Florida. Daniel has completed an APA accredited Clinical Psychology pre-doctoral internship at Ancora Psychiatric Hospital/Rutgers-Camden University Student Health Services in southern New Jersey. Daniel is currently applying for post-doctoral positions.