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The Professional Counselor
Volume 7, Issue 1, Pages 89–103
<http://tpcjournals.nbcc.org>
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doi:10.15241/ew.7.1.89

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This content analysis includes 210 articles that focused on addictions topics published between January 2005 and December 2014 in the journals of the National Board for Certified Counselors (NBCC), Chi Sigma Iota (CSI), the American Counseling Association (ACA), and ACA member divisions. Results include the types of addictions content and behaviors studied as well as the populations and data analytic techniques used in the addictions research articles. Whereas most articles discussed addictions counseling techniques, addictions issues among non-clinical populations, and professional practice issues, fewer articles addressed clients in treatment, utilized clinical populations, or analyzed intervention outcomes. Implications for addictive behaviors and addictions counseling scholarship in professional counseling are discussed.

Keywords: addictive behaviors, addictions counseling, content analysis, NBCC, ACA

Professional counselors have an ethical obligation to be actively involved in continuing education in order to remain current on relevant professional issues and scientific information related to their client population and setting (American Counseling Association [ACA], 2014). Continuing education also is required by licensing and certification bodies for credential renewal. One way continuing education is achieved is through reading and contributing to peer-reviewed journal articles. Publications can expose professional counselors, counselor educators and counselors-in-training to new and innovative practices grounded in empirical research.

Professional journals represent “the repository of the accumulated knowledge of a field” (American Psychological Association, 2010, p. 9). A number of journals are produced by the major counseling certification and professional organizations, including *The Professional Counselor*, published by the National Board for Certified Counselors (NBCC); the *Journal of Counselor Leadership and Advocacy*, published by Chi Sigma Iota International (CSI); and the *Journal of Counseling & Development (JCD)*, which is the flagship journal of ACA. In addition to *JCD*, there are 20 journals published by ACA member divisions. ACA member division-sponsored journals publish articles that inform counseling practices and contribute to the body of research on topics that are salient to the particular settings, populations, interest areas, and issues associated with the division. An area that is relevant to most professional counselors, regardless of specialty area or setting, is addiction.

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), in 2014 there were an estimated 21.5 million Americans (8% of the population aged 12 or older) living with a substance use disorder (SUD; SAMHSA, 2015). It is likely that many individuals with SUDs also have other co-occurring mental health conditions. In fact, 2014 estimates suggest 7.9 million adults (i.e., 18 years and older) in the United States had both a past-year SUD and a mental illness diagnosis. Among adolescents, approximately 1.3 million reported a past-year SUD; 28.4% of these (over 300,000) had experienced a major depressive episode in the past year (SAMHSA, 2015).

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While not all professional counselors will specialize in addictions counseling, given this prevalence it is likely counselors will need to provide services to individuals with an SUD (Chandler, Balkin, & Perepiczka, 2011; Harwood, Kowalski, & Ameen, 2004; Salyers, Ritchie, Cochrane, & Roseman, 2006). In addition, professional counselors are more than likely to come into contact with clients of any age who are impacted by someone else's addiction (e.g., friend, family member). This may explain why the Council for Accreditation of Counseling and Related Educational Programs (CACREP; 2016) requires that all counselors-in-training, regardless of counseling specialty, learn about the theories and etiology of addictions. Salyers et al. (2006) found little consensus among CACREP-accredited programs in how addictions issues were addressed; in fact, when asked where substance abuse was covered in the curriculum, more than 25 different courses were listed by CACREP program representatives. Counselors-in-training learn about addictions in a variety of ways, such as by taking a course in addictions, encountering clients with addictive behaviors in practicum or internship, or learning about addictions in other courses. Since addictions-related training seems to occur throughout the counseling curriculum, all counselor educators, regardless of their particular area of specialty, should maintain an awareness of current trends in addictions science and theory.

Given that knowledge of addictive behaviors is an important aspect of professional counselor identity (CACREP, 2009; 2016), it is necessary that professional counselors have access to scientific information and practice-oriented resources on addiction that are consistent with the philosophical orientation of the profession. Whereas related professions, such as psychology, public health and social work, produce peer-reviewed publications on addictions and addictions treatment that can be utilized by professional counselors, these resources may not reflect the qualities that make professional counseling unique. Examining the state of the counseling literature on addictive behaviors and addictions counseling can inform efforts to improve access to scientific information and evidence-based practices that represent the core philosophy of the counseling profession. Further, an assessment of available addictions research can help to shed light on the state of the counseling profession, as production of original research has been regarded as a standard for measuring the identity development of a profession (Mate & Kelly, 1997).

Research on trends in addictions publications in professional counseling is scarce. Moro, Wahesh, Likis-Werle, and Smith (2016) utilized content analysis to investigate the frequency and type of addictions content within a sample of Association for Counselor Education and Supervision conference programs and four ACA-sponsored journals (*JCD*, *Counselor Education and Supervision*, *Counseling Outcome Research and Evaluation [CORE]*, and *Measurement and Evaluation in Counseling and Development*) that appeal to counselor educators. These authors found that about 2% of conference sessions and articles between 2007 and 2011 addressed addictions counseling. Most of the articles identified in this analysis focused on treatment strategies, particularly among diverse populations. Although the study by Moro et al. is informative, it is limited in that it comprised a 5-year time period and included only a small subset of professional counseling journals. Examining all professional counseling journals during a lengthier time frame would provide professional counselors and researchers with a more comprehensive snapshot of what aspects of addictions theory, prevention, intervention and treatment have been discussed within the counseling literature. This information can be used to inform efforts to promote the production of research and publications that address specific areas of addiction that are currently lacking.

The purpose of the present study was to provide an overview of available literature on addictions topics in professional counseling journals published between January 2005 and December 2014. Moreover, the types of addictions content, addictive behaviors and addictions-related research were examined. The research questions that guided this study were: (1) To what extent do counseling journals address addictions topics? (2) What addictive behaviors and types of content were

addressed? (3) How much addictions research was published in counseling journals? and (4) What types of populations and data analytic techniques were represented in this research?

Methods

Content analysis was utilized to address the research questions. This methodology was selected because content analysis is a systematic approach to summarize and make valid and replicable inferences from written communication (Krippendorff, 2013). A review of the literature shows that content analysis has served as a valuable methodology to identify publication trends over time and highlight attention on specific topics within the counseling profession. Content analysis has been used in the counseling literature to examine topics such as multicultural counseling (Arredondo, Rosen, Rice, Perez, & Tovar-Gamero, 2005), pedagogy in counselor education (Barrio Minton, Wachter Morris, & Yaites, 2014), and research in counseling (Ray et al., 2011). Studies by Barrio Minton et al. (2014), Arrendondo et al. (2005), and Ray et al. (2011) were of journal articles during a similar time frame as the present study (i.e., 10 years). Content analysis procedures used in this study include identifying articles, generating and refining the content analysis protocol, conducting a pretest, data collection, assessment of reliability and validity, and reporting the results.

The research team consisted of three professors and two master's-level graduate students. The professors each possess a doctoral degree in counselor education and specialize in addictions counseling. Two professors identify as White females and one professor is a White male. The graduate assistants, both White females, hold bachelor's degrees in psychology, completed a course in counseling research methods, and participated in a workshop on content analysis facilitated by the first author before joining the research team. The graduate assistants were responsible for searching for applicable articles using predetermined keywords and identifying the total number of articles for each journal during the time period; the three assistant professors (first, second, and third authors) participated in the search for articles as well as in the development of the content analysis protocol and coding process.

The Professional Counselor, published by NBCC, the *Journal of Counselor Leadership and Advocacy*, published by CSI, and 21 ACA and ACA member division peer-reviewed journals (Table 1) were identified as having published articles on addictions between the years 2005 and 2014. Because the purpose of the study was to present a survey of all available articles on addictions content in professional counseling journals between 2005 and 2014, all journals were included in the analysis even if they were not in press during the entire 10-year period under analysis.

A set of keywords was generated to identify relevant articles to be used in the study. These keywords included: (a) general terms taken from the literature on addiction and addictions treatment (e.g., addiction, prevention, relapse, recovery, abstinence, co-morbidity, behavioral and process addictions, and mutual support groups); (b) terminology drawn from the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000) and the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association, 2013), such as substance use disorders, dependence, intoxication, withdrawal, substance abuse and opioid maintenance; and (c) a list of drug classifications (and common pseudonyms) from the *DSM-IV-TR* and *DSM-5*, including alcohol (drinking), amphetamine, cannabis (marijuana), cocaine, hallucinogen, opioid, stimulant, gambling, inhalant, sedative, caffeine and nicotine (tobacco, smoking).

Two graduate assistants independently conducted electronic searches using PsycINFO, EBSCO and ERIC of the keywords, titles and abstracts of all articles (editorial statements, book reviews,

errata and advertisements excluded) during the specified time period to identify relevant articles and provide the total number of articles published for each journal. Journals not indexed within these electronic databases were searched by reading the electronic version of each issue's table of contents and article abstracts and keywords. Following this process, the first author met with the graduate assistants in order to reconcile any differences between their lists of applicable texts and total number of journal articles found. A preliminary list of 226 articles was identified and reviewed by each author to determine suitability for the study. Fifteen articles were removed from the analysis because they did not discuss addictions or addictions treatment; for example, two articles included the keyword "substance abuse" in the abstract, but not in the article itself. To maintain independence, one article was removed because it had been published twice.

The authors developed a content analysis protocol that included definitions and categories for each coding variable. To address research questions 1–3, the following variables were developed: (a) addiction-related content topic, (b) addictive behavior and (c) type of research article. In order to assess research question 4, (d) data analytic technique and (e) research population also were included as variables. Categories of each variable were initially developed by the authors based on their knowledge of the addictions literature as well as past content analysis research of counseling journals. The authors then pretested the protocol by coding 40 randomly selected articles within the sample (approximately 20%) to purify the coding scheme and conduct a preliminary assessment of coder agreement. Following this process, the authors met to refine existent category definitions, agree on the inclusion of additional variable categories and determine which variables would be single versus multiple classification. High inter-rater agreement (85% or higher) across all five study variables was observed among the three coders during the pilot phase. A pattern was not observed in the disagreements among the coders, suggesting that the framework possessed acceptable construct validity (Insch, Moore, & Murphy, 1997).

Once the protocol was refined, all articles were coded independently by two members of the research team (first, second, and third authors). Krippendorff's alpha (Krippendorff, 2013), with a minimum acceptable value set at $\alpha = .80$, was utilized to assess agreement among the coders. This coefficient was selected to capture inter-rater reliability because it estimates error in observed agreement attributable to chance and accounts for small sample sizes. Using a reliability measure designed for small samples was an important consideration because research question 4 relates only to a smaller subset of the sample used in the study. Further, the use of two coders for each article was to ensure that the total number of observations for each variable in this study exceeded the minimum number recommended by Krippendorff (2013) for an alpha value greater than .80 at the .01 level of significance (i.e., according to Krippendorff [2013] two coders would have to code at least 103 units). The "odd-man-out" procedure recommended by Insch et al. (1997), in which a third coder determined the final category when differences emerged, was used to reconcile disagreements between coders.

Coding Variables

Five variables were identified by coders in the study. All articles ($N = 210$) were coded utilizing three of the variables: addiction-related content topic, addictive behavior and type of research. Two variables were used to code research articles identified within the sample. Percentage of agreement (observed agreement [OA]) and Krippendorff's alpha (α) were calculated for each variable.

Addiction-related content topic. The purpose of this variable was to identify the area of addictions counseling and research that the article addressed. Categories were initially drawn from content analyses by Ray et al. (2011) and Moro et al. (2016) and modified for the present study. Because the purpose of this variable was to identify the main content focus of the articles, a single classification

system was used, which meant that coders were required to assign each article to one category. The use of a single classification system is recommended when coding variables that represent latent meaning and require greater interpretation by the coder (Insch et al., 1997). The variable included the following categories: approaches to counseling, professional practice, population variables, client variables, counselor variables, measurement, and effectiveness of counseling and preventative interventions (OA = 87.6%; $\alpha = .85$). *Approaches to counseling* included articles that presented specific addictions-related counseling techniques, models or treatment programs. The *professional practice issues* category contained articles that described addiction-related counselor training, credentialing, ethics, diagnosis or trends in the field. *Population variables* included articles that described characteristics of a non-clinical population; the *client variables* category contained articles that addressed addictions or addictions counseling within a clinical population. Articles on the characteristics or perceptions of professional counselors were assigned to the *counselor variables* category. The *measurement* category included any article with a focus on instrument development, formal assessment or psychometrics. *Effectiveness of counseling and preventative interventions* represented articles that focused on evaluating an intervention or prevention program or technique.

Addictive behavior. This variable represented the types of addictive behavior addressed in the articles. Coders were instructed to record all addictive behaviors and substances described in each article (i.e., multiple classification) using a list of categories that included relevant keywords developed by the researchers for the text search. If a specific type of behavior or substance was not discussed, coders labeled the article as *general substance use*. Categories representing specific behaviors and substances included: general substance use, alcohol, nicotine, opioids, cannabis, stimulants, ecstasy and behavioral addictions (OA = 95%; $\alpha = .90$).

Type of research. Each article was coded as *non-research*, *qualitative*, *quantitative* or *mixed methods* (OA = 98.5%; $\alpha = .98$). Classifications were based on past content analysis research of counseling journals (Moro et al., 2016; Ray et al., 2011), and coders were required to assign each article to one category. Articles that were assigned to the three research categories (i.e., qualitative, quantitative and mixed methods) were used to address research question 4.

Data analysis. All research articles were coded in order to determine the types of data analytics used by the authors. The coding variable included 15 categories (i.e., descriptive statistics, regression analysis, theme analysis and coding, chi-square test, multivariate analysis of variance/multivariate analysis of covariance, correlation, analysis of variance/analysis of covariance, structural equation modeling, *t*-test, confirmatory factor analysis, exploratory factor analysis, other nonparametric test, discriminant analysis, canonical analysis, and cluster analysis), and coders were instructed to assign each article to multiple categories when appropriate (e.g., case where a single research article included multiple types of analysis; multiple classification). The scheme for grouping different types of data analysis was based on a framework by Erford et al. (2011) in their content analysis of articles published in *JCD*. Percentage of agreement among coders in the present study was 82.4% and $\alpha = .79$. Because inter-rater reliability is slightly below the recommended minimum of .80 (Krippendorff, 2013), readers are encouraged to interpret these results with caution.

Research population. The various populations examined in the research articles were recorded using this variable (OA = 91%; $\alpha = .88$). Because an article could potentially include multiple populations (e.g., African American, male, college students), coders were instructed to code each article with as many categories as necessary (i.e., multiple classification). When coding, research team members used a preliminary list of possible categories derived from several previous content analysis studies of counseling journals (Byrd, Crockett, & Erford, 2012; Smith, Ng, Brinson, & Mityagin, 2008).

This resulted in 11 discrete categories: undergraduates, children and adolescents, adults (non-college, 18 years and older), families, men only, women only, clients in addictions treatment, addictions professionals, counseling students, multicultural populations and LGBT populations. To improve the conciseness of the findings, several smaller categories were combined to create the multicultural populations category. A twelfth category was designated for articles that did not include a research sample.

Results

Research Question 1: To What Extent Do Counseling Journals Address Addictions Topics?

Table 1 provides a listing of counseling journals as well as the number of addictions-related articles in relationship to total publication. The percentage of the total number of addictions-related articles in comparison to total number of published articles was 4.5%. As expected, the *Journal of Addiction & Offender Counseling* (JAOC) published the highest percentage of addictions articles (76.1%). The journal with the next highest percentage of addictions articles was the *Journal of Military and Government Counseling* (13.8%), followed by the *Journal of LGBT Issues in Counseling* (9.6%), the *Journal of College Counseling* (8.6%), and *CORE* (8.3%). Six journals published less than 1% of their articles on addictions: *The Career Development Quarterly* (0.0%), *Journal of Counselor Leadership and Advocacy* (0.0%), *Journal for Social Action in Counseling and Psychology* (0.0%), *Counselor Education and Supervision* (0.5%), *Journal of Multicultural Counseling and Development* (0.5%), and *Professional School Counseling* (0.9%).

The authors also examined the first research question by calculating the percentage of addictions-related articles during each year of publication. The number and percentage of addictions articles published for each year is as follows: 2005 ($n = 18$; 4.0%), 2006 ($n = 20$; 4.5%), 2007 ($n = 20$; 4.7%), 2008 ($n = 14$; 3.0%), 2009 ($n = 17$; 3.9%), 2010 ($n = 21$; 4.5%), 2011 ($n = 30$; 6.3%), 2012 ($n = 30$; 6.4%), 2013 ($n = 20$; 4.0%), and 2014 ($n = 20$; 4.7%). The percentage of addictions articles remained relatively stable during this period; however, a slight increase in the percentage of articles published on addictions was observed in 2011 and 2012.

Research Question 2: What Types of Addictive Behaviors and Content Topics Were Addressed?

All seven categories included in the addiction-related content topic variable were represented in the data. The highest number of addictions articles focused on *population variables* ($n = 57$; 27%), or addictions issues within non-clinical groups. The content topics *approaches to counseling* ($n = 43$; 20%) and *professional practice issues* ($n = 39$; 19%) were the second and third most represented categories. Fewer addiction-related articles were published on the following content topics: *client variables* ($n = 20$; 10%), *measurement* ($n = 18$; 9%), *effectiveness of counseling and preventative interventions* ($n = 17$; 8%), and *counselor variables* ($n = 16$; 7%).

Additional analysis revealed that among the 18 articles in the *measurement* category, 14 different assessment instruments were represented. Whereas most instruments ($n = 10$) were discussed in only one article each, the Substance Abuse Subtle Screening Inventory-3 (SASSI-3; Miller & Lazowski, 1999) was included in eight of the articles in this category. Three instruments were included in two articles: the Core Alcohol and Drug Survey (Core Institute, 1994), CAGE questionnaire (Ewing, 1984) and the Michigan Alcohol Screening Test (Selzer, 1971). Further, additional analysis of the *effectiveness of counseling and preventative interventions* category found that only four articles addressed prevention; three of these articles discussed a similar intervention to prevent college student drinking and one presented findings of an evaluation of a school-based substance abuse prevention program.

Table 1*Addiction Articles in Professional Counseling Journals, 2005–2014*

Journal	No. of Addiction Articles Found	No. of Total Possible Articles	% Addiction to No. of Total Articles
<i>The Professional Counselor</i>	5	113	4.4
<i>Journal of Counselor Leadership & Advocacy</i>	0	13	0.0
<i>Journal of Counseling & Development</i>	9	561	1.6
<i>Adultspan Journal</i>	5	101	5.0
<i>The Career Development Quarterly</i>	0	282	0.0
<i>Counseling and Values</i>	6	191	3.1
<i>Counselor Education and Supervision</i>	1	199	0.5
<i>Journal of Addiction & Offender Counseling</i>	70	92	76.1
<i>Journal of College Counseling</i>	14	163	8.6
<i>Journal of Employment Counseling</i>	5	182	2.8
<i>Journal of Humanistic Counseling</i>	3	175	1.7
<i>Journal of Multicultural Counseling and Development</i>	1	194	0.5
<i>Counseling Outcome Research and Evaluation</i>	4	48	8.3
<i>The Family Journal</i>	17	554	3.1
<i>Journal of Creativity in Mental Health</i>	15	251	6.0
<i>Journal of LGBT Issues in Counseling</i>	13	136	9.6
<i>Journal of Mental Health Counseling</i>	11	244	4.5
<i>Journal for Social Action in Counseling and Psychology</i>	0	87	0.0
<i>The Journal for Specialists in Group Work</i>	5	209	2.4
<i>Measurement and Evaluation in Counseling and Development</i>	8	176	4.6
<i>Professional School Counseling</i>	4	432	0.9
<i>Rehabilitation Counseling</i>	10	208	4.8
<i>Journal of Military and Government Counseling</i>	4	29	13.8
Total	210	4,640	4.5

Note. The first issue of *The Professional Counselor* was published in 2011; *Counseling Outcome Research and Evaluation* was first published in June 2010; *Journal of LGBT Issues in Counseling* was first published in October 2008; *Journal for Social Action in Counseling* was first published in April 2007; *Journal of Creativity in Mental Health* was first published in September 2007; the first issue of *Journal of Military and Government Counseling* was published in January 2013; the first issue of the *Journal of Counselor Leadership and Advocacy* was published in 2014.

The *addictive behavior* coding variable also was used to assess this research question. General substance use was by far the most represented addictive behavior in the articles ($n = 142$; 68%), followed by alcohol consumption ($n = 46$; 22%) and behavioral addictions ($n = 11$; 5%). Specific substances were addressed in fewer articles: nicotine ($n = 8$; 4%), opioids ($n = 4$; 2%), stimulants ($n = 4$; 2%), cannabis ($n = 3$; 1%) and ecstasy ($n = 1$; 0.5%). The total values exceed the actual number of

research articles included in the analysis because some articles addressed more than one addictive behavior. In the behavioral addictions category, sex addiction was addressed in three articles, three articles included a general discussion of behavioral addictions, and addictions to gambling, gaming, Internet, self-injury and food were each mentioned once.

Research Question 3: How Much Addictions Research Was Published in Counseling Journals?

This research question was addressed using the *type of research* coding variable. Approximately 60% of addictions-related articles ($n = 127$) were original research. Among these articles, 82% were quantitative ($n = 104$) and 13% were qualitative ($n = 17$). Mixed methods was the smallest category ($n = 6$), representing 5% of all addictions research. Articles coded as “non-research” ($n = 83$) included innovative methods papers, professional practice papers, interviews, and literature reviews on topics such as counseling theory and special populations.

Research Question 4: What Types of Populations and Data Analytic Techniques Are Represented in the Addictions Research?

Research population and *data analysis* were the coding variables used to assess this research question. Table 2 lists the various types of participants used in the addictions-related research articles. The most common population examined was adults ($n = 49$; 40%), or individuals (18 years and older) not enrolled in college, followed by undergraduates ($n = 36$; 29%) and addictions professionals ($n = 26$; 21%). The total values exceed the actual number of research articles included into the analysis because some articles included more than one population. The *multicultural populations* category represented a number of ethnic groups including African Americans, Native Americans and Hispanic Americans, as well as a sample of participants in Korea. Three articles were not included in this analysis because they did not involve research with human subjects (e.g., content analysis of substance use screenings).

Table 2

Types of Participants Used in Addictions Research Articles

Population	Count	%
Adults	49	40
Undergraduates	36	29
Addictions Professionals	26	21
Clients in Addictions Treatment	18	15
LGBT Populations	13	10
Children and Adolescents	9	7
Multicultural Populations	9	7
Men Only	8	6
Families	5	4
Women Only	4	3
Counseling Students	2	2

Note. Three articles were removed because they did not include human subjects ($n = 124$). Some articles include more than one population. Therefore, the total values may exceed the actual number of research articles accepted into the analysis.

All 15 data analytic techniques were represented within the addiction-related research articles (Table 3). Descriptive statistics ($n = 34$; 27%), regression analysis ($n = 31$; 24%) and theme analysis/coding ($n = 22$; 17%) were the most used techniques. Data strategies less likely to be utilized include discriminant analysis ($n = 4$; 3%), canonical analysis ($n = 3$; 2%) and cluster analysis ($n = 1$; 1%). The total values exceed the actual number of research articles included in the analysis because some articles utilized more than one data analysis strategy.

Table 3

Type of Data Analysis Used in Addictions Research Articles

Data Analytic Procedure	Count	%
Descriptive Statistics	34	27
Regression Analysis	31	24
Theme Analysis/Coding	22	17
Chi-Square Test	16	13
MANOVA/MANCOVA	14	11
ANOVA/ANCOVA	13	10
Correlation	12	9
Structural Equation Modeling	10	8
<i>t</i> -test	9	7
Confirmatory Factor Analysis	7	5
Exploratory Factor Analysis	5	4
Other Nonparametric	5	4
Discriminant Analysis	4	3
Canonical Analysis	3	2
Cluster Analysis	1	1

Note. Some articles used more than one procedure. Therefore, the total values may exceed the actual number of research articles accepted into the analysis ($n = 127$). MANOVA = multivariate analysis of variance; MANCOVA = multivariate analysis of covariance; ANOVA = analysis of variance; ANCOVA = analysis of covariance.

Discussion

Articles published in 23 professional counseling journals between January 2005 and December 2014 were examined to assess the scope with which addictions were represented in the professional counseling literature. Overall, 210 (4.5%) of the 4,640 articles published addressed addictions content. Not surprisingly, *JAOC*, a publication sponsored by the International Association of Addictions and Offender Counselors, contained the most articles on addictions. It also is noteworthy that several journals with higher percentages of addictions articles were launched within the period of time the analysis was conducted (e.g., *Journal of Military and Government Counseling* and *Journal of LGBT Issues in Counseling*). The introduction of these journals may suggest that increased attention is being given

to addictions issues or, at the very least, to populations that are more vulnerable to experiencing the consequences of addictive behaviors.

The higher percentage of articles in 2011 and 2012 may have been associated with changes to addictions-related professional training and diagnostic considerations that occurred around these years. In 2009, CACREP introduced an addictions counseling specialty area and added language in their standards requiring all students to learn about the etiology, prevention and treatment of addictions; therefore, it is possible that during the years following these changes, there was an increased interest in the teaching of addictions content to counselors-in-training. Alternatively, the revised formulation for the diagnosis of SUD in the *DSM-5*, published in 2013, also may have contributed to the increase in addictions articles. Leading up to the publication of the *DSM-5* there may have been greater discussion as to how addictive disorders are conceptualized and assessed.

The most common type of article published addressed addiction-related issues within non-clinical populations; fewer articles focused on topics specific to individuals receiving addictions counseling. Even fewer articles included research on outcomes of prevention and counseling interventions. The presence of only four articles in the sample (1.9%) that assessed the efficacy of prevention efforts is concerning given that prevention has been found to be a key facet of professional counselor identity (Mellin, Hunt, & Nichols, 2011) and is considered by CACREP (2016) as “foundational knowledge” (p. 8) for all counseling professionals. This discrepancy may suggest that despite being regarded as an important component of professional training and identity, little is actually done pertaining to prevention practice and research by professional counselors.

Although relatively few articles in the sample included addictions outcomes research, it is promising that *CORE* was established by the Association for Assessment and Research in Counseling in 2010 as a venue for outcomes research and program evaluation findings (Hays, 2010). Since the inception of *CORE*, its publication of addiction research has resulted in it being one of the top five journals in our study publishing on addiction topics.

Among the assessment instruments in articles that focused on addictions-related measurement issues, the SASSI-3 (Miller & Lazowski, 1999) was the most commonly discussed. The amount of attention given to the use of the SASSI-3 appears to be warranted considering the popularity of this instrument among professional counselors and clinical mental health counselors in particular. In a national survey of counselor assessment practices by Peterson, Lomas, Neukrug, and Bonner (2014), the SASSI-3 was the highest ranked test of addictive behaviors among all professional counselors. Among clinical mental health counselors, it was the third highest ranked inventory overall, behind the Beck inventories for depression and anxiety. Further, Neukrug, Peterson, Bonner, and Lomas (2013) found that more than three-quarters of counselor educators who teach assessment use the SASSI-3 in their courses. Despite the widespread use of the SASSI-3, it does have its limitations; the SASSI-3 can be cost prohibitive for some clients and requires that those who use it receive specialized training. As a result, examining the psychometric properties of other instruments, specifically measures that are free or more cost effective and do not require specialized training to interpret, seems prudent.

The limited number of articles addressing specific types of addictive behaviors is problematic. Although common physiological and psychosocial processes exist across all addictive behaviors, there also are unique factors associated with the etiology, prevention and treatment of the various drug classifications and behavioral addictions (Brooks & McHenry, 2015). Indeed, prevention and intervention efficacy often correlate with information tailored to each need. In light of the current

opioid and prescription drug epidemic—a 137% increase in drug overdose deaths and 200% increase in opioid deaths from 2000 to 2014 (Rudd, Aleshire, Zibbell, & Gladden, 2016)—examining the prevention and treatment of this specific classification of substances would be a prudent area of research.

Analysis of addictions-related research revealed that nearly two-thirds of all articles in the sample represented original empirical research. This is higher than what Ray et al. (2011) found in their content analysis of 15 counseling journals in print between 1998 and 2007; these authors found that approximately one in three articles published included original research. These findings suggest that despite addictions not being a topic commonly discussed across counseling journals, there may be greater attention to conducting research on addictive behaviors by counseling researchers. Or, this may reflect an overall trend among counseling journals to publish research since the final year (2007) of the content analysis conducted by Ray et al. (2011). The level of sophistication of data analysis in the articles in this sample is comparable to findings from past content analyses of long term publication trends in specific counseling journals; for instance, descriptive statistical techniques were among the most commonly used methods of analysis in *JCD* (Erford et al., 2011) and *Journal of College Counseling* (Byrd et al., 2012).

One of the most commonly used groups in addictions research was college students, which may indicate an over-reliance on the use of convenience sampling across institutions of higher education. A concerning trend observed in the data was that addictions professionals were utilized more as research participants than were clients in addictions treatment. Greater attention to understanding individuals who are enrolled in treatment can help researchers and professional counselors identify successful ways to tailor and personalize counseling interventions to fit the needs of specific client populations. In addition, although several articles used diverse populations, fewer studies examined addictions issues among discrete groups of men and women only. Moreover, twice as many articles were found that focused on men compared to women only. Additional research examining gender differences is necessary considering that men and women face unique issues related to the development and treatment of addictive behaviors (National Institute of Drug Abuse, 2015).

Limitations

The findings of this study should be viewed within the context of several limitations. An advantage of content analysis is that it can be used to help organize and summarize large quantities of information; however, by assigning each individual article to a category, it is possible that some distinctive characteristics of the articles in the sample may have been lost or trivialized (Riffe, Lacy, & Fico, 2014). In addition, the process of creating categories for the articles is researcher-driven and, even though efforts were made to develop the coding framework using the available literature, it is possible that different researchers would not have created the same levels of the study variables.

Other limitations relate to data collection and the coding process. Since the purpose of the present study was to analyze articles that focused on addictions, the sample was developed through a review of journal titles, abstracts and keywords only—an approach utilized in previous content analyses of specific topics within the counseling literature (Barrio Minton et al., 2014; Evans, 2013). In the unlikely event that an article focusing on addictions did not include one of the search terms in these three areas, it would not have been included in this study. Also, this study did not include articles in counseling journals that are affiliated with regional or statewide counseling organizations, such as *The Journal of Counselor Preparation and Supervision*, published by the North Atlantic Region Association for Counselor Education and Supervision, or the *Virginia Counselors Journal*, which is the journal of the Virginia Counseling Association. The authors chose to restrict their data collection

to include only journals produced by NBCC, CSI, ACA and ACA member divisions because they believed that a content analysis of articles sampled from these national publications would provide a general overview of the addictions-related content discussed throughout the counseling literature.

Although inter-rater agreement among coders for most variables was satisfactory, reliability for coding the *data analysis* variable was lower than the minimal acceptable threshold suggested by Krippendorff (2013). Possible reasons for low concordance include the number of categories for this variable and the inconsistencies in how data analytic techniques were described within the various articles in the sample. Finally, as this study presented an overview of the types of addictions-related articles published in counseling journals, the quality of the publications was not evaluated during the coding process. This may be a possible next step for counseling researchers that could yield more rigor and, subsequently, evidence-based practices for addictions prevention and counseling.

Implications for Professional Counselors

According to the *ACA Code of Ethics* (2014), “Counselors have a responsibility to the public to engage in counseling practices that are based on rigorous research methodologies” (Section C, p. 8). When addressing issues related to addictive behaviors, professional counselors have a modest yet relatively diverse literature available to help guide their practice. Despite the fact that a large number of articles in the sample described approaches to addictions counseling, many of these papers were conceptual in nature and did not include original empirical research to assess counseling outcomes. To better assist professional counselors in using research-informed approaches, it is necessary for greater attention to be given by counselor educators and researchers to producing addictions-related intervention research and program evaluations.

The limited number of articles that evaluated treatment approaches also may represent a more endemic issue in counseling and counselor education. Many professional counselors report not feeling adequately prepared to operationalize and measure client outcomes, despite recognizing the need for these skills in their work (Peterson, Hall, & Buser, 2016). Although these skills have been identified as key research competencies in counselor education (Wester & Borders, 2014), it is unclear how these competencies are addressed in entry-level and doctoral research curricula. Researchers may wish to examine the ways in which professional counselors and counselor educators learn how to evaluate treatment outcomes. This may help inform the development of new pedagogical strategies that lead to an increased production of outcomes research on approaches to counseling and prevention in counseling journals.

In addition to a call for research on counseling outcomes, it also seems apparent that there is a need for more sophisticated research questions and hypotheses in research conducted on addictive behaviors. Addiction is a multifaceted phenomenon that involves the interplay of multiple biological, psychological and social determinants (American Society of Addiction Medicine, 2011); therefore, the use of descriptive statistics or univariate procedures may not capture the complexities of how addictive behaviors are initiated, maintained and extinguished. The use of more sophisticated data analytic techniques by researchers may help address this issue. Structural equation modeling can be utilized to simultaneously test the fit of an explanatory model of addictive behavior comprised of multiple independent and dependent variables. For example, Wahesh, Lewis, Wyrick, and Ackerman (2015) utilized structural equation modeling to evaluate the fit of a mediational model of collegiate drinking that included multiple determinants of alcohol use. Alternatively, qualitative methods can be used by researchers to provide an in-depth understanding of how various interpersonal, social and cultural variables shape individual behavior (Likis-Werle & Borders, 2017).

One way that counseling journals can increase the publication of articles that address specific issues related to addiction is by offering a special issue or section on these topics. Journal editors can develop a call for papers that focus on addictions-related issues salient to their publication's readership. Depending on the particular journal's audience, this can include examining prevention, a specific classification of addictive behaviors, or intervention outcomes, areas that were not well represented in the current sample of articles. For example, in 2011 *CORE* dedicated a special section (Volume 2, Issue 1) to substance abuse outcome research and measures. The use of special issues or sections across counseling journals can ensure that professional counselors have access to information that is germane to their work. *JAOC* may seem like a natural venue for topics related to addictions in counseling; however, that perception is problematic because *JAOC* is geared toward addictions and offender counselors, making it possible that the particular populations studied, findings and implications in articles published in this journal are not as relevant to professional counselors in other settings.

Although journal articles represent an important source of professional development, it is possible that professional counselors utilize other venues for continuing education. Future researchers can examine continuing education practices of counselors to determine the particular sources of education and whether or not the information provided through these venues is consistent with the typical scope of practice and professional identity of the counseling profession. Relatedly, it also seems necessary to determine where else counseling researchers and counselor educators publish their research on addictions counseling. While counselor educators in CACREP-accredited programs are expected to demonstrate scholarly activity in counseling (CACREP, 2016), it is possible that some addictions counselor educators publish in journals outside of counseling that specialize in addictions or have higher impact factors. Journal impact factors are a method of determining a journal's significance in comparison to other journals in the field. Some counselor educators may seek to publish in journals with a more favorable impact factor for evaluation purposes related to faculty tenure and promotion (Fernando & Barrio Minton, 2011). Assessing author publication trends by reviewing the curriculum vitae of addictions counselor educators can help identify the journals in which they most frequently publish. Examining these trends can identify the types of addictions-related research and other scholarly work that are being produced by counselor educators and counseling researchers but are not appearing in counseling journals.

Conflict of Interest and Funding Disclosure

The authors reported no conflict of interest or funding contributions for the development of this manuscript.

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