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Social Presence in Online Counselor Education

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Abstract

Outcome research in online counselor education is lacking as is the focus on online teaching andragogy. To address this gap, the Community of Inquiry framework and social presence are discussed within the context of online learning in a counselor education program. Data were collected in a counselor education program in the mid-Atlantic comparing online and on-campus learning outcomes and perceptions of social presence in the classroom. On-campus learners had significantly higher perceptions of social presence when compared with online learners, although perceived level of social presence was not correlated with learning outcomes. Implications for counselor education are discussed.

Keywords

distance education, learning outcomes, social presence

It is estimated that 5.8 million college students took at least one online course in 2014 (Allen & Seaman, 2016). From 2016 to 2017, the number of all students who took at least some of their courses online grew by more than 350,000 (about 5.7 percent) and the proportion of students who were enrolled exclusively online grew from 14.7 to 15.4 percent, or about 1 in 6 students (U.S. Department of Education, 2019). In a national survey, Magda and Aslanian (2018) found that nearly 60 percent of online college students who had a choice between online and on-campus learning modalities actively chose online learning.

Online learning is also flourishing in counselor education. It has been estimated that over 25% of students enrolled in Council for Accreditation of Counseling and Related Educational Programs (CACREP) are considered distance learning students (Snow et al., 2018). Currently, over 50 CACREP-accredited counseling master's programs offer 50 percent or more of their curriculum via online or distance technologies (CACREP, 2019). Rehabilitation counselor education has been implementing online or distance learning methods for decades (Armstrong, 2003) and in 2006, it was estimated that over 54 percent of Council on Rehabilitation Education (CORE)-accredited rehabilitation counseling programs offered courses via distance education (Moore et al., 2006). At the time of this writing, universities and colleges have been forced to move instruction to online environments as a result of the COVID-19 pandemic. The long-term impact of this widespread and rapid transition for teaching and learning will become more fully known over time.

Overview of Online Education

Distance education is defined by the separation of the teacher and learner(s) for the majority of the course duration (Ascough, 2002). Several models of distance education exist including fully online models where students and faculty never meet face-to-face, and hybrid models where

students and faculty meet face-to-face for a predetermined portion of the course. Online teaching can include both synchronous (e.g., videoconference) and asynchronous (e.g., discussion boards) methods for instruction and all teaching modalities require effective course planning and teaching strategies to enhance communication between learners and faculty (Bridges & Frazier, 2018).

Online or distance education requires learners to "establish both social presence and identity in the absence of substantial visual and aural cues" (Lowenthal & Dennan, 2017, p. 138). As technology improves, more universities are including videoconferencing technology (where students and instructor can simultaneously connect with each other using audio and visual communication, synchronous aspects), which may continue to widen the modalities available for online learning (Mader & Ming, 2015). University administration may also be challenging faculty to include increasingly innovative approaches in course delivery (Baack et al., 2016; Hale, 2018), expediting the transition to a heavier reliance on both synchronous and novel teaching methods. With significant advancements in available technology, andragogical and theoretical development of online learning should be grounded in research. The term andragogy, rather than pedagogy, is used in this context to discuss adult learning in online higher education (Muirhead, 2007).

Despite the growing number of counselor education programs implementing online learning components, research surrounding online teaching andragogy, efficacy of online teaching, and other nuances of online learning is scant (Association for Counselor Education and Supervision [ACES], 2016). To date, limited conclusive evidence exists regarding the efficacy of online teaching methods in counselor education (Holmes & Reid, 2019; Meder, 2013; Ting & Gonzalez, 2013), and more should be understood about the process of overall graduate student online learning (Holzweiss et al., 2014). Student learning outcome research and other investigations surrounding online learning are particularly salient to counselor education (Ting &

Gonzalez, 2013) as counseling is a "high-touch" occupation, one in which human relationships and interpersonal connections are crucial to the efficacy and value of the profession (Naisbitt et al., 1999). With technology infiltrating the andragogical nature of counselors-in-training become adept at such a high-touch profession, additional research must be conducted to evaluate the effectiveness of online learning (ACES, 2016). The current study discusses the concepts of the Community of Inquiry framework and social presence as a way to frame future research and understanding of online counselor education.

Online Learning Outcomes

Data that establishes the similarities in learning outcomes between online and face-to-face coursework is abundant in other fields (Reisetter et al., 2007; Ting & Gonzalez, 2013), yet is insufficient as it pertains directly to counselor education (Holmes & Reid, 2019; Roth et al., 2019). Of the available studies, data consistently show no significant difference in learning outcomes when comparing on-campus with distance modalities (Holmes & Reid, 2017; Holmes & Reid, 2019: Meder, 2013). Holmes and Reid (2017) focused on learning outcomes in a counselor education research methods course and found no significant difference between online and on-campus groups in both learning outcomes and course evaluations. Another study by Holmes and Reid (2019) regarding learning outcomes in counselor education core coursework mirrored those results, in that students in both modalities (on campus and distance learning) had significant knowledge gains over the course of the semester, but no significant differences were found between modalities. In her dissertation, Meder (2013) compared the learning outcomes (using the Counselor Preparation Comprehensive Exam, CPCE) for 524 students who completed a master's-level counseling program through one of three types of learning modalities: online, hybrid, and

face-to-face (Meder, 2013). Meder (2013) found no significant difference in the total CPCE exam scores when comparing the online and on-campus groups.

While no differences in learning outcomes between an online and an on-campus course have been detected, online education does present both advantages and disadvantages when compared to the traditional classroom. For instance, online education offers many benefits to both instructors and students including diminished commutes and ease of access for learners who have career and family obligations (Ascough, 2002; Fedynich, 2014; Summers et al., 2005), overall convenience (Roth et al., 2019) lower costs to the university and student (Anderson, 2008), higher accessibility of education for students with disabilities and students who live in geographically rural areas (Main & Dziekan, 2012), and increased control for learners regarding how they consume the course information, based on personal needs and learning styles (Porter et al., 2014; Smith et al., 2002). However, perceived isolation, lack of community, and sense of interpersonal distance could negatively impact student learning (Borup et al., 2012; Roth et al., 2019). Additionally, a lack of adequate training for faculty to effectively teach online can hinder faculty and student success (Hale, 2018).

Andragogical frameworks can help to systematically guide and support faculty in creating intentional learning experiences for students. Researchers suggest that the creation of communities of inquiry (CoI) within distance learning environments can have a significant positive impact on a myriad of student outcomes (Garrison et al., 2000; Garrison et al., 2010; Ladyshewski, 2013). In addition to student outcomes, the CoI framework could also serve as a framework for faculty development and training as they transition from campus to online teaching. In her dissertation, Hale (2018) provides a scoping review and qualitative data suggesting that faculty feel simultaneously pressured by administration to teach online, yet under-supported and not

adequately trained to do so. The CoI framework may serve as a guide for faculty as they initially transition to online teaching or look to improve or alter existing online courses.

Community of Inquiry

Engaging students in collaborative learning and discourse is a foundation of higher education (Garrison & Arbaugh, 2007). This holds true in counselor education, as the ACES Teaching Initiative Taskforce (2016) states, "counselor educators...invite students into a learning community, one in which students become excited about the process of becoming a counselor and take responsibility for their active learning" (p. 20). However, online teaching is not simply transitioning face-to-face classroom skills and interventions into an online environment (Bridges & Frazier, 2018; Reisetter et al., 2007). One of the greatest challenges of online teaching and learning is creating a sense of community (Alexiou-Ray & Bentley, 2015), yet a sense of community is paramount for student learning and satisfaction (Roth et al., 2019). With the proliferation of distance and online learning particularly in counselor education, questions remain regarding how collaborative learning communities can be transferred to a digital environment.

The Community of Inquiry framework (CoI), which posits a theoretical perspective unique to the online learning environment (Garrison & Arbaugh, 2007), has been extensively studied in the field of teacher education (Armellini & De Stefani, 2016; Garrison & Arbaugh, 2007; Garrison et al., 2000; Garrison et al., 2010; Ladyshewsky, 2013; Richardson & Swan, 2003), and offers a well-documented approach to online learning (Armellini & De Stefani, 2016). Developed by Garrison et al. (2000), the CoI framework is embedded with a constructivist and developmental approach to learning and has provided insight into understanding and studying online learning. Essentially, the CoI framework describes the lens through which a connected community can be established through online learning networks. This applicable theory of online learning has yet to

be generalized to other disciplines outside of teacher education, even though such research is being called for in the literature (Arbaugh et al., 2010). The CoI framework may be especially applicable in applied disciplines with "soft" outcomes (e.g., counselor education) such as clinical skill development, ethical decision making, and character development/personal growth (Arbaugh et al., 2010). Snow et al. (2018) surveyed counselor educators (n=31) collecting data about their suggestions for effective online teaching. Fostering student engagement (n = 19) and building community and facilitating dialogue (n = 14) were the most recurring responses. Snow et al. (2018) suggested that faculty-student engagement is a critical component of effective online counselor education. The next step for counselor education may be to filter these results through a larger theoretical lens, such as the Community of Inquiry Framework.

Effective online learning must include the development and establishment of a community between members (Garrison et al., 2000; Swan et al., 2009). Evidence supports that a sense of community can be created online (Thompson & MacDonald, 2005), and that it is positively correlated with perceived learning (Rovai, 2002; Shea et al., 2006). Other benefits of a learning community include enhancing student motivation to learn, increasing satisfaction, and lowering dropout rates (Rovai, 2002). Garrison et al. (2000) argue that both social and content-related interactions must be present in online environments for effective learning to occur and that the presence of the members must be facilitated through intentional structure and guidance. Essentially, students should ideally be participating in both social and academic interactions through the course.

CoI combines three overarching types of presence that interact with one another: social presence, cognitive presence, and teaching presence. When students are able to present themselves in an online environment as real people with thoughts and feelings, the academic outcome is

improved (Garrison et al., 2000). Social presence refers to the extent that students can engage socially and emotionally within a course and be seen as "real" in an online environment (Gunawardena & Zittle, 1997). Cognitive presence is defined as the extent to which learners are able to construct meaning through the course (Garrison et al., 2001). This type of presence relates to how learners synthesize and learn information by reflection and discourse within the learning environment. Teaching presence is a mediating factor in online learning and describes the instruction, intentionality, design, and implementation needed by a course facilitator to engage social and cognitive engagement by students. All three have independently been shown to be positively related to a myriad of learning outcomes (Garrison & Arbaugh, 2007).

Garrison and Arbaugh (2007) connected these three constructs by stating, "social presence lays the groundwork for higher level discourse; and the structure, organization, and leadership associated with teaching presence creates the environment where cognitive presence can be developed" (p. 163). Although all three types of CoI constructs are interrelated (Armellini & De Stefani, 2016), they are often studied as individual constructs (Garrison & Arbaugh, 2007). Through this lens, the focus of this paper is to explore the concept of social presence more fully as a baseline concept in a community of inquiry framework.

Social Presence

Social presence is one of the most significant factors in building a sense of community through online communication (Aragon, 2003), and is discussed as a crucial component for student engagement, support, and content understanding and meaning-making (Armellini & De Stefani, 2016). Social presence describes how learners can "present themselves as real people, and form meaningful connections with others to enhance collaborative learning experiences" (Hamza-Lup & Stanescu, 2010, p. 78). Biocca et al. (2001) explain that social presence lies on a continuum

ranging from superficial (or artificial) to a deep sense of psychological involvement and behavioral engagement with others. Essentially, social presence encompasses the sense of awareness and engagement that one person feels when communicating via technology with another person or groups of people. Within the CoI theory, social presence can be identified using three components: "affective expression, where learners share personal expressions of emotion, feelings, beliefs, and values; open communication, where learners build and sustain a sense of group commitment; and group cohesion, where learners interact around common intellectual activities and tasks'' (Swan et al., 2009, p. 10).

Social presence is impacted by the capacity of each particular type of mediated communication to portray particular nonverbal information between the communicating partners (Gunawardena & Zittle, 1997). Technology that allows for increased connection may increase the perception of social presence. For example, videoconferencing allows for synchronous (e.g., simultaneous communication) chat including facial expressions and nonverbal communication, which may elicit greater perceptions of social presence than asynchronous (e.g., communication at different times) text-only discussion boards. Kehrwald (2008) suggested that learners needed ability, opportunity, and motivation to connect with one another and suggested that online teaching andragogy be adjusted to facilitate these components as a way to develop social presence in the classroom.

Benefits of Increased Social Presence

Social presence is an important component of understanding online teaching and learning (Garrison & Arbaugh, 2007), and several studies have found it to be related to positive learning outcomes (Garrison et al., 2000; Swan et al., 2009). Increasing students' perception of social presence may increase peer support and engagement of students (Armellini & De Stefani, 2016),

as well as student learning and satisfaction (Garrison & Arbaugh, 2007; Rourke et al., 2001). Alternatively, other studies have found no relationship between the students' perceptions of social presence and student learning outcomes (Maddrell et al., 2017), leaving some question around the relation between the two constructs.

Some researchers have hypothesized mechanisms of action for how social presence may lead to improved learning outcomes. Foster et al. (2018) suggest that intentionally warm, supportive, and inviting language used by instructors can "inform, inspire and engage students", thereby enhancing the development of social presence in the online counselor education classroom (p. 15). Beuchot and Bullen (2005) suggest that social presence may lead to increased interaction between participants, allowing for greater connection with course material and an increase in cognitive presence (e.g., engagement in course material). However, while researchers recognize the benefit of creating a higher level of social presence, they do not fully understand how an online social presence can be effectively established (Borup et al., 2012). Additionally, some argue that social presence is necessary, but not sufficient in and of itself, for developing critical discourse and effective learning environments (Arbaugh, 2008; Garrison & Cleveland-Innes, 2005), and more research is needed to elucidate these questions (Maddrell et al., 2017).

Current Study

The ACES Teaching Taskforce (2016) emphasized the importance of supporting a learning community for online students. However, an online andragogical theory has not yet been transferred to the counselor education literature in a meaningful way. At a time when online learning is proliferating, the quest for best practices and sound andragogy should be paramount. Ongoing investigation into the efficacy and usefulness of online course delivery in counselor education is crucial as the field continues to increase dependency on technology and digital

instruction (Ekong, 2006; Reicherzer et al., 2012; Ting & Gonzalez, 2013). In a study of online counselor education students, Roth et al. (2019) found that feelings of separation and isolation were common within the online classroom, but feeling connected in learning spaces helped to mediate the sense of separateness or disconnection.

What is currently unknown is the role that social presence has in online learning in master's-level counselor education programs. The current study compared the perceptions of social presence between students who were enrolled in either online or on-campus courses. This study focused on comparing two the distinct learning modalities as a way to begin to explore what inherent differences in perceived social presence may exist between the two. Prior research indicates that student experiences in the two modalities may be qualitatively different (Davis, 2019; Reisetter et al., 2007). The current study is designed to explore perceived differences related to social presence. Two research questions focused the investigation: (a) What are the differences between on-campus and online learning groups on the total social presence measure? and (b) What is the relationship between social presence and learning outcomes, as assessed by improvement between pre- and post-test scores?

Method

Participants

This study was approved by the university's human subjects review board. Four didactic courses in a counselor education program were chosen for the study based on the ability to facilitate two distinct formats in the same semester (e.g., on-campus and asynchronous online discussion format). Participants self-selected enrollment in one of the chosen four core courses. For example, each student self-selected into either the on-campus or online section of Introduction to Rehabilitation Counseling. Students may have been enrolled in more than one participating class

over the course of the study; however, each course was independently assessed, keeping each data entry distinct. All students were emailed a recruitment letter by the lead researcher at the beginning and end of each semester; all participation was voluntary and anonymous to the researchers. Participants included 41 master's-level counseling students in a CORE-accredited Rehabilitation and Mental Health Counseling program located in the southeastern United States (this program has since gained CACREP accreditation; see Table 1 for demographic data).

Table 1

Demographic Characteristics

Course	Online (*N*=22)	On-campus (*N*=19)
Age, mean (*SD*)	35(*SD*=9.8)	37(*SD*=12)
Gender		
Male	4 (18%)	3 (16%)
Female	18 (82%)	14 (74%)
Transgender	0	2 (10%)
Race		
Caucasian	13 (59%)	13 (67%)
Black	3 (14%)	2 (11%)
Latino/a	3 (14%)	2 (11%)
Other	3 (14%)	2 (11%)
Taken prior online courses	11 (50%)	11 (50%)
GPA, mean (*SD*)	3.77(*SD*=.26)	3.79(*SD*=.32)

N=41

Procedure

Data collection took place over the course of 18 months. All courses were taught in either a spring or fall semester, with each course 16 weeks long. The on-campus and distance learning format versions of each course were taught simultaneously, using the same instructor for both formats. The courses included: Introduction to Mental Health Counseling (taught Fall 2016), Introduction to Rehabilitation Counseling (taught Spring 2016), Assessment in Counseling (taught Spring 2016), and Diagnosis and Treatment of Mental Health Disorders (taught Spring 2016 and Spring 2017). For each of these courses, both on-campus and distance learning sections were offered at the same time. Two sections of each course were offered to Master's level Counselor Education students during the same semesters; one section was an on-campus setting and the second section was an online, asynchronous course.

The on-campus courses met weekly for 3-hour sessions throughout the semester. The format for on-campus instruction included professor lectures, class discussions, and experiential learning activities for students. The online learning courses were held via Blackboard in a completely asynchronous format, covering the same content with assignments and activities which paralleled those used in the on-campus courses. Students participated in asynchronous, text-only, discussion boards as the prominent way of communicating about course material with one another and with the instructors. All instructors held Ph.D.'s in relevant areas, had taught their assigned courses multiple times prior to this study, and were tenured at the time of data collection. One instructor taught both introduction courses, another instructor taught the assessment course, and a third instructor taught the diagnostic course. Both sections of each course (on-campus and online) were taught by the same instructor.

The week prior to each semester, the lead researcher emailed a recruitment letter to all students enrolled in the courses with a link to the digital survey. Participation was voluntary and not tied to course enrollment or evaluation. Participants completed the pre-test survey, including the demographic information and the pre-test measure, through the end of the first week of classes. The pre-test measure was a multiple-choice test of content knowledge relevant to that specific course; the same measure was administered at the end of the semester, as a post-test (measures are described below). The lead researcher emailed all students during the last week of classes with a digital link to the post-test which included the post-test measure and the social presence measure. Students were given until the end of finals week to complete their participation. Participant identity was masked and the pre- and post-tests were linked using a student-provided code. Study data were collected and managed using REDCap electronic data capture tools hosted at the university. REDCap (Research Electronic Data Capture) is a secure, web-based application designed to support data capture for research studies, providing 1) an intuitive interface for validated data entry; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for importing data from external sources (Harris et al., 2009). After completing the post-test, participants were entered into a random drawing for $25 Amazon gift cards. This project was funded by a research grant from the Southern Association of Counselor Education and Supervision, which made the participant incentives possible.

Measures

Demographic Questionnaire

The participants were asked a series of demographic questions including age, gender, race, and current GPA. The demographic questionnaire was designed to take 1-2 minutes to complete.

Pre/Post Measure

Four different content-specific and knowledge-based 50-item multiple-choice tests were used as pre- and post-test measures; each course had its own specific measure. A content-specific measure was administered during the first week of class and the same content-specific measure was administered during the last week of class to measure student learning or knowledge acquisition as a result of taking each course. The instructors of each course prepared the measures using textbook and lecture materials in order to ensure that the questions on the pre/post measure were specific to content of that class, but not used during the semester for other assignments or assessments to guarantee that participants did not have an unfair advantage over other students. The pre/post measures were designed to take 15-20 minutes to complete.

Networked Minds Social Presence Measure

The Networked Minds Social Presence Measure (NMSPM; Harms & Biocca, 2004) was developed as a method to assess the concept of social presence in computer-mediated communication. The NMSPM is composed of 36 items that are answered on a 7-point Likert-type scale, with anchors ranging from “strongly agree” to “strongly disagree”. The instrument was estimated to take between 10 and 15 minutes to complete. The instrument contains six subscales (Harms & Biocca, 2004). For all subscales and the total measure, higher scores indicate a more positive response. Studies investigating perceptions of social presence for online counseling clients found a total scale Chronbach’s alpha of .89. indicating strong internal consistency for the measure. The Chronbach’s alpha was found to be .917 when used to measure perceived social presence in online group work (Holmes & Kozlowski, 2015). The current study found the Chronbach’s alpha of the total NMSPM to be .83, indicating acceptable internal consistency.

Results

Pearson chi-square tests of independence were run to assess the demographic comparability of students in the self-selected courses. Participants in the on-campus group did not differ significantly from those in distance learning groups for the variables of gender [$x^2(2, N=41) = 2.44$, $p>.05$], age by decade [$x^2(4, N=41) = 4.8$, $p>.05$], race [$x^2(3, N=41) = .383$, $p>.05$], or self-reported GPA grouped into 4 categories [$x^2(3, N=41) = 3.23$, $p>.05$]. Additionally, the percentage of students who had taken distance learning courses prior to entering into the master's program was not significantly different between the on-campus and distance learning groups [$x^2(1, N=41) = .26$, $p>.05$]. Results indicate that no examined demographic variable rendered students more or less likely to choose the course modality in which they enrolled.

The first research question, which focused on the differences between on-campus and distance learning groups on the total social presence measure, was answered using an Independent samples *t*-test. Testing the assumption of variance equality between the two samples (to justify use of a *t*-test) a non-significant Levene's test for variance equality was found, indicating equal variances across samples. When conducting a sample size analysis using G*power, recommended sample size was 21 in each group (Faul et al., 2007). Actual study response rates resulted in a combined sample, across the various courses of 22 total students in the online group and 19 total students in the on-campus group. Participation was voluntary meaning that not all enrolled students in each course participated in the research study. The total number of students enrolled in the online sections of the courses was 89 and the total number of students enrolled in the campus sections of the courses was 87; thus, resulting in a response rate of 24 and 22 percent for online and on campus respectively. Results of the *t*-test analysis showed a significant difference between the mean social presence measure score for both groups [$t(39) = -3.559$, $p<.001$], with the on-

campus group having a greater total social presence score (M=4.93, SD=.54, N=19), compared to the total social presence score of the online group (M=4.23, SD=.7, N=22). The effect size, as indicated by Cohen's *d*, showed a large effect size of 1.13.

The second research question, which focused on the relationship between social presence and improvement between pre- and post-test scores, was examined using a Pearson *r* correlation. No significant correlation was found [$r(41) = -.034$, $p>.05$]. Both groups, on-campus and online, showed a statistically significant increase in learning, as shown by a paired samples *t*-test. For the on-campus students, there was a significant difference between the pre-test scores (M = 29.32, SD = 4.96) and post-test scores (M = 35.21, SD = 4.14); $t(18) = -7.32$, $p <01$. A significant difference was also found when comparing the online groups' pre-test scores (M = 30.32, SD = 5.27) and the post-test scores (M = 35.82, SD = 4.78); $t(21) = -6.05$, $p < .01$. Cohen's *d* statistic evidenced a large effect size of 1.29 and 1.09 for the on-campus and online students' increase in scores, respectively. In summary, both groups had significant gains in learning outcomes from pre- to post-test which were not significantly correlated with social presence.

Discussion

Counselor educators are tasked with assessing the impact of online learning in counselor training (ACES, 2016). To date, research focused on andragogy, teaching efficacy, student outcomes, and student perceptions in counselor education is scant. To address this research gap, this study investigated perceived social presence of counseling students and the relationship social presence has with learning outcomes in both campus and online learning courses.

The current study revealed that participants in the on-campus courses perceived their social presence to be significantly higher than did participants in the distance learning courses. This finding is noteworthy given the importance of the development of social presence found in the

Communities of Inquiry (CoI) literature (Garrison & Arbaugh, 2007). Researchers contend that the perception of social presence in online learning classrooms is a critical factor in the level of student engagement in the course itself, and that learning opportunities are lost without it (Armellini & De Stefani, 2016). If online counselor education courses are not providing an environment where high levels of social presence are perceived, students might miss key experiences that will ultimately help them derive meaning from course material, engage more deeply in course discussions, relate to peers, and achieve equivalent learning outcomes. However, no difference in learning outcomes between the on-campus and online versions of the courses were demonstrated in this study despite differences in perceived social presence and no significant relationship was found between social presence and learning outcomes.

The CoI framework has been expected to be especially applicable in applied disciplines with "soft" outcomes such as skill acquisition and personal growth (Arbaugh et al., 2010). In her study, Hale (2018) reported that counselor education online faculty worried that some of the intangible, interpersonal aspects of counseling including character and skill development may be more difficult to develop in an online environment. Counselor education might benefit from adapting this andragogical framework to address significant differences in the perceived social presence experiences of online and on-campus learners, particularly in courses where interpersonal skills and character development are foundational to learning objectives.

The courses used in this study did not undergo intentional course design to improve the creation of social presence; all courses were taught with online teaching andragogy based on asynchronous text-based group chats and correspondence. However, Vaughan (2010) showed that intentional course redesign focused on increasing student engagement resulted in increased collaborative learning between students, student satisfaction, and improved learning outcomes.

Bridges and Frazier (2018) also recommend skills, resources, and course design suggestions that may assist counselor education faculty in intentionally designing online course structure and learning environments. It is reasonable to expect an increase in social presence when relevant and deliberate interventions are introduced to online learning classrooms. In other words, increasing teaching presence and activities designed to enhance social engagement may result in an increase in social presence.

Many online learning courses are asynchronous and include text-only responses between students. As technology continues to advance, much could be done to increase the level of presence and engagement felt by both the students and instructor (Borup et al., 2012). Counselor educators should continue to investigate application of the CoI framework in online learning classrooms and programs in order to further understand this aspect of training counselors. More should be understood about what types of online teaching interventions will increase the perceived social presence of counseling students and explore the relationship between teaching presence and social presence through research. This research will also further develop the training of counselor educators to design and deliver effective teaching strategies in an online environment, a pertinent aspect of faculty development that is currently overlooked and under-supported (Hale, 2018).

Despite the significant difference in perceived social presence throughout the course experience, the social presence measure was not significantly correlated with learning outcomes. This finding seems to diverge from previous findings on social presence and learning outcomes where there was a significant, positive correlation between the two constructs. For example, Richardson and Swan (2003) found that social presence affects perceived student learning outcomes as well as student satisfaction within a course. While divergent from some previous studies, the current study furthers the argument made by Maddrell et al. (2017) that a lack of

empirical evidence exists connecting social presence with learning outcomes; their study showed no relationships between learning outcomes and social presence in graduate students.

The current study's outcome could be due to the fact that even though the perceived social presence was significantly lower in the online learning group when compared with the face-to-face group, it was not low enough to negatively impact learning outcomes. Lowenthal and Dennan (2017) suggest that perhaps "there is a minimum threshold of presence that is beneficial to learning but beyond which learning will not be enhanced" (p. 139). Also, one could hypothesize that social presence does not impact pre/post learning outcome of didactic, content material as much as it may impact softer outcomes such as perceived learning experiences, course satisfaction, and demonstration of counseling skill-based learning. For example, Davis (2019) explored student fear related to learning research methods comparing on-campus and web-hybrid (e.g., mostly online with three on campus meetings in the semester) students and found on-campus students had lower levels of fear when compared to the web-hybrid students. Roth et al. (2019) found that feeling connected in online courses was an important factor in overall satisfaction with online learning. Some researchers have documented the relationship between social presence and the efficacy of online teaching (Garrison et al., 2000; Swan et al., 2009) as well as relationships between social presence and student learning and satisfaction (Garrison et al., 2007; Rourke et al., 2001). However, consistent with the findings of this present study, Reisetter et al. (2007) found that online and on campus groups did not have significantly different learning outcomes or course satisfaction ratings, although they perceived qualitatively different learning experiences. These results suggest that differences in student learning experience may be related to social presence, but are perhaps unable to be measured by academic tests. Many core courses in counselor education curricula demand the practice and acquisition of interpersonal and counseling skills that fall outside the

realm of simple knowledge acquisition and retention. More research should be conducted about how the perception of social presence may impact types of learning not associated with pre/post learning outcomes.

Limitations

This study may be subject to sampling error. Given the nature of higher education, students were able to self-select which course modality in which they enrolled. Even so, Chi-square analyses showed that the groups were not significantly different on the examined demographic variables. In this study, error may be associated with three instructor styles and teaching methods for the courses as course facilitation and teaching styles/interventions could not be controlled for. The pre- and post-tests developed by the instructors may be subject to content sampling error and did not go through an extensive process to assess item functioning or criterion-related validity. However, to decrease the risk of content sampling error and minimize the relative contribution of any potentially invalid items, 50 questions were included, resulting in robust measures. If there was low variability in data in either presence or outcomes, it could have prevented detection of a significant relationship. This study shows adequate power and presents data from 41 participants, with similar numbers of participants (22 and 19) from each group, however small sample sizes could have prevented the detection of a significant relationship between social presence and learning outcomes.

Implications and Future Directions

The current data indicate that social presence did not have a significant relationship with the amount of content knowledge that students obtained throughout the course. Even though social presence was perceived as significantly different between the two groups, it did not impact the learning outcomes. Counselor education could benefit from increased research attention to

teaching andragogy in both on-campus and online learning classrooms (ACES, 2016). More should be examined about the impact that Communities of Inquiry play in a myriad of factors facing online learning and teaching including learning outcomes, student perception of the course, skill development, and other higher-level factors of counselor development (case conceptualization, diagnosis, relationship building, etc.). The online classes described in this study were not altered in any way to increase social presence, teaching presence, or cognitive presence. However, studies designed to compare varying andragogical methodology may increase awareness on effective curriculum design.

Counselor education researchers may benefit from focusing on how the CoI framework can shape the online teaching andragogical development necessary to support continued growth in online learning. A value of CoI is it provides a framework that can integrate with and guide the use of emerging technologies (e.g., podcasts, webinars, discussions, simulations, live chats, etc.) and how people learn with them (Smadi et al., 2019). Research considerations should include an evaluation of the course design elements that can be used to enhance aspects of the CoI model to enrich counseling education student learning, including what learning tools and techniques best meet the needs of a diverse student body. Borup et al. (2012) suggested that asynchronous video applications (e.g., youtube, voicethread) increased the perception of social presence for online classrooms, particularly related to the social presence of the instructor. Foster et al. (2018) suggest that language enhancements in the online environment (e.g., teaching presence) can successfully enhance perceived social presence. Research is needed to test this hypothesis and elucidate the relationship between teaching, cognitive, and social presence.

Effective and inclusive course design focused on the creation of Communities of Inquiry should be explored, with an andragogical focus. Students enter higher education with varying

backgrounds and degrees of comfort with technology (Burt et al., 2011), which should also be taken into consideration when designing courses. Interventions to increase student perception of social presence must also take into account the needs of students with disabilities, varying learning styles, and other relevant diversity and multicultural intersections (Bridges & Frazier, 2018). If using online videos, audio exchanges, etc., instructors must ensure that students who are blind or deaf can fully participate in the educational environment. Online tools are available for instructors to assess the accessibility of webpages, ensuring compliance with Section 508 of the Rehabilitation Act, as well as Web Content Accessibility Guidelines (WCAG 2.0). Phirangee and Malec (2017) found that online students felt "othered" based on diversity differences and lack of inclusion in andragogy, further highlighting the need for inclusive and multiculturally informed andragogy. Enhancing social presence perception and fostering the development of "soft" skills in counselor education online classes, while ensuring accessibility for all students in those classes, is an essential focus for further research.

Conclusion

The current study incorporated a Community of Inquiry Framework to investigate the role of social presence in the experience of counselors-in-training in distance and on-campus courses. The current finding that perceived social presence is not significantly related to measured evidence of learning outcomes was unexpected, given the review of previous literature. This suggests that the relationship between social presence and learning outcomes may be more complex than previously assumed. Focus on counselor education andragogy and learning outcomes must develop in breadth and depth (Barrio Minton et al., 2014), particularly related to online learning (ACES, 2016). Other fields have documented the efficacy of online learning and have incorporated the theoretical framework of Community of Inquiry to more deeply understand the process of

student learning outcomes and course engagement. Counselor education may benefit from including a CoI framework as an andragogical lens for future research and inquiry.

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