Understanding the relationship between counselor supervisor self-efficacy, the supervisory working alliance, supervisee performance in supervision, and time spent utilizing technology-assisted supervision

by

Täna Marie Arnold

B.S., Fort Hays State University, 2008
M.S., Fort Hays State University, 2015

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Special Education, Counseling, and Student Affairs
College of Education

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Manhattan, Kansas

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Abstract

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Participants in the study were 40 counselor supervisors who were either counselor educators or doctoral students in counselor education and provided weekly supervision to master's level counselors in training enrolled in either a practicum or internship course. Data were collected by an online survey consisting of a demographic form and three instruments (i.e., Counselor Supervisor Self-Efficacy Scale, Supervisory Working Alliance Inventory, and Counselor Evaluation Rating Scale). Supervisors were encouraged to complete instruments on more than one supervisee; a total of 57 sets of instruments were completed and used for the analysis.

The results of the simple linear regression for each of the research questions found no statistical significance of time-spent in technology-assisted supervision predicting counselor supervisor self-efficacy, the supervisory working alliance, or supervisee performance in supervision. The implications of these findings, limitations of this study, and recommendations for future research and practice are described.

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Dedication

The dissertation is dedicated to my family. To my girls, Elizabeth and Emilie, thank you for being the light at the end of long days and the never-ending motivation to show you that we can achieve our goals, dream big my Darlings. I would like to thank my husband for his unwavering support and encouragement, who truly believes I can achieve whatever it is I want in this life and helps me map the path there; this would not have been possible without you. A special note of appreciation goes to my parents and sisters with whom I had a strong foundation from which to grow; thank you for being a part of every step of my life.

Chapter 1 - Introduction

As higher education continues to integrate technology as a learning platform so has the counselor education field (Carlisle et al., 2017). The number of online programs accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) has grown from 7 in 2009 to 79 in 2019 (CACREP, 2019; Coker & Schooley, 2009). The counselor education field utilizes technology for a plethora of purposes including e-learning platforms, e-portfolios, online supervision, networking, online counseling, and continuing education (Chow, 2019).

Within the mental health profession and for graduate students in particular, supervision is a "signature pedagogy [that is a] particular instructional strategy that typifies the preparation of its practitioners" (Bernard & Goodyear, 2014, p. 2). For CACREP accreditation, the minimum requirements that programs must adhere to are a minimum of one hour of individual and 1.5 hours of group supervision per week (CACREP, 2016).

Many models and theories of supervision exist to assist supervisors in the conceptualization of supervisee needs (Bernard & Goodyear, 2014). These models can be categorized into three major categories: models grounded in psychotherapy theory (e.g., psychodynamic, humanistic-relationship, cognitive-behavioral); developmental models (e.g., integrated developmental model, reflective, lifespan); and process models (e.g., discrimination model, events-based, and systems approach to supervision) (Bernard & Goodyear, 2014). One way to transcend individual models is to conceptualize supervision using a conceptual model of supervision described by Bernard and Goodyear (2014). Their model includes five "parameters of supervision that are features that undergird *all* that occurs in supervision" (p. 19) and are factors to be considered during all supervision. The five parameters are relationship processes,

individual differences, supervision models, ethical and legal considerations, and evaluation (Bernard & Goodyear, 2014). The parameters of this conceptual model provide a framework for understanding how social cognitive theory (SCT, Bandura, 1986) can be utilized as a theoretical foundation for the relationship between counselor supervisor self-efficacy, the supervisory working alliance, and evaluation. According to SCT (Bandura, 1986), learning happens in a social context through a reciprocal interaction, a back-and-forth exchange of personal agency variables, the environment, and action (Larson, 1998). In SCT those variables are cognitive, motivation, and affective processes; the supervision sessions; and behaviors of the supervisor, respectively (Bandura, 1986; Larson, 1998). In other words, personal agency variables make up the concept of self-efficacy, environment is directly built on the supervisory working alliance, and an action of the supervisor is evaluation (Larson, 1998).

Two of the primary components of Bandura's (1986) SCT are the concepts of human agency and self-efficacy (Bandura, 1989). Human agency is comprised of the cognitive, motivation, and affective processes employed by an individual during an interaction (Bandura, 1989). Self-efficacy is the belief that each person holds about their capabilities to complete a task; this belief serves as an important function in one's control over their cognitive, motivation, and affective processes (Bandura, 1989; Larson, 1998). Self-efficacy affects one's thought patterns and determines the level of motivation in perseverance, as well as the level of emotional reactions, all of which are intersectional and interactive (Bandura, 1989; Larson, 1998).

The concept of the working alliance has its roots with Freud and the beginning of psychotherapy (Watkins, 2014). Other analysts built on this concept (e.g., Greenson, 1956, 1967; Sterba, 1934; Zetzel, 1956) and introduced the terms *alliance*, *therapeutic alliance*, and *working alliance* (Watkins, 2014). Building on the work of these analysts, Bordin (1979, 1983)

introduced a model of treatment working alliance that he expanded into his supervision working alliance model. This supervision working alliance model has three core tenents: (a) the supervisor-supervisee bond, (b) collaboratively established goals, and (c) agreed-upon tasks (Bordin, 1983; Watkins, 2014).

Evaluation is a "defining aspect of supervision" (Bernard & Goodyear, 2014, p. 222). Utilizing formative and summative tools, supervisors provide ongoing (formative) and final collective (summative) evaluations with the ethical mandate of protecting future clients, serving what is known as the gatekeeping function (Bernard & Goodyear, 2014). Myrick and Kelly (1971), the authors of the Counselor Evaluation Rating Scale (CERS), suggested that supervisees be evaluated on the skills they use in session with clients and also their attitudes and behaviors during the supervision session as they discuss the clients (McCarley, 2014).

Providing distance education and supervision has many benefits such as reaching rural communities that otherwise may be without services (Reese et al., 2009), flexibility (Vaccaro & Lambie, 2007), greater cost-effectiveness for universities, and increased diversity of trainees because of increased accessibility (Conn et al., 2009; Gainor & Constantine, 2002; Vaccaro & Lambie, 2007). Utilizing technology to provide supervision can occur either synchronously or asynchronously. Synchronous methods occur at the same point in time while asynchronous methods occur at different points in time (Rousmaniere, 2014). Synchronous technology-assisted supervision often utilizes video conferencing, instant messaging, interactive television, and chat rooms (Renfro-Michel et al., 2016). Asynchronous technology-assisted supervision often utilizes technologies such as discussion threads, email, cloud-based storage systems, and text messaging (Renfro-Michel et al., 2016).

Need for the Study

In two studies on the prevalence of technology utilization, Wantz et al. (2003) noted that 38% of supervisors reported using technology in some manner, and (Carlisle et al., 2017) found that 33% of participants reported that distance supervision existed in their face-to-face (FtF), hybrid, or online counseling programs. At odds with the increasing frequency of technology-assisted supervision in programs is the sparse number of published studies related to the use of educational technology in counselor education (Carlisle et al., 2017; Woo, Dondanville, et al., 2020). The bulk of research that has been conducted on supervision focused on traditional supervision and the limited research on distance supervision has primarily focused on the supervisory working alliance and perceptions of supervision by the supervisee (Chapman et al., 2011; Woo, Bang, et al., 2020). No research to date has been conducted on the relationship between time spent utilizing technology-assisted supervision and counselor supervisor self-efficacy, supervisory working alliance, and supervisee performance in supervision from the perception of the supervisor. Counselor education programs could use this information to inform their program policies on the implementation of technology-assisted supervision.

As programs continue to expand their technology use, they need to consider many facets of implementation such as confidentiality, ethics, and legal obligations as well as the process of counselor development (Barnes, 2002; Carlisle et al., 2017). One facet of counselor supervisor development is the counselor supervisor self-efficacy and their belief in their ability to provide effective supervision (Barnes, 2002). Additionally, programs need to consider counselor supervisor development of both their doctoral students training to be supervisors and that of their faculty who are potentially conducting technology-assisted supervision with no additional training on best practices. Understanding the relationship between time utilizing technology-

assisted supervision and counselor supervisor self-efficacy, the supervisory working alliance, and supervisee performance in supervision could provide information to counselor educators and counselor education programs on program policy and training they provide (Barnes, 2002; Carlisle, 2015).

Purpose of the Study

Research suggests that the technology-assisted supervision can benefit the supervisee and supervisors (Rousmaniere, 2014). The purpose of this study is to better understand the relationship between time spent utilizing technology-assisted supervision and counselor supervisor self-efficacy, the supervisory working alliance, and supervisee performance in supervision.

Research Questions

The research questions addressed in this study were:

1. Does the amount of time spent utilizing technology-assisted supervision influence counselor supervisor self-efficacy?
2. Does the amount of time spent utilizing technology-assisted supervision influence supervisee performance in supervision?
3. Does the amount of time spent utilizing technology-assisted supervision influence supervisory working alliance?

Definitions of Terms

Technology-Assisted Supervision is used in this study to refer to the use of electronic telecommunications technology in providing supervision services to those who are not in the same location, to include synchronous and asynchronous methods (Bernard &

Goodyear, 2014; Chamberlain & Smith, 2018; McAdams & Wyatt, 2010; Rousmaniere et al., 2014).

Traditional Supervision is counseling supervision that is conducted in the traditional face-to-face format between a supervisor and a supervisee.

Counselor Supervisor Self-Efficacy is the belief in their ability as a counselor supervisor to perform tasks related to supervision, such as understanding theories and techniques, following supervisory ethics, demonstrating multicultural competence, and being knowledgeable of legal issues (Barnes, 2002). Counselor supervisor self-efficacy will be measured using the Counselor Supervisor Self-Efficacy Scale (CSSES; Barnes, 2002).

Supervisee Performance in Supervision is an evaluation conducted by the supervisor to rate the supervisee's performance in regard to general attitudes and behaviors during the supervision (Barnes, 2002; Myrick & Kelly, 1971). The supervision subscale as well as the composite score of the Counselor Evaluation Rating Scale (CERS) will be used to measure this variable (Loesche & Rucker, 1977; Myrick & Kelly, 1971).

Supervision is an intervention provided by a more senior member of a profession to a more junior member, this relationship is hierarchical and evaluative, takes place over an extended period of time, and serves the multiple purposes of enhancing the professional functioning of the junior colleague, monitoring the services provided, and gatekeeping for the profession (Bernard & Goodyear, 2014).

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Chapter 2 - Review of Literature

Historically, supervision can be linked to the original Wednesday evening meetings hosted by Sigmund Freud where theory was discussed, and cases were reviewed (Edwards, 2013). Freud stated that supervision began in 1902 "with a number of young doctors gathered around with the express intention of learning, practicing, and spreading the knowledge of psychoanalysis" (Freud, 1985, as cited in Goodyear & Guzzardo, 2000, p. 83). Since then, the practice of supervision has progressed from live supervision to observation through a one-way mirror, to listening to an audiotape or watching videotape recordings, to now utilizing the internet to conduct supervision without being in the same room (Chapman, 2006). Traditional supervision, as defined in this study, is supervision conducted face-to-face in the same location, and technology-assisted supervision is supervision conducted either synchronously or asynchronously via a technology platform.

This chapter will include a review of the literature, divided into three sections. The first section provides an overview of supervision, traditional and technology-assisted, as well as research comparing the two modalities. The second section presents Social Cognitive Theory (SCT; Bandura, 1986), the theoretical framework on which this study is based. The third section focuses on the research related to counselor supervisor self-efficacy, supervisory working alliance, and supervisee performance in supervision.

Supervision

Traditional Supervision

Counseling supervision fulfills the following four central objectives: (a) provides a way to impart necessary skills; (b) socializes new members to the values and ethics of the profession; (c) protects clients; and (d) evaluates readiness to practice independently within the profession

(Bernard & Goodyear, 2014). In other words, "supervision plays a critical role in maintaining the standards of the profession" (Holloway & Neufeldt, 1995, p. 207). In an attempt to evaluate the maintenance of these standards, researchers have sought to identify what makes supervision effective and to answer the question "does it work?" (Goodyear & Guzzardo, 2000, p. 85). Answering this question is both difficult and complicated as the "acid test" or gold standard of supervision effectiveness is client change (Ellis & Ladany, 1997). Evaluating client change is met with design and methodological constraints; the most common limitation is the inability to utilize a control group that does not receive the intervention. The rationale for conducting a study without employing a control group design is because the use of a control group would entail having novice counselors work with clients with no oversight, an important component of client protection (Goodyear & Guzzardo, 2000). Echoing the methodological struggles of supervision-client outcome studies, Watkins (2011) conducted a review of literature published from 1981-2011 and found that 40% of the 18 studies had been misidentified; they claimed to study supervision-client outcomes and in reality, did not. In a prior literature review, Holloway and Neufeldt (1995) found that most supervision research is focused on trainee acquisition of attitudes, values, and therapeutic skills, adding support to the difficultness of proving the effectiveness of supervision. According to Goodyear and Guzzardo (2000), one strategy to connect supervision and client outcomes would be to evaluate supervision processes, particularly the processes of support, interventions, evaluation (Strozier et al., 2000) and working alliances, both client-therapist working alliance, and supervisor-supervisee working alliance (Watkins, 2014).

Technology-Assisted Supervision

Technology-assisted supervision, as defined in this study, is supervision conducted via telecommunications technology either by synchronous or asynchronous methods. While the research on technology-assisted supervision is viewed as lacking by some (Bender & Dykeman, 2016; Lin, 2012), it is growing as an area of scholarly interest for researchers (Rousmaniere, 2014).

In 2001, Stebnick and Glover conducted a qualitative analysis attempting to identify benefits of asynchronous supervision of five master's-level rehabilitation counseling students during their practicum course. The supervision was provided via weekly email over 16 weeks with a doctoral level supervisor; a total of 158 emails were subjected to thematic analysis. Stebnick and Glover (2001) identified four main benefits; the benefits were increased support though access to supervisor, relaxed and informal communication, increased self-disclosure of personal feelings surrounding the practicum experience, and greater commitment to clarity of thoughts. A second qualitative study of the effects of email was conducted by Clingerman and Bernard (2004). Nineteen master's-level practicum students participated in the study and were encouraged to send a weekly email, for 15 weeks, to their supervisor about topics of their choosing. One hundred thirty-seven emails were sent and were coded to include a total of 320 distinct messages which were then classified into one of four categories: intervention, conceptualization, personalization, and professional behaviors. As with the Stebnick and Glover (2011) study, Clingerman and Bernard (2004) found the asynchronous email interactions were useful to the supervision process.

Coker et al. (2002) initiated two separate studies on the effectiveness of technology-assisted supervision using a variety of online modalities focusing on synchronous strategies.

Study one, conducted in the fall semester of 2000, included eight participants who each completed two cybersupervision sessions; the first was a text-chat session and the second session used text-chat plus video software as their online format and supervisees then completed an abbreviated form of the Supervisory Working Alliance Inventory (SWAI; Coker et al., 2002). In this study, Coker et al. (2002) found that the overall working alliance rating of online supervision was positive with an overall mean of 6.4 and the range was 5.9 - 7, with 7 indicating a strong working alliance. However, there were no statistically significant differences between the two types of online modalities. The second study was conducted in the spring of 2001 as a follow up to study one and had one recurring participant between the two studies. This study compared five face-to-face meetings with five online sessions using the same adapted SWAI form. The overall mean for both groups was 6.8, and the face-to-face meetings and online supervision groups had means of 6.6 and 6.9, respectively. While the results were not statistically significant, it was noted that participants responded that they were amenable to additional supervision using an online modality. Limitations of these studies include the small sample sizes, and an adapted instrument was used (Coker et al., 2002).

Building on the previous work of Stebnick and Glover (2001) and Clingerman and Bernard (2004) on asynchronous modalities as well as the two studies by Coker et al. (2002) on synchronous methods of technology-assisted supervision, Chapman and colleagues (2011) designed a study to assess both synchronous and asynchronous modalities on the outcome variables of supervisee confidence and competence in technology-assisted supervision. In this study confidence was operationalized as counseling self-efficacy and competence was defined as supervisee skills they "are to master in order to engage in effective counseling relationships" (Chapman et al., 2011, p. 301). This study utilized a single-subject quantitative design, replicated

five times. The five participants were all master's level practicum students and the supervisor a doctoral student completing his dissertation at the same university. The results of this study indicated that both synchronous and asynchronous modalities were successfully used to communicate (Chapman et al., 2011). Limitations include supervisor as researcher bias, lack of psychometrically supported instruments, and small sample size (Chapman et al., 2011).

Research Comparing Traditional and Technology-Assisted Supervision

As supervision theories, models, and techniques have evolved, supervisors have consistently employed technology advancements available to them. One-way mirrors, audiotapes, video recordings, and the internet are but a few examples of how supervisors have utilized technology into the supervision session. As the use of technology continues to grow in prevalence, so does the need to understand how it might impact supervision.

Two studies, one by Gainor and Constantine (2002) and the other by Butler and Constantine (2006), were conducted to compare the effect of group supervision on case conceptualization by supervision delivery method, face-to-face or online. Gainor and Constantine (2002) studied case conceptualization skill development through a multi-cultural lens and Butler and Constantine (2006) added a self-esteem component. The first study included 45 school counselor trainees that were split into two groups, an in-person peer supervision group and a Web-based supervision group. A demographic questionnaire and a multicultural case conceptualization exercise were used to collect data. The results indicated that their ability to case conceptualize improved in both peer supervision groups. However, the authors did find that the face-to-face group developed a greater ability to conceptualize cases than their online counterparts (Gainor & Constantine, 2002). The study by Butler and Constantine (2006) evaluated the effectiveness of a 12-week, Web-based peer supervision group on school

counselor's self-esteem, feelings of identifying as a school counselor, and their case conceptualization skills. Forty-eight individuals participated in the study; half were placed in the Web-based peer supervision group and half received traditional face-to-face supervision. Results of the study showed that the Web-based peer supervision group had significantly higher collective self-esteem and case conceptualization skills (Butler & Constantine, 2006).

Reese et al. (2009) conducted a study that examined supervisee satisfaction of supervision, the supervisory working alliance, counselor self-efficacy, and perception of supervision in face-to-face versus videoconferencing supervision with two groups of beginning and experienced trainees. They found that trainees rated their satisfaction with videoconferencing about the same as those in an in-person format. They also found that the supervisory working alliance did not seem to be affected by the videoconferencing. The researchers also found that counselor self-efficacy was not impacted as all participants showed growth, regardless of the format, and there were no significant differences in the perceptions of supervision.

In a study on the relationship between supervision format and attitudes towards technology, overall satisfaction of supervision, and attitudes of future technology use, Conn et al. (2009) found that satisfaction was positively associated with a hybrid model of supervision. This study included 76 graduate students enrolled in their first semester internship class (of two) at a CACREP-accredited School Counseling program. The participants were conveniently split into two groups, with 41 participants in the technology-mediated hybrid group (10 sessions online and five face-to-face). The traditional face-to-face group had 35 supervisees who received all their supervision in face-to-face meetings. The Supervisory Working Alliance-Trainee Form (SWAI-T; Efstation et al., 1990) was used in the study; it was completed at end of the semester. Scores of the SWAI-T were analyzed by ANOVAs to determine the relationship between the

formats of supervision and attitudes toward current and future technology use as well as the format of supervision and the quality of supervision (Conn et al., 2009). The researchers found the technology-mediated group (hybrid format) had more positive attitudes about the use of technology as well as more positive attitudes about the future use of technology than the face-to-face group; they also found that there was no significant difference between the groups on the perception of quality of supervision.

In another study on supervision, Nelson et al. (2010) conducted a mixed-methods study with six graduate students enrolled in a practicum course. The purpose of the study was to evaluate the students' degree of positivity felt towards their group supervision. One group of three met online and one group of three met face-to-face. Data were collected quantitatively using the Group Supervision Scale (Arcinue, 2002), revised to fit the needs of the study, and to assess the perception of the supervision experience of the students. In addition to the quantitative data, a focus group discussion was held with the participants to collect qualitative data. Nelson et al. (2010) found that there was no significant difference in the two groups on their perceptions of supervision based on the format of supervision.

A meta-analysis conducted by Woo, Bang, et al. (2020) compared the effect of distance clinical supervision and traditional face-to-face supervision on supervisee satisfaction, supervisory alliance, and supervisee competency found that there was not a statistical significance based on delivery format. Included in this meta-analysis were three journal articles and one dissertation published between 2000 and 2018. The inclusion criteria of this study were (a) research published in English between January 1, 2000, and December 31, 2018, (b) published journals or dissertations related to the helping professions, (c) provided data on program/intervention effects, (d) focused on clinical supervision that compared face-to-face to

distance supervision, (e) reported effect sizes and/or statistical values, and (f) included one or more of the following study variables: satisfaction with supervision, supervisory alliance, and supervisee competency (Woo, Bang, et al., 2020).

Theoretical Framework

Social Cognitive Theory (SCT; Bandura, 1977, 1982, 1986a, 1986b, 1988, 1989, 1993) emphasizes the observing and modeling of behaviors, attitudes, and emotional reactions of others in a process known as "triadic reciprocal causation" in which interactions between the environment, behaviors, and psychological processes occur. SCT explains how complex learning occurs using cognitive, affective, and motivational processes. Another component of Bandura's SCT is self-efficacy which is the belief one has in their own ability to complete a task (Larson, 1998). Bandura (1982) theorized that self-efficacy belief development was facilitated by previous success experiences, vicarious learning, verbal persuasion, and physical states and reactions. Self-efficacy and the intervening agents of cognitive, affective, and motivational processes are referred to as "personal agency" as "they are the self-determining influences that make human beings able to adapt to ever-changing, complex environments" (Larson, 1998, p. 222). Through the process "triadic reciprocal causation," characteristics of the supervisor and the supervisory relationship work within a larger context of the environment to explain individual counselor performance of therapeutic work. Larson (1998) expanded on Bandura's SCT to create the Social Cognitive Model of Counselor Training (SCMCT) which examines the internal process of receiving knowledge from a supervisor and the action taken by the supervisee. Within this model self-efficacy is viewed as the judgment of one's capability to execute specific tasks within social and environmental contexts (Larson et al., 1992). Since SCMCT is about the examination of the relationship between imparted knowledge and actions of the counselor, self-

efficacy of the supervisor can be connected to their ability to impart knowledge to a supervisee. According to Barnes (2002), little research attention has been given to the self-efficacy of counselor supervisors even though some (e.g., Goodyear, 1998; Steward, 1998) believe it to be a critical component to understanding how supervisors develop and effectively supervise. Both triadic reciprocal causation and research on the supervisory relationship have an impact on supervisee performance. The social interaction of supervision will have a direct connection to both how the supervisor views their self-efficacy and the degree to which the supervisor and supervisee will bond in their supervisory working alliance (Larson, 1998).

Research on Counselor Supervisor Self-Efficacy, Supervisory Working Alliance, and Supervisee Performance in Supervision

As noted earlier, supervision research has been met with methodological constraints in its quest to demonstrate effectiveness. It is for this reason that researchers have relied primarily on supervisee self-reports of their satisfaction with supervision; self-evaluation of their performance, the supervisor, and their thoughts on the clients' response to treatments; as well as client self-reporting, dropout rates, and the strength of the therapeutic alliance (Falender, 2014). In a content analysis of clinical counseling articles published from 2004 to 2014 in counseling journals, Bernard and Luke (2014) found that of 184 articles that met their inclusion criteria, three were about counselor supervisor self-efficacy, six were about the supervisory working alliance, and only one was on the process of evaluation in supervision; this small number of peer-reviewed articles support the need for more research in this area.

Counselor Supervisor Self-Efficacy

This study defines counselor supervisor self-efficacy as the belief a counselor supervisor has in their ability to perform tasks related to supervision, such as understanding theories and

techniques, following supervisory ethics, demonstrating multicultural competence, and being knowledgeable of legal issues (Barnes, 2002). As a counselor makes the shift to becoming a counselor supervisor, there must be a cognitive shift from thinking like a counselor to thinking like a supervisor (Borders et al., 1996). While there are multiple models of supervisor development, they all have a focus on supervisory confidence (Rønnestad et al., 1997). Utilizing the Stress Appraisal Scale (SAS; Carpenter & Suhr, 1988), Borders and colleagues (1996) assessed the self-appraisals of 11 doctoral student supervisors on their ability to supervise. The students reported supervision to be less difficult and they were better able to cope with the tasks involved in supervision after completing a supervision practicum course. In another study on supervisor development, White (1998) interviewed four novice supervisors and found that development was dramatic and quick regarding supervisory confidence. In a large international study, Rønnestad et al. (1997) used a survey to analyze who supervises psychotherapy and counseling as well as how confident these supervisors are. They used the Development of Psychotherapists Common Core Questionnaire (DPCCQ) as their instrument, and the following variables were used; therapeutic experience, supervisory experience, supervisory confidence, overall experience as a supervisee, current supervisee experience, and total therapeutic skills. Rønnestad and colleagues (1997) had approximately 2,380 respondents complete their survey, with 1,639 participants providing data that met the inclusion criteria for their study. They found a significant positive correlation between amount of supervisory experience and confidence to perform supervision activities. Additionally, Stevens et al. (1997) found that the level of supervision training and experience was significantly positively related to supervisor self-efficacy by asking 60 supervisors a two-question self-efficacy measure that utilized a five-point Likert-type scale.

A phenomenological qualitative study of counselor supervisor self-efficacy beliefs of 16 doctoral students was conducted via focus groups and a follow-up questionnaire six to eight weeks after each focus group; each participant was in one focus group and completed one questionnaire. Frick and Glosoff (2014) found four themes from the focus groups. These themes were "ambivalence in the middle tier of supervision, influential people, receiving performance feedback, and conducting evaluations" (Frick & Glosoff, 2014, p. 39). They noted that their data analysis showed alignment with both Bandura (1986) and Larson (1998). In their analysis they found that supervisory self-efficacy is influenced by feedback received from their own supervisees as well as their supervisors, witnessing supervisee growth as a result from exchanges in supervision, and conducting evaluations of supervisees. These findings align with verbal persuasion, performance achievement, and affective arousal, respectively as discussed in SCT (Frick & Glosoff, 2014).

Motley et al. (2014) conducted a study on counselor supervisor self-efficacy related to providing feedback following a supervision workshop. The six-hour supervision workshop was conducted by counselor educators using a structured learning format including both didactic and experiential components with the goal to increase the feedback self-efficacy of the 31 participants. Motley et al. (2014) found that there were significant changes between pretraining and post-training of overall feedback self-efficacy. Additionally, they found that those with three or more years of experience had higher levels of feedback self-efficacy post-training, indicating that training can be beneficial for those with previous experience (Motley et al., 2014).

Supervisory Working Alliance

In a review of supervisory alliance research spanning from 1990 to 2013, Watkins (2014) identified 40 studies in which 4,563 supervisees and 837 supervisors participated; 28 focused

solely on the perspective of the supervisee, 10 incorporated both the supervisee and supervisor perspective, and only two utilized the supervisors' perspective alone. Watkins (2014) concluded that a strong supervisory alliance was linked to variables such as higher supervisee self-efficacy, more willingness to self-disclose, more satisfaction both during supervision and on the job, greater perceived effectiveness of supervision, greater coping resources, more discussions of culture, and greater supervisor relatability. A weaker supervisory alliance was linked to variables such as higher perceived stress, higher incidences of exhaustion and burnout, more role conflicts and role ambiguity, and more occurrences of negative supervision events.

Lahey (2008) conducted a quantitative study to identify if there was a significant relationship between the supervisory working alliance and supervision delivery format. The study included 46 supervisor-supervisee relationship pairs, 32 traditional delivery relationships, and 14 distance relationships. The participant pairs each completed two surveys, a demographic survey and the Supervisory Working Alliance Inventory-Supervisor and Trainee versions (Efstation et al., 1990), dependent on their role in the pair. Lahey (2008) found that there was not a significant relationship between the working alliance and the supervision delivery format.

In a study exploring the relationship between supervisor development and supervisory working alliance, Bright (2016) surveyed 108 counselor supervisors who held at least a master's degree in counseling, were currently practicing counseling and supervision, had worked with at least five supervisees, and were at least 19 years old. Her survey included the Working Alliance Inventory: Supervisor Form (Efstation et al., 1990), the Psychotherapy Supervisory Development Scale (Watkins et al., 1995), demographic questions, and two open-ended questions. The data analysis was conducted through a multiple regression and correlation. Bright's (2016) analysis of the data found a positive correlation between working alliance subscales and supervisor

development. The subscale of Client Focus had a statistically significant, positive relationship with supervisor development, $r = .565$. Based on the analysis of the results of the two open-ended questions, Bright (2016) found that participants' reported experiences which focused on "creating and maintain a relationship that promoted trust, respect, and openness" (p. 70) contributed the most to the building of the working alliance.

In another quantitative study on supervisory working alliance, Li (2019) examined the relationships between supervisory alliance, supervisory style, and supervisee disclosure in supervision. Using an online survey platform, Qualtrics, Li (2019) used four measures, Supervisee Disclosure in Supervision Scale (SDSS; Li et al., 2020), Working Alliance Inventory-Supervisee Form (WAI-S; Bahrick, 1989), Supervisory Style Inventory-Trainee (SSI-T; Friedlander & Ward, 1984), and a demographic questionnaire. After data cleaning and screening the data, the final sample size in the study was 304. Li (2019) found a positive relationship between supervisory working alliance and disclosure in supervision sessions. Additionally, all three supervisory styles (i.e., attractive, interpersonally sensitive, task-oriented) had significant positive correlations with both supervisee disclosure in supervision and supervisory working alliance.

An et al. (2020) conducted on study on supervisor style as a predictor of the counseling supervision relationship quality using perceptions of United States (U.S.) and South Korean supervisees. Participants included 299 U.S. supervisees and 334 South Korean supervisees. The researchers found a statistically significant relationship between supervision style and the supervisory alliance as well as supervisee satisfaction, across the U.S. and Korean samples. Additionally, they found a stronger relationship between the supervisory working alliance and

supervisee disclosures and supervisee satisfaction in the U.S. sample than in the South Korean sample.

Supervisee Performance in Supervision

Carey et al. (1988) examined the relationship between dimensions of supervisors' influence and counselor trainees' performance**.** The study included 17 supervisors and 31 master's level trainees and utilized the Supervisor Rating Form (SRF; Heppner & Handley, 1981, 1982) to measure the trainee's perceptions of the supervisor's expertness, attractiveness, and trustworthiness. Also, the Counselor Evaluation Rating Scale (CERS; Myrick & Kelly, 1971) was used to measure the trainee performance based on supervisor ratings. The subscales of the SRF, perceptions of supervisor expertness, supervisor attractiveness, and supervisor trustworthiness, were found to be highly correlated to each other, as well each of the SRF subscales and the CERS total score. The strongest association of the subscales and the CERS were between supervisor trustworthiness and trainee performance scores.

A second study on supervisee performance in supervision used counselor self-efficacy, anxiety, trainee developmental level, amount of training, and number of courses to predict their influences on supervisee performance (Kocarek, 2001). One hundred seventeen master's student counselors completed the Counseling Self-Estimate Inventory (COSE; Larson et al., 1992), the State Trait Anxiety Inventory (STAI; Larson & Daniels, 1998), and the Supervisee Levels Questionnaire- Revised (SLQ-R; McNeill et al., 1992) while their 82 supervisors completed the Counselor Evaluation Rating Scale (CERS; (Myrick & Kelly, 1971). Kocarek (2001) found that counselor self-efficacy, anxiety, developmental level, number of courses, and amount of training when analyzed together were statistically significant predictors of counselor performance; however, the last step of the regression analysis performed found that counselor self-efficacy,

development level, and anxiety "did not explain variance above and beyond the other variables on counselor performance" (p. 104).

Research examining the relationships between supervision and counselor self-efficacy, and counselor self-efficacy and counselor performance was conducted using 58 supervisor-supervisee dyads using multiple measures (Hanson, 2005). The measures used included the Supervisory Styles Inventory (SSI; Friedlands & Ward, 1984), the Evaluation Process Within Supervision Inventory (EPSI; Lehrman-Waterman & Ladany, 2001), the Role Conflict and Role Ambiguity Inventory (RCRAI; Olk & Friedlander, 1992); the Supervisory Working Alliance Inventory (SWAI; Efstation et al., 1990); and the Counselor Activity Self-Efficacy Scales (CASES; Lent et al., 2003). Results of the study showed that the supervisory working alliance was the strongest predictor of counselor self-efficacy, and that counselor self-efficacy had a moderate relationship with counselor performance (Hanson, 2005).

Swank (2014) conducted a study that focused on how the self-evaluations of supervisees in a master's program differed from their supervisors' ratings on the comprehensive use of counseling skills. This study included 41 student participants, 20 students were independently evaluated by both a faculty supervisor and a doctoral student, coming to a total of 61 pairs. The Counseling Competencies Scale (CCS; University of Central Florida Counselor Education Faculty, 2009) was used as it has been validated as a "comprehensive evaluation of skills, dispositions, and behaviors" (Swank, 2014, p. 18). Each participant completed the CCS; students used it as a self-evaluation and supervisors completed it on their supervisees. Using a repeated-measure analysis, Swank (2014) found there to be a statistically significant difference between all CCS ratings, supervisor-supervisee midterm and final evaluations, supervisor midterm and final evaluations, and supervisee midterm and final evaluations. The supervisees rated their

competencies much higher than their supervisors, with the larger difference being at the beginning of the supervisory experience than at the end. Additionally, there was a statistically significant difference between counselor education faculty ratings and doctoral student ratings of the same supervisees, with the doctoral students rating the supervisee lower.

Summary

In summary, supervision serves important functions for the counseling profession; imparting necessary skills, socializing new counselors to the value and ethics of the profession, protecting clients, and evaluating new members' readiness to practice independently. These functions have been found to be facilitated in both traditional, in-person, and technology-assisted modalities. Research has found that technology modalities, both synchronous and asynchronous, can be successful in communication of personal reflections and for the process of supervision (Chapman et al., 2011). Distance supervision can improve school counselor supervisees' self-esteem and their ability to case conceptualize (Butler & Constantine, 2006; Gainor & Constantine, 2002), counselor self-efficacy can be improved (Reese et al., 2009), and perceptions of supervision quality are seen as positive as traditional supervision (Conn et al., 2009; Nelson et al., 2010). Additionally, despite the challenges and limitations of distance supervision, it can be a viable modality of supervision (Bender & Dykeman, 2016; Chamberlain & Smith, 2018; Chapman et al., 2011).

Chapter 3 - Method

This study was designed to better understand the relationship between counselor supervisor self-efficacy, the supervisory working alliance, supervisee performance in supervision, and time spent utilizing technology-assisted supervision. This chapter includes information on the participants, instruments, research design, procedures, and statistical analyses. The following research questions were addressed by this study:

1. Does the amount of time spent utilizing technology-assisted supervision influence counselor supervisor self-efficacy?
2. Does the amount of time spent utilizing technology-assisted supervision influence supervisee performance in supervision?
3. Does the amount of time spent utilizing technology-assisted supervision influence supervisory working alliance?

Participants

Participants for this study were counselor supervisors recruited from universities accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The list of universities was obtained from the CACREP website. Participants in the study were limited to counselor educator faculty members and doctoral students providing weekly individual or triadic supervision to master's-level students enrolled in a practicum or an internship course. Inclusion criteria were the following: (a) counselor education faculty member or doctoral student who were providing weekly supervision; and (b) supervisees were enrolled in a counseling practicum or an internship course.

Program directors of the CACREP programs were contacted by email and asked to forward an email to those who met the inclusion criteria. Field (2013) suggested that the sample

size be determined by the anticipated effect size, and for a medium effect size, the minimum sample size of 55 would suffice. Field (2013) also noted that to find a small effect size hundreds of samples would be necessary, and this could be viewed as poor use of time and resources; therefore, a medium effect size was used in determining the targeted sample size of this study. Common practice is for supervisors to have more than one supervisee and CACREP (2016) limits the number of potential supervisees to six. Counselor supervisors were encouraged to complete the survey as many times as they have supervisees, e.g., if they have two supervisees, they could complete the survey twice. The target sample size of 55 counselor supervisors ensured a minimum of necessary data points if each counselor supervisor only completed the survey one time.

Instruments

Three measures were used in the study: Counselor Supervisor Self-Efficacy Scale (CSSES; Barnes, 2002); Counselor Evaluation Rating Scale (CERS; Loesche & Rucker, 1977; Myrick & Kelly, 1971); and the Supervisory Working Alliance Inventory-Supervisor Form (SWAI-S; Efstation et al., 1990). The CSSES measured the counselor supervisor's perceived self-efficacy to provide supervision. The CERS was used to assess the supervisee's performance in supervision as evaluated by the supervisor. The SWAI-S was used to measure the supervisory working alliance from the supervisor's perspective. Lastly, each participant completed a demographic form, which provided descriptive data on the participants.

Counselor Supervisor Self-Efficacy Scale (CSSES)

The Counselor Supervisor Self-Efficacy Scale (CSSES; Barnes, 2002) was created to measure the self-efficacy a counselor supervisor has in their perceived ability to complete tasks related to providing supervision. The CSSES has 39 items rated on a scale of 1 to 10 (1= Not

confident at all to 10 = Completely confident). The CSSES is comprised of six subscales including Theories and Techniques, Group Supervision, Supervisory Ethics, Self in Supervision, Multicultural Competence, and Knowledge of Legal Issues. The range of the total score is 39 - 390, and the higher the score the higher the perceived self-efficacy of the supervisor (Barnes, 2002).

Theories and Techniques includes 14 items related to the knowledge of supervision models and development as well as the ability to perform interventions addressing parallel process and modeling case conceptualization (e.g., "Select supervision interventions congruent with the model/theory being used." "Assist a supervisee to develop working hypotheses about her/his clients.") (Barnes, 2002). Group Supervision consists of five items addressing various tasks about the practice of group supervision (e.g., "Facilitate case discussion during group supervision." "Balance the needs of the group with the individual needs of each supervisee during group supervision.") (Barnes, 2002). The subscale of Supervisory Ethics consists of eight items that assess the supervisors' perceived knowledge about ethical issues and their ability to address them within the supervisory relationship (e.g., "Articulate to a supervisee the ethical standards regarding client welfare." "Model effective decision making when faced with ethical and legal dilemmas.") (Barnes, 2002). The fourth subscale, labeled Self in Supervision, is comprised of five items that represent a supervisor's willingness to receive feedback and their ability to respect individual differences (e.g., "Solicit critical feedback on my work as a supervisor from either my peers or an evaluator." "Encourage a supervisee to share his/her negative feelings about supervision without becoming defensive.") (Barnes, 2002). The fifth subscale, Multicultural Competence, has four items representing a supervisor's confidence in their ability to address cultural issues in supervision (e.g., "Facilitate a supervisee's cultural

awareness." "Assess a supervisee's multicultural competencies.") (Barnes, 2002). The final subscale, labeled Knowledge of Legal Issues, has three items regarding specific legal concerns such as client confidentiality, reporting child abuse and counseling minors (e.g., "Present procedures for assessing and reporting an occurrence of child abuse." "Identify key ethical and legal issues surrounding client confidentiality.") (Barnes, 2002).

In the initial validation of the instrument (n = 287 supervisors), a three-way ANOVA was run to determine the effects of stable characteristics (i.e., gender, race, theoretical orientation) on counselor supervisor self-efficacy, and it was found that there was no correlation between gender, race, or theoretical orientation on the self-efficacy of the counselor supervisor (Barnes, 2002). Cronbach's coefficients were computed on the total scale and each subscale. The alpha coefficient for the total scale was .97, the alpha coefficients for the six factors were .94 (Theories and Techniques), .92 (Group Supervision), .90 (Supervisory Ethics), .84 (Self in Supervision), .90 (Multicultural Competence), and .78 (Knowledge of Legal Issues). These alpha coefficients indicate a high level of internal consistency with the total scale as well as within each factor (Barnes, 2002). The CSSE has a test-retest reliability Pearson correlation of .82 (Barnes, 2002). Additionally, during the factor analysis, each factor loaded "greater than .65 suggesting that the CSSES possesses one underlying factor representing self-efficacy for supervision as a whole, rather than as separate individual tasks" (Barnes, 2002, p. 63). For this reason, only the total score is recommended for use to reduce potential problems with multicollinearity (Barnes, 2002).

Counselor Evaluation Rating Scale (CERS)

The Counselor Evaluation Rating Scale (CERS) was originally developed by Myrick and Kelly (1971) at the University of Florida to measure a supervisee's performance in counseling and performance in supervision. The CERS consists of 27 items, uses a 6-point Likert-type scale

(-3 = I strongly disagree to +3 = I strongly agree); however, for scoring purposes uses a 7-point scale with -3 given a score of 1 and +3 a score of 7 and a score of 4 given to items left blank or replied as "uncertain," or "unable to judge" (Myrick & Kelly, 1971). Hanson (2006) changed the scale to a more typical 7-point Likert-type scale (1 = strongly disagree to 7 = strongly agree). Lavrakas (2008) noted that respondents are less likely to select negative values than they are to select an equivalent value on a scale going low to high. Using the 7-point scale also adds a true middle value, a recommended practice (Lavrakas, 2008). Nine of the items were chosen at random to be written as a negative statement in an attempt to counter possible response set; therefore, these items need to be reverse scored (Myrick & Kelly, 1971). Scores are determined for three scales; they are Counseling, Supervision, and Total. The Counseling scale and the Supervision scale are each comprised of 13 items. The Counseling scale assesses the supervisee's demonstration of skills related to theoretical rationale, rationale of clients, and self-evaluations (Myrick & Kelly, 1971). Examples of items on the Counseling scale include "Tends to talk more than clients during counseling," and "Is aware of both content and feelings in counseling session." The Supervision scale assesses the supervisee's work and progress in supervision; sample items include "Lacks sensitivity to dynamics of self in supervisory relationship" and "Seeks and considers professional opinion of supervisors and other counselors when need arises" (Myrick & Kelly, 1971). On the final item, supervisors rate their supervisee on the statement "Can be recommended for a counseling position without reservations"; the score on this item is added to the sum of the scores on the other 26 items to determine the total score.

Forty-five student counselors and their supervisors participated in the initial reliability and validity study of the instrument (Myrick & Kelly, 1971). Using spilt-half reliability

procedure, a coefficient of .95 was found. A comparison between the 13 counseling items and 13 supervision items found a correlation coefficient of .86, and a test-retest reliability procedure conducted 4 weeks after the initial assessment resulted in a .94 product moment reliability coefficient (Myrick & Kelly, 1971).

In 1977, Loesche and Rucker conducted a factor analysis of the CERS with 404 graduate student ratings completed by 35 different supervisors in the period between 1971 and 1977. This factor analysis found six primary factors: general counseling performance (I), professional attitude (II), counseling behavior (III), counseling knowledge (IV), supervision attitude (V), and supervision behavior (VI). In a second-order factor analysis they found two factors where primary factors I, II, and IV loaded on second-order factor one that they named the counseling factor, and primary factors II, V, and VI loaded on second-order factor two which they subsequently named the supervision factor (Loesche & Rucker, 1977). However, a moderate correlation between the factors was found, indicated by a 48-degree angle, potentially indicating that the total score is the more valid score for predictive purposes (Carey et al., 1988; Loesche & Rucker, 1977). A higher level of performance in supervision is indicated by a higher total score; the possible range of scores can range from 27 to 189 (Hanson, 2006; McCarley, 2014).

Supervisory Working Alliance Inventory-Supervisor (SWAI-S)

The Supervisory Working Alliance Inventory (SWAI, Efstation et al., 1990) was developed to measure the perceptions of the supervisor and the supervisee of their relationship in counseling supervision. The SWAI-Supervisor Form measures three factors, Client Focus, Rapport, and Identification. The 23-item self-report instrument uses a Likert-type rating scale. Each item is rated on a 7-point scale (1 = almost never to 7 = almost always). On each item the supervisor indicates the frequency with which they perform each behavior described. Scores of

the subscales are the average of the item ratings and can range from one to seven; the higher the score, the stronger the working alliance (Efstation et al., 1990; Hanson, 2005; McCarley, 2014). Sample items include "I help my supervisee work within a specific treatment plan with his/her client," "I encourage my supervisee to formulate his/her own interventions with his/ her clients," and "In supervision, my supervisee is more curious than anxious when discussing his/her difficulties with me" (Efstation et al., 1990). Efstation et al. (1990) calculated alpha coefficients for the Supervisor scales for Client Focus, Rapport, and Identification which were 0.71, 0.73, and .77, respectively. Efstation et al. (1990) reported correlations as follows: between Client Focus and Rapport as .24, Client Focus and Identification as .23, and Rapport and Identification as .36. All the correlations were statistically significant, $p < .001$. White and Queener (2003) found an overall internal consistency rating of .89. The total score of the SWAI-S was used in this study because of the high internal consistency rating and strong correlations between the subscales (White & Queener, 2003).

Demographic Form

Demographic variables are described as the specific attributes of the participants that are gathered during a research study and are used to describe the sample (Burns & Grove, 2010). The demographic form was used to collect participants' information including their age, gender (i.e., Male, Female, or Prefer not to say), ethnicity (i.e., Black or African American, Asian, Hispanic or Latino, American Indian, Alaskan native, Native Hawaiian, Other Pacific Islands, Caucasian, Other), position title (i.e., Counselor Educator, Doctoral Student), number of years providing counseling supervision (i.e., <2 years, 2-5 years, 6-10 years, 11-20 years, 21+ years), and number of current supervisees. The number of current supervisees was used within the survey itself to indicate how many times the supervisor could loop through the instruments.

Research Design

This study consisted of a non-experimental correlational design utilizing convenience sampling. The independent variable is the amount of time spent in a technology-assisted supervision delivery format and is a continuous variable. For each supervisee for which the supervisor completes the instruments, they input the total number of sessions conducted, the number of sessions conducted utilizing technology, and the number of supervision sessions completed face-to-face. This allowed the researcher to calculate the percentage of time spent in technology-assisted supervision instead of relying on the participant to provide an estimate, which could have led to measurement error (Billiet & Matsuo, 2012). The three outcome variables (dependent variables) are counselor supervisor self-efficacy, supervisory working alliance, and supervisee performance in supervision. While correlational design studies typically have low internal validity because variables are not being manipulated, this increases external validity and results are more likely to reflect true relationships (Price et al., 2017).

Procedures

Once the study design was approved by the dissertation committee, formal permission was obtained from the Kansas State University Institutional Review Board (IRB). After approval by the IRB, program coordinators of CACREP-accredited counselor education programs in the North Central ACES Region (i.e., Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, and Wisconsin) were contacted by email (Appendix A). The program coordinators were identified by accessing the CACREP website. The researcher waited two weeks for responses and only heard from three coordinators. The researcher than began calling coordinators directly to discuss the study and obtain their consent to forward the Invitation Email to faculty and doctoral students providing

supervision within their program. While in the process of making these individual calls, the researcher also submitted an amendment to IRB to remove the location restriction from the study. Once the amendment was approved, the researcher began calling program coordinators from the North Atlantic Region (e.g., Massachusetts and Pennsylvania), the Rocky Mountain Region (e.g., Colorado and Montana), and the Southern Region (e.g., Arkansas, Maryland, Louisiana, and Texas). Of the 20 program coordinators that were able to be reached directly, 11 agreed to forward the Invitation Email. Once the program coordinators agreed to participate and send the email, they received an invitation email with a link to the survey which consists of the informed consent, demographic form, and all instruments (Appendix B) that they forwarded to the counselor supervisors who met the inclusion criteria. The survey remained open for two weeks; at the end of the first week, a reminder email was sent to the counselor educator program coordinators, requesting them to disseminate the survey or to thank them if they had already done so (Appendix C).

The anonymous survey was administered online via Qualtrics and remained open for a two-week period during the fall semester of 2021. Completion of the instruments was expected to take less than 15 minutes and upon submission, the participants received a thank you message and a comment to please complete the survey again for a different supervisee, as many supervisors often work with more than one supervisee at a time. The survey was designed to allow supervisors to complete the demographic form once and complete the instruments for each supervisee within the same link.

Statistical Analyses

According to (Field, 2013), a simple linear regression is used to determine how well one variable can predict another. A series of simple linear regressions was performed using SPSS v.

28 for statistical analysis of the research questions. Model one is a simple linear regression of the independent variable, amount of time spent utilizing technology-assisted supervision, on the dependent variable counselor supervisor self-efficacy; this model addresses research question one. Model two is a simple linear regression of the independent variable, amount of time spent utilizing technology-assisted supervision, on the dependent variable supervisory working alliance; this model addresses research question two. Model three is a simple linear regression of the independent variable, amount of time spent utilizing technology-assisted supervision on the dependent variable supervisee performance in supervision; this model addresses research question three.

Chapter 4 - Results

The purpose of this correlational study was to better understand the relationship between counselor supervisor self-efficacy, the supervisory working alliance, supervisee performance in supervision, and time utilizing technology-assisted supervision. Among the various theories used to facilitate supervision, the one that best provides a theoretical foundation for the connection between the variables in this study is social cognitive theory (SCT, Bandura, 1986). According to SCT (Bandura, 1986), it is through social context back-and-forth exchanges that learning happens (Larson, 1998). Bandura (1986) divided SCT into the concepts of personal agency variables, the environment, and action (Larson, 1998). Typical supervision elements (i.e., supervisory working alliance, evaluation, and supervisor self-efficacy) can be understood within SCT as personal agency variables (i.e., counselor supervisor self-efficacy), environment (i.e., supervisory working alliance) and action (i.e., evaluation) (Larson, 1998).

Technology-assisted supervision is currently one of many examples of how the counselor education field is incorporating technology (Chow, 2019). In a study completed by Carlisle et al. (2017), it was reported that 33% of participants utilized distance supervision in their program, regardless of the programs face-to-face, hybrid, or online designation. Further, research suggests that the technology-assisted supervision can benefit the supervisee and supervisors (Rousmaniere, 2014).

The following research questions were addressed by this study:

1. Does the amount of time spent utilizing technology-assisted supervision influence counselor supervisor self-efficacy?
2. Does the amount of time spent utilizing technology-assisted supervision influence supervisee performance in supervision?

3. Does the amount of time spent utilizing technology-assisted supervision influence supervisory working alliance?

This chapter presents demographic data, descriptive data of variables, and results of the study.

Demographic Data

The researcher distributed the survey online and 57 supervisors opened and started the survey. Of the 57 initiated responses, 40 supervisors completed the survey at least once. The gender of the participants of the study were 27 female and 11 males. In terms of participant position, 25 were counselor educators and 13 were doctoral students in counselor education and all participants were Caucasian. Of the 40 respondents, 53% had 2-10 years of experience providing supervision, the remaining 47% had either less than two years, or more than 11 (see Table 1). Supervisors were encouraged to complete the survey on up to six supervisees; the 40 supervisors competed the instruments on a total of 57 separate supervisees for data analysis.

Table 1

Demographic Data of Supervisor Participants (n=40)

	Frequency	Percentage
Gender		
Female	27	68
Male	11	28
Rather Not Say	2	5
Ethnicity		
Caucasian	40	100
Position		
Counselor Educator	25	63
Doctoral Student	13	33
Blank	2	5
Years of Supervision Experience		
< 2 years	8	20
2-5 years	11	28
6-10 years	10	25
11-20 years	1	3
21 + years	10	25

Descriptive Data of Variables

Each supervisor provided the total number of supervision sessions held as well as the number of sessions held utilizing technology-assisted methods and the number of sessions held face-to-face. **The independent variable was continuous and computed by the researcher from data provided by the participants.** The researcher then calculated a percentage for time spent utilizing technology-assisted supervision. The amount of time spent in technology-assisted supervision ranged from none to all. A frequency table of the percent of time technology-assisted supervision was used is presented in Table 2.

Data collected from the survey were downloaded from Qualtrics into Microsoft Excel. Incomplete surveys were removed. Responses from supervisors who completed the instruments on multiple supervisees were separated and each supervisee had their own row of data. The data were imported in to IMB SPSS 28 for further analysis. Table 3 displays descriptive statistics for the dependent variables. The Counselor Supervisor Self-Efficacy Scale (CSSES; Barnes, 2002) has 39 items, rated on a scale of 1-10 and a total possible score ranging from 39 - 390; the higher the score, the higher the perceived self-efficacy of the counselor supervisor. The mean on the CSSES was 345.5 and the scores on this scale ranged from 286 to 390. The Supervisory Working Alliance Inventory-Supervisor Form (SWAI-S; Efstation et al., 1990) has 23 items, rated on a scale of 1-7. The total score is an average of the item ratings; the higher the score, the stronger the perceived working alliance (Efstation et al., 1990; Hanson, 2005; McCarley, 2014). The mean for the SWAI-S was 5.95 and the range of the scores was 4.48 to 7. The Counselor Evaluation Rating Scale (CERS; Myrick & Kelly, 1971) consists of 27 items, rated on a scale of 1- 7; the possible range of scores can range from 27 to189. A higher level of performance in

supervision is indicated by a higher score (Hanson, 2006; McCarley, 2014). The mean score on the CERS was 157.94 and the scores ranged from 73 to 189.

Table 2

Number of Respondents (n=57) Who Indicated Different Percentages of Time Spent in Technology-Assisted Supervision

Percentage of Time Spent in Technology-Assisted Supervision	Number of Respondents
0	8
8	1
14	1
17	1
29	1
30	3
33	1
35	1
36	1
38	2
40	2
47	1
64	1
65	1
67	1
69	1
70	2
71	1
75	2
78	1
80	1
83	1
90	2
92	1
100	19

Table 3

Descriptive Statistics for Variables (n=57)

Scale	*M*	*SD*
Counselor Supervisor Self-Efficacy Scale	345.51	25.18
Supervisory Working Alliance Inventory-Supervisor	5.95	.97
Counselor Evaluation Rating Scale	157.95	22.87

Assumptions of a linear relationship between the independent and dependent variables were visually checked by creating a scatterplot. All three dependent variables showed a linear relationship to the independent variable. The correlation matrix for the variables of this study is presented in Table 4.

Table 4

Correlations for Variables (n=57)

Variable	1	2	3
1. Counselor Supervisor Self-Efficacy	1	—	—
2. Supervisory Working Alliance	0.293*	1	—
3. Supervisee Performance in Supervision	0.382**	0.327*	1

*Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level

Results

According to (Field, 2013), a simple linear regression is used to determine how well one variable can predict another. The simple linear regression analysis was performed in SPSS v 28 to determine the strength of the relationship between the independent and dependent variables.

Research Question 1

Does the amount of time spent utilizing technology-assisted supervision influence counselor supervisor self-efficacy?

To address this question, a simple linear regression was conducted to predict the influence of supervision utilizing technology on the counselor supervisor self-efficacy. A linear regression established that time spent utilizing technology-assisted supervision did not statistically significantly predict counselor supervisor self-efficacy, $F(1,55) = .009$, $p = .924$ as time spent utilizing technology-assisted supervision accounted for 0% of the explained variability.

Research Question 2

Does the amount of time spent utilizing technology-assisted supervision influence supervisee performance in supervision?

To address this question, a simple linear regression was conducted to predict the influence of supervision utilizing technology on the supervisee performance in supervision. A linear regression established that time spent utilizing technology-assisted supervision did not statistically significantly predict supervisee performance in supervision, $F(1,55) = .772$, $p = .383$ as time spent utilizing technology-assisted supervision accounted for 0% of the explained variability.

Research Question 3

Does the amount of time spent utilizing technology-assisted supervision influence supervisory working alliance?

To address this question, a simple linear regression was conducted to predict the influence of supervision utilizing technology on the supervisory working alliance. A linear regression established that time spent utilizing technology-assisted supervision did not statistically significantly predict supervisory working alliance, $F(1,55) = 3.111$, $p = .083$ as time

spent utilizing technology-assisted supervision accounted for 5.4% of the explained variability with adjusted R^2 = 3.6%, a small size effect according to Cohen (1988).

Chapter 5 - Discussion, Summary, Recommendations, and Conclusion

This chapter presents a discussion of the results of the current study, a summary of the current study, recommendations for practice, recommendations for future research, and a conclusion based on the findings. This study aimed to better understand the influence that the time spent in technology-assisted supervision had on counselor supervisor self-efficacy, supervisee performance in supervision, and the supervisory working alliance.

Discussion

Attempts to measure the influence of technology-assisted supervision on counselor supervisor self-efficacy, supervisory working alliance, and supervisee performance in supervision have been limited (Chapman et al., 2011). The overall purpose of this study was to evaluate the influence that time spent in technology-assisted supervision has on the counselor supervisor self-efficacy, supervisory working alliance, and supervisee performance in supervision. Programs and supervisors have increasingly been utilizing technology-assisted supervision, but research related to the utilization is scarce (Carlisle et al., 2017; Woo, Bang, et al., 2020).

The first research question concerned the influence of technology-assisted supervision on counselor supervisor self-efficacy. Based on the results of this study technology-assisted supervision was not a statistically significant predictor of counselor supervisor self-efficacy, meaning utilizing technology-assisted means to conduct supervision did not influence the counselor supervisors' beliefs of their ability to engage in tasks related to providing supervision to master's level students. The scores of the CSSE would support this as a viable modality of supervision which support previous research (Bender & Dykeman, 2016; Chamberlain & Smith,

2018; Chapman et al., 2011). If the counselor supervisor believes in their ability to engage in the tasks related to supervision, they could be more likely to confront the challenges that might arise during technology-assisted supervision. Self-efficacy is a generative capability, meaning it grows as counselor supervisors experience success in skills associated with the tasks at hand (Bandura, 1982: Larson & Daniels, 1998). This understanding of self-efficacy is supported by the findings of this study, time spent in technology-assisted supervision did not significantly predict the counselor supervisor's self-efficacy.

The second research question examined the influence of technology-assisted supervision on supervisee performance in supervision. Findings from this study were technology-assisted supervision is not a statistically significant influence on supervisee performance in supervision. This study was seeking to understand the relationship of time spent in technology-assisted supervision on supervisee performance in supervision, not supervisee performance in counseling, which is typically evaluated on client outcomes. Myrick and Kelly (1971) noted that understanding the difference between these two types of evaluations is vital to the gatekeeping function supervisors fulfill, as well as to the final evaluation grade of a practicum or internship student. Given the importance of being able to evaluate a supervisee's performance in supervision, the results of this study could support the continued use of technology-assisted supervision as it found that this delivery format did not significantly predict how supervisors rated their supervisees' performance.

The third research question examined the influence of technology-assisted supervision on the supervisory working alliance. Findings from this study were technology-assisted supervision is not a statistically significant influence on supervisory working alliance. Overall, the counselor supervisors rated the supervisory working alliance as strong, the mean was 5.95, and the range

was 4.48 to 7, on 7-point scale. This builds on a past study from Coker et al. (2002) that found a strong working alliance rating from the SWAI-T completed by supervisees regarding online supervision. Findings from the current study also support the findings of Reese et at. (2009) that supervisees reported the supervisory working alliance was not affected by videoconferencing. The current study builds on these as the first to examine the relationship of time spend in technology-assisted supervision on the supervisory working alliance from the perception of the supervisor.

Overall, the ratings overall on the instruments were high, with the higher the value, the higher the perceived self-efficacy, performance, and supervisory working alliance. The results for each instrument also showed a narrow range, on the upper end of the possible range. Assuming that all evaluations are correct, these results could speak more to the specific evaluation than to the influence of time-spent in technology-assisted supervision.

Results of the current study provide counselor educator program administrators additional support for utilizing technology-assisted supervision for their master level counselors in training. While past research has found benefits for supervisees (Coker et al., 2002), for communities (Reese et al., 2009; Vaccaro & Lambie, 2007), and universities (Conn et al., 2009; Gainor & Constantine, 2002; Vaccaro & Lambie, 2007), this study provides support from the perception of the counselor supervisor. The counselor supervisors' perception of utilizing technology-assisted supervision is integral to the success of supervision given its hierarchical structure. Knowing the power differential that occurs in the supervisory working alliance based on the four objectives of supervision (i.e., (a) provides a way to impart necessary skills; (b) socializes new members to the values and ethics of the profession; (c) protects clients; and (d) evaluates readiness to practice independently within the profession (Bernard & Goodyear, 2014)), it is reasonable that the

counselor supervisors' perceptions of the supervision process could be meaningful. The current study found that for each of the dependent variables, all taken from the counselor supervisor perspective, that time spent in technology-assisted supervision was not a statistically significant predictor of the dependent variables. These findings could be important for future program and policy decisions on how to adopt and integrate further technological advancements.

Summary

As higher education continues to integrate technology as a learning platform so has the counselor education field (Carlisle et al., 2017). The counselor education field utilizes technology for a plethora of purposes including e-learning platforms, e-portfolios, online supervision, networking, online counseling, and continuing education (Chow, 2019). At odds with the increasing frequency of technology-assisted supervision in programs is the sparse number of published studies related to the use of educational technology in counselor education (Carlisle et al., 2017). The bulk of the research that has been conducted on supervision focused on traditional supervision, and the limited research on distance supervision has primarily focused on the supervisory working alliance and perceptions of supervisees on supervision (Chapman et al., 2011).

Supervision is a fundamental instructional strategy employed by graduate programs and licensure boards to fulfill four main objectives: (a) to impart necessary skills; (b) to socialize new members to the values and ethics of the profession; (c) to protect clients; and (d) to evaluate readiness to practice independently within the profession (Bernard & Goodyear, 2014). Social Cognitive Theory (SCT; Bandura, 1986) provides a theoretical framework for the understanding of how supervision models and theories are applied to meet these objectives.

Forty counselor supervisors voluntarily participated in an online survey. The online survey consisted of a demographic form and three instruments (i.e., Counselor Supervisor Self-Efficacy Scale, Supervisory Working Alliance Inventory, and Counselor Evaluation Rating Scale). Supervisors were encouraged to complete the survey regarding more than one supervisee, for a total of 57 surveys completed. All participants were either counselor educators or doctoral students in a counselor educator program providing weekly supervision to master's level students enrolled in a practicum or internship course. The results of the simple linear regression analysis for each of the research questions found no statistical significance regarding time spent in technology-assisted supervision and counselor supervisor self-efficacy, the supervisory working alliance, and supervisee performance in supervision.

The first research question concerned the influence of technology-assisted supervision on counselor supervisor self-efficacy. The current findings were consistent with findings of research regarding technology-assisted supervision as a viable modality of supervision (Bender & Dykeman, 2016; Chamberlain & Smith, 2018; Chapman et al., 2011). The study concluded that technology-assisted supervision did not statistically influence the counselor supervisors' beliefs in their ability to engage in the tasks related to supervision.

The second research question examined the influence of technology-assisted supervision on supervisee performance in supervision. The study concluded that technology-assisted supervision did not statistically influence how the counselor supervisor rated the supervisee's performance in supervision.

The third research question examined the influence of technology-assisted supervision on the supervisory working alliance. The current findings were consistent with findings of research that found a strong working alliance rating from the SWAI-T completed by supervisees

regarding online supervision (Coker et al., 2020; Reese et al., 2009). The study concluded that technology-assisted supervision did not statistically influence the supervisory working alliance.

Recommendations for Practice

As technology advances continue to be made, programs continue to expand their technology use, they need to consider many facets of implementation such as confidentiality, ethics, and legal obligations as well as the process of counselor development (Barnes, 2002; Carlisle et al., 2017). Programs also need to be concerned with the technical literacy of students and faculty (Chow, 2019). Furthermore, counselor educators and clinical supervisors are expected to respond to technological trends in counselor training to remain academically competitive and professionally progressive (CACREP, 2016). Most of the supervisors who participated in the study participated in some form of technology-assisted supervision. A recommendation for practice is to provide on-going training regarding technology-assisted supervision. A lack of training could potentially lead to missing important cues in the development of a relationship (Maples & Han, 2008). Bernard and Goodyear (2014) state that "the benefits of using technology appear to outweigh their constraints, as long as supervisors use technology in a manner that enhances learning, protects the supervisory working alliance, and is performed within ethical and legal parameters" (p. 173). One of the methods for ensuring that technology-assisted supervision is performed in such an ethical and legal manner is with a training course regarding how to implement technology-assisted supervision.

According to the American Counseling Association Code of Ethics F.2.c (2014), "when using technology in supervision, counselor supervisors are competent in the use of those technologies" (p. 13). Jencius and Baltrinic (2016) proposed a curriculum for training online supervisors, that was designed using the best practices in training counselor supervisors.

Additionally, the training has the learning objectives surrounding the areas of Technology (e.g., software and hardware, HIPAA compliance, what to do when technology fails), Theory and Foundation (e.g., theories, contracts, supervisory working alliance), Ethics (e.g., local licensure limits, certificates, cross-cultural issues), and Consultation and Practice (e.g., case analysis, and online supervision plans).

A second recommendation for practice would be the development of technology-assisted supervision competencies and certifications (Jencius & Baltrinic, 2016). Standardized competencies and certifications for the use of technology-assisted supervision would further support the ethical and legal mandates in meeting the objectives of supervision, particularly the objectives of socializing new members to the values and ethics of the profession and protecting clients (Bernard & Goodyear, 2014).

Recommendations for Future Research

Recommendations for future research on technology-assisted supervision include adding different variables, use of different instruments and participants, and a suggested change to experiment design. The first recommendation for future research is to add a supervisee perception of supervisory working alliance variable. The instrument used to measure the supervisory working alliance from the counselor supervisor perspective, the SWAI-S, has a corresponding form for the trainee perspective, the SWAI-T, that has been used in much of the previous research (Coker et al., 2002; Conn et al., 2009; Hanson, 2005). Using this additional variable would allow the researcher to identify a potential difference in the perceptions of the supervisee and the counselor supervisor based on the amount of time spent in technology-assisted supervision.

A second recommendation for future research is the use of different instruments and more diverse participants. For all the dependent variables used in this study, the ranges of responses were high and narrow, meaning there was not a lot of variances in the scores from each participant. Utilizing different instruments that can measure the same variables, but in a more sensitive, nuanced way could give the researcher a clearer picture to the relationship between time spent in technology-assisted supervision and counselor supervisor self-efficacy, the supervisory working alliance, and supervisee performance in supervision. Additionally, it is recommended that the participants and the supervisees are more diverse to represent the population of counselor educators and students in counselor education programs more accurately.

Given that this study was a descriptive quantitative study examining the relationship between the time spent in technology-assisted supervision and counselor supervisor self-efficacy, supervisee performance in supervision, and the supervisory working alliance, a qualitative or mixed-methods research approach could provide further depth to the study. A mixed methods approach can "provide a better understanding of the research problem" (Gliner et al., 2017, p. 67). For example, a mixed method approach could include the same instruments used in this study to gather quantitative data as well as add in a qualitative interview to explore the experiences of the participates. A qualitative study could solely consist of an interview of counselor supervisors regarding their self-efficacy in competencies utilizing technology-assisted supervision, their experiences in utilizing the actual technology, building a supervisory alliance, and conducing evaluations through technological means.

Limitations

Limitations of the current study include a small, homogenous sample size, supervisee development as indicated in their enrollment in practicum or internship courses, and the use of self-administered instruments. One limitation of this study was the small sample size of 57 completed surveys. It is a common concern that using a small sample from the population could "provide little basis for the scientific generalizability" (Gravetter & Wallnau, 2016, p. 74). Additionally, the participants of this study were very homogenous as all participants were Caucasian. This is a limitation as this is not a representative sample of the actual demographics of those who serve as counselor educators or are doctoral students in counselor education programs (CACREP, 2018).

A second limitation could be supervisee development as indicated in their enrollment in practicum or internship courses. To reach these courses, they are at least halfway through the program, and it is likely that issues would have already surfaced and been mediated before this point. Additionally, in order to enroll in the experiential courses (i.e., practicum or internship), their performance in previous courses would have had to been at a level to indicate their ability to participate successfully. This can be inferred based on CACREP standard Section 4: Evaluation in the Program, Assessment of Students F. "The Halfway through the program, issues would have already surfaced", G. "The counselor education program faculty systematically assesses each student's professional dispositions throughout the program", and H. "The counselor education program faculty has a systematic process in place for the use of individual student assessment data in relation to retention, remediation, and dismissal" (CACREP, 2016).

Another potential limitation of this study is posed by self-administered instruments. Each of the three instruments have confirmed validity and reliability. However, surveys inherently suffer from the limitation of relying on the participants' perceptions, thereby limiting the potential range of responses. Also, participants who are more interested in technology may have been more likely to complete the online survey, further biasing the results.

Conclusion

This study was quantitative in nature and sought to provide predictability data on the independent variable, time spent in technology-assisted supervision (Gliner et al., 2017). A correlational design was used to gather information on counselor supervisor self-efficacy, supervisee performance in supervision, and the supervisory working alliance as predicted by time spent in technology-assisted supervision. The results of the current study found that there was no statistical significance regarding time spent in technology-assisted supervision on any of the dependent variables.

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Appendix A: Recruitment Email

I would like to invite the counselor educator faculty and doctoral students providing weekly individual or triadic supervision to masters-level students enrolled in your Counselor Education program to participate in a study I am conducting as part of my dissertation research at Kansas State University. This study is designed to better understand the relationship between counselor supervisor self-efficacy, the supervisory working alliance, and supervisee performance in supervision and supervision delivery format. You are receiving this email because of your role as the coordinator of a Midwest CACREP accredited counselor education program. There are no financial incentives and/or any foreseeable risk for participating in this research study. The study is supervised by Dr. Ken Hughey in the Department of Special Education, Counseling and Special Affairs at Kansas State University (KSU) and has been approved by the KSU Institutional Review Board. The research study will consist of a demographic form and three instruments (Counselor Supervisor Self-Efficacy Scale, Counselor Evaluation Rating Scale, Supervisory Working Alliance Inventory-Supervisor Form). The online survey is expected to take less than 45 minutes, per supervisee, to complete. If you are willing to share this study with your counselor educator faculty and doctoral student supervisors, please email me at tanaarnold@ksu.edu to notify me of your willingness to participate by September 24th, 2021. Another email, "Invitation to Participate" will be sent for you to forward to your supervisors if you agree to participate. Please feel free to contact me with any questions or concerns regarding this study. Thank you for considering participating in this research opportunity.

Sincerely,

Täna Arnold

Appendix B: Invitation to Participate Email

Dear CACREP-accredited counselor education faculty member or doctoral student,

My name is Täna Arnold, I am a doctoral student in the Counselor Education and Supervision doctoral program at Kansas State University. The purpose of this study is to better understand the relationship between counselor supervisor self-efficacy, the supervisory working alliance, and supervisee performance in supervision and supervision delivery format. Your experience as a counselor supervisor has much to contribute to this research, and I hope you will consider participating. This study has been approved by the Kansas State University Institutional Review Board. You are eligible to participate in this study if you are a counselor education faculty member or doctoral student; provide supervision in a mostly face-to-face or distance format (80% or more of sessions were conducted in one format); and your supervisees are enrolled in a counseling practicum or an internship course at a CACREP-accredited counselor education masters' program. Participation involves responding to a brief online demographic form and 3 instruments (Counselor Supervisor Self-Efficacy Scale, Counselor Evaluation Rating Scale, Supervisory Working Alliance Inventory-Supervisor Form). The instruments can be completed online, and it is expected to take 10-15 minutes per completion. Supervisors are asked to complete the survey once per supervisee, i.e., if you have two supervisees, you are asked to complete the survey twice.

Sincerely,

Täna Arnold

Appendix C: Follow-Up Email

Dear Program Coordinator,

Thank you for taking the time to read my previous email and chat with me on the phone. I hope I have been able to answer all of your questions regarding the study. If you have not already done so, please forward the email "Invitation to Participate" to your counselor education faculty members and doctoral students who currently provide weekly individual or triadic supervision to your masters-level students. Your assistance in recruiting participants has been greatly appreciated.

Thank you,

Täna Arnold

Appendix D: Informed Consent

You are invited to participate in a research study entitled "Understanding the relationship between counselor supervisor self-efficacy, the supervisory working alliance, supervisee performance in supervision and supervision delivery format." This study is being conducted by Täna Arnold, a doctoral candidate at Kansas State University as part of her doctoral dissertation.

Purpose

The purpose of this study is to better understand the relationship between supervision delivery format and counselor supervisor self-efficacy, the supervisory working alliance, and supervisee performance in supervision.

Procedure

In this study you will be completing three instruments on each supervisee you currently supervise. If you supervise more than one supervisee, please complete the survey for each supervisee by following the directions at the end of the survey. It is estimated to take less than 45 minutes for each supervisee.

Benefits and Risks

There are no individual benefits of participating in this study. There are no foreseeable risks associated with your participation, and your participation is voluntary with no consequence if you choose not to participate. Additionally, all information collected during this study will be kept strictly confidential.

Contact Information

If you have questions about this research study, you can contact Täna Arnold through email at tanaarnold@ksu.edu or call her at 620.428.1014. If you have any questions about the rights of subjects in this study or about the manner in which the study is conducted, you may contact Dr.

Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66502 at rscheidt@ksu.edu or call at 785.532.1483.

Terms of Participation

By clicking "OK" at the bottom of this page, you are indicating that you understand that this project is research, and that your participation is voluntary. You are also indicating that you understand that if you decide to participate in this study, you may withdraw your consent at any time, and stop participating at any time without explanation. You additionally understand that by clicking on the continue button, you are agreeing that you have read and understand this consent form, and are willingly agreeing to participate in this study under the terms describes Finally, you are confirming that you are a counselor educator faculty members or doctoral students providing weekly individual or triadic supervision to masters-level students enrolled in a practicum or an internship course.

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