

The Relation of Negative Career Thoughts to Depression and Hopelessness

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Although some research literature focuses on the integration of mental health and career counseling, there has been little that examines both areas in relation to depression and hopelessness. This study investigated the relationship among dysfunctional career thinking, depression, and hopelessness in a sample of 139 undergraduate and graduate students seeking drop-in or individual career counseling services at a university career center. The authors found that two aspects of dysfunctional career thinking, decision-making confusion and commitment anxiety, accounted for a significant amount of variance in depression. Decision-making confusion also accounted for a significant amount of variance in hopelessness. Implications for counseling practice include the need for more careful screening of career clients who present with high levels of anxiety and negative thinking. Future research could involve more diverse client populations, such as unemployed adults, and explore the use of additional screening measures to assess the intersection of career and mental health issues.

Keywords: career counseling, depression, dysfunctional career thinking, hopelessness

Distinctions are often made between career counseling and personal counseling or counseling that is more focused on mental health issues. The existence of separate entities such as a career center and a counseling center on a college campus is one tangible exhibition of this dichotomous perspective. Although understandable from an organizational standpoint, these distinctions ignore the reality that career and mental health issues are often strongly connected. Career decision making involves complex psychological processes that affect all aspects of life (Yost & Corbishley, 1997). Over time, counselors in a variety of settings have embraced more holistic career counseling approaches that include consideration of mental health issues (Blustein, 2008; Lenz, Peterson, Reardon, & Saunders, 2010; Zunker, 2008). Hinkelman and Luzzo (2007) noted that there was little research that considered the potential reciprocal effects of mental health and career development issues on students. These authors pointed out that career practitioners, as well as college counseling center staff members, affirmed that students often present with both types of issues.

There have been indications of the relationship between career and mental health concerns both in clients' identified issues and in their

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desire to engage in self-exploration, receive emotional support, and discuss general issues in the context of career counseling (Anderson & Niles, 1995, 2000). Fouad et al., 2006; Zunker (2008) suggested that although personal and career counseling have traditionally been viewed as separate entities, they should be viewed through an integrative approach that takes into account career, affective, cognitive-behavioral, and cultural needs. Lenz et al. (2010) presented a career services delivery model that was based on cognitive information processing (CIP) theory, which integrates career and mental health counseling in a university setting. College students often experience career decision difficulties and psychological distress when making career decisions (Fouad et al., 2006). Others have noted that mental health issues have emerged as a source of difficulty in the career decision-making process (Lucas, Skokowski, & Ancis, 2000).

Practitioners, in a variety of settings, are challenged to effectively assess and treat both career concerns and a range of personal concerns (Zunker, 2008). Practitioners who desire to be more holistic by treating mental health and career issues concurrently may consider methods to make better use of the assessment resources to which they have access. Learning more about clients' emotional functioning from career assessment data may be invaluable for practitioners seeking to improve the integration of career and mental health services (Dozier, Lenz, & Freeman, 2016). Using measures that are commonly administered in career-services settings to screen for potential depression and hopelessness and career readiness factors (Sampson, McClain, Musch, & Reardon, 2013) can enable practitioners to more readily identify and treat at-risk individuals, as well as refer them for additional psychological support as needed. Despite suggestions regarding the connection between career and mental health factors, more empirical evidence is needed on how this connection can be explored using assessment tools in career services. This study was designed to examine whether a measure used to identify negative career thinking could also serve as a screening device for identifying clients who may be experiencing depression and hopelessness.

Connection Between Career and Mental Health Concerns

Examining the connection between career decision making and mental health, including the cognitive effects of depression, can provide insight into the relationship between the two domains. Previous research has indicated that depression may lead to higher levels of dysfunctional attitudes, negative automatic thoughts, and cognitive distortions such as loneliness, feeling trapped, and hopelessness about the future (Eaves & Rush, 1984; Murgai & Sathyavathi, 1987). Research also indicates a link between depression and the ability to effectively engage in career decision making (Rottinghaus, Jenkins, & Jantzer, 2009; Saunders, Peterson, Sampson, & Reardon, 2000; Walker & Peterson, 2012). Walker and Peterson (2012) 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. 503). 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; Lease, 2004). Depression has also been found to have a significant relationship with dysfunctional career thinking (Dagenhart, 2004; Saunders et al., 2000; Walker & Peterson, 2012).

Theoretical Bases for the Study

We sought to examine the relationships between negative career thinking and depression and between negative career thinking and hopelessness. To frame the study, we used two approaches. One approach was Beck's cognitive model of depression. The other approach was a well-researched career decision theory, CIP (Sampson, Reardon, Peterson, & Lenz, 2004).

Beck's cognitive model of depression. Depression and hopelessness were operationalized using Beck's cognitive model of depression. Beck's theory 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 manner, known as the negative triad (Beck, 1967; Beck & Alford, 2009). A negative view of the world, self, and future is likely to have a negative impact on affect, motivation, and physical symptoms (Beck, 1967; Beck & Alford, 2009). Beck's theory (Beck, 1967; Beck & Alford, 2009; Rush & Beck, 1978) proposes that cognitions are a major determinant of an individual's feelings and behaviors.

CIP. CIP theory includes the pyramid of information processing domains and the CASVE cycle, a decision-making heuristic that includes communication, analysis, synthesis, valuing, and execution. Negative thinking can occur in all aspects of the pyramid and CASVE cycle (Sampson et al., 2004), and can be assessed using the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996a). The CTI includes a total score and three subscale scores: Decision-Making Confusion (DMC), Commitment Anxiety (CA), and External Conflict (EC). CTI validation studies (Sampson et al., 1996a) and subsequent research have provided evidence of how CTI constructs relate to various mental health factors, including depression (Walker & Peterson, 2012) and family conflict (Lustig, Xu, & Strauser, 2017).

CIP theory informs counseling goals that are to enhance self-knowledge, increase knowledge of career choice options, assist individuals in learning a generic model for career problem solving and decision making, and identify and reframe negative thoughts. A key assumption of CIP theory is that career decision making involves thinking and feeling, knowing and doing, and comprises cognitive skills that can be learned and improved. Given the aforementioned connection between career thinking and elements of mental health, using the CTI to assess possible associations between negative career thoughts and the mental health constructs of depression and hopelessness seems warranted.

The Present Study

This study aimed to examine negative career thinking and its relationship to depression and hopelessness in an effort to provide support for the use of a measure of negative career thoughts to identify the co-occurrence of both career and mental health issues. A better understanding of negative

career thinking and its relationship to depression and hopelessness can potentially contribute to improved practice in career counseling through further mental health assessment and appropriate interventions. To explore these relationships, the following general research question was posed: In a sample of students seeking career counseling services at a university career center, what is the strength of the relationship between scores on a measure of negative career thinking, and scores on measures of depression and hopelessness? Two hypotheses were proposed in light of this research question:

Hypothesis 1: Dimensions of negative career thinking will significantly predict scores on a measure of depression.

Hypothesis 2: Dimensions of negative career thinking will significantly predict scores on a measure of hopelessness.

Method

Participants

The 147 volunteer participants who returned research packets included undergraduates and advanced-degree students. All participants had presented at the career center drop-in-advising desk seeking varied forms of career assistance. The data were collected over spring and summer semesters. The sample was split evenly between men (50.3%) and women (49.7%), with ages ranging from 18 to 57 years ($M = 22.01$, $SD = 4.6$). Participants identified themselves as Black ($n = 29$, 19.7%), Asian/Pacific Islander ($n = 2$, 1.3%), Hispanic/Latina(o) ($n = 17$, 11.6%), non-Hispanic White ($n = 96$, 65.3%), multiracial ($n = 2$, 1.4%), and other ($n = 1$, 0.7%). With regard to class level, undergraduates accounted for 85.6% of the sample ($n = 119$), including 1st-year ($n = 15$), 2nd-year ($n = 21$), 3rd-year ($n = 33$), 4th-year ($n = 38$) and 5th-year ($n = 12$) students. Master's students (7.5%; $n = 11$) and persons selecting "other" (6.1%; $n = 9$) comprised the remaining sample.

Measures

Beck Depression Inventory–II. The Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 1996) was developed to measure the severity of depression in adults and adolescents age 13 years 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 defined by the American Psychiatric Association (1994). 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 the severity of his or her symptomatology. The scores from each item are summed for the total score, with a maximum total score of 63. The BDI-II yielded an internal consistency coefficient alpha of .92 for counseling outpatients and .93 for nonclinical college students (Beck et al., 1996). The 1-week test–retest stability coefficient for the BDI-II was .93. The participant alpha for this study was .89.

Beck Hopelessness Scale. The Beck Hopelessness Scale (BHS; Beck, 1993) measures the third component of Beck's negative triad, a negative view of the immediate and long-range future. There are 20 true–false

statements scored as 1 or 0. Nine of the items are keyed false and 11 are keyed true; item scores are summed. The total score can range from 0 to 20, with high scores indicating greater pessimism about the future. The Kuder–Richardson formula 20 internal consistency ratings for people with alcoholism, heroin addictions, single-episode major depressive disorders, recurrent-episode major depressive disorders, dysthymic disorders, or suicidal ideations, or who have attempted suicide were .91, .82, .92, .92, .87, .92, and .93, respectively. Kuder–Richardson formula 20 internal consistency ratings for college students have been shown to be as low as .65 (Durham, 1982). Results from a 1-week test–retest yielded a Pearson product–moment correlation of .69, and results from a 6-week test–retest yielded a correlation of .66. Clinician ratings of BHS and Beck Depression Inventory scores were compared as evidence for concurrent validity (Beck, Weissman, Lester, & Trexler, 1974). Correlations between clinician ratings and BHS scores were .74 and .62 for general and suicide-attempter populations, respectively; interrater reliability was .86. Beck et al. (1974) also found significant correlations between the BHS and the Beck Depression Inventory total score, as well as between the BHS and the BDI-II’s pessimism item ($r = .63$). In a sample of undergraduates, Tan (2014) found that hopelessness was a significant predictor of suicidal ideation (Tan, 2014). The BHS participant alpha for this study was .80.

CTI. The CTI (Sampson et al., 1996a) is a 48-item measure of negative career thinking in career problem solving and decision making, and includes a total score, along with three subscale scores: DMC, CA, and EC. The total score assesses the total amount of negative career thinking, as well as one’s ability to engage the career decision-making process. The 14 DMC items measure one’s inability to start or sustain the career decision-making process because of emotions or lack of understanding. An example item from the DMC scale includes “I get so depressed about choosing a field of study or occupation that I can’t get started.” The 10 CA items measure one’s inability to commit to a choice and generalized anxiety about the outcome. A sample item from the CA scale includes “I worry a great deal about choosing the right field of study or occupation.” Finally, the five EC items measure one’s inability to separate self-perception from others’ input, causing a reluctance to assume responsibility for making a decision. An example item from the EC scale includes “The views of important people in my life interfere with choosing a field of study or occupation.” Response options range from 0 (*strongly disagree*) to 3 (*strongly agree*) on a 4-point Likert-type scale.

The CTI was normed for use with 11th- and 12th-grade high school students, college students, and adults. The CTI has yielded internal consistency coefficient alphas between .93 and .97 for the total score. For the subscale scores, the alphas range from .90 to .94 for DMC, .79 to .91 for CA, and .74 to .81 for EC (Sampson et al., 1996a). Four-week test–retest stability coefficients for the total scores were .77 overall (.86 for college students). Four-week test–retest stability coefficients for the subscale scores were .77, .75, and .63 overall for DMC, CA, and EC, respectively (.82, .79, and .74 for college students). In this study, alphas for the respective CTI subscales were .94 for DMC, .88 for CA, and .72 for EC.

CTI items and scales were developed to represent the content dimen-

sions of CIP theory, thus providing evidence for the instrument's content validity. Sampson et al. (1996a) found evidence of criterion validity using the CTI to differentiate between clients and nonclients, as well as support for the CTI's convergent validity with other career and personality trait measures. Saunders et al. (2000) found significant, positive correlations for career indecision and for negative career thinking with depression and a significant, negative correlation between vocational identity and depression. 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 the CTI total and subscale scores (Dagenhart, 2004). A similar study by Walker and Peterson (2012) found significant correlations between the BDI-II and the CTI total score.

Procedure

Career-advising staff members invited individuals seeking career counseling services at a university career center to participate in the research. The staff members read an administrator script describing the study. No incentives were provided to individuals for participating in the study. Individuals who agreed to participate received a packet that included an informed consent form, a demographic form, the CTI, the BDI-II, the BHS, and a mental health referral sheet. Participants were told that their participation would take approximately 15–20 minutes. The packets were arranged with the three inventories in varied sequence to control for possible order effect. In some cases, participants completed their packets prior to interacting with a career services staff member for assistance while others completed their packets following the initial intake interview and prior to receiving services.

Participants were told to return the packet to any career-advising staff member on duty so the responses could be reviewed for items related to suicidal thoughts or wishes. Participants who expressed concern or discomfort in response to completing the research forms had the option of talking further with a staff member, including the option of scheduling an individual counseling appointment. Participants with responses of concern related to suicidality were referred to senior career-advising staff members for further suicidal risk assessment and to determine the need for more in-depth counseling. No specific instructions or further follow-up were recommended after completion unless the individual was determined to be at risk for suicide or requested further debriefing. Of 150 packets distributed, 147 packets (98%) were returned. Complete data for all measures were gathered from 139 participants.

Results

Potential intervening effects of age, gender, and minority status were ruled out because none of these variables was significantly ($p < .05$) correlated with scores on either the BDI-II or the BHS. However, significant ($p < .01$) correlations were found between each CTI scale and the BDI-II total score, as seen in Table 1. Total score ($r = .48$), DMC ($r = .43$), CA ($r = .43$), and EC ($r = .39$) all had moderate positive relationships with the BDI-II. Significant ($p < .01$) correlations were also found between

TABLE 1
Descriptive Statistics and Correlation Matrix
for Variables of Interest

Variable	<i>M</i>	<i>SD</i>	Range	1	2	3	4	5	6
1. CTI total score	49.25	10.83	28–75						
2. DMC score	48.34	11.22	35–78	.92**					
3. CA score	49.76	12.24	27–80	.85**	.68**				
4. EC score	53.35	12.61	35–80	.71**	.61**	.50**			
5. BDI-II total score	7.78	7.30	0–35	.48**	.43**	.43**	.39**		
6. BHS total score	2.75	2.90	0–17	.48**	.49**	.37**	.27**	.59**	

Note. *n* = 139. CTI = Career Thoughts Inventory; DMC = Decision-Making Confusion subscale; CA = Commitment Anxiety subscale; EC = External Conflict subscale; BDI-II = Beck Depression Inventory-II; BHS = Beck Hopelessness Scale.

***p* < .01.

each CTI scale and the BHS total score, as seen in Table 1. CTI total score ($r = .48$), DMC ($r = .49$), and CA ($r = .37$) had a significant, moderate positive relationship with the BHS. EC had a significant ($p < .01$), small, positive relationship ($r = .27$) with the BHS. The correlation between the BDI-II and BHS was $r = .59$, indicating that these could be considered as independent constructs in which individual predictions from CTI subscale scores are warranted.

A stepwise 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 ($R^2 = .19, p < .01$). In the second stepwise model, DMC and CA together were found to capture a significant amount of variation in the model ($R^2 = .22, p < .05$); DMC ($\beta = .27$) and CA ($\beta = .25$) captured similar amounts of variation in the BDI-II scores. EC was not found to be a significant contributor to the prediction model for the BDI-II. Therefore, of the two models, DMC and CA combined yielded the better predictor of depression (see Table 2).

A stepwise regression analysis was conducted to ascertain the best predictor of hopelessness among the three CTI subscales. Observation of unstandardized residuals for this stepwise regression indicated that the residuals formed a normal distribution. When DMC was entered

TABLE 2
Stepwise Regression Analysis of Career Thoughts Inventory
Subscales as Predictors of Beck Depression Inventory-II Scores

Model	<i>r</i>	<i>R</i> ²	Adjusted <i>R</i> ²	ΔR^2	<i>B</i>	β	<i>F</i>	ΔF
Step 1		.19**	.18**				31.35**	
DMC	.43**				.28**	.43**		
Step 2		.22*	.21*	.03*			19.03**	5.64*
DMC	.43**				.17*	.27*		
CA	.43**				.15*	.25*		

Note. DMC = Decision-Making Confusion subscale; CA = Commitment Anxiety subscale.
* $p < .05$. ** $p < .01$.

first, it was the only variable to capture a significant amount of variation in the model ($R^2 = .24, p < .01$). Among the three CTI subscales, DMC had the highest correlation with the BHS, and DMC also had the greatest variation in the prediction model. Therefore, DMC alone was concluded to be the best predictor of hopelessness (see Table 3).

Additional analyses, using the respective regression analyses, were conducted to determine scores that would suggest a need to further explore CTI subscale scores and their relationship to BDI-II and BHS scores. For example, a DMC *T* score of 78 and a CA *T* score of 72 were found to predict a BDI-II score of 16, meaning that CTI profiles with a DMC *t* score greater than 78 and CA *T* score greater than 72 could suggest that an individual may have at least a moderate degree of depression and the existence of emotional discomfort associated with a career problem. Similarly, a regression analysis of CTI subscale scores, in relation to BHS scores, indicated that a DMC *T* score of 74 would predict a BHS score of 6, suggesting that any CTI profile with a DMC *T* score greater than 74 may indicate that the individual has at least a mild level of hopelessness and related negative attitudes associated with a career problem.

Discussion

This study addressed calls for greater integration of career and personal counseling (Cardoso, 2016; Lenz et al., 2010; Zunker, 2008) by examining relationships between negative career thinking and depression and hopelessness among clients seeking career assistance in a university career services setting. As hypothesized, CTI DMC, CA, and EC subscale scores all had significant, positive correlations with the BDI-II total scores and with the BHS total scores. These findings indicate moderate relationships between negative career thinking and depression, and between negative career thinking and hopelessness. Also, DMC and CA scores combined were found to capture significant variance in BDI-II scores and DMC scores contributed significantly to the variance in BHS scores. Results also indicated that DMC *T* scores of 78 and CA *T* scores of 71 predicted a BDI-II score of 16, and a DMC *T* score of 74 predicted a BHS score of 6. These results suggest that CTI subscale scores may be clinically useful in identifying clients who are seeking career services and may be experiencing feelings of depression and hopelessness that may interfere with effective career problem solving and decision making.

The results of this research, which show a relationship between negative career thinking and both depression and hopelessness, lend support to the proposed relationship between Beck's theory constructs and CIP

TABLE 3

Stepwise Regression Analysis of Career Thoughts Inventory Subscales as Predictors of Beck Hopelessness Scale Scores

Model	<i>r</i>	<i>R</i> ²	Adjusted <i>R</i> ²	<i>B</i>	β	<i>F</i>
Step 1 DMC	.49**	.24**	.24**	.13**	.49**	45.39**

Note. DMC = Decision-Making Confusion subscale.

** $p < .01$.

theory's assumptions on the relationship between career thinking and mental health factors (Dozier et al., 2016). The findings also point to the potential for using a career assessment to screen for mental health concerns. Negative career thinking has been thought to contribute to negative self-talk, poor self-awareness, poor insight, and poor control of the information allowed into one's schemas (Sampson et al., 2004). In general, negative internal communications or metacognitions may contribute to the formation or reinforcement of negative schemas (Beck, 1967; Beck & Alford, 2009; Rush & Beck, 1978). Individuals with elevated scores on CTI DMC and CA subscales may have difficulties in various tasks related to self-exploration, exploring options, and combining that knowledge to solve their career problems. As this study suggests, individuals who see themselves as ineffective in making career decisions may feel depressed and hopeless about their future prospects. Up to this point, research reveals that those with depressed symptoms have been found to have more negative attitudes, thoughts, and cognitive distortions (Eaves & Rush, 1984; Murgai & Sathyavathi, 1987). The present results are consistent with previous research underscoring that both dysfunctional career thinking and depression are related to career indecision (Saunders et al., 2000).

Individuals with latent schemas related to depression and hopelessness (Beck, 1967; Beck & Alford, 2009; Rush & Beck, 1978) may have these activated when they are unable to solve career problems and make career decisions, further reinforcing any pessimistic views of their career situation. As individuals engage in the career decision-making process, any of the steps within this process may trigger schemas about the self, world, and future. Negative thinking related to these schemas may reinforce not only negative thinking about career decision making, but also negative thinking about the self, world, and future, in general.

Limitations

Several factors may limit the generalizability of the study results. First, this sample consisted mostly of White undergraduate and graduate students and thus can only be generalized to such populations. The gender and ethnicity of the sample generally represented the university population as a whole, but Black students were slightly overrepresented whereas Asian/Pacific Islanders were slightly underrepresented. Second, 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 completing career development classes. The career center in which data were collected offers individual career counseling, drop-in career-advising and other career preparation services (e.g., mock interviewing, job search workshops). This career center's clientele may differ from individuals seeking help in other career-services settings. In addition, some of the student participants completed the research forms immediately upon entry, whereas others had a brief intake interaction with a career services staff member, prior to completing the research forms and measures. Finally, all of the measures used in the study were self-report measures, and an assumption was made that all participants completed these measures honestly and that the measures accurately operationalized the constructs of inter-

est. Heppner, Wampold, and Kivlighan (2015) noted that self-report measures may bias study results and lack validity because of a variety of factors, including participants over- or underreporting, responding in socially desirable ways, or responding in a manner that produces response style biases.

Implications for Practice

College students today generally rate their emotional health more poorly than did students in the past (Pryor, Hurtado, DeAngelo, Palucki Blake, & Tran, 2011), and a large percentage of students seeking services in university counseling centers are experiencing severe distress (Center for Collegiate Mental Health, 2015). Prior research has shown that career decision-making difficulties and psychological distress are often interrelated (Anderson & Niles, 1995; Fouad et al., 2006; Lucas et al., 2000). This study's findings suggest that it is important for practitioners in university career-services settings to be able to identify students who may be experiencing psychological distress and have interrelated career and mental health concerns. When individuals have elevated scores on a screening measure like the CTI, further assessment seems called for to determine the extent of possible depression and hopelessness that would interfere with effective career problem solving and decision making.

When conducting an initial screening, practitioners can look at high scores on a readiness assessment measure, such as the CTI, and consider that both the total and the subscale scores have significant correlations with BDI-II and BHS scores. The findings from this study can help practitioners identify career service clients who may experience various levels of depression and hopelessness. Individuals with CTI subscale scores in the ranges found in our study may be experiencing moderate levels of depression and emotional discomfort associated with a career problem. Elevated DMC scores may also help practitioners identify clients experiencing some level of hopelessness and a negative outlook associated with their presenting career problem. The relationships between the BDI-II and BHS scores and all CTI subscales suggest that depression and hopelessness occur during all phases of the decision-making process.

The CTI can also be used as a preliminary assessment of depression and hopelessness related to career decision-making concerns. As an application of theory to practice, career practitioners can use CIP theory's CASVE cycle to better understand where clients may be experiencing difficulties in career problem solving and decision making. CTI items related to each phase of the CASVE cycle can help practitioners more carefully pinpoint clients' negative thinking and accompanying negative emotions. As these research findings suggest, negative thoughts and emotions may also be associated with feelings of depression and hopelessness. Identifying what aspect of a person's career decision-making cycle is most affected by elevated levels of negative career thinking can inform next steps in addressing a career concern as well as a potential referral for more in-depth screening and counseling to explore mental health factors that are contributing to the present problem.

Practitioners can use a variety of counseling and psychoeducational interventions to explore the connection between career and mental health issues. Tools like the CTI Workbook (Sampson, Peterson, Lenz,

Reardon, & Saunders, 1996b) can be used with clients to help them identify, challenge, and alter negative thoughts. Behavioral interventions to assist clients in acting on their new thoughts can follow. The *CTI Manual* (Sampson et al., 1996a) describes four intervention levels, combining career and mental health techniques, which can be used to help clients reduce negative thinking and bring about positive changes. Modifying negative career thinking can enhance affective and cognitive functioning to assist clients in effectively navigate challenges associated with decision making and problem solving.

Another reason for attending to the relationships between career concerns and both depression and hopelessness has to do with risk management in counseling and career-services settings. Individuals presenting for career assistance who are found to have elevated scores on a measure of negative career thinking may be experiencing mild to severe levels of depression and/or hopelessness and might be at risk for self-harm. If individuals have high scores on these scales, career practitioners, with proper training, should consider conducting a more thorough 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, detailed procedures should be in place for referring clients to counseling and related mental health services. However, in settings with sufficient and properly trained staff, counselors may choose to use measures such as the BDI-II and BHS with clients who have elevated CTI scores, particularly in the areas of DMC and CA, to further explore how career issues may be interrelated with mental health concerns.

Implications for Research

Future research should explore the present study's specific findings that connect career and mental health constructs embedded within various career theories and associated assessments. Including potential screening measures into the prediction model along with the CTI total score may improve counselors' and researchers' knowledge of the relationship between career and mental health concerns. Possible measures include the Career Decision State Survey (Leierer, Wilde, Peterson, & Reardon, 2015), the Goal Instability Scale (Robbins & Patton, 1985), or the My Vocational Situation scale (Holland, Daiger, & Power, 1980). Researchers could also explore mental health factors related to various aspects of the career decision-making and problem-solving processes, as reflected in the CASVE cycle. Another area that future researchers might explore to improve the understanding of the relationships among dysfunctional career thoughts, depression, and hopelessness would be to develop and test causal models that include various background variables, such as age, gender, ethnicity, education level, and work experience.

Finally, the present sample included advanced-degree students in addition to undergraduate students, and drop-in career services clients as well as those seeking individual career counseling. Future research might include a larger sample of advanced-degree students that would allow for comparisons between graduate and

undergraduate students and provide an opportunity to test more complex causal models. Similarly, if the total sample had larger portions of students seeking individual career counseling, comparisons could be made between those individuals screened for brief-staff-assisted services (Osborn, Hayden, Peterson, & Sampson, 2016) versus those deemed appropriate for individual counseling services (Sampson et al., 2004).

Conclusion

Given the interconnectedness of career and mental health concerns, career practitioners are encouraged to structure their service delivery with the work and mental health connection in mind (Lenz et al., 2010). Whether in a university career center, community setting, or in private practice, using appropriate strategies to assess, conceptualize, and intervene with career concerns, while being mindful of mental health considerations, is essential. The results of this study indicate the potential to utilize a career assessment for the purposes of screening for mental health concerns. When administering a readiness assessment such as the CTI, career practitioners would benefit from fully exploring the implications of the results related both to the client's negative career thoughts and the potential for depression and hopelessness. By utilizing various tools, such as career assessments, to their full potential, career practitioners increase the likelihood of providing quality holistic services to those in need.

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