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Career Course Impact on College Students' Career Decision and Affective States

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Abstract

The impact of a career course intervention on students' career decision and affective states was examined. Participants were 108 undergraduate students enrolled in a credit-based career development course at a large university. Two factors were identified; the career decision state, as measured with the *Occupational Alternatives Questionnaire* and *Satisfaction with Choice Question*, and the career affective state, as measured with the *Goal Instability Scale* and *Career Thoughts Inventory*. Findings revealed that the career course had a significant positive effect on both factors. Implications for practice and further research are discussed.

Keywords: career course, career decision making, career interventions

College is a time of exploration and maturation for many students, and one of their first tasks is determining their educational and career goals. Assisting students in exploring options and clarifying their goals is critically important (D. Brown, 2011) for both students, their families, and schools. Research suggests that a key intervention that

can contribute to students' successful decision making and college transitions is the completion of a career course (S. Brown, 2015; Folsom, Peterson, Reardon, & Mann, 2004–2005). The current study provides further support for how an undergraduate career course can positively impact students' career decision state, goal stability, and negative career thinking.

Making academic career decisions not only contributes to college students' ability to effectively transition through college, increases their effective decision-making skills, and is also related to positive mental health factors (Hinkelman & Luzzo, 2007; Walker & Peterson, 2012). Learning how to effectively make career decisions and develop appropriate goals are important life skills for all students. Career courses and other career interventions play a vital role in preparing students for transitions they will likely encounter throughout their lifetime (Reardon, Lenz, Sampson, & Peterson, 2017).

Career Courses

The development, management, and evaluation of career courses have been topics of discussion since the 1920s, and career courses have grown in numbers since that time (Folsom et al., 2004–2005; Folsom & Reardon, 2003). According to a National Association of Colleges and Employers (NACE; 2014) survey, one-third of career services offices (240 out of 734 respondents) offered a credit-bearing career course. Various studies have examined the effectiveness of career courses and findings show that the completion of a career course results in a positive impact on academic performance, a reduction in the number of courses taken prior to graduation (Folsom et al., 2004–2005; Peng, 2001; Reardon, Melvin, McCain, Peterson, & Bowman, 2015), and an increase in career decision making skills (Fouad, Cotter, & Kantamneni, 2009).

In order for students to experience the benefits of a career course, or any career intervention, several factors must be present. S. D. Brown et al. (2003) identified “critical ingredients” that a career choice intervention must have to be efficacious. Those critical ingredients involve (a) helping individuals write future goals, (b) providing opportunities to collect and process information related to careers, (c) encouraging the search for and use of information when not with a counselor, (d) providing written opportunities for individuals to compare occupational fields they may be interested in, (e) providing assistance when inconsistent information is obtained, and (f) providing examples of individuals who have successfully gone through the career exploration process (S. D. Brown et al., 2003). The current study highlights how a career class intervention can incorporate these critical ingredients and make a positive difference in students' career decision and affective state. The next section discusses the variables of interest that were targeted as part of the course outcomes measures.

Career Decision State

When students enroll in a career course, they vary in their career decision state status. Career decision state, as defined in this study, includes one's level of certainty about a career goal and satisfaction with that goal. Two measures were used to assess students' career decision state: (a) the *Occupational Alternatives Questionnaire (OAQ*; Slaney, 1980), which measures four levels of career decidedness (Bullock-Yowell et al.,

2011; Walker & Peterson, 2012), and (b) the *Satisfaction with Choice Question* (Satisfaction Item; Holland, Gottfredson, & Naziger, 1975), which follows the *OAQ* by asking a single question, “How well satisfied are you with your first choice?” Individuals who self-rate themselves as “well satisfied with choice” have greater levels of satisfaction with their career decisions. Together, these two items assess certainty about career decisions and satisfaction with these decisions—which represent the career decision state.

Studies have examined the impact of a career course relative to the career decision state. Bullock-Yowell et al. (2011) explored the relationships among career decision state, career thoughts, and life stress with 232 college students in a career course. Findings revealed that students who reported an increase in life and career stress had higher levels of negative career thinking. This increase in negative career thoughts was also associated with lower levels of certainty and satisfaction with choice, two aspects of the career decision state.

Bertoch, Reardon, Lenz, and Peterson (2013) examined goal instability in relation to career thoughts, career decision state, and performance in a career course. Participants completed the Goal Instability Scale (GIS; Robbins & Patton, 1985), the Career Thoughts Inventory (Sampson et al., 1996), the Occupational Alternatives Questionnaire (Slaney, 1980), the Satisfaction with Choice question (Zener & Schnuelle, 1972), and the Career Tension Scale (Reed, 2005). These instruments measured the nature of goals, career thinking, occupational decision making, satisfaction with career choice, tension associated with career decisions, and a performance contract of course activities completed for a grade. Bertoch et al. (2013) found that the degree of goal instability was directly related to negative career thoughts, dissatisfaction with career choice, career tension, and inversely related to classroom performance.

Bullock-Yowell, Reed, Mohn, Galles, Peterson, and Reardon (2015) used structural equation modeling to investigate the relationships among neuroticism, coping strategies, and negative career thoughts within the context of attaining a positive career decision state, which consisted of being able to identify one or more career options and being satisfied with a choice. Results from the initial model revealed that coping strategies did not significantly contribute to the model. The final model, without coping strategies, showed that neuroticism had a significant indirect effect on the career decision state through negative thinking and that the relationship between neuroticism and career decision state was also significant. The section below further describes the two components of the career decision state examined in this study, specifically, career certainty and satisfaction with choice.

Career Certainty

Career certainty, sometimes referred to as career decidedness, is often addressed in career intervention outcome studies. Gordon (1998) reviewed 15 studies on career decidedness to examine the terminology used to characterize individuals’ career decision state. Her research identified seven categories of decidedness: very decided, somewhat decided, unstable decided, tentatively undecided, developmentally undecided, seriously undecided, and chronically indecisive. Prior research related to the career decision state reveals that an individual’s career certainty or decidedness is often affected by factors such as depression, negative thinking, goal instability, emotional state, and personality (Bertoch et al., 2013; Bullock-Yowell et al., 2011; Walker & Peterson, 2012). The

current study sought to explore how several of these factors affect students' ability to come to a satisfactory career decision, including how their affective state may play a role in this process.

Satisfaction With Choice

The *Satisfaction with Choice Question*, first reported by Zener and Schnuelle (1972) and modified by Holland et al. (1975), asks the single question, "How well satisfied are you with your first choice?" This item is rated on a 6-point scale in which 1 = well satisfied, 2 = satisfied, but have a few doubts, 3 = not sure, 4 = dissatisfied and intend to remain, 5 = very dissatisfied and intend to change, and 6 = undecided about my future career; the lower the score, the greater the degree of satisfaction with choice. Holland and Holland (1977), in their study of high school and college juniors, examined responses to alternatives 3–6 on the *Satisfaction with Choice Question* and found that being dissatisfied or undecided was related to a wide range of psychological variables, including negative attitude, indecisiveness, anxiety, anomie, immaturity, and alienation. In relation to the *OAQ*, the *Satisfaction with Choice Question* reflects levels of certainty regarding one's career choice. The *OAQ* and Satisfaction items were used in this study to reflect the nature of a person's career decision state. Along with the career decision state, two variables were used to assess students' career affective state, including motivation or level of goal instability and negative career thinking.

Career Affective State

Goal Instability

Understanding students' drive and motivation may enable practitioners to more effectively assist them with the career planning process (Bertoch et al., 2013). Goal instability is defined as having difficulty with self-direction, remaining focused on goals, being persistent in achieving those goals, and taking action (Reardon & Bertoch, 2010). Individuals with low goal instability are able to create career objectives and engage in the process of achieving those (Reardon & Bertoch, 2010). Individuals with high goal instability often experience low self-esteem, are unable to make a career decision even after participation in a career intervention, and require the support and encouragement of others to engage in the career-planning process (Reardon & Bertoch, 2010; Robbins & Tucker, 1986). Bertoch et al. (2013) explored the relationship between goal instability and career thoughts and found that goal instability impacted all areas of the career decision-making process such as creating options, selecting a first choice, and proceeding to implement a choice.

Negative Career Thinking

Negative career thinking or dysfunctional career thoughts impede individuals from engaging in effective career problem solving and decision making (Osborn, Howard, & Leierer, 2007; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996). Dysfunctional thoughts can significantly influence the career decision-making process by preventing an individual from participating in the career-exploration process and increasing the likelihood of career indecision (Dahl, Austin, & Wagner, 2010). Cognitive information processing theory (Dozier, Lenz, & Freeman 2016; Sampson, Reardon,

Peterson, & Lenz, 2004) highlights how negative career thinking intersects with mental health and emotional factors or a person's affective state.

Walker and Peterson (2012) studied the relationship among dysfunctional thinking, career indecision, and depression. The results indicated that both dysfunctional thoughts and an inability to make a career decision contributed to symptoms of depression. Further, Galles and Lenz (2013) examined whether dysfunctional thinking was related to students' having a sense of calling related to their career choice. The results showed that students high on negative thinking and lower on vocational identity were less likely to express having a sense of calling (Galles & Lenz, 2013). Factors such as career decision state, comprised of certainty and satisfaction, and the career affective state, comprised of goal instability and negative career thinking, have been shown to play a role in how college students navigate the career planning process. High levels of career indecision, goal instability, and negative career thinking can prevent students from successfully moving through the career problem-solving and decision-making process. In light of research showing how both an individual's career decision state and the affective state can negatively impact various career development factors and outcomes, it is important to further explore how interventions, such as career courses, can be used to enhance students' decision state, motivation, and career thoughts, and ultimately their successful transition through college. The current study sought to answer the following research question: *Does a career course positively impact students' career decision state (career certainty, satisfaction), and career affective state (level of goal instability, negative career thinking)?*

Method

Participants

The sample consisted of 108 students from five undergraduate career course sections in a large public university. Students were given five extra credit points for participation in the study. Those who chose not to participate were given alternative options to earn extra credit. Participants included 66 males (61.1%) and 42 females (38.9%), with a mean age of 20. Students' ages ranged from 18 to 35. Class levels were as follows: seniors (30.6%), juniors (16.7%), sophomores (29.6%), and freshmen (23.1%). Participants' racial/ethnic composition was 50.9% Caucasian, 29.6% African American, 9.3% Hispanic/Latino, 2.8% Asian, 2.8%, and 1.8% Native America/Alaskan/Hawaiian.

Measures

Participants' career decision state was assessed by two measures, the *OAQ* and the *Satisfaction with Choice Question*.

Occupational Alternatives Questionnaire (OAQ). The *OAQ* (Slaney, 1980) is comprised of two items: (a) "List all of the occupations you are considering right now" and (b) "Which occupation is your first choice? If undecided, write undecided." The *OAQ* is scored on a scale from 1 to 4 where 1 = a first choice is provided with no alternatives listed, 2 = a first choice is provided with alternatives listed, 3 = no first choice is provided but alternatives are listed, and 4 = no first choice or alternatives are provided. Higher scores indicate that individuals have less certainty about their career

choice. The test-retest reliability of the *OAQ* is .93 (Slaney, 1978). The *OAQ* has been shown to have concurrent and convergent validity with other career decision measures such as the *Satisfaction with Career Scale*, *Vocational Decision Making Difficulty Scale*, and *Career Decision Scale* (Slaney, Stafford, & Russell, 1981; Walker & Peterson, 2012).

Satisfaction With Choice Question. The *Satisfaction with Choice Question* includes a single item: “How well satisfied are you with your first choice?” (Zener & Schnuelle, 1972; modified by Holland et al., 1975). The possible answers are as follows: 1 = well satisfied with choice, 2 = satisfied, but have a few doubts, 3 = not sure, 4 = dissatisfied and intend to remain, 5 = very dissatisfied and intend to change, and 6 = undecided about my future career. Higher scores indicate that individuals are more dissatisfied with their career choice. The average correlations between the satisfaction item and the *OAQ*, *Vocational Decision Making Scale*, and the *Career Decision Scale* were reported as .43, .53, and .44, respectively (Slaney et al., 1981). The normative means and standard deviations in the modified version sample for this item were $x = 1.89$ and $SD = .88$ for college males and $x = 1.71$ and $SD = .73$ for college females (Holland, Gottfredson, Nafziger, 1973).

The career affective state variable was assessed using two measures, the *Goal Instability Scale (GIS)* and the *Career Thoughts Inventory (CTI)*.

Goal Instability Scale (GIS). The *GIS* (Robbins & Patton, 1985) is comprised of 10 items that are rated on a 6-point Likert scale (1= Strongly Agree to 6= Strongly Disagree). Responses on the *GIS* are totaled and lower scores indicate greater levels of goal instability. Sample *GIS* items are “I lose my sense of direction” and “I don’t seem to make decisions by myself.” The *GIS* test-retest reliability over a 2-week period was .76 with a Cronbach's alpha of .81 (Robbins & Patton, 1985; Robbins & Tucker, 1986).

Career Thoughts Inventory (CTI). The *CTI* (Sampson et al., 1996).consists of 48 items that are rated on a 4-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree). The *CTI* measures negative thinking that may interfere with the ability to make a career decision and includes a total score (TS) along with three subscales, Decision-Making Confusion (DMC; 14 items), Commitment Anxiety (CA; 10 items), External Conflict (EC; 5 items). When developing the *CTI*, Sampson, Peterson, Lenz, Reardon, and Saunders (1998) made the assumption that negative thoughts are also tied to a person’s affective state. Sample *CTI* items are: “I get so depressed about choosing a field of study or occupation that I can’t get started,” “I get so anxious when I have to make decisions that I can hardly think,” and “I’m always getting mixed messages about my career choice from important people in my life” (Sampson et al., 1996). To determine the internal consistency and test-retest reliability of the *CTI* and its subscales, Sampson et al. (1998) surveyed a sample of college students and found the internal consistency to be .82 for DMC, .79 for CA, and .74 for EC. The *CTI*’s reliability over a 4-week test-retest period ranged from .74 to .82 (Sampson et al., 1998).

Procedures

The study proposal was submitted and approved by the university’s institutional review board. Students across five sections of a career class were informed of the study on the first day of class by a research assistant and invited to participate. Those who agreed to participate were given folders containing an informed consent form, a student

data sheet, and the two assessments, the *CTI* and the *GIS*. The student data sheet included demographic items and the two items comprising the career decision state, the *OAQ* and the *Satisfaction with Choice Question*. To avoid order effects, the assessments were placed in alternating order in the folders. Participants completed the posttest measures on the last day of class in order to understand how the course may have influenced the variables of interest.

Course Intervention

The intervention for this study was a theory-based, comprehensive career development course. This course is comprised of three units spread across a 16-week semester. In Unit I, participants learned about career theories, explored their self-knowledge, including interests, values, and skills, and learned a decision-making process (CASVE cycle; Reardon et al., 2017). The CASVE cycle consists of five phases: Communication, Analysis, Synthesis, Valuing, and Execution (Sampson et al., 2004). The Communication phase is where individuals become aware of a disconnect between their ideal state (where they would like to be) and where they currently are. The Analysis Phase consists of individuals reflecting on their self-knowledge, options knowledge, and the process of making decisions. The Synthesis phase allows individuals to expand their possible options and narrow them without becoming overwhelmed. The Valuing phase is where individuals evaluate identified options by reviewing the costs and benefits of each option to their family, community, and significant others. Lastly, the Execution phase involves individuals implementing their first choice (Sampson et al., 2004). Participants also completed a career center tour and a career information-seeking activity to learn more about available career resources, both in print and online. Unit II focuses on how social conditions can impact career development. Guest speakers are utilized to discuss alternative ways to work and how family roles may impact career decisions. Additionally, there are several lectures on how globalization and the economy can affect career development. Unit III focuses on how to implement a strategic career plan, as well as developing a job search strategy, writing résumé and cover letters, preparing for interviews, negotiating job offers, and starting a new job. The course was intentionally designed to include the critical ingredients associated with effective career choice interventions as described by S. D. Brown et al. (2003).

Each course section included a lead instructor and three co-instructors sharing responsibilities for class lectures and grading assignments. Course instructors were responsible for small groups of 7 to 9 students. All course sections used a standardized student text and instructor manual. The major course assignments included an autobiography, a career field analysis paper where students researched one or three occupations of interest, completed two information interviews, and wrote a strategic academic/career plan paper in which they reflected on assignments completed throughout the course, and developed a plan of action for their future career goals. One of the unique aspects of this course is that it can be taken as a variable credit course meaning that students can choose which units of the course they would like to take. They can also take various units at different stages in their college career. For example, a first year student may want to take Unit I in their second semester while a senior may want to take Unit II and Unit III in the fall of their senior year. This aspect of the course allows students to tailor their learning to their current needs.

Data Analysis

This study used a repeated measures design to examine participants’ responses to various assessments at the beginning and end of the career course, including how the course impacted participants’ career decision state and career affective state.

Results

The study aimed to answer the following research question, *Does a career course positively impact students’ career decision state (career certainty, satisfaction), and career affective state (level of goal instability, negative career thinking)?*

The pretest and posttest means for the *OAQ*, *Satisfaction with Choice Question*, *GIS*, and *CTI*, along with the corresponding standard deviations, are shown in Table 1. The mean difference for the pretest and posttest *OAQ* was .33. The pretest and posttest mean difference for the *Satisfaction Item* was .95. The mean difference for the pretest and posttest *GIS* increased by 3.66. The difference in means for the *CTI* subscales were 2.67 DMC, 2.63 CA, and .52 EC.

Table 1

Pre and Posttest Means and Standard Deviations (n = 108)

Measures	Pretest		Posttest		F	d
	M	SD	M	SD		
Career Decision State						
OAQ	2.41	0.71	2.08	0.36	29.870*	.617
Satisfaction	2.72	1.91	1.77	1.09	20.424*	.633
Career Affective State						
GIS	43.57	9.58	47.23	8.62	19.470*	.405
DMC	10.92	8.29	8.25	7.67	10.968*	.335
CA	14.07	6.40	11.44	6.37	17.012*	.412
EC	4.57	2.99	4.05	3.06	2.553	.172

Note: OAQ = Occupational Alternatives Questionnaire; GIS = Goal Instability Scale; DMC = Decision Making Confusion; CA = Commitment Anxiety; EC = External Conflict

* $p < .01$

An exploratory factor analysis was conducted using the Eigenvalue 1.0 Rule, which states that any Eigenvalue above 1 is significant (Yong & Pearce, 2013). The exploratory factor analysis confirmed the two factors of career decision state (Eigen value = 1.16 accounting for 19.34% of the variation in the matrix) and career affective state (Eigen value = 3.13, accounting for 52.19% of the variation in the matrix). To compare the effect of a career course on students’ career decision state and the career affective state, one-way repeated measures ANOVAs were conducted. Results showed the career

course significantly affected participants' career decision state (Wilks' Lambda = .772, $F [2, 105] = 15.511, p = .000$) and career affective state (Wilks' Lambda = .776, $F [4, 104] = 7.509, p = .000$.)

Discussion

The current study explored whether an undergraduate career course would positively impact participants' career decision state (i.e., career certainty and satisfaction) and career affective state (i.e., goal instability and negative career thinking). The results indicated a career course can positively influence students' ability to navigate the career decision-making process, especially increasing their career choice certainty. Participants also reported a higher level of satisfaction with their choice upon completion of the career course. The results also indicated that students' career affective state was positively impacted by the course. More specifically, the career course helped participants become more focused and motivated in their career plans. Finally, participants had less negative career thinking at the conclusion of the course. The findings of this study support previous research suggesting the efficacy of a career course as an intervention for college students (Folsom et al., 2004-2005; Fouad et al., 2009; Peng, 2001; Reese & Miller, 2006).

The career decision state and career affective state are related in that each component influences the other. For example, students experiencing low motivation and negative career thoughts may be more likely to have a difficult time narrowing down their options and making a decision relating to their major or career. Furthermore, students who are not satisfied with their choices may begin to experience negative career thoughts, which in turn negatively affects their motivation to engage in the career development process. Examining components of the career decision state and career affective state individually further highlights the impact of the course intervention. For example, decision-making confusion (DMC), commitment anxiety (CA), and goal instability were reduced, while the ability to identify a first choice occupation and satisfaction with that choice were increased. The findings of this study support previous research suggesting that goal instability, satisfaction with choice, negative career thoughts, and decidedness are connected (Bertoch et al., 2013; Bullock-Yowell et al., 2011; Holland & Holland, 1977; Reardon & Bertoch, 2010).

Implications for Practice

Understanding students' thoughts about the career decision-making process enables career practitioners to provide better services and interventions (Sampson et al., 2004). The results of this study shed light on how a career course can improve students' ability to navigate the career decision-making process, increase motivation and focus on goals, and decrease negative career thinking. These areas play a vital role in a college students' ability to select a major or career path that will be fulfilling and satisfying to them. Providing resources and instruction to students experiencing difficulty with career selection is an important component of effective career interventions (S. D. Brown et al., 2003).

Several elements of the career course intervention were aimed at meeting S. D. Brown et al.'s (2003) critical areas for career counseling interventions. For example, the

students were asked at various times throughout the semester to reflect on their values, interests, and skills as well as learn more about the world of work. Each course unit provided students with an opportunity to learn more about themselves and how to successfully navigate the career development process. Further, the career course intervention included a lecture on how negative thinking can impact the career decision-making process, and students were given opportunities to reframe negative career thoughts, including skills to replace negative self-career talk with positive self-career talk. This aspect of the course may have contributed to the decrease in negative career thoughts experienced by students and increased their level of career certainty.

In addition to focusing on elements of career decision and affective states, aspects of the course focused on how to research occupational and major options and how to navigate the job search process. When completing the career field analysis paper, students learned more about fields of interest and what each occupation requires, such as education level, skills, interests, and job outlook. This assignment may have assisted students in focusing on their goals and increasing their motivation to pursue their goals. By conducting career research and learning more about fields of interest, the students may have obtained more clarity regarding their career choice and how to achieve their occupational goals. Commitment anxiety and the inability to identify a primary choice can occur when individuals do not have enough information, either about themselves or their options. By investing time in researching options, students may feel more certain in their career choices because they know more about what is involved and how those options match with their values, interests, and skills.

The strategic academic planning project required students to identify where they were in the decision-making process and set goals for their future. This assignment may address decision-making confusion because it provides a schema for future planning and helps students think through the steps they need to take to meet their career goals. Identifying the steps for implementing their choice may have helped decrease goal instability since students were involved in breaking their career choice goals into smaller, attainable tasks.

Overall, the career course likely provided students with an opportunity to critically think about their future goals and career choices and to utilize new skills to aid them in the career development process. As noted previously, class activities and assignments intentionally incorporated the critical ingredients of career interventions that likely contributed to the positive outcomes that were reflected in the study's findings (S. D. Brown et al., 2003). Individuals involved in designing and delivering both short-term and longer term career interventions should consider how these ingredients can be incorporated into their work given the continuing body of evidence that supports the effectiveness of these activities and resources on career outcomes.

Finally, the brief measures used in this study can provide information about individuals' readiness for career decision making and can be used as screening tools for future interventions. An initial assessment of a person's certainty and satisfaction can provide guidance for practitioners in determining a person's readiness level for career assistance (Sampson, McClain, Musch, & Reardon, 2013), as well as whether more in-depth assessment is needed to explore mental health and other factors related to psychological adjustment and well-being, which may be associated with the career decision state.

Limitations

Several potential limitations in this study can be identified. There was no comparison or control group utilized in the study. Participants were all enrolled in five sections of the same course. Since random selection was not part of the process to recruit participants, the study's finding may be limited in regards to generalizability. There may be intrinsic differences between those who enrolled in a career course versus those who did not. Furthermore, students in this class may have been more motivated to enroll because they were having difficulty with their career planning and decision making. Their career decision status and anxiety over their future plans may have resulted in them being more motivated to engage in course activities.

Suggestions for Future Research

Future researchers are encouraged to include a comparison group of participants who do not have exposure to the various activities, assignments, and lectures included in this career development class. This would allow for further exploration of how a career course impacts the variables measured in the current study. Utilizing a comparison group that receives some of the course intervention could shed light on which aspects affect the different variables. Furthermore, future researchers could use the same measures to assess how career courses at other institutions, with unique student populations, impact the variables examined in this study. This would provide additional information on how different career courses address factors associated with the career decision and affective states.

In sum, practitioners can assist college students in navigating this potentially stressful time in their lives by incorporating career courses in their offerings. Understanding how the career decision state (certainty, satisfaction) and career affective state (goal instability, negative career thinking) are related can lead to the creation of more targeted and effective interventions to support student career decision making. This research highlights how a comprehensive career intervention, such as a career class that includes critical career choice interventions, can positively impact key variables associated with a student's career decision and affective state.

References

- Bertoch, S. C., Lenz, J. G., Reardon, R. C., & Peterson, G. W. (2013). Goal instability in relation to career thoughts, career decision state, and performance in a career course. *Journal of Career Development, 41*, 104–121. doi:10.1177/0894845313482521
- Brown, D. (2011). *Career information, career counseling, and career development* (10th ed.). Upper Saddle River, NJ: Pearson Education.
- Brown, S. (2015). Career intervention efficacy: Making a difference in people's lives. In P. J. Hartung, M. L. Savickas, & W. B. Walsh (Eds.), *APA handbook of career intervention: Foundations* (Volume 1, pp. 61–77). Washington, DC: American Psychological Association.

- Brown, S. D., Ryan Krane, N. E., Brecheisen, J., Castelino, P., Budisin, I. Miller, M., & Edens, L. (2003). Critical ingredients of career choice interventions: More analyses and new hypotheses. *Journal of Vocational Behavior*, *62*, 411–428. doi:10.1016/S0001-8791(02)00052-0
- Bullock-Yowell, E., Peterson, G.W., Reardon, R. C., Leierer, S. J., & Reed, C. A. (2011). Relationships among career and life stress, negative career thoughts, and career decision state: A cognitive information processing perspective. *The Career Development Quarterly*, *59*, 302–314.
- Bullock-Yowell, E., Reed, C. A., Mohn, R., Galles, J., Peterson, G. P., & Reardon, R. C. (2015). Neuroticism, negative thinking, and coping with respect to career decision state. *Career Development Quarterly*, *63*(4), 333-347. DOI:10.1002/cdq.12032
- Dahl, A. D., Austin, R. K., & Wagner, B. D. (2010, Winter). Negative career thoughts through adulthood. *Career Planning and Adult Development Journal*, *4*, 153–164.
- Dozier, V. C., Lenz, J. G., & Freeman, V. (2016, Spring). Using theory-based career assessments to connect career and mental health issues. *Career Planning and Adult Development Journal*, 99–110.
- Folsom, B., Peterson, G., Reardon, R., & Mann, B. (2004–2005). Impact of a career-planning course on academic performance and graduation. *Journal of College Retention*, *6*, 461–473.
- Folsom, B., & Reardon, R. (2003). College career courses: Design and accountability. *Journal of Career Assessment*, *11*, 421–450. doi:10.1177/106907270325587
- Fouad, N., Cotter, E. W., & Kantamneni, N. (2009). The effectiveness of a career decision-making course. *Journal of Career Assessment*, *17*, 338–347. doi:10.1177/1069072708330678
- Galles, J. A., & Lenz, J. G. (2013). Relationships among career thoughts, vocational identity, and calling: Implications for practice. *The Career Development Quarterly*, *61*, 240–248.
- Gordon, V. N. (1998). Career decidedness types: A literature review. *The Career Development Quarterly*, *46*, 386–403.
- Hinkelman, J. M., & Luzzo, D. A. (2007). Mental health and career development of college students. *Journal of Counseling and Development*, *85*, 143–147.
- Holland, J. L., & Gottfredson, G. D., & Nafziger, D. H. (1973, December). *A diagnostic scheme for specifying vocational assistance. Report No. 164*. Baltimore, MD: Center for Social Organization of Schools, The Johns Hopkins University.
- Holland, J. L., Gottfredson, G. D., & Nazinger, D. H. (1975). Testing the validity of some theoretical signs of vocational decision-making ability. *Journal of Counseling Psychology*, *22*, 411–422.
- Holland, J. L., & Holland, J. E. (1977). Vocational indecision: More evidence and speculation. *Journal of Counseling Psychology*, *24*, 404-414.
- National Association of Colleges and Employers (NACE). (2014). *NACE 2013–14 career services benchmark survey for colleges and universities*. Bethlehem, PA: National Association of Colleges and Employers.

- Osborn, D. S., Howard, D. K., & Leierer, S. J. (2007). The effect of a career development course on the dysfunctional career thoughts of racially and ethnically diverse college freshmen. *The Career Development Quarterly*, *55*, 365–377.
- Peng, H. (2001). Comparing the effectiveness of two different career education courses on career decidedness for college freshmen: An exploratory study. *Journal of Career Development*, *28*, 29–41.
- Reardon, R. C., & Bertoch, S. C. (2010). Student motivation and program participation. *Journal of College Student Development*, *51*, 716–722.
- Reardon, R. C., Lenz, J. G., Sampson, J. P., Jr., & Peterson, G. W. (2017). *Career development and planning: A comprehensive approach* (5th ed.). Dubuque, IA: Kendall Hunt.
- Reardon, R. C., Melvin, B., McCain, M-C., Peterson, G. W., & Bowman, J. (2015). An academic career course as a factor in college graduation. *Journal of College Student Retention*, *17*(3), 336–350.
- Reed, C. (2005). *The relationships among neuroticism, dysfunctional career thoughts, and coping strategies*. Thesis (PhD) Florida State University, 2005. Retrieved from http://purl.flvc.org/fsu/fd/FSU_migr_etd-1913
- Reese, R. J., & Miller, C. D. (2006). Effects of a university career development course on career decision-making self-efficacy. *Journal of Career Assessment*, *14*, 252–266.
- Robbins, S. B., & Patton, M. J. (1985). Self-psychology and career development: Construction of the Superiority and Goal Instability scales. *Journal of Counseling Psychology*, *32*, 221–231. doi:10.1037/0022-0167.32.2.221
- Robbins, S. B., & Tucker, K. R. (1986). Relation of goal instability to self-directed and interactional career counseling workshops. *Journal of Counseling Psychology*, *33*, 418–424. doi:10.1037/0022-0167.33.4.418
- Sampson, J. P., Jr., McClain, M-C., Musch, E., & Reardon, R. C. (2013). Factors affecting readiness to benefit from career interventions. *The Career Development Quarterly*, *61*, 98–109. doi:10.1002/j.2161-0045.2013.00040.x
- Sampson, J. P., Jr., Peterson, G. W., Lenz, J. G., Reardon, R. C., & Saunders, D. E. (1996). *Career Thoughts Inventory: Professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Sampson, J. P., Jr., Peterson, G. W., Lenz, J. G., Reardon, R. C., & Saunders, D. E. (1998). The design and use of a measure of dysfunctional career thoughts among adults, college students, and high school students: The Career Thoughts Inventory. *Journal of Career Assessment*, *6*, 115–134.
- Sampson, J. P., Jr., Reardon, R. C., Peterson, G. W., & Lenz, J. G. (2004). *Career counseling and services: A cognitive information processing approach*. Pacific Grove, CA: Brooks/Cole.
- Slaney, R. B. (1978). Expressed and inventoried vocational interests: A comparison of instruments. *Journal of Counseling Psychology*, *25*, 520–529.
- Slaney, R. B. (1980). Expressed choice and vocational indecision. *Journal of Counseling Psychology*, *27*, 122–129.
- Slaney, R., Stafford, M., & Russell, J. (1981). Career indecision in adult women: A comparative and descriptive study. *Journal of Vocational Behavior*, *19*, 335–345.

- Walker, J. V., III, & Peterson, G. W. (2012). Career thoughts, indecision, and depression: Implications for mental health assessment in career counseling. *Journal of Career Assessment, 20*, 497–506. doi:10.1177/1069072712450010
- Yong, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology, 9*, 79–94.
- Zener, T. B., & Schnuelle, L. (1972). *An evaluation of the Self-Directed Search: A guide to educational and vocational planning* (Technical Report No. 124). Baltimore, MD: Johns Hopkins University, Center for the Social Organization of Schools.

Note: This paper is part of the annual VISTAS project sponsored by the American Counseling Association. Find more information on the project at: <http://www.counseling.org/knowledge-center/vistas>