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Running head: ANNUAL REVIEW

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A Content Analysis of Career Development Theory, Research, and Practice – 2013

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Abstract

This annual review of the career counseling and development literature presents a content analysis of refereed journal articles published in 2013. Four research questions guided the analysis: (a) What content topics were included in career development articles published in refereed journals in 2013?, (b) To what extent are theory, research, and practice integrated in career development articles published in refereed journals in 2013?, (c) What variation exists in the characteristics of career development articles published in refereed journals in 2013?, and (d) What variation exists in the content included in theory, research, and practice articles? A total of 360 unique topics were identified in 357 articles from 24 journals. Results indicated that topic content in journals evolved slowly with limited integration of theory, research, and practice. Implications are suggested for: (a) future topic content, (b) better integration of theory, research, and practice, (c) education and training, (d) journal editorial policy, and (e) future content analyses of journal articles.

Keywords: Content analysis, career development literature, theory, research, practice

The Career Development Quarterly (CDQ) has published an annual review of the career counseling and development literature each year since 1989. The number of articles and journals represented in the reviews has grown over time. Each one of those 25 reviews provided a brief summary of the content of articles by topic, as well as a commentary on the nature of the literature published that year (Savickas, 1989; Spokane & Hawks, 1990; Cook, 1991; Jepsen, 1992; Salomone, 1993; Subich, 1994; Walsh & Srsic, 1995; Stoltz-Loike, 1996; Niles, 1997; Swanson & Parcover, 1998; Young & Chen, 1999; Arbona, 2000; Luzzo & MacGregor, 2001; Whiston & Brecheisen, 2002; Flores, Scott, Wang, Yakushko, McCloskey, Spencer, & Logan, 2003; Dagley & Salter, 2004; Guindon & Richmond, 2005; Harrington & Harrigan, 2006; Tien, 2007; Chope, 2008; Patton & McIlveen, 2009; Hartung, 2010; Creager, 2011; Erford & Crockett, 2012; Bikos, Dykhouse, Boutin, Gowen, & Rodney, 2013). In reviewing past CDQ annual reviews, we identified some noteworthy trends. The first trend is that the previous CDQ annual reviews tended to include articles from common journals including CDQ, Journal of Vocational Behavior (JVB), Journal of Career Assessment (JCA), and Journal of Employment Counseling (JEC). The second trend involved the method for summarizing the literature. Most authors used headings to identify clusters of content in the literature. Finally, some reviews explicitly posed a focus question reflecting the practical purpose of the annual review such as, “How can the research published last year be useful to counselors” (Erford & Crockett, 2012, p. 291); “What can the reader learn about career counseling and development from these articles?” (Savickas, 1989, p. 127); or “What can the practitioner and researcher learn from the literature to aid their work?” (Jepsen, 1992, p. 99). Our 2013 review builds on prior reviews while also employing a content analysis approach to examine the literature. We also include a special emphasis on analyzing the literature in terms of integrating theory, research, and practice.

Content Analyses of Journal Articles

Content analyses of journal articles provide an opportunity for a discipline to periodically evaluate the congruence of the professional literature with the discipline's purpose, interests, and values (Buboltz, Deemer, & Hoffman, 2010; Lee, Rosen, & Burns, 2013). Journal article content analyses also identify trends and changes, which likely impacts counseling practice (Loveland, Buboltz, Schwartz, & Gibson, 2006; Williams & Buboltz, 1999). These are the aims of the current review.

Content analyses of journal articles take four basic forms. The first involves analyzing the content of multiple journals in career development in a given year, such as those published in CDQ, beginning with Savickas' 1988 review (Savickas, 1989) and continuing through Bikos, Dykhouse, Boutin, Gowen, and Rodney 2012 review (Bikos et al., 2013), as well as annual analyses of content in JVB (Fitzgerald & Rounds, 1989). The second involves analyzing the content of a single journal over an extended period of time, such as the CDQ (Buboltz & Savickas, 1994; Loveland et al., 2006) and the JCA (Whiston, Rose, Peterson, & Nguyen, 2013). The third compares the content of two journals over an extended period of time, such as the CDQ and the JVB (Buboltz, Ebberwein, Watkins, & Savickas, 1995). The fourth analyzes journal content related to a specific topic for one journal, such as multicultural concepts (Arredondo, Rosen, Rice, Perez, & Tovar-Gamero, 2005; Lee, Rosen, & Burns, 2013), or a specific topic in multiple journals, such as the career development of gay males (Buhrke, Ben-Ezra, Hurley, & Ruprecht, 1992) or American-Indian secondary school students (Flynn, Duncan, & Evenson, 2013).

The current analysis follows the first form identified above in which the content of several journals within the 2013 year were analyzed to determine the thematic elements of the topics covered. The following research questions were specifically addressed:

1. What content topics were included in career development articles published in refereed journals in 2013?
2. To what extent are theory, research, and practice integrated in career development articles published in refereed journals in 2013?
3. What variation exists in the characteristics of career development articles published in refereed journals in 2013?
4. What variation exists in the content included in theory, research, and practice articles?

In the following sections, common trends are identified by reviewing past journal content analyses and by reviewing previous CDQ annual reviews to further understand relevant topics cited in the career development literature.

Content Analyses from Career Journals

The majority of career development journal reviews come from five content analyses of CDQ, JVB, and JCA. Table 1 identifies the most frequently identified topics from these five content analyses. In this table we listed content topics in the same priority order as presented in the articles, primarily ordered from most prevalent to least prevalent. The 19 most commonly cited topics across journals appear at the top of the list. The most commonly mentioned topics included life-span career development/perspectives, career development interventions, career assessment/assessment of vocational behavior, person-environment fit/Holland's theory, and decision making.

Content Analyses from CDQ Annual Reviews

The past 25 years of the CDQ annual reviews provide a robust source of data that reflects the career counseling and development field's content over time. We assumed that the headings and subheadings of these review articles reflected the essence of the content included in the reviews. Therefore, we believed that the headings and subheadings provided appropriate data for analyzing the content of the career development field. This would be similar to using article keywords to conduct a content analysis. The 25 most-often mentioned content topics derived from headings and subheadings appear in Table 2. This table was created by counting the most frequently-occurring topics in the headings and subheadings from the 1988 to 2012 CDQ annual reviews. Once the most commonly-mentioned topics were identified from the original headings and subheadings (e.g., multiculturalism/diversity), each topic was mapped onto a schema of career constructs (e.g., race and ethnicity, disability, sexual orientation) that we created for analyzing the career literature for 2013. This schema is discussed further and presented later in this article. Then, frequency counts were calculated based upon the number of years each topic was mentioned in headings or subheadings. If a heading or subheading was repeated several times in a single annual review, it was only counted once. The 19 most frequently identified topics from the five previous career journal content analyses and the 25 most frequently-identified topics from previous CDQ annual reviews are combined in Table 2. Full reference citations for the 25 years of CDQ annual reviews, plus the current review, are included in chronological order in Appendix A. [All appendices are available at http://www.career.fsu.edu/techcenter/CDQ_2013_Journal_Content_Analysis.]

In addition to the top 25 most common topics, we identified three specific trends in the past CDQ annual reviews including: (a) concepts mentioned consistently throughout the past 25

years, (b) concepts intermittently mentioned that are still emphasized, and, (c) concepts that were not highlighted in the past, but emphasized more recently. The concepts mentioned consistently include career theory, career assessment, and gender. Concepts that continue to be important, and intermittently mentioned in the past, include life-career development, self-efficacy, work-life/family balance, career transitions, and disability. Finally, concepts that are more recently highlighted in the past five to ten years, but not emphasized previously include professional issues/development, international students, mentoring, sexual orientation, job satisfaction, career maturity/adaptability, well-being, social justice, emotional intelligence, calling, social class, and immigration status. It is notable that there are very few concepts that were mentioned previously which are no longer emphasized. This trend suggests that concepts originally emphasized in the CDQ annual reviews tend to be somewhat consistent over time.

Given the above content analyses from career journals and the CDQ annual reviews, it is clear that the career development literature is a balance of consistency and change. Some topics, such as career theory, remain a consistent element of the literature while other topics, such as social justice, have emerged more recently. If content analyses of our journals provides an opportunity for our field to evaluate the congruence of our literature with the field's purpose, interests, and values, then we need to start with a more complete understanding of the recent focus of our work. This leads to our first research question:

1. What content topics were included in career development articles published in refereed journals in 2013? Sub-questions include the following:
 - a. What content topics appear most frequently in the journal literature?
 - b. What content topics appear to be underrepresented in the journal literature?

Integrating Theory, Research, and Practice

Core elements of our profession include theory, research, and practice, as shown in the literature review that follows. All three have antecedents of some type and interact to varying degrees with one other. Antecedents for all three include varying combinations of existing theory, prior research, and observations from prior practice. Theory guides research in vocational behavior by guiding the formulation of research questions, creating measures of various constructs, and interpreting the results. Theory also guides research on career interventions by similarly supporting research questions, measures, and interpretation of findings. Theory guides practice by helping practitioners better understand individuals' concerns, creating appropriate interventions, and developing theory-based assessments, information, and instruction. Research is used in creating and validating new theory. Research also contributes to practice by providing an evidence base for improving career interventions. Finally, observations from practice support ongoing theory revision and provide evidence to further guide future research. Potential interactions among theory, research, and practice are depicted in Figure 1. The following sections examine literature related to theory's influence on research, theory's influence on practice, and research's influence on practice.

Influence of Theory on Research

Career theory provides a foundation for the study of vocational behavior and career development and for examining evidence-based practice. Bringle and Hatcher (2000) stated that research derived from theory is more systematic in nature and creates broader implications. Karr and Lawson (2005) noted that the conceptual framework provided by theory-driven research increases the chances of asking meaningful questions and reduces the chances of generating unconnected facts. Karr and Lawson (2005) also stated, "Conglomerations of variables without

links to theoretical networks suggesting the specific and significant reasons why they are chosen are essentially meaningless” (p. 301). Unfortunately, the potential contribution of theory to research may not be fully realized. Karr and Lawson (2005) found that a theory or model was used to guide research in only 43% of the data-based studies they reviewed. Betz (2005) further noted that the percentage of theory-based research studies had not changed much over time.

Influence of Theory on Practice

Career theory also provides a foundation for the delivery of career interventions. Career theory can be used by practitioners to translate complex vocational behaviors and career development processes into more easily understood concepts that can be more readily applied in practice (Sharf, 2013a; Shoffner, 2006; Young, Marshall, & Valach, 2007). Practitioners can then link theory-based concepts with client needs to better select career interventions (Sampson, Dozier, & Colvin, 2011). Young et al. (2007) noted that practitioners integrate formal theory with their local experience in serving clients to create the theory that they actually apply in practice. Spokane (1991) further noted that the design of most career interventions is based on more than a single theory. Client concerns in actual counseling settings provides opportunities for testing laboratory-based theories, leading to refinements in the theory, and further laboratory testing in a more controlled setting (Frazier, Gonzales, & Rudman, 1995). This type of reciprocal relationship between theory and practice has the potential for improving both. Evidence of the perceived importance of integrating theory and practice can be seen in the various career practitioner competency statements which require skill in using theory in developing career interventions (Sampson et al., 2011).

Regrettably, the potential contribution of theory to practice may be somewhat limited. Some practitioners have less interest in the translation of theory to practice (Kidd, Killeen,

Jarvis, & Offer, 1994; Morrow-Bradley, & Elliott, 1986). Practitioners are often reluctant to change theoretical perspectives without pressure from clients or insurance companies (Antony, 2005). Some outcome studies of career interventions have shown that the models or theories supposedly guiding the intervention were not fully implemented (Miller & Brown, 2005). Jepsen (1996) suggested that one of the reasons for the disconnect between theorists and practitioners is that each group uses different language to describe the same situation, with theorists focusing more on conceptual and research terms and practitioners focusing more on problems, information, and interpretations.

Influence of Research on Practice

Research helps us to better understand the factors that influence the career choices of individuals we serve. Research on outcomes helps us to better select career interventions to meet specific individual needs. Research is also a fundamental tool in creating new career resources and services. Bringle and Hatcher (2000) contended that research is important in its potential for improving practice. Heppner and Anderson (1985) observed that practitioners are striving to find relevant research information for practice and researchers are striving to publish rigorous studies. Lebow (1988) encouraged practitioners to pay closer attention to research in order to better document the effectiveness of treatment and to better link treatment to client needs and presenting problems. Lebow (1988) further contended that researchers should pay attention to practitioners to frame research questions, identify new treatment methods, replicate findings in clinical settings, and provide feedback on the utility of research findings. The demand for integrating research and practice is increasing with financial pressures to use more evidence-based practice (Antony, 2005; Murray, 2009), as well as a demand for increased accountability (Goodyear & Benton, 1986; Sampson, 2008).

It is unfortunate that the potential contribution of research to practice may well fall short of expectations. Murray (2009) noted that a chasm exists between researchers and practitioners, with researchers complaining that practitioners dismiss their work and practitioners complaining that research is inadequate in addressing the needs of their clients. Research has been criticized as not relevant to practice or practitioners (Anderson & Heppner, 1986; Heppner & Anderson, 1985; Howard, 1985; 1986; Gelso, 1979; 1985; Goodyear & Benton, 1986; Lebow, 1988; Murray, 2009; Reardon, Lenz, Sampson, & Peterson, 2011).

Several factors may account for the disconnect that appears to exist between research and practice. Antony (2005) noted that practitioners are more likely to pay attention to research that is relevant to the specific settings where they work. Gelso (1985) stated that research is more likely to be deemed relevant as it comes closer to the questions raised in counseling, approximates the counselor's experience of counseling, and approximates constructs used in practice. Often times, it can take many published articles on a topic before there is actual applied use for practitioners in how this research can be used with clients (Heppner & Anderson, 1985). Practitioners will gather information from several arenas to understand client behavior, including family systems, organizational, and society. However, research often only considers one system of influence at a time (Howard, 1985). Martin and Martin (1989) noted that too often research is conducted with samples or groups that are not typically encountered in practice. Goodyear and Benton (1986) noted a disconnect exists between researchers and practitioners related to language differences, with researchers using increasingly specialized language which practitioners do not use in service delivery. Another reason for this disconnect is likely the personality differences between individuals who seek careers primarily as researchers versus practitioners (Goodyear & Benton, 1986). Some evidence exists that the nature of training may

influence the extent to which theory and research guide practice. Brown (2002) found that licensed counselors and psychologists were more likely to agree that theory and research had informed their practice than social workers, employment counselors/recruiters, human resource specialists, and career service coordinators. Reardon et al. (2011) observed that separating graduate counselor training curricula into separate courses for theory, research, and practice may be a factor that limits integration.

From the above literature review, it is clear that our understanding of vocational behavior and the effectiveness of career interventions ought to be enhanced by better integrating theory, research, and practice. This literature also makes it clear that this integration is easier said than done, as many philosophical, scientific, and practical barriers exist. If better integration of theory, research, and practice is our goal, then we need to start with a more complete understanding of the overlap and nature of these three elements within our career development literature. To this end, we pose a second research question:

2. To what extent are theory, research, and practice integrated in career development articles published in refereed journals in 2013? Sub-questions include the following:
 - a. What is the overall proportion of the literature that includes theory, research, and practice?
 - b. To what extent are one or more theories included in research articles?
 - c. To what extent are one or more theories included in practice articles?
 - d. To what extent is research included in practice articles?

A variety of studies have examined the general characteristics of career literature with respect to the frequency with which various theories are used, the frequency various methodologies are used in research, and the proportion of research articles related to vocational

behavior and career interventions. Whiston et al. (2013) noted that while quantitative methodologies were most commonly used in empirical articles published in the *Journal of Career Assessment*, more recent articles included a greater number of qualitative and mixed method designs. Loveland et al. (2006) noted a reduction of career intervention research over time. Less attention has been paid to other aspects of the literature which merit examination, such as the proportion of articles related to career resources versus career services. To gain a more complete understanding of the general characteristics of the career development literature in 2013, we pose a third question:

3. What variation exists in the characteristics of career development articles published in refereed journals in 2013? Sub-questions include the following:
 - a. What are the most common theories included in the literature?
 - b. When theories are included in the literature, are these theories presented as a single theory or multiple theories?
 - c. To what extent do research articles focus on the study of vocational behavior versus evidence-based practice?
 - d. To what extent do research articles use quantitative, qualitative, and mixed methods?
 - e. What is the relative proportion of articles pertaining to career resources and career services?

By combining research questions one, two, and three, we can pose a fourth question:

4. What variation exists in the content included in theory, research, and practice articles? Sub-questions include the following:
 - a. To what extent are theory, research, and practice included in articles categorized as career resources and career services?

- b. What are the most common theories used in research articles versus practice articles?
- c. What are the most common theories used in research articles categorized as vocational behavior versus evidence-based practice?
- d. What are the most common content topics in theory, research, practice, and all articles combined?

Method

The method section describes journal article selection, development of a schema for career constructs, how research questions were examined, the coding process, potential biases, and delimitations.

Selection of Journal Articles

Articles included in the present analysis were selected from refereed journals in the career development field published in 2013. It was necessary to make distinctions in how we identified “career-related content.” Thousands of journal articles that include career content are published each year. An analysis of this scope was not possible given the time and resources available. Articles were excluded that were judged by the researchers to not be directly related to the provision of career resources and services to persons seeking to make occupational, educational, training, and employment decisions. The study of vocational behavior and career intervention outcomes includes similar parameters. Fouad and Jackson (2013) noted that vocational psychologists and career development researchers examine work decisions over the life span, ranging from initial career choices, to managing changes in career and work, to retirement planning. They go on to state, “vocational psychologists [and career development researchers in other fields] are interested in how individuals make decisions or adjust to a work environment, with the emphasis on the individual rather than on the organization” (p. 305).

Examples of exclusions included articles from: (a) economic journals that examined micro and macro labor market data which was unlikely to be included in typical career information resources, (b) industrial/organizational psychology or management journals that examined aspects of work performance in specific occupations or groups of occupations, (c) sociology journals that examined variables influencing educational attainment and employment, and (d) political science and public administration journals that examined the impact of public policy on educational attainment and employment.

We intentionally sought a balance of journals that reflected theory, research, and practice. A deliberate effort was also made to include as many international refereed journals as possible to provide a global point of view and potentially avoid a United States-centric perspective. For all journals included in the present analyses, letters to the editor, editorials, introductions to special issues, and book reviews were excluded. Articles in languages other than English were also excluded. A total of 357 articles were included in the present study from 24 different journals. References for these 357 articles are provided in Appendix B. The frequency of articles from various journals in descending order are as follows: the *Journal of Vocational Behavior* (n = 72), *Journal of Career Assessment* (n = 38), the *Career Planning and Adult Development Journal* (n = 31), *The Career Development Quarterly* (n = 29), *Journal of Career Development* (n = 25), *Australian Journal of Career Development* (n = 16), *Journal of the National Institute for Career Education and Counselling* (n = 16), *Journal of Employment Counseling* (n = 15), *The Canadian Journal of Career Development* (n = 15), *International Journal for Educational & Vocational Guidance* (n = 13), *Journal of Counseling Psychology* (n = 13), *Journal of Applied Psychology* (n = 12), *British Journal of Guidance and Counselling* (n = 11), *Journal of Organizational Behavior* (n = 10), *The Counseling Psychologist* (n = 10), *South African Journal of Industrial*

Psychology (n = 9), Rehabilitation Counseling Bulletin (n = 8), Canadian Journal of Counseling & Psychotherapy (n = 5), The Professional Counselor (n = 3), Adultspan Journal (n = 2), American Psychologist (n = 1), International Journal for the Advancement of Counselling (n = 1), Journal of Counseling & Development (n = 1), Measurement and Evaluation in Counseling and Development (n = 1).

Research Question 1: Content Analyses of Journals

The first step in completing the content analysis involved creating a schema for the literature in the career development field. A schema provides a way of organizing concepts and showing the subordinate relationships among concepts, such as career interventions, intervention strategies, career counseling, and group counseling. There are several advantages of using a schema in conducting a content analysis, including: (a) encouraging consistent use of terminology, (b) identifying relationships among concepts, (c) identifying relevant concepts that might have been mentioned, but were not included in the literature in a particular year (Research Question 1c), and (d) reducing the likelihood of missing important concepts.

The creation of the content analysis schema was an iterative process. The original schema was created by our research team members from the following source material: (a) headings from previous content analyses and CDQ annual reviews (shown in Table 2), (b) existing schemata that identified career concepts, resources, services, populations, and providers (Sampson, Reardon, Peterson, & Lenz, 2004), and (c) selected current texts for graduate-level career development courses (Brown, 2011; Herr, Cramer, & Niles, 2004; Niles & Harris-Bowlsbey, 2013; Sharf, 2013b; Swanson & Fouad, 2010; Zunker, 2012). Feedback on the original schema was provided by the entire research team (n = 15) and also the current CDQ editor. After revisions were made, a random sample of ten percent of 2013 journal articles from

January to June (n = 11) were selected to test the adequacy of the schema. Inter-rater reliability (percent agreement) was checked and deemed adequate at 0.94. After pilot testing the schema, further revisions were made and the 400-item schema was released to the entire team of 15 members for analyzing journal content. Individual reviewers could nominate additional concepts that were found in a specific journal article, but were not represented in the schema. The senior author was the arbitrator for all nominated additions to the schema. All articles were then re-reviewed to ensure the concepts added were coded and added as appropriate. A total of 82 content items were added to the schema throughout this process and some similar topics were combined. The final content analysis schema included four levels and is presented in Appendix C. A total of 458 concepts were included in all four levels of the final schema.

The final count of content topics in journal articles was achieved by creating a table in SPSS Version 20 (IBM Corp., 2011) with articles in rows, and content topics and theory/research/practice variables in columns. Column totals for content topics were then summed. A second table in Excel was created to verify the accuracy of all calculations.

One limitation of the content schema was the problem of a single content item being relevant for multiple main categories. For example, the concept of "interests" is relevant to both the assessment and information categories. However, if all relevant duplicates were included, the length of the schema would become unmanageable. Also, a single concept, such as interests, would be rated as appearing less frequently than was actually the case because the ratings would be divided between assessment and information. While no schema can be completely accurate and fully representative, we made a concerted effort to create a schema that reflects the current status of the career development field.

Research Questions 2-4: Integrating Theory, Practice, and Research

The first step in examining the integration of theory, research, and practice (Research Questions 2, 3, and 4) was to create operational definitions for these three terms. Since some articles include combinations of these terms, operational definitions for theory/research, theory/practice, research/practice, and theory/research/practice were also created. In order to examine the general characteristics of the career literature, further operational definitions were adapted from Sampson et al. (2004) for research (vocational behavior and evidence-based practice) and practice (career resources and career services). The operational definitions were originally created by a subset of five research team members and were subsequently reviewed by the entire research team with revisions made as appropriate. As with the content analysis, a random sample of ten percent of 2013 journal articles from January to June was chosen to test the adequacy of the operational definitions. Again, inter-rater reliability (percent agreement) was checked and deemed adequate at 0.93. After pilot testing the definitions, the final operational terms were released to the research team members responsible for research questions 2, 3, and 4.

The final definitions used in this content analysis are as follows. Theory articles involve an original statement, refinement, or extension of a theory with an identifiable name. Content includes an original idea of a theory, a refinement of an existing theory, or an extension of an existing theory. Theory must include at least one theoretical construct. Research articles involve a study of vocational behavior or evidence-based practice with explicit or implicit research questions or hypotheses, participants, measurement, data analyses, results, and discussion. Implications for research, theory, practice, and policy would also be noted when available. Meta-analyses could be included in this category. The methods section would be detailed in such way that another researcher could replicate the study. Practice articles involve a description of a

career resource or service with data restricted to the identification of the participants. This would include describing, in depth, techniques or specific strategies for practice (enough information for someone to implement a program/service/resource); potentially would also include outcomes. There would be no evidence of theoretical underpinnings for practice. Core elements of practice articles include: (1) the population the resource is intended for and (2) a detailed description of techniques and strategies to use the resource. Theory/research articles mention theory in the research questions, hypotheses, measurement (theory-based measure), and discussion of results related to the theory. There may be discussion about furthering theory development through the use of evidence-based practice. Similar to research articles, there must be enough detailed information in order for another individual to replicate the study. Theory/practice articles include a basic mention of theory or use of theoretically-based tools. Methods and results sections may be omitted in a theory/practice article, as the main point of this article would be theory-driven practice. Research/practice articles include a detailed description of research methodology, including outcome measures. Research shows that the practice supports the desired outcome measures. In other words, there are specific outcomes from the intervention. Theory/research/practice articles include all of the components above. Content includes a new theory, or expansion/refinement of an existing theory, with a detailed research methodology that could be replicated, along with a detailed outline of career services practice that could be implemented by other individuals.

Definitions were also created for categories of research (vocational behavior and evidence-based practice) and categories of practice (career resources and career services). Vocational behavior articles involve studies on the development of vocational interests, attitudes, values, and aptitudes and their relationship to vocational satisfaction and effectiveness, as well as

factors that influence career choice (Fretz, 1982). Evidence based practice articles involve studies of interventions with data collected about the efficacy of the intervention. The study can be qualitative or quantitative. The intervention and participants must be described. Career resource articles include "assessments, information sources, and instruction. The intended outcome of career resource use is learning, but the learning that results is not an isolated event. What is learned from one resource can promote learning from previous and subsequent resources" (Sampson, Reardon, Peterson, & Lenz, 2004, p. 10). Career services articles include "practitioner interventions designed to provide persons with the type of assistance (counseling, career course, or workshop) and the amount of assistance (brief staff-assisted or individual case-managed services) they need to effectively solve career problems and make career decisions" (Sampson, Reardon, Peterson, & Lenz, 2004, p. 11).

In the same manner as the content analysis above, column totals from the SPSS table were summed for all theory, research, and practice variables (SPSS Version 20; IBM Corp., 2011) and verified with Excel. A chi square test of significance was used to examine potential deviations among observed and expected frequencies in the integration of theory, research, and practice.

Coding

All research team members were involved in coding journal articles related to content topics and the integration of theory, research, and practice. The coding process proceeded in the following steps. First, coding guidelines were developed and provided to the research team (see Appendix D). Second, the process of coding was discussed among the research team members. Third, coding progressed with subsequent discussions occurring when questions arose, including additions and revisions to the coding schema. Fourth, after the initial coding was completed, a

research team member who had not seen the article reviewed the article to verify the appropriate content existed as initially coded. Any discrepancies in coding were resolved with a third reading of the article by the senior author. Having a research team of fifteen members provided multiple perspectives and reduced the potential bias of any one researcher in making coding errors. The mean number of content terms coded per article was 4.57 (SD = 2.38).

Potential Bias

A content analysis of journal articles is a blend of objective and subjective processes. The process of developing a schema, coding the content of articles, and setting cutoff limits for data tables involved professional judgment. To help readers judge the potential for systematic bias in our research methods, and in the conclusions we made, it was important for us to be transparent. This study was conducted in a research center at the Florida State University (FSU) (<http://www.career.fsu.edu/techcenter/>) that is a joint effort of the FSU College of Education and the FSU Career Center. All funding to support this research was provided by FSU. All of the faculty members on the research team have worked as practitioners, while all of the Career Center practitioners on the team have worked as researchers. Students are involved in both research and practice, and the research librarian on the team has research experience in career development. Several of the faculty members on the team are also the originators of a career theory, the cognitive information processing approach to career problem solving and decision-making (<http://www.career.fsu.edu/techcenter/CIPBibliography.pdf>), which guides our research on vocational behavior and our delivery of career interventions. Several faculty members have also been actively involved in examining John Holland's RIASEC theory and translating his theory into practice. Our goal at FSU for the past 42 years has been to integrate theory, research, and practice in a way that enhances career interventions, contributes to the literature, and

facilitates the development of young professionals. The questions posed in this review and the conclusions we have drawn are undoubtedly influenced by this goal.

Delimitations

Several factors constrain the interpretation of findings in this study. Delimitations are anticipated constraints in interpreting the results of a study whereas limitations are unanticipated constraints and are included at the end of this article. First, only journal articles were included in the analyses. Important aspects of the career literature are included in books, book chapters, book reviews, policy documents from professional associations and government agencies, training resources, and Web sites, all of which were excluded from the present study. The typical page limits for journal articles restrict the detail and breadth of topic coverage. For example, the full examination of theory development, validation, and application in practice requires a book-length document. Additionally, more detailed public policy in the career area tends to be published by organizations and government agencies via books, monographs, newsletters, and Web sites.

Second, no distinctions were made between theories, models, and approaches in the analyses; all were coded as theory. While criteria exists which distinguishes between theories and models in a journal content analysis (see Karr & Larson, 2005), we decided to focus our time and effort on expanding the diversity of journals reviewed and examining the integration of theory, research, and practice, as opposed to making distinctions among theories, models, and approaches.

Third, valuable perspectives related to career theory, research, and practice are published in languages other than English. Unfortunately the barrier of language and the high costs of translation constrain our understanding of career theory, research, and practice among other

cultures, regions, and nations. Despite these three constraints, we believe that the refereed journal articles examined in this content analysis provide a clear indication of current trends in the 2013 professional literature relevant to assisting individuals in making career choices and solving career problems.

Results

Results are ordered by the four research questions. Data are presented in text, tables, figures, and appendices.

Content Topics Included in Refereed Journal Articles in 2013

Content Topics Appearing most Frequently in the Journal Literature. Appendix E presents the top 100 content topics from all 357 coded articles in descending order. To better understand these 100 topics, five general content themes were created by the senior author identifying commonalities in topic content. The five general content themes that were identified included: (a) personal characteristics (such as interests and gender) and state of being (such as decidedness and career decision-making self-efficacy; identified 578 times), (b) delivery of career interventions (such as career counseling and labor market information; identified 230 times), (c) external factors influencing the individual (such as social support and discrimination; identified 126 times), (d) theory (such as social-cognitive career theory or RIASEC theory; identified 114 times), and (e) occupational, educational, or employment options (such as STEM occupations/fields of study and post-secondary higher education; identified 37 times). The relative proportions of these five general content themes were calculated by first counting the number of times each of the five general themes was cited in the top 100 content topics and dividing that number by the number of times all content topics appeared in the top 100 topics (shown in Appendix F; $n = 1,085$). Appendix G presents a figure showing the relative

proportions of each of the five general content themes calculated from the top 100 topics from all articles. Results indicated that 53.27% of the content was categorized as personal characteristics and states of being, 21.20% was delivery of career interventions, 11.61% was external factors influencing the individual, 10.51% was theory, and 3.41% was occupational, educational, or employment options. All 458 topics with the number of times each topic was identified are presented in Appendix C. A total of 360 unique topics were identified in the 2013 journal literature.

Content Topics Appearing to be Underrepresented in the Journal Literature. Some topics that were included in the content schema were not included in 2013 articles to any substantial degree. Examples of topics that have a history of appearing in career journals, but did not appear in 2013 include the following: accountability, aptitude, career library, creativity, funding, glass ceiling, implementation, information classification systems, learning styles, life-long learning, mock interviews, relocation, sexual harassment, staffing, transition from temporary to full-time work, volunteer work, work history, and work-to-school transition. These topics appear in alphabetical order and the selection of these 21 topics out of the 102 topics that were not identified in articles was a subjective decision on our part.

Integration of Theory, Research, and Practice in Refereed Journal Articles in 2013

Overall Proportion of the Literature that Includes Theory, Research, and Practice. The 357 articles in this content analysis included 573 permutations of theory, research, and practice. A single article could contain one, two, or all three of these elements. The total number of theory articles (n = 176) was the sum total of articles coded as theory only (n = 11), theory/research (n = 114), theory/practice (n = 20), and theory/research/practice (n = 31). The total number of research articles (n = 266) was the sum total of articles coded as research only (n

= 101), theory/research (n = 114), research/practice (n = 20), and theory/practice/research (n = 31). The total number of practice articles (n = 131) was the sum total of articles coded as practice only (n = 60), theory/practice (n = 20), research/practice (n = 20), and theory/practice/research (n = 31). The 573 permutations of theory, research, and practice include theory articles (n = 176), research articles (n = 266), and practice articles (n = 131). The relative proportions of theory, research, and practice are depicted in Figure 2. In terms of relative proportions, all permutations of theory comprised 30.72% of the literature, while all permutations of research comprised 46.42% and all permutations of practice comprised 22.86%. A significant difference existed in the proportional integration of theory, research, and practice (chi-square = 74.47, df = 2, p < .001).

Integration of Theory and Research Articles. The extent of integration of theory and research was shown in the sum total of theory/research articles (n = 114) and theory/research/practice articles (n = 31). The 145 articles that included both theory and research represented 54.51% of the total 266 articles coded as research.

Integration of Theory and Practice Articles. The extent of integration of theory and practice was shown in the sum total of theory/practice articles (n = 20) and theory/research/practice articles (n = 31). The 51 articles that included both theory and practice were included represented 38.93% of the total 131 articles coded as practice.

Integration of Research and Practice Articles. The extent of integration of research and practice was shown in the sum total of research/practice articles (n = 20) and theory/research/practice articles (n = 31). The 51 articles that included both research and practice were included represented 38.93% of the total 131 articles coded as practice.

An examination of pair-wise comparisons showed that while no significant differences existed in the extent of integration of theory and practice versus the integration of research and practice (chi-square = 0.00, $df = 1$, $p > .05$), significant differences were observed in the extent of integration of theory and research versus theory and practice (chi-square = 8.55, $df = 1$, $p < .01$), and the integration of theory and research versus research and practice (chi-square = 8.55, $df = 1$, $p < .01$). These results indicate that there exists a greater degree of integration of theory and research articles as opposed to theory and practice articles; whereas no differences exist between the integration of theory and practice articles and research and practice articles.

Variation in the Characteristics of 2013 Career Articles Published in Refereed Journals

Most Common Theories in the Literature. In descending order, the most common theories identified at least 3 times in the total 357 articles were: social cognitive-career theory (Brown, Lent, & Hackett; $n = 35$), career construction-life design theory (Savickas; $n = 19$), RIASEC theory (Holland; $n = 17$), big five factor theory ($n = 11$), job demands-resources model (Bakker & Demerouti; $n = 8$), life span/life space theory (Super; $n = 8$), self-determination theory (Deci & Ryan; $n = 8$), theory of circumscription and compromise (Gottfredson; $n = 8$), relational theory of working (Blustein; $n = 5$), cognitive information processing theory (Peterson, Sampson, Reardon, & Lenz; $n = 4$), conservation of resources theory (Hobfoll; $n = 4$), positive psychology ($n = 4$), social exchange theory (Emerson; $n = 4$), human capital theory (Schultz and Becker; $n = 3$), sequential elimination approach to career decision making (Gati; $n = 3$), social learning and happenstance theory (Krumboltz; $n = 3$), social learning theory (Bandura; $n = 3$), and transition theory (Schlossberg; $n = 3$).

Single Versus Multiple Theories in the Literature. When theories were included in articles, the average number of theories per article was 1.27 with a standard deviation of 0.53.

Vocational Behavior Versus Evidence-Based Practice in Research Articles. For the 266 articles that included research, 93% (n = 247) involved the study of vocational behavior, while 7% (n = 19) involved the examination of evidence-based practice.

Quantitative, Qualitative, and Mixed Methods in Research Articles. In terms of the methods used in conducting the 266 research studies, 82% (n = 217) were quantitative, 14% (n = 37) were qualitative, and 4% (n = 12) were mixed.

Relative Proportion of Articles Pertaining to Career Resources and Career Services. For all 357 articles, 24% (n = 88) were categorized as career resources, 19% (n = 67) were categorized as career services, 11% (n = 38) were categorized as both career resources and services, and 46% (n = 164) were categorized as not being a career resource or service.

Content Variation in Theory, Research, and Practice in Refereed Journal Articles in 2013

Inclusion of Theory, Research, and Practice in Articles Categorized as Career Resources and Services. For articles categorized as career resources, 30% (n = 42) were theory, 46% (n = 65) were research, and 24% (n = 34) were practice. Similarly, for articles categorized as career services, 21% (n = 21) were theory, 37% (n = 37) were research, and 42% (n = 43) were practice.

Most Common Theories used in Research Articles Versus Practice Articles. The rank order of the most common theories included in research and practice articles appears in Table 3. The most commonly cited theory in research articles (n = 22) and practice (n = 13) articles was social cognitive career theory.

Most Common Theories Categorized as Vocational Behavior Versus Evidence-Based Practice in Research Articles. The rank order of the most common theories included in research articles categorized as vocational behavior and evidence-based practice appears in Table

4. The most commonly cited theory in articles categorized as vocational behavior (n = 22) and evidence-based practice (n = 2) was Social Cognitive Career Theory.

Most Common Content Topics in Theory, Research, Practice, and All Articles

Combined. Table 5 compares in descending order the 50 most common content topics for theory articles, research articles, practice articles, and all articles combined. Career self-efficacy was the most common topic identified in all articles (n = 35) and in all research articles (n = 31). Social-cognitive career theory (n = 35) was the most common topic in all theory articles. The most frequently cited topic in practice articles was STEM occupations (n = 18).

Discussion

This discussion begins with a consideration of content topics in the 2013 literature and continues with an examination of the integration of theory, research, and practice.

Content Topics Included in Refereed Journal Articles in 2013

The nature of our professional literature is a blending of constancy and change. Some elements of vocational behavior and career interventions are constant over time. Making a career decision involves an iterative interaction of personal, family, social, economic, and organizational factors. Individual needs and preparation for decision making vary, which requires different types and levels of assistance. These elements were important in the past, remain important today, and will still be important in the future. Other elements of vocational behavior and career interventions are evolving. Our understanding of the influence of calling and mindfulness on vocational outcomes advances with new theories and research. The Internet has influenced the nature of, and access to, career information, while social media has revolutionized resources for employment. This concept of both constancy and change is evident in comparing the 2013 journal literature with prior CDQ reviews and prior journal content analyses.

While comparing past topic content in the literature (Table 2) with the current 2013 analysis (Table 5), several trends are apparent. Examples of topic content that have remained constant over time include the following: RIASEC (e.g., Chason, Bullock-Yowell, & Sampson, 2013; Dozier, Sampson, & Reardon, 2013) and life span/life space career theories (e.g., Bikos & Kocheleva, 2013; Pisarik, Rowell, & Currie, 2013), the design and use of career assessments, individual characteristics such as ethnicity, disability, gender, and race, the nature and process of decision making, and the centrality of employment as an outcome. Change in topic content is evident in the increasing attention paid to topics such as: social cognitive-career theory, career construction-life design theory, and other constructivist theories, STEM occupations/fields of study, social justice, SES and social mobility, calling, coaching, social media, and public policy.

With respect to the developmental status of literature in the career development field, Subich (1994) concluded in her 1993 CDQ review that considerable discrepancies existed in the relative development of content topics in the literature. This conclusion is just as valid today. For example, while our understanding of career assessment constructs and the influence of family variables on women's career development is strong, our understanding of the career development of immigrants and the comparative efficacy of various career interventions is more limited.

Content discrepancies are evident in the 2013 journal literature in terms of the over- and underrepresentation of topics. For example, prior critiques of the literature have noted topics such as the career development of high SES persons is overrepresented, while the career development of low SES individuals is underrepresented (Blustein, 2001; 2006). Results from this 2013 review also showed differences in the proportion of topics in the literature. 53.27% of the literature dealt with personal characteristics and states of being, 11.61% was external factors influencing the individual, 10.51% were theory, and 3.41% were occupational, educational, or

employment options, while only 21.20% of the literature addressed the delivery of career interventions. An understanding of personal characteristics and states of being, external factors influencing the individual, theory, and career options provides an essential foundation for developing effective career interventions. However, the study of personal characteristics and states of being, external factors influencing the individual, theory, and career options are not ends in themselves; they are necessary but not sufficient. Without sufficient links to career interventions, the study of vocational behavior is incomplete. The design of career interventions without attention to the study of vocational behavior is similarly incomplete. What is needed is to shift attention and resources to greater study of the design and delivery of career interventions. Some content topics were underrepresented in the literature. When the five general content themes are applied to topics that were identified as underrepresented, a greater proportion of topics addressed the delivery of career interventions (43%) than was the case for the top 100 topics (21.2%) shown in Appendix F. Again this suggests that career interventions are underrepresented in the literature.

Integration of Theory, Research, and Practice in Refereed Journal Articles in 2013

The largest proportion of the 2013 journal articles involved research (46.42% [n = 266]), a significantly greater proportion than theory (30.72% [n = 176]) or practice (22.86% [n = 131]). These proportional differences are not surprising given that most journals emphasize research in the articles they publish.

With regard to the integration of theory, research, and practice, the sources cited earlier in this paper clearly indicate that integration enhances the quality and utility of the literature. Although there is a greater integration of theory and research than other permutations (theory and practice and research and practice), the results of this study still indicated that the extent of

integration was limited. The integration of theory into research was just over half at 54.51%, while the integration of theory into practice was considerably less at 38.93%. The integration of research into practice was the same as the integration of theory into practice at 38.93%. With all permutations combined, integration happens 44.12% of the time. While the 54.51% integration we observed was greater than the 43% theory and research integration found by Karr and Lawson (2005), it was not much better. Our results supported the observation of Betz (2005) that the percentage of theory-research integration has not changed much over time. The differences in perspectives, interests, personality, language, and training among theorists, researchers, and practitioners may indeed create a gulf that is difficult to bridge without considerable effort.

Translating career theory and research into practice requires a systematic approach. Niles (1998) noted in the 1997 CDQ review that the translation of theory into practice requires attention to multiple elements, including “client diversity, contextual factors, budgetary constraints, changes in the nature of work, and technological advances” (p. 135). The complexity of this translation process may help to explain the limited amount of theory/research/practice integration evident in the 2013 journal literature. Given the extensive demands on professionals’ time during an era of declining financial resources and increasing client demand, the choice of a less integrative, less complex path is understandable, but regrettable in the long run.

It would be unrealistic and undesirable for all articles published in journals to fully integrate theory, research, and practice. For example, some theory and research may be so preliminary that it would be premature to integrate practice. However, the limited integration we observed in the 2013 literature leads to missed opportunities for one element of the literature to inform another. We believe that a rough estimate of a desirable level of integration of theory into

research, theory into practice, and research into practice would be an average of 75%, with some variation expected by the state of development in various content areas.

Variation in the Characteristics of Refereed Journal Articles in 2013

The creation and use of career theory remains a key element of the professional literature in 2013, comprising a relative proportion of 29% of the literature. Social cognitive-career theory (e.g., Morgan, 2013; Varghese, Fitzgerald, Chronister, Cummings, & Forrest, 2013) was the most commonly used theory, with career construction-life design theory (Savickas, 2013; Bassot & Reed, 2013) and RIASEC theory (e.g., Chason et al., 2013; Dozier et al., 2013) showing considerable influence. Life span/life space theory and the theory of circumscription and compromise were also influential in the field. Furthermore, while many articles utilize only one theory, the average of 1.27 theories per theory article indicates that some authors are utilizing multiple perspectives in conceptualizing their work. These data support the observation by Spokane (1991) that most career interventions are based on more than one theory. Given the complexity of careers and career choice, the use of multiple theoretical perspectives broadens the basis for conceptualizing vocational behavior and designing career interventions.

When examining the research included in the 2013 literature, the study of vocational behavior clearly dominates over establishing evidence-based practice for career interventions (93% versus 7% of articles categorized as research). The lack of evidence-based practice in our field is not new. In their CDQ review of the 1989 literature, Spokane and Hawks (1990) noted that, “Ours is a vigorous, growing, and sophisticated field, but our practice reflects a reliance on the familiar and the comfortable, and researchers in our field have failed to conduct empirical investigations of career intervention models and processes” (p. 121). Eight years later, Swanson and Parcover (1998) observed that “career counseling interventions, particularly their evaluation,

received relatively little attention” (p. 124). Similarly, in the 1999 CDQ review, Arbona (2000) noted that the career intervention literature was descriptive rather than evaluative. In the 2001 CDQ review, Whiston and Brecheisen (2002) described the lack of outcome studies as “disturbing” (p. 141). Concerns about the lack of outcome studies of career intervention effectiveness were also raised in CDQ annual reviews for 2002 (Flores et al., 2003), 2003 (Dagley & Salter, 2004), and 2010 (Creager, 2011). It is clear that the lack of evidenced-based practice in our literature is a chronic problem.

As opposed to operating in isolation, career interventions are linked to the policies of organizations, governments, and other funding providers (Arthur & Lalande, 2009). Questions have been posed by policy makers about client outcomes in relation to the funding provided to support career interventions (Herr, 2003; Hughes, 2013; Hughes, Bimrose, Brown, & Karjalainen, 2006; European Lifelong Guidance Policy Network, 2012). The pressure to consider intervention outcomes in relation to their costs is increasing as the demand for services rises while funding declines (Sampson, Reardon, McClain, & Musch, 2011). It is ironic that the topic of accountability was not substantially included in a single journal article published in 2013.

It is essential for the profession to establish which career interventions work best with which populations under various conditions (Fouad & Jackson, 2013; Sampson, 2009; Savickas, 1989). “Differences in needs, circumstances, and readiness for career decision making can make a specific career intervention effective for one individual and ineffective for another” (Sampson et al., 2011, p. 328). Watts (2008) noted that evidence is particularly needed on impact measurement and this evidence should be communicated in a way that is easily accessible by policy makers. Watts goes on to state that if the evidence base is not available, “opponents will use its absence to undermine the case” (p. 351). While there is some evidence of the

effectiveness of career interventions, Hooley (2014) stated, “effective policy-making in this area can be conceived as a policy loop which encompasses: understanding the evidence, developing and implementing new policies and interventions, and monitoring their effectiveness” (p. 16). Makela and Rooney (2012) also stressed that the assessment of career intervention learning outcomes is an ongoing process. It seems clear that increased attention to evidence-based practice and the outcomes of career interventions is essential if our field is to remain relevant and viable.

In terms of research methodology, the vast majority of research in 2013 used quantitative methods (82%), while the remaining were 14% qualitative and 4% mixed methods. While these results are similar to Whiston et al. (2013) in the preponderance of quantitative methods, some additional use of qualitative and mixed methods has occurred. This is most likely reflective of the historical nature of Whiston’s analyses from 1993 through 2011 as opposed to our analysis of 2013 data. It is difficult to judge the “correct” balance of quantitative, qualitative, and mixed methods, since the method should be driven by the research question being asked. To know if we are using the right methods we must first determine if we are asking the right questions.

In comparison with the assistance typically provided for mental health and family concerns, assistance with career concerns typically involves more resources in the form of assessments, information, and instruction. Although career resources were not subcategorized as assessment, information, or instruction, the vast majority of resources included in articles were career assessments. Furthermore, these articles focused more on the development and validation of measures rather than the use of measures in career interventions.

Content Variation in Theory, Research, and Practice in Refereed Journal Articles in 2013

Both career resources and services involve a balance of theory, research, and practice. The differences observed in the proportions for theory, research, and practice are again influenced by the preponderance of assessment design and validation in career resources, and as a result, theory and research play a larger role in comparison to career services.

In terms of which career theories are most prevalently used in research and practice articles, social cognitive career theory, career construction-life design theory, and RIASEC theory were used most often in the 2013 literature. For research articles in particular, the theory of circumscription and compromise, the life span/life space theory, and the relational theory of working were also prevalent. For practice articles, the theory of circumscription and compromise, the life span/life space theory, and cognitive information processing theory were also used. In general, the career theories used in research and practice were similar.

When the career theories used in the study of vocational behavior and in establishing evidence-based practice were examined, a somewhat different picture emerged. Social cognitive career theory, RIASEC theory, and the relational theory of working were common to both. However, career construction-life design theory, the life span/life space theory, and the theory of circumscription and compromise, which were featured prominently in vocational behavior research, were not evident in establishing evidence-based practice. Given the general popularity of career construction-life design theory, the life span/life space theory, and the theory of circumscription and compromise, theorists, researchers, and practitioners need to explore the relevance and implementation of these theories in establishing evidence-based practice.

Finally, interesting differences appeared in Table 5 when general content themes were examined for theory articles, research articles, and practice articles. In Appendix H, the five

general content themes are color coded to facilitate identification. In comparison with all articles, the proportion of content topics in theory articles were similar for personal characteristics and state of being (57% for all and 54% for theory) and factors influencing the individual (12% for all and 12% for theory), but considerably different for the delivery of career interventions (15% for all and 5% for theory). Similar patterns were observed for the proportions in research articles, with personal characteristics and state of being (57% for all and 66% for research) and factors influencing the individual (12% for all and 12% for research), and a much lower percentage for the delivery of career interventions (15% for all and 5% for research). Practice articles focused less on personal characteristics and state of being (57% for all and 34% for practice) and less on factors influencing the individual (12% for all and 3% for practice), while the delivery of career interventions received substantially more attention (15% for all and 46% for practice). Therefore, the proportional topic content of theory and research articles is remarkably similar, while practice articles vary considerably in topic composition. These data provide additional evidence of the missed opportunities for the integration of theory, research, and practice.

Implications

Our analyses and resulting understandings of the 2013 literature lead to implications for: (a) future topic content, (b) better integration of theory, research, and practice, (c) education and training, (d) journal editorial policy, and (e) future content analyses of journal articles.

Implications for Future Topic Content in the Career Literature

Our career literature represents a diverse and valuable resource for the field and society. However, some adjustment to the nature of the content will make the literature even more valuable to our profession and the societal stakeholders who look to us for leadership in improving employability, mental and physical health, social mobility, economic development,

and labor market effectiveness. We provide specific recommendations regarding rebalancing the nature of topics included in the literature and the proportion of theory, research, and practice. First, place additional emphasis on content topics that address issues perceived as strategically important at this time in history, such as learning how to better understand and serve students who are in vocational education as opposed to traditional higher education, or clarifying the factors that influence the actual demand for STEM occupations. Second, adopt a 60 - 30 - 10 goal for the content of research literature in career development. This would involve rebalancing the topic content in the field from 93% vocational behavior and 7% evidence-based practice, to 60% vocational behavior and career theory, 30% evidence-based practice, and 10% public policy analysis and implementation of innovation, including descriptions of best practice. Third, clearly distinguish between best practices based on expert professional judgment versus evidence-based practice supported by empirical data. Fourth, create comparisons of the relative cost-effectiveness of various career interventions based on a differentiated approach to service delivery where individual needs are matched with the type and level of intervention provided. While the increase of international authors publishing in career development journals in English is a welcome trend, care needs to be taken in interpreting evidence-based practice among countries with vast differences in: (a) funding available for career resources and services, (b) public policy and standards available to support career interventions, and (c) trained practitioners to deliver interventions.

Implications for Better Integration of Theory, Research, and Practice

The most consistent recommendation for better integration of theory, research, and practice is increased collaboration among theorists, researchers, and practitioners (Brown, 2002; Gelso, 1985; Heppner & Anderson, 1985; Herr, 1996; Jepsen, 1996; Loveland et al., 2006;

Reardon et al., 2011; Sampson et al., 2011). The difficulty is in how to achieve this collaboration. External grant funding from the Federal and state governments, as well as foundations and professional associations, may provide an impetus for change. We need to lobby policy makers to set aside specific funding for higher education institutions that incentivize researchers in the career development field to collaborate with practitioners and theorists to conduct evidence-based research on the outcomes of career interventions. Similar funding initiatives should be used to promote exploration and documentation of best practices. Additional suggestions for better integration include using counseling practica to encourage students to use the research literature as a tool to facilitate client interventions (Fouad & Jackson, 2013; Heppner & Anderson, 1985), more use of case studies to promote observational learning among practitioners (Niles, Goodman, & Pope, 2014; Savickas, 1989), and more practitioner engagement in research that is directly related to their practice (Howard, 1986).

Implications for Education and Training

The link between evidence of the effectiveness of career interventions and the strategies for delivering career interventions needs to be strengthened. One option would be to “increase the emphasis in counseling methods courses on using research findings as a means of answering real-life problems” (Anderson & Heppner, 1986, p. 152). Another option would be to include examples of evidence-based practice with empirical support, as well as best practices from expert judgment, in all counseling and counseling psychology courses involving theory, interventions, and supervised practice.

Implications for Journal Editorial Policy

Journals provide the major outlet for refereed publications. Even though journals vary in the nature of articles published, an overall rebalancing of content related to theory, research,

practice, and policy is needed. First, greater attention needs to be paid to the integration of theory, research, and practice. Special issues or dedicated sections of journals could be used to emphasize integration, or submission guidelines for regular articles could be revised to highlight integration. Second, evidence-based practice (determined by empirical evidence) and best practices (determined by expert judgment) could be emphasized. Special issues or dedicated sections of journals could be created to explore current methodology for establishing evidence-based practice versus best practices. Third, policy analysis research is common in education, labor, public health, and housing. Public policy related to career and work is just as crucial to our future as policy in the above areas. There is a need for policy analysis, both in terms of the policy itself (legislation, rules, executive orders, and policy briefs) and the implementation of policy. Blustein et al. (2011) noted that vocational psychologists have an important role to play regarding public policy related to work. Brief summaries and critical analyses of policy documents from governments, professional organizations, and multinational organizations (such as the United Nations, the World Bank, the Organisation for Economic Co-operation and Development, the International Monetary Fund, and the U. S. Agency for International Development) could be included in special issues or dedicated sections of journals. Journals that publish book reviews highlighting both strengths and limitations of these publications are needed. Critical reviews of major policy documents could be included that contain: (a) what will change versus what will stay the same as a result of the policy, (b) policy implementation issues and recommendations, and (c) strategies for measurement of outcomes. International comparisons of public policy among the United States and other countries could be especially helpful.

Implications for Future Content Analyses of Journal Articles

Undertaking large content analyses such as this one requires considerable time and related resources. One option would be to conduct large-scale reviews every five to ten years, with the intervening years focusing on specific topics over multiple years. With a narrower content focus, it would be possible to include more diverse types of refereed literature (including journal articles, books, book chapters, and encyclopedia entries), as well as non-refereed publications (such as professional standards and policy documents). A specific topic focus for the analysis would also allow the posing of specific research questions, such as the integration of theory, research, and practice posed in this content analysis. Other variables to consider for future content analyses include the influence of journal impact factors or funding sources on content topics.

Limitations

Three limitations of this review concern special issues of journals, key words in journals, and terminology. First, we were aware from the start that limiting our analysis to only one year (2013) would constrain the topics we identified. What we did not anticipate was the influence of special issues of journals, which increased the proportion of certain topics more than would likely have been the case in an average year of publication. The content totals for corrections, coaching, social media, and STEM were likely inflated due to the special issues on these topics. Second, many journals include keywords that facilitate literature searches. Keywords were helpful in identifying and confirming journal article content. However, some journals use a controlled vocabulary that constrains keyword selection to a preselected list or limits the number of keywords that can be identified. Unfortunately, these practices limited the utility of keywords in completing our analyses. Third, terminology had an influence on the creation and use of the

content schema, with terms varying in specificity. For example, while some articles clearly distinguished among generalized self-efficacy, career self-efficacy, and career decision-making self-efficacy, other articles used the term self-efficacy in a broad manner, making coding a challenge. The fact that some articles used important terminology without definition further complicated the coding process.

Conclusion

The career counseling and development literature in 2013 shows both continuity with the past and the emergence of new content topics. Five general content themes in the literature that were identified in 2013 included: (a) personal characteristics and state of being, (b) the delivery of career interventions, (c) external factors influencing the individual, (d) theory, and (e) occupational, educational, or employment options. The largest proportion of the literature was devoted to research, with the study of vocational behavior being most common and evidence-based practice receiving only limited attention. While the integration of theory, research, and practice is generally recognized in the profession as a desirable goal, the analysis from journal articles in 2013 indicated that opportunities for integration were not often being realized.

At the outset of this article, we noted that content analyses of journals allow a discipline to evaluate the congruence of the professional literature with the discipline's purpose, interests, and values (Buboltz et al., 2010; Lee et al., 2013). Our goals as a profession have been to improve employability, well-being, social mobility, economic development, and labor market effectiveness by better understanding vocational behavior and the delivery of effective career interventions. If we are to achieve these goals, then our professional literature needs to balance areas of traditional strength with promising new directions; to better integrate theory, research, and practice; and to provide more evidence of the effectiveness of career interventions. The

increasingly frequent questions that are being raised by the public and policy makers about education and work provide our profession with an unprecedented opportunity. Maintaining a coherent and relevant professional literature provides the foundation to help us successfully achieve our goals.

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Table 1

Most Frequently Identified Topics from Previous Career Journal Content Analyses

Author and Journal(s)	Most frequently mentioned topics
Buboltz and Savickas (1994) The Career Development Quarterly	Life-span career development Career development interventions Career assessment Person-environment fit Decision making Case studies Work adjustment
Buboltz, Ebberwein Watkins, and Savickas (1995) The Career Development Quarterly and Journal of Vocational Behavior	Life-span perspectives Career development Career interventions Person-environment perspective Assessment of vocational behavior
Fitzgerald and Rounds (1989) Journal of Vocational Behavior	Person-environment fit and Holland's theory Interests and work values Cognitive abilities

Occupational prestige and mobility
 Career development – Life-span perspectives
 Decision making; indecision
 Interventions in career development
 Job search
 Industrial/Organizational measurement issues
 Relationships between work and other life domains
 Leadership and managerial behavior
 Workplace justice

Loveland, Buboltz, Schwartz, and	Career development: Life-span perspectives
Gibson (2006) The Career	Women's workforce participation
Development Quarterly	Multicultural/diversity issues
	Career development and other interventions
Whiston, Rose, Peterson, and	Career assessment
Nguyen (2013) Journal of Career	Theoretically based articles
Assessment	Special populations

Table 2

Most Frequently Identified Topics from Previous Career Development Quarterly Annual Reviews and Past Career Journal Content Analyses

Career Development Quarterly Annual Reviews

Career Journal Content Analyses

- | | |
|--|---|
| 1. Career theory | 1. Life-span career development |
| 2. Career assessment | 2. Career development interventions |
| 3. Gender | 3. Person-environment fit and Holland's Theory |
| 4. Life-career development | 4. Career assessment |
| 5. Holland's RIASEC theory | 5. Decision making and indecision |
| 6. SCCT | 6. Interests and work values |
| 7. Work-life balance/family | 7. Multicultural/diversity issues/special populations |
| 8. Professional development/issues | 8. Case studies |
| 9. Career transitions | 9. Work adjustment |
| 10. Self-efficacy | 10. Theoretically based articles |
| 11. Disability | 11. Assessment of vocational behavior |
| 12. Diversity | 12. Cognitive abilities |
| 13. International students | 13. Occupational prestige and mobility |
| 14. Technological change | 14. Job search |
| 15. Outcomes of career interventions/EBP | |
| 16. Sexual orientation | |

- | | |
|-------------------------------------|---|
| 17. Constructivist career theory | 15. Industrial/Organizational measurement issues |
| 18. Information constructs – career | |
| 19. Race/ethnicity | 16. Relationships between work and other life domains |
| 20. Mentoring | |
| 21. Job Satisfaction | 17. Leadership and managerial behavior |
| 22. Career indecision | 18. Workplace justice |
| 23. Unemployment | 19. Women’s workforce participation |
| 24. Well-being | |
| 25. Career maturity/adaptability | |
-

Table 3

Most Common Theories Included in Research and Practice Articles

Rank	Research Articles (n)	Practice Articles (n)
1	Social Cognitive Career Theory (22)	Social Cognitive Career Theory (13)
2	RIASEC Theory (16)	Career Construction-Life Design Theory (7)
3	Career Construction-Life Design Theory (15)	RIASEC Theory (6)
4	Big Five Personality Factor Theory (10)	Theory of Circumscription and Compromise (6)
5	Job Demands-Resources Model (8)	Cognitive Information Processing Theory (3)
6	Self-Determination Theory (7)	Life Span Life Space Theory (3)
7	Life Span Life Space Theory (4)	Social Learning and Happenstance Theory (3)
8	Relational Theory of Working (4)	Latent Deprivation Theory (2)
9	Theory of Circumscription and Compromise (4)	Positive Psychology (2)
10	Conservation of Resources theory (4)	Systems Theory Framework of Career Development (2)
11	Social Exchange Theory (4)	Social Learning Theory (2)

Table 4

Most Common Theories Included in Research Articles Categorized as Vocational Behavior and Evidence-Based Practice

Rank	Vocational Behavior (n)	Evidence-Based Practice (n)
1	Social Cognitive Career Theory (22)	Social Cognitive Career Theory (2)
2	RIASEC theory (16)	Attribution Theory (1)
3	Career Construction-Life Design Theory (15)	Career Decision-Making Self-efficacy Model (1)
4	Big Five Personality Factor Theory (10)	Conservation of Resources Theory (1)
5	Job Demands-Resources Model (8)	Expectancy Value Theory (1)
6	Self-Determination Theory (7)	Human Capital Theory (1)
7	Conservation of Resources Theory (4)	Latent Deprivation Theory (1)
8	Life Span Life Space Theory (4)	RIASEC Theory (1)
9	Relational Theory of Working (4)	Social Learning Theory (1)
10	Social Exchange Theory (4)	Systems Theory Framework for Career Development (1)
11	Theory of Circumscription and Compromise (4)	Therapeutic Assessment and Information Giving Models (1)

Table 5

Top 50 Content Topics in All Articles, Theory Articles, Research Articles, and Practice Articles

Rank	All articles (n)	All Theory articles (n)	All research articles (n)	All practice articles (n)
1	Career self-efficacy (35)	Social-Cognitive Career Theory (35)	Career self-efficacy (31)	STEM occupations (18)
2	Social-Cognitive Career Theory (35)	Career self-efficacy (26)	Family influence (23)	Career development (15)
3	Career development (26)	Career Construction-Life Design Theory (19)	Social-Cognitive Career Theory (22)	Social-Cognitive Career Theory (13)
4	Family influence (25)	RIASEC Theory (17)	Gender (20)	Skills (11)
5	STEM occupations (25)	Family influence (15)	Career decision-making self-efficacy (18)	Social media (11)
6	Diversity/multicultural (22)	Career decision-making self-efficacy (14)	Interests (18)	Career self-efficacy (10)
7	Gender (22)	Gender (14)	Diversity/multicultural (17)	Career counselors (8)
8	Interests (20)	Personality (14)	Job stress/burnout (17)	Career education (8)
9	Career Construction-Life Design Theory (19)	Social support (14)	Personality (17)	Career interventions (8)
10	Personality (19)	Career adaptability (12)	Career adaptability (16)	Career practitioners (8)
11	Career adaptability (18)	Interests (12)	RIASEC Theory (16)	Diversity/multicultural(8)
12	Career decision-making self-efficacy (18)	Job stress/burnout (12)	Assessment quality (15)	Female (8)
13	Well-being (18)	Big Five Factor Theory (11)	Career Construction-Life Design Theory (15)	Historical evolution of the profession Employability (8)

Rank	All articles (n)	All Theory articles (n)	All research articles (n)	All practice articles (n)
14	Assessment quality (17)	Satisfaction (11)	Satisfaction (15)	Career Construction-Life Design Theory (7)
15	Job stress/burnout (17)	Work-family conflict (11)	Social support (15)	Career counselors (7)
16	RIASEC Theory (17)	Diversity/multicultural (10)	Motivation (14)	Career-life coaching (7)
17	Satisfaction/Life Satisfaction (17)	Job satisfaction (10)	Social class/SES (14)	Disability (7)
18	Social support (17)	Well-being (10)	Well-being (14)	Employability (7)
19	Social class/SES (16)	Work engagement (9)	Job satisfaction (13)	Interventions for adolescents (7)
20	Employability (15)	Assessment quality (8)	Career development (12)	Professional competencies (7)
21	Job satisfaction (14)	Criminal justice populations (8)	Unemployment (12)	Professional development (7)
22	Motivation (14)	Job Demands Resources Model (8)	Work-family conflict (12)	Public policy (7)
23	Unemployment (14)	Life Span, Life Space Theory (8)	Employability (11)	Well-being (7)
24	Career education (13)	Self-Determination Theory (8)	Mentoring (11)	Career decision-making self-efficacy (6)
25	Mentoring (13)	Theory of Circumscription and Compromise (8)	Work engagement (11)	Criminal justice populations (6)
26	Skills (13)	Unemployment (8)	Big Five Factor Theory (10)	RIASEC Theory (6)
27	Work-family conflict (13)	Career development (7)	Post-secondary higher education (10)	Social justice (6)
28	Career counseling (12)	Health (7)	STEM occupations (10)	Theory of Circumscription and Compromise (6)

Rank	All articles (n)	All Theory articles (n)	All research articles (n)	All practice articles (n)
29	Disability (12)	Mentoring (7)	Disability (9)	Vocational guidance (6)
30	Female (12)	Outcome expectations (7)	Family factors (9)	Assessment quality (5)
31	Post-secondary higher education (12)	Social justice (7)	Health (9)	Career assessment use (5)
32	Big Five Factor Theory (11)	Coping (6)	Career indecision (8)	Career coaches (5)
33	Career practitioners (11)	Family factors (6)	Coping (8)	Emerging trends (5)
34	Discrimination (11)	Female (6)	Decidedness (8)	Experiential learning/internships (5)
35	Health (11)	Motivation (6)	Decision making style (8)	Group counseling (5)
36	Interventions for adolescents (11)	Nationality (6)	Job Demands Resources Model (8)	Practitioner training (5)
37	School to work transitions (11)	Race/ethnicity (6)	Nationality (8)	Satisfaction (5)
38	Social justice (11)	STEM occupations (6)	Outcome expectations (8)	School to work transitions (5)
39	Social media (11)	Career interventions (5)	School to work transitions (8)	Technological change (4)
40	Vocational guidance (11)	Career success (5)	Calling (7)	Unemployment (5)
41	Work engagement (11)	Career thoughts (5)	Career decision making difficulty (7)	Calling (4)
42	Calling (10)	Interventions for adolescents (5)	Career success (7)	Career indecision (4)
43	Career intervention (10)	Organizational culture (5)	Discrimination (7)	Computer-assisted career guidance (4)

Rank	All articles (n)	All Theory articles (n)	All research articles (n)	All practice articles (n)
44	Family factors (10)	Person-environment congruence (5)	Female (7)	Discrimination (4)
45	Outcome expectations (9)	Relational Theory of Working (5)	Interventions for adolescents (7)	Education (4)
46	Professional competencies (9)	Social class/SES (5)	Performance in education (7)	Family factors (4)
47	Race/ethnicity (9)	Work volition (5)	Self-Determination Theory (7)	Immigration status (4)
48	Stereotyping (9)	Age (4)	Values (7)	Interests (4)
49	Career assessment use (8)	Career barriers (4)	Age (6)	Interventions for adults (4)
50	Career counselors (8)	Career counseling (4)	Career barriers (6)	Interviews (4)

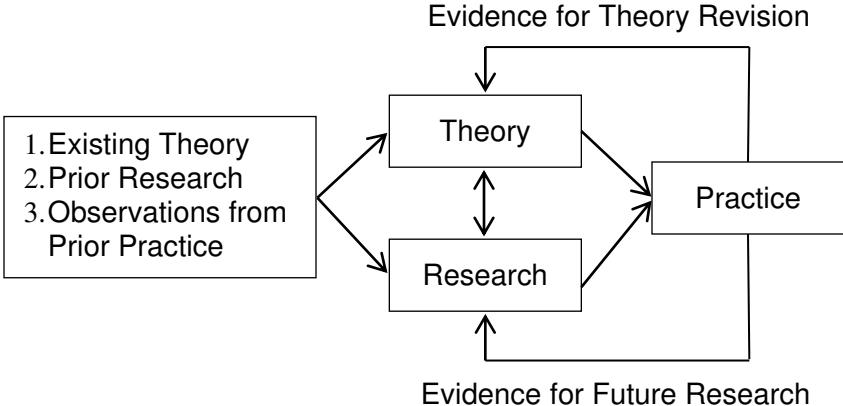


Figure 1. Integrating Theory, Research, and Practice

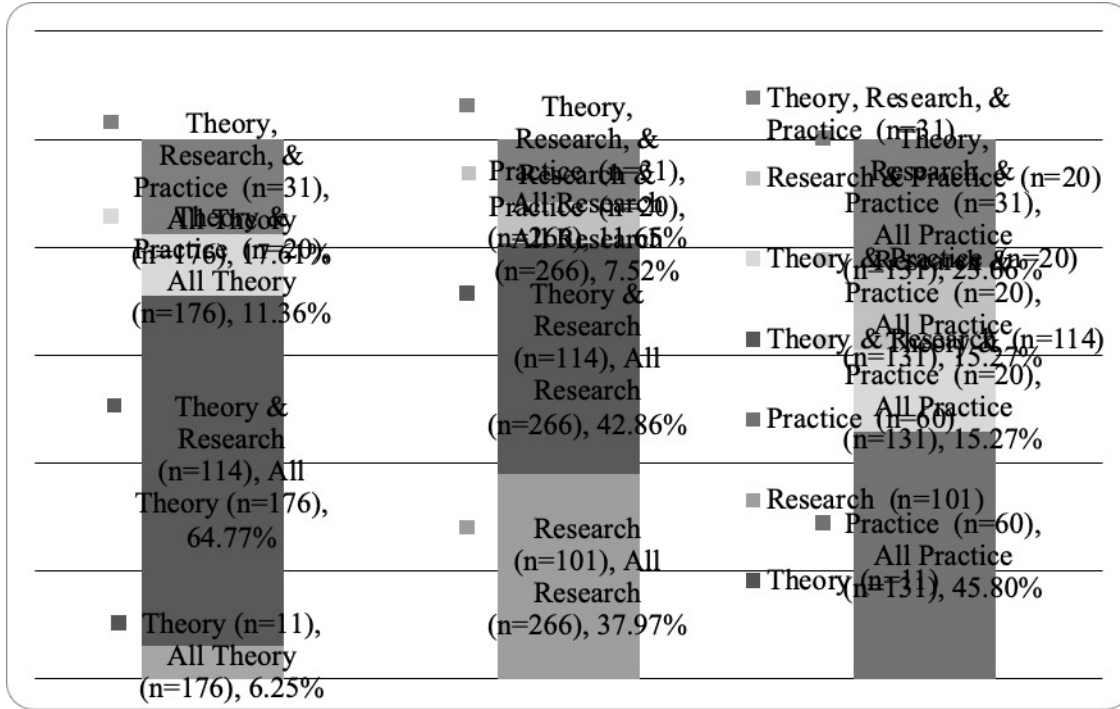


Figure 2. Relative Proportions of Theory, Research, and Practice