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The Impact of Program Modality on Counselor Preparation Comprehensive Exam Subscale Scores

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Keywords

counselor education, CPCE, helping relationships, student learning outcomes

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Online counselor education programs accredited by the Council for Accreditation of Counseling and Related Educational Programs are growing in number, however little research exists comparing online and on-campus student outcomes. This study examined the impact of program modality (online versus on-campus) on Counselor Preparation Comprehensive Exam subscale scores of 451 students with an emphasis on the Helping Relationships subscale. Significant results included on-campus students performing higher on the Helping Relationships subscale and online students performing higher on the Career Development subscale. Analysis found no statistical difference on the remaining six subscales. Implications for counselor education are discussed.

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The last two decades have witnessed an increase in the number of students who are completing degrees in counselor education and supervision through online programs (Chandras & Chandras, 2010; Hartwig Moorhead, Neuer Colburn, Edwards & Erwin, 2013; Meder, 2014). One driving force for growth has been improvements in online supportive technology; some of which allow for synchronous attendance in online courses where students can attend from the comfort of their own environments (Roseth, Akeoglu, & Zellner, 2013). Another has been an increase in enrollment of adult learners who may be challenged for a variety of reasons to physically attend a college campus regularly (Columbaro, 2008). The growth of online programs coupled with an increasing number of students looking for more accessible educational options has resulted in the profession actively establishing standards for online instruction in counselor education and supervision (Flamez, 2010).

The Council for Accreditation of Counseling and Related Educational Programs (CACREP) is the specialized accreditor who reviews and sanctions counselor preparation programs (CACREP, n.d.c). As of February 2016, there were 24 online counselor education programs accredited by CACREP from 13 different institutions, three of which were at the doctoral level (n.d.a). Little published information documents the growth of CACREP- accredited online programs since the advent of the Internet, but Meder (2014) indicated that in 2012 there were six CACREP-accredited online programs, including one doctoral program. The number of accredited online counselor education programs has clearly grown since 2012.

Despite this growth, full acceptance of online programs as purveyors of quality education has not been entirely achieved. A 2009 study by the Association of Public and Land-Grant Universities (APLU) found that over 80% of faculty members with no online teaching or online course development experience surveyed, believed that online courses are either "inferior" or "somewhat inferior" to courses with face-to-face instruction. Hoffman (2014) found that faculty members' beliefs about the efficacy of online learning are statistically significant factors in their willingness to participate in online educational settings. Ciccio (2013) found faculty members tasked with converting courses that have traditionally been handled in face-

to-face settings may have concerns about how counseling skills can be taught in an online format and how to adequately assess students' counseling skills using asynchronous media.

The majority of faculty members with experience in online course development or instruction believe online learning outcomes are as good, or better, than face-to-face instruction (APLU, 2009). However, negative biases still exist about the efficacy of online learning (Ekong, 2006). Counselor educators continue to struggle with how to create a quality online experience for students (Dykman & Davis, 2008), and are seeking to address the issue of how best to teach and assess counseling skills within an online environment.

Studies have also suggested that many universities and colleges harbor reservations about hiring online degree recipients for academic employment, due to the absence of adequate faculty-student tutoring and personal interaction while completing their program (Columbaro, 2008). This is consistent with experiences of online students in other fields where, having earned degrees from online programs, graduates face obstacles to being hired based on the program modality of their degree (Adams, Defleur, & Heald, 2007; Charlton, 2010; Tabatabaei, Solomon, Strickland & Metrejean, 2014). In short, while online degree programs in counselor education are growing, a great deal of hesitation amongst counselor education faculty members and employers still exists as to efficacy of the online format, and this hesitation extends to hiring situations for candidates who have earned online degrees.

These hesitations and concerns may or may not be based on objective fact, however, as little published research has examined the efficacy of online programs compared to face-to-face programs in the field of Counselor Education. One way counseling programs can measure their success is through the success of their students (Schmidt, Homeyer & Walker, 2009), and studies have suggested that academic measures may be one way to do this, reflecting knowledge acquisition and possibly being useful as a predictor of clinical competence (Smaby, Maddux, Richmond, Lepkowski & Packman, 2005). As such, one avenue for counselor education to objectively measure the program's success is through student performance on available academic measures.

One such academic measure, the Counselor Preparation Comprehensive Examination (CPCE), is the capstone exam utilized by over 370 universities and colleges, and is designed to assess counseling students' knowledge of counseling information viewed as important by counseling programs (Center for Credentialing & Education, n.d.a). Specifically, the CPCE claims to assess the same eight areas that comprise the CACREP core standards, and those also assessed by the National Counselor Examination for Licensure and Certification (NCE) (n.d.a). Barrio Minton and Gibson (2012) determined that the CPCE is useful for general assessment of overall student performance and program evaluation within the eight CACREP core areas.

CACREP standards provide direction to accredited colleges and universities on what students should know and be able to do in each core area (CACREP, n.d.b). The eight CACREP core areas include: 1) Professional Orientation and Ethical Practice, 2) Social and Cultural Diversity, 3) Human Growth and Development, 4) Career Development, 5) Helping Relationships, 6) Group Work, 7) Assessment, and 8) Research and Program Evaluation. These eight areas constitute the foundation for accreditation of counselor education and supervision programs and these standards guide the curriculum for counselor preparation. These are the critical content areas deemed to reflect current knowledge and projected needs concerning counseling practice in a multicultural and pluralistic society (CACREP, 2009).

While all eight core areas cover important content areas for counselor education students, the Helping Relationships core area could measure knowledge particularly relevant to successful counseling outcomes. The information from the Helping Relationships core area could be associated with a counselor's ability to establish and maintain a therapeutic alliance with clients. The client's perception of the therapeutic alliance has been shown to be strongly implicated in successful therapeutic outcomes (Duncan, 2010). The helping relationship is so important that Norcross and Lambert found "the therapy relationship makes substantial and consistent contributions to psychotherapy outcome independent of the specific type of treatment" (2014, p. 399). Additional research has started to deconstruct the specific aspects of the alliance that predict therapeutic outcome (Bachelor, 2013; Norcross & Wampold, 2011).

Hill (2004) conceptualizes the helping process as comprising moment-by-moment interactional sequences between helpers and clients, and within these interactions helpers select verbal and nonverbal skills with which to intervene. The helping relationship involves behaviors, cognitive processes of counselors and their associated interventions, as well as the reactions of clients. The helping skills are supported by knowledge that they have been tested empirically and found to be effective with clients, and a general understanding that counselors possess such skills and effectively utilize them in clinical development (2004). The CPCE's Helping Relationships subscale claims to assess knowledge of helping processes, counseling theory and its application, basic and advanced helping skills, the importance of and strategies to achieve client and helper self-understanding and self-development, and how to facilitate client change (Center for Credentialing and Education, n.d.b). These content areas could be instrumental for counselors in actually developing strong relationships with their clients.

Research has suggested that counselors in early stages of training may lack the technical and cognitive skills necessary to effectively establish a therapeutic alliance (Mallinckrodt & Nelson, 1991). Therefore, the ability to form and maintain therapeutic relationships with clients should be a focal point of training and supervision for novice counselors (Schwing, LaFollette, Steinfeldt & Wong, 2010). Hill theorized that counselors establish good therapeutic relationships by attending and listening carefully to clients, utilizing appropriate helping skills at the right times, treating clients' individual needs, carefully monitoring their own feelings and limitations, being mindful of clients' reactions to interventions, and by being open to client feedback (2004). While the Helping Relationships subscale does not aim to measure the practical skills needed to form a strong therapeutic alliance with clients (Haberstroh, Duffey, Marble & Ivers, 2014), it does claim to measure a student's knowledge of the theory and accepted strategies for doing so (Center for Credentialing and Education, n.d.b). The Helping Relationships subscale may set a competency benchmark for the microskills that counselors should learn during their training (Miville, Redway, & Hernandez, 2011).

In summary, recent years have witnessed growth in the number of online counselor education programs accredited by CACREP, but there is little published research comparing the student learning outcomes of online versus on-campus program modalities in counselor education programs (Meder, 2014). The purpose of the current study was to contribute findings toward the question of whether online learning for counselor education is comparable to the traditional face-to-face modality. As the first step towards that goal, this study examined if students from online counselor education programs performed equitably on the CPCE subscales to students in traditional counselor education programs. The research question of the current study was: Is there a significant difference on CPCE subscale scores, with a particular focus on the Helping Relationships subscale, based on counselor education program modality?

Method

Participants

The sample included 451 students who completed their master’s degrees in clinical mental health counseling (54%, $n = 247$), or school counseling (45.23%, $n = 204$), between the years of 2001 and 2014 (see Table 1) through a large counselor education program in the Western United States. Participants ranged in age from 24 to 68 years old ($M = 40.48$, $SD = 9.91$) (see Table 1) and were mostly women (80%, $n = 361$) with 90 males (20%). An analysis of ethnicity revealed 70.5% of the participants identified as Caucasian ($n = 318$), 15.5% as Hispanic ($n = 70$), 2.2% as African American ($n = 10$), 1.6% as Native American or Alaskan Native ($n = 7$), 1.3% as Asian/Pacific Islander ($n = 6$), and 8.9% who did not report ethnicity ($n = 40$).

Table 1

Participant Descriptive Information

Demographic	Response	N	%
Gender	Female	361	80
	Male	90	20

Ethnicity	Caucasian	318	70.5
	Hispanic	70	15.5
	African American	10	2.2
	Native American/Alaskan Native	7	1.6
	Asian/Pacific Islander	6	1.3
	Not Reported	40	8.9
Program Modality	Online	294	65
	On-campus	157	35
Program Specialty	Community Mental Health	247	54
	School	204	45.23
Age			
Range	M	SD	
24 to 68	40.48	9.91	

Note: N=451.

All participants completed a 60 credit hour master's degree using the online or on-campus program modality offered at the university. The online modality utilized asynchronous and synchronous learning using the course management system Blackboard 9.1. Students enrolled in the online program took all courses online with synchronous learning required for experiential courses such as Internship, Practicum and Group, while asynchronous learning was required for all other content courses such as Ethics, Theories, Lifespan, Career Development, etc. In addition to these requirements, students enrolled in the online program were required to attend a face-to-face residencies held for one week in two consecutive summers. During this time, students received intensive supervision from faculty regarding skill development, and personal and professional disposition as related to the counseling profession.

Students enrolled in the on-campus program modality completed face-to-face courses at the university with the exception of their electives, which were offered online via Blackboard 9.1. For the purposes of this study, only the online (65%, $n = 294$), and on campus (35%, $n = 157$) program modalities were examined. A hybrid program, consisting of a combination of online and on-campus courses, was also offered during the timeframe of this research. The hybrid program was not included in this research as it is no longer offered at the institution due to a decline in enrollment. Both programs examined were CACREP-accredited throughout the timeframe of the research. However, pool of instructors, course plans, and objectives were parallel within both modalities, and the primary difference that emerged was physical attendance versus online attendance in instruction and supervision of students.

Procedure

The study utilized a non-random, de-identified, coded, archival database collected by the university's Department of counselor education for the purpose of program evaluation. The archived dataset subsequently became available for broader data analysis after institutional review board approval. According to Remler and Van Ryzin (2011), this archived dataset is considered secondary data. It has been utilized for various studies examining multiple constructs (Meder, 2014; Meder, Rehfuss & Grande, 2015). Inclusion criteria for this study included the following: age, ethnicity, gender, specialty, program modality, CPCE total scores, and each participant's scores on the eight CPCE subscales. Students who had multiple CPCE scores as a result of not successfully completing the exam on the first attempt only had their first attempt included as part of the data analysis. The study utilized an ex post facto non-experimental design.

Measures

The archival data set included graduate students' CPCE subscale scores. The CPCE consists of 160 multiple-choice items with a total possible score of 136. Each core area is measured by 20 questions and is represented as an individual subscale. Of the 20 questions on each subscale, only 17 are scored and the scored questions represent the subscale score (Schmidt et al., 2009). According to Schmidt et al., (2009), "the evaluation of the subscale scores [are] imperative because each subscale is indicative of specific content relevant to the profession of counseling" (p. 230).

Data Analysis

Given the impact of the therapeutic alliance on counseling outcomes, the research team was particularly interested in the relationship between program modality and the Helping Relationship subscale dependent variable. However, for the purposes of establishing impact and for comparison, data analysis was run on all eight CPCE subscales to ascertain if any relationship existed between the subscale scores and program modality. As such, there were eight dependent variables in the study: 1) Human Growth and Development subscale scores; 2) Social and Cultural Diversity subscale scores; 3) Helping Relationships subscale scores; 4) Group Work subscale scores; 5) Career Development subscale scores; 6) Assessment subscale scores; 7) Research and Program Evaluation subscale scores; and 8) Professional Orientation and Ethical Practice subscale scores. The dependent variables were analyzed in terms of the two levels of the independent variable (program modality); on-campus versus online.

Results

A one-way multivariate analysis of variance (MANOVA) was conducted to determine program modality differences on students' CPCE subscale scores. Prior to analysis, participants

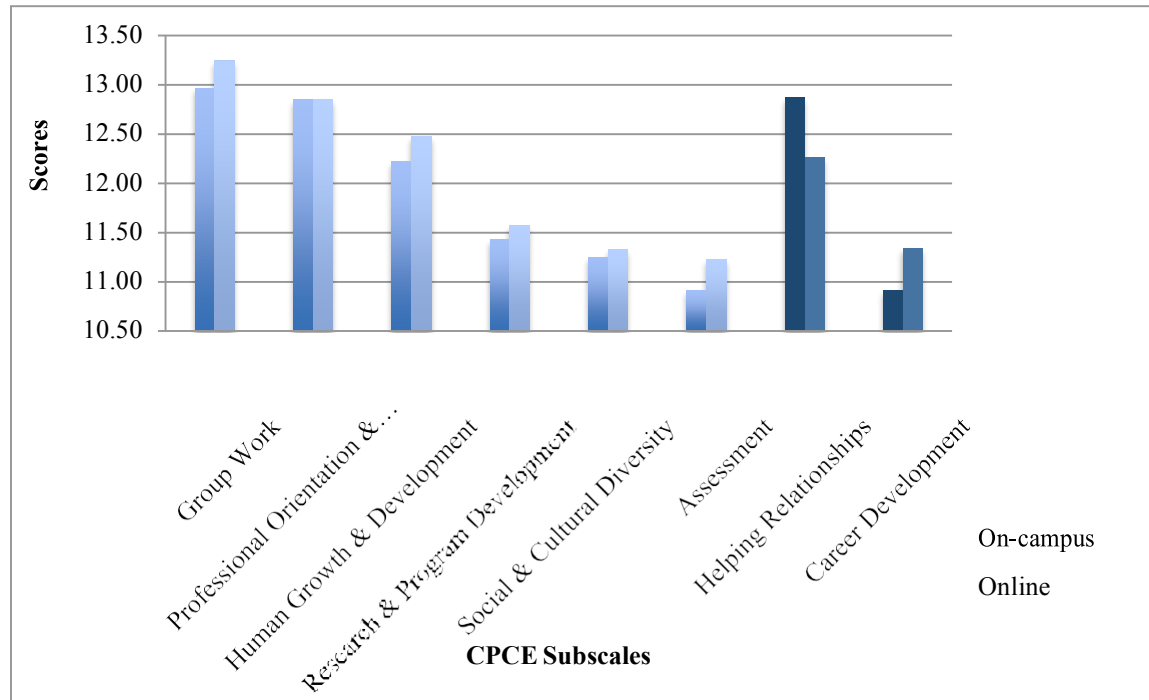
not meeting inclusion criteria were removed from the statistical analysis ($n = 9$). No cases were identified as outliers and none required transformation. Box's M test was significant at $p = <.001$. This, in conjunction with unequal sample sizes, resulted in Pillai's Trace being chosen as the MANOVA test statistic. Pillai's Trace is used when the assumption of equal variances is violated as it is considered to be more powerful than Wilks' Lambda (Mayers, 2013; Mertler & Vannatta, 2010).

Using Pillai's Trace, MANOVA results revealed significant differences among the program modality on the dependent variables [$V = .055$ $F(9, 439) = 2.85, p = .003$]. Separate analyses of variance (ANOVAs) were then conducted on each of the dependent variables as a follow-up to the MANOVA. The *Bonferroni* adjustment was considered as a more conservative alpha for the ANOVA analysis, but ultimately was not implemented. The rationale behind this decision was that the dependent variables being measured (CPCE subscale scores) are distinct scales consisting of items covering different constructs as opposed to similar constructs. As a result, six ANOVAs revealed non-significant differences on program modality with the alpha level set at $p < .05$. They included: Human Growth and Development subscale scores [$F(1, 447) = 2.69, p = .102, \eta_p^2 = .006$] (on-campus M = 11.85; online M = 12.22); Social and Cultural Diversity subscale scores [$F(1, 447) = .755, p = .385, \eta_p^2 = .002$] (on-campus M = 10.86; online M = 11.07); Group Work subscale scores [$F(1, 447) = 2.86, p = .09, \eta_p^2 = .006$] (on-campus M = 12.59; online M = 12.99); Assessment subscale scores [$F(1, 447) = 3.59, p = .06, \eta_p^2 = .008$] (on-campus M = 10.56; online M = 10.98); Research and Program Evaluation subscale scores [$F(1, 447) = 1.13, p = .29, \eta_p^2 = .003$] (on-campus M = 11.02; online M = 11.29); and Professional

Orientation and Ethical Practice subscale scores [$F(1, 447) = .250, p = .62, \eta_p^2 = .001$] (on-campus $M = 12.51$; online $M = 12.61$) (see Chart 1).

Chart 1

Differences in On-Campus and Online Means in CPCE Subscale Scores



Two ANOVAs revealed significant mean differences on their respective CPCE subscale scores based on program modality with the alpha level set at $p < .05$. The significant ANOVAs were: Helping Relationships subscale scores [$F(1, 447) = 5.44, p = .02, \eta_p^2 = .012$] and Career Development subscale scores [$F(1, 447) = 4.85, p = .03, \eta_p^2 = .011$]. Results indicated on-campus students had a higher mean score ($M = 12.55, SD = 1.88$) than online students ($M = 12.02, SD = 2.20$) on the Helping Relationships subscale. Findings on the Career Development subscale indicated online students had higher mean scores ($M = 11.06, SD = 2.45$) than their on-campus counterparts ($M = 10.46, SD = 2.31$) (see Table 2 and Chart

1). While these differences were statistically significant at the $p < .05$ level the mean scores do not indicate a large disparity in subscale scores based on program modality, rather less than half a point. The partial eta squared scores on the two ANOVAs suggested that only 1.2% (on the Helping Relationships subscale) and 1.1% (on the Career Development subscale) of the variance could be attributed to program modality.

Table 2

Differences in Mean Scores in Helping Relationships and Career Development

<i>Helping Relationships</i>		
Program Modality	M	SD
Online	12.02	2.20
On-campus	12.55	1.88
<i>Career Development</i>		
Program Modality	M	SD
Online	11.06	2.45
On-campus	10.46	2.31

Discussion

This study is a continuation of recent research that has begun to examine the efficacy of online counselor education programs. Much of the research that has examined efficacy of online versus on-campus programs in the training of mental health professionals has focused on the social work profession (Cummings, Chaffin, & Cockerham, 2015; Lawrence & Mazur Abel, 2013). Despite the minimal research that has been done on counselor education programs, the number of online counselor education programs is increasing. Additional research is necessary to

provide a foundation for understanding how online learning may or may not be related to results on capstone exams like the CPCE and licensure exams such as the NCE as well as on the relationship between these modalities and clinical skills.

Results of this study suggest both that online programs may be of equal effectiveness to on-campus programs in teaching many of the CACREP core areas, and that adjustments to courses covering core areas like Helping Relationships and Career Development may be required to ensure that online and on-campus students are equally prepared in all CACREP core areas. It is important for counselor educators to understand how to teach online learners, as “delivering quality online counselor education requires faculty to intentionally develop and facilitate learning that accounts for unique student needs, learning styles, and thoughtful pedagogy, rather than simply moving face-to-face classes into online milieus” (Hartwig Moorhead et al., 2013, pg. 9). The results of this study provide evidence of equitable CPCE scores in six of the eight CACREP core areas between students from online and on-campus program modalities. As no significant differences were found in six of the core areas, the results suggest that online learning may equally prepare students for capstone exams like the CPCE. While future research should replicate and expand upon these findings, the results provide a strong foundation of evidence that online programs can prepare counselors academically with equal efficacy to on-campus programs in the majority of the CACREP core areas.

Less can be concluded from the statistically significant differences found in the Career Development and Helping Relationships subscale scores. One possibility to be explored through future research is the notion that certain subjects lend themselves better to online or on-campus learning environments. This would be consistent with Ciccio’s recognition that converting skills-

based counseling courses to an online environment requires intensive preparation and planning (2013). Ciccio also stated that many counselor education faculty have not received this type of training (2013), and it may also be more difficult to create effective online materials, activities and assignments for skills or topics that require a high degree of hands-on demonstration and practice (Xu & Jaggars, 2014). If this line of inquiry is to be opened related to the Helping Relationships core area based on this study's results, then the Career Development core area would need to be similarly examined to see if those theories, assessments, and processes lend themselves to being more effectively taught in online format.

Another possibility to be considered is differences in faculty who teach within online and on-campus programs. Hoffman (2014) found that faculty members who negatively question the efficacy of online learning might be less enthusiastic about teaching online courses. Preliminary research has tied faculty satisfaction with the online learning environment to rates of successful student online course completion, suggesting that faculty commitment to teaching online courses may be related to student success (Niklason, 2013). Accordingly, online instructors may benefit from utilizing Wenger's (2001) construct of "communities of practice", where both faculty and students join in the process of engaging and strengthening a sense of community through expanded options of online connection (Hartwig Moorhead et al., 2013; Wenger, 2001). Bangert (2006) found four factors to be critical in students' evaluations of online courses: student-faculty interaction, active learning, time on task, and cooperation among students. Online learning environments lacking in any of these areas may not be as effective, and programs could consider training faculty to excel in online learning environments, where best practices in teaching may differ from on-campus teaching best practices.

Similarly, professors teaching Helping Relationships could respond to these results with adjustments to improve delivery and efficacy of teaching online skills. Specifically, courses emphasizing CACREP standards Section 2, 5.f (counselor characteristics and behaviors that influence the counseling process) and Section 2, 5.g (essential interviewing, counseling, and case conceptualization skills) (CACREP, 2016) could adopt synchronous attendance and video interaction with a professor so examination of nonverbal communication, observation, and feedback could be incorporated into the learning process. Interactions with online students could be enhanced by including live interactive sessions on programs such as Blackboard Collaborate or Zoom, utilization of instructor podcasts, Wikis and blogs, and taking advantage of other online resources such as Google Drive and Dropbox to enhance the online learning experience (Hartwig Moorhead et al., 2013).

Limitations

This study included 451 participants from a single university and should be replicated in order to increase the validity and generalizability of results. As data was collected over a 13-year period, there is a possibility that variance and confounding variables were present due to occasional changes in academic programs. However, the pool of instructors, course plan, and course objectives were parallel within both modalities, and the primary difference identified was physical attendance versus online presence in the instruction and supervision of students. Although the study defined on-campus and online students separately, the possibility exists that some on-campus students took supplemental online courses. In addition, participants within the study were disproportionately Caucasian and female. While this may reflect general trends in the counseling profession, it is considered a limitation.

Other limitations include lack of randomized assignment within the dependent variable, and the CPCE itself (Meder, 2014). The CPCE is utilized by over 370 colleges and universities, yet has very limited data and research published as to its validity, reliability, norm groups, and even specifics of what it assesses (Center for Credentialing & Education, n.d.a; Meder, 2014). There is no published research examining the relationship between CPCE scores and the effectiveness of counselors. Since this study utilized an ex post facto non-experimental design, participants could not be contacted to obtain missing or incomplete information. Lastly, there is no published data on the Helping Relationships subscale score, or any indication that a student's subscale score is related to the practical skills needed to establish and maintain strong relationships with clients (Haberstroh et al., 2014).

Recommendations for Future Research

The literature surrounding the efficacy of online learning is growing, however it remains limited in regard to counseling programs. This study establishes a foundation for additional research on online counseling programs and their academic and professional outcomes. The students in this study were all from one university in the Southwestern United States. Future studies should be replicated across other programs and universities. Since data was collected over several years, specific details of the programs varied. Prospective research should include examination of mitigating factors in possible programs, including use of synchronous learning, in-person aspects, and general standards.

Future research should expand the scope of inquiry opened by this study to examine the impact of program modality on employment and on the performance of counseling graduates. Factors such as rate of licensure and therapeutic outcomes could be examined for counselors who

graduated from online and traditional program modalities. There have been studies which identify outcomes of learning based on program modality, and the factors that correlate with success (Alavi, Marakas & Yoo, 2002; McGorry, 2003; Rockinson-Szapkiw, 2012). This information should also be applied to students in counselor education programs.

Conclusion

The number of online master's degree programs in counselor education is growing. This article presented research findings helping to fill the gap in the literature exploring the efficacy of online programs versus the traditional face-to-face program modality within the field of Counselor Education. The findings of no significant difference between modalities on six of the eight CPCE subscale scores strongly suggest that online programs are equitable to face-to-face programs in preparing students for capstone exams like the CPCE. The significant differences in the Helping Relationships and Career Development subscales should be explored further to determine if counselor educators need to take additional steps to improve how these topics are presented to students in the respective modalities. Future research could strengthen these findings through use of an experimental design and through diversification of the sample and participating universities.

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