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On-line supervision of school counselors: effects on case conceptualization skills and self-efficacy

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University of Iowa

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ONLINE SUPERVISION OF SCHOOL COUNSELORS: EFFECTS ON CASE
CONCEPTUALIZATION SKILLS AND SELF-EFFICACY

by

Yi-Chun Lin

An Abstract

Of a thesis submitted in partial fulfillment of the requirements
for the Doctor of Philosophy degree in
Rehabilitation and Counselor Education
in the Graduate College of The University of Iowa

December 2012

Thesis Supervisor: Associate Professor David K. Duys

ABSTRACT

This study examined the supervision effectiveness of three online peer supervision models as measured by the two outcome variables of case conceptualization skills and self-efficacy. Also, it explored the impact of developmental levels of school counselors on the outcomes of supervision. Practicing school counselors from a national sample were randomly assigned to three groups: the Online Structured Peer Supervision Group (S group), the Online Peer Discussion Group (D group), and the Control Group (C group). Two instruments measuring the outcome variables (dependent variables) were administered: the Clinical Hypothesis Exercise Form (CHEF) and the Counselor Self-Efficacy Scale (CSES). The independent variables were the three experimental conditions and the supervisees' years of experience. In addition, the Counselor Supervision Experience Questionnaire collected information regarding the overall online supervision experience. No significant differences were found before and after the online peer supervision interventions by statistical analysis; however, positive feedback regarding the supervision experience was provided by participants in response to open-ended questions.

Abstract Approved: _____
Thesis Supervisor

Title and Department

Date

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CERTIFICATE OF APPROVAL

PH.D. THESIS

This is to certify that the Ph.D. thesis of

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has been approved by the Examining Committee for the thesis requirement for the Doctor of Philosophy degree in Rehabilitation and Counselor Education at the December 2012 graduation.

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I dedicate this work to my mother, Tsui-Chuan Chiang, the strongest, most resilient and perseverant woman I have ever known. I thank her for giving me everything in my life. Her love and sacrifice are beyond any measurement. I would also like to dedicate my accomplishment to my father, Fu-lao Lin, who passed away while I was pursuing this Ph.D. degree. I thank him for his inspiration and tough discipline throughout my upbringing. Daddy! I made it! I hope you are proud of me.

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goals of a school counselor. Furthermore, Dr. Malik Henfield, who cheered me up and gave me immediate assistance when I felt frustrated. Last but not least, my significant other, Chi-Cheng Chang, his unconditional love lifted me up in every situation, and I thank God for sending him into my life.

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CHAPTER I

INTRODUCTION

The isolation of school counselors has been discussed in numerous studies, and the concerns of school counselors working individually without supervision have gradually increased (Culbreth, Scarborough, Banks-Johnson, & Solomon, 2005; Herlihy, Gray, & McCollum, 2002; Peace, 1995; Thomas, 2005). However, more effective ways of connecting and supporting school counselors, especially those who have recently graduated and are entering the workforce, have not been reported in the literature. As discussed by Crutchfield and Borders (1997), insufficient supervisory support increases the stress level of school counselors and leads to less effective support for the students they serve. Even though scholars have emphasized the importance of clinical supervision for counselors and have found positive effects on many indicators (such as counselors' case conceptualization, cognitive complexity, clinical skills, moral development, and levels of empathy; Griffin, 2007; Strozier, Barnett-Queen, & Bennett, 2000), and school counselors who receive clinical supervision have reported significantly lower levels of emotional exhaustion (Feldstein, 2000), not enough evidence has been reported in the literature on the effectiveness of supervision related to specific models or formats.

A recent qualitative study on new entrants to the school counseling profession highlighted the fact that school counselors who are at different developmental levels prefer different types of supervision and a different focus based on their needs and experiences (Bultsma, 2008). According to the Integrated Developmental Model of Supervision (IDM; Stoltenberg, McNeill, & Delworth, 1998), supervisors should consider the needs of supervisees according to their developmental levels. The four supervisee levels described by Stoltenberg et al. (1998) require different emphases and types of tasks in supervision. Level 1 supervisees need more structure and encouragement to lower their anxiety, Level 2 supervisees require more autonomy and may have power struggles with their supervisors, and Level 3 and 3i (integrated) supervisees are more

mature and independent so that the supervisor functions more as a consultant than as a supervisor (Stoltenberg et al., 1998).

Qualitative studies have gathered positive feedback on practicing school counselors' evaluation and perception of supervision, and some common themes have been reported regarding school counselors' needs and expectations regarding the supervisory process (Herbert, 2004). However, meeting the various needs of supervisees using one supervision model might be challenging, especially because the developmental levels of practicing school counselors can be very different based on their experience levels. Therefore, it is important to determine school counselors' unique characteristics and provide more flexible strategies to meet their need for effective clinical supervision.

Statement of the Problem

Research has focused on how to apply existing supervision models and approaches in helping the professional growth of master's- or doctoral-degree counselor trainees (Little, Packman, Smaby, & Maddux, 2005), but little attention has been devoted to the population of practicing school counselors.

Usher and Borders (1992) surveyed 357 practicing counselors, 87 of whom were school counselors. The results indicated that school counselors, compared to the other professional counselors, reported receiving little supervision after they graduated from their degree programs. A similar survey by Page, Pietrzak, and Sutton (2001) showed that only 13% of school counselors had received individual clinical supervision. The difficulties in accessing supervision and professional support are a concern for practicing school counselors, especially because of the counselors' limited time for supervision within their school settings. In addition, because of obstacles such as geographical location, school counselors in rural areas may have little access to clinical supervision using a traditional face-to-face format.

As suggested by Hayes, Paisley, Phelps, Pearson, and Salter (1997), counselor educators play an important role in training school supervisors and providing clinical

supervision support that leads to better school-university collaboration. By supervising practicing school counselors, counselor educators gain more insight and knowledge about current issues in the schools, and they can also integrate research, education, and services more closely with the supervision needs of practicing school counselors.

Sutton and Page (1994) reported that 63% of the counselors in their study indicated a desire for clinical supervision and were willing to take action to continue learning and developing their professional skills. Furthermore, Page et al. (2001) showed that 70% of school counselors expressed a preference for receiving clinical supervision from a supervisor with a school counseling background who had received specific training in supervision.

Although counselor educators have tried to bridge the gap and develop partnerships with school counselors, few studies have been designed specifically to provide support for school counselors' case conceptualization skills and to increase their counseling self-efficacy. In addition, a gap between school counselors' supervision needs and their actual participation in a supervisory relationship still exists. With the evolution of technology, scholars have suggested more effective use of online supervision based on its advantages of overcoming the barriers of geographical location, allowing ongoing feedback after time-restricted sessions, and increasing counselor self-efficacy and skill competence (Gilbride & Stensrud, 1999; Myrick & Sabella, 1995; Watson, 2003; Yeh et al., 2008). Studies using internet-mediated technology have received positive outcomes from various disciplines. O'Dell (2009) compared online and face-to-face formats of supervision and showed that they were similarly effective in promoting working alliances, goals, tasks, and bonding between supervisors and supervisees. The application of technology has become a growing trend in the health professions and was included in the American Counseling Association (ACA) millennium goals for the counseling profession. The advantages and convenience of internet technology also open the door for building a professional community for school counselors.

In sum, based on a reported lack of clinical supervision and limited support accessible for school counselors, the goal of this study was (a) to develop three online peer supervision groups that incorporated the supervision needs of school counselors in practice and (b) to examine the effects of two outcome variables on their professional growth. Furthermore, this researcher investigated the relationship between school counselors' developmental levels and their perceived changes in professional growth after participation in one of the three online peer groups.

Purpose of the Study

The purpose of this study was to develop three types of online peer group supervision treatments that took into account school counselors' needs and diverse developmental levels. The supervision effectiveness of each group was based on two outcome variables: counselors' case conceptualization skills and self-efficacy. The three online groups included a Peer Structured Supervision Group (S group), a Peer Discussion Group (D group), and a Control Group (C group), and provided the participating school counselors with different levels of autonomy, flexibility, and structure. It was expected that the treatment differences would have an impact on the two outcome variables. Furthermore, the results of this study may be helpful for counselor educators who seek (a) innovative methods to provide supervision for practicing school counselors and (b) supervision models and formats that are effective with supervisees at different developmental levels. With the assistance of evolving technology, it is possible to develop stronger relationships between university-level counselor educators and practicing school counselors, which may increase the professional development of the school counselors and benefit their students' well-being.

Significance of the Study

The significance of this study is based on several factors. First, the majority of clinical supervision research has targeted practicum or internship students in school counseling programs rather than practicing school counselors. Due to the difficulty of

recruiting participants and the scattered nature of the profession, studies on post-degree school counselors have attracted less attention in the counselor education and supervision field. As reviewed by Borders (2005), the latest survey by the American School Counselor Association (ASCA) on school counselors' experiences and preferences regarding supervision was published in 2001. Compared to the survey by Usher (1992), a moderate increase of 20% of school counselors in 2001 reported receiving peer or clinical supervision, whereas almost no supervision was reported 20 years earlier. However, almost 70% of school counselors in practice still remain underserved and isolated in their profession. This study fills a gap in the literature and provides more understanding of possible interventions that can be applied to school counseling supervision practice. As reported by Borders (2005), preferred supervision frequency varied from once a week to once a month among school counselors with or without National Board of Certified Counselors (NBCC) certification. Therefore, the use of both synchronous (same time) and asynchronous (different time) online peer supervision groups in this study provided more flexibility and autonomy for the school counselor participants.

Second, because this study recruited participants from schools across the United States, the results should have increased generalizability and implications for the profession of school counseling. The study used a quantitative experimental design that provided a duplicable model and a process that can be applied in various school counseling supervision practices and meet the professional needs of the school counselor population. In addition, the quantitative methodology applied in this research provided more specific variables in terms of the outcomes of peer group supervision.

Third, this study used free internet resources, Second Life and Google Groups, to integrate online technology for professional purposes. Although there might be ethical and privacy concerns regarding free software and websites, the added convenience and accessibility allowed the peer support group model to operate freely without cost and without the need for registration in a university or governmental account. The benefit of

free and ongoing professional peer support, supervision, and consultation using social media is a growing trend in the 21st century, and counselor educators need to be prepared to work effectively with diverse supervisees outside of a limited campus. The goal of this study was to develop and evaluate a user-friendly model for wider application among practicing school counselors nationwide and to advocate that state licensure boards or the ASCA consider providing online peer supervision groups as a professional service within their organizations.

Research Questions

The purpose of this study was to investigate the effectiveness of three online peer supervision groups using an experimental design and to compare the outcome of the treatments reported by the group members. The specific research questions were as follows.

Research Question 1

Are there significant differences between school counselors' case conceptualization skills after participating in the three online supervision groups (Online Structured Peer Supervision Group, Online Peer Discussion Group, and Control Group) as measured by the Clinical Hypothesis Exercise Form (CHEF; Wantz & Morran, 1994)?

Research Question 2

Are there significant differences between school counselors' self-efficacy after participating in the three online supervision groups as measured by the Counselor Self-efficacy Scale (CSES; Melchert, Hays, Wiljanen, & Kolocek, 1996)?

Research Question 3

Do the outcomes of supervision treatments vary by school counselors' years of experience?

a. For the variable of case conceptualization skill, are there significant differences between the high experience level (more than 7 years' experience) and the

low experience level (less than 7 years' experience) school counselors after the online supervision treatment as measured by the CHEF?

b. For the variable of self-efficacy, are there significant differences between the high experience level (more than 7 years' experience) and the low experience level (less than 7 years' experience) school counselors after the online supervision treatment as measured by the CSES?

Definition of Terms

This section identifies the conceptual and operational definitions of the terms used to conduct this study. However, more detailed explanations of the three on-line peer supervision groups as the independent variables will be discussed in Chapter III, Methodology.

Practicing School Counselors

The term "practicing school counselors" is defined as counselors who are currently working in K-12 school systems and who provide counseling services for students. As described by the American Counseling Association (ASCA, 1997), school counselors provide services for all students, school staff, families, and members of the community to promote the students' academic achievement and to conduct prevention and intervention activities that meet the students' social, emotional, and career development needs (Campbell & Dahir, 1997). This study recruited participants who provided evidence of employment in any K-12 school in the United States.

Online Peer Group Supervision

For the purpose of this study, online peer supervision groups were implemented in three different formats. The term "online" refers to supervision that occurs in a web-based environment using computer-assisted technology and products. As described by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), online supervision is defined as using internet technology, software, related products, knowledge, and skills to facilitate communication and to conduct supervision sessions

(CACREP, 2001). The online technology utilized in this study is available at no cost from two websites: the Second Life (www.secondlife.com) and the Google Groups (www.googlegroups.com). Peer supervision is a form of supervision that is not based on the components of hierarchical power differences and performance evaluations by a supervisor (Bernard & Goodyear, 2004). The peers participating in this study were school counselors who were from various school levels and diverse geographical locations and who had different years of counseling experience.

Case Conceptualization Skills

School counselors' case conceptualization skills can be defined as the skills, knowledge, and cognitive ability that counselors use to understand the core problems and difficulties of their clients (Prieto & Scheel, 2002). Operationalized in this study, it was measured by scores on the Clinical Hypothesis Exercise Form (CHEF; Wantz & Morran, 1994).

Self-efficacy

Self-efficacy as a construct was first described by Bandura (1982) and refers to individuals' beliefs regarding their ability to apply cognitive, behavioral, and social skills to completing a required task (Larson & Daniels, 1998). For the purposes of this study, self-efficacy was defined as school counselors' beliefs in their ability to apply their skills and knowledge related to counseling tasks. Levels of self-efficacy were measured by the Counselor Self-efficacy Scale (CSES), which was developed by Melchert et al. (1996).

CHAPTER II

LITERATURE REVIEW

Loganbill, Hardy, and Delworth (1982) defined supervision as “an intensive, interpersonally focused one-on-one relationship in which one person is designated to facilitate the development of therapeutic competence in the other person” (p. 4). It also promotes supervisee’s developmental changes and transitions toward higher levels of development. The function of supervision includes (a) enhancing the professional functioning of supervisees, (b) monitoring client care (Bernard & Goodyear, 2004), and (c) assessing the fit between the needs of the supervisee and the needs of the client (Cottone & Tarvydas, 2003). Holloway (1995) described the goal of supervision as development of a supportive environment that helps supervisees’ professional growth in aspects of knowledge, attitude, and skills. According to Bernard and Goodyear (2004), supervision is an intervention that serves similar roles to teaching, counseling, and consultation (p. 8). They proposed supervision in three formats: individual supervision, group supervision, and live supervision. In this study, the literature review focuses on the group supervision format and summarizes the models and studies that were integrated into the research design.

Group Supervision

Group supervision is defined as one supervisor working with a group of supervisees. An advantage of group supervision is that it is more time efficient when individual supervision is not available. Sutton and Page (1994) described group supervision as a way to provide supervision for low cost and maximum accessibility. In addition, in group supervision, group members can benefit from their peers as well as from their supervisor, providing feedback and support to each other, sharing alternative and diverse ideas regarding treatment plans and diagnosis, and even gaining insight from an interpersonal perspective (Bernard & Goodyear, 2004). CACREP (2009) approved group supervision as appropriate for training school counseling students, but suggested

limiting group sizes to less than 10 per session. Other advantages of group supervision have been supported by research comparing it to individual supervision, or using different models of structured or unstructured groups to enhance the effectiveness of group supervision.

Newgent, Davis, and Farley (2005) focused their study on meeting each student's supervision needs with an appropriate supervision format. They examined the three formats of individual, triadic, and group supervision. Participants were 15 doctoral-level internship students in a counselor education program, and the average age was 41 years. Most had received some kind of supervision before the study began and had worked in the counseling professions. Four instruments were used to measure the impact of the three supervision formats: the Working Alliance Inventory (WAI), the Supervisory Style Inventory (SSI), the Supervisory Working Alliance Inventory (SWAI), and the Supervisee of Supervision Evaluation (SSE). Three major findings of Newgent et al. (2005) can be described as follows. First, more positive dynamics were found in individual and triadic supervision than in group supervision. Second, students reported significantly higher satisfaction with individual supervision than with the other two formats. Third, individual supervision fit students' individual training needs better than the triadic and group supervision approaches. The results contrasted with those of the previous study by supporting the preference of supervisees from lower developmental levels for individual rather than group supervision. Doctoral students who had extensive experience in counseling also preferred individual supervision due to their diverse needs.

Peer Group Supervision Models

Peer group supervision is one variant of group supervision. As illustrated by Bernard and Goodyear (2004), it is difficult to distinguish consultation from peer group supervision. Both share two common components: the absence of formal evaluations and the presence of non-hierarchical relationships between peers. Herbert (2004) conducted a meta-analysis of individual, group, and mixed approach supervision studies and

suggested that both individual and group supervision are effective and have similar benefits. Two important structured group models were implemented in most of the group supervision studies. One was the Systematic Peer Group Supervision (SPGS) model developed by Borders (1991), and the other was the Structured Group Supervision (SGS) model presented by Wilbur et al. (1994). Each model had unique characteristics and served different training purposes. The goal of the SPGS was to encourage the professional growth of counselors-in-training by using a role-playing technique and presenting the case as a group. For example, each group member might play the client, the counselor, or the outsider to help the presenting student practice and conceptualize the case problems. The supervisor took the role of group moderator and process observer, and more independence and autonomy were expected from the supervisees.

Structured Group Supervision (SGS)

The SGS (Wilbur et al., 1994) is known for its well-structured phases and the case summary component. Each group session is divided into five levels, and each stage has specific tasks to increase the effectiveness of the supervision process. In Phase 1, the supervisee presents a case and explains what assistance is needed from the group. In Phase 2, more information or clarification is requested by the group members from the presenting supervisee. In Phase 3, group members contribute to the case by expressing their thoughts and providing feedback. The presenting supervisee remains silent during this phase, and then the group is offered a break to ensure that enough time is given to the presenter to prepare his or her response. In Phase 4, the presenting supervisee responds to questions or feedback from group members. Agreement or disagreement with these suggestions may be evaluated by the presenting supervisee, and more solutions or insights may be generated. Finally, optional time may be added by the supervisor as Phase 5, if needed. The goal of Phase 5 is to give the supervisor time to provide feedback to the group by focusing on the process, the dynamics, or a summary of the session that may be helpful in improving the quality of the next group session. In their 7-year

longitudinal study, Wilbur et al. (1994) conducted a large-scale experimental investigation (N = 194) to study the effectiveness of the group SGS model. Randomized and control groups using a traditional group supervision model were designed to compare two outcomes: personal growth and skill development.

Structured Peer Consultation Model (SPCM)

Peer group supervision is more commonly used when training interns who are working with a faculty supervisor in a university setting; however, school counselors in practice may not have access to a qualified supervisor in their work settings. Fraleigh and Buchheimer (1969) reported that peer group supervision with no supervisor actually facilitated more responsibility and independence for interns. The Structured Peer Consultation Model (SPCM; Benshoff & Paisley, 1996) provides a structure for practicing school counselors to operate a peer consultation group without a supervisor's presence. The nine-session group meets every second week for 60 minutes. The authors set up guidelines for each week and list activities for group members to practice. For the first two sessions, group members discuss their counseling styles and develop short-term goals for improving their work as school counselors. Videotapes presenting the counseling sessions are exchanged during the early levels of the group meetings, and additional case presentations and discussions are practiced during the working levels, from Session 3 to Session 8. The peer consultants work together to answer the following questions: (a) What seemed to be helpful and what was not? (b) Did the interventions used match the goals of counseling? (c) Were the counselor's interventions consistent with his or her style as described in Session 1 of the SPCM? In the final session (Session 9), group members reflect on their experiences, evaluate their progress, and develop ideas to translate the changes they made during the group to future practice. Aponte and Lyons (1980) also noted that peer supervision without a supervisor allowed more criticism and creativity than traditional supervision. However, they cited a limitation of using the peer supervision model with no supervisor for practicum students and suggested that this

model might be more effective for mature counselors who are at similar developmental levels.

Supervision for School Counselors

During the past 25 years, supervision research focused on practicing school counselors has been limited. As reviewed by Crockett, Byrd, Erford, and Hays (2010), only one special issue of the journal of *Counselor Education and Supervision (CES)* has been devoted to supervision of counselors in schools. In addition, an analysis of the types of participants appearing in *CES* showed that nearly 60% of the research used counseling students as participants and 30% used counselor educators as participants. In other words, there were three groups in each treatment condition, for a total of nine groups. Topics related to practicing school counselors contributed to only 10% of the research articles in this leading professional journal. Among those articles, only three were empirical studies that collected data from school counselors. Surprisingly, only one article in the past 10 years related to supervision interventions for school counselors has been published in *CES*.

Current Problems of School Counselor Supervision

Kellum (2009) discussed the difficulties of developing supervision relationships with practicing school counselors in two areas: the lack of standards and legislative requirements. Even though CACREP (2009) outlined the supervision requirements in school counseling training programs, there are no standards provided for school counselors in practice. Both the American School Counselor Association (ASCA) and the state licensure boards do not provide mandatory standards for continuing education or clinical supervision hours in their professional guidelines or requirements for school counselors. Therefore, compared to other mental health professionals, school counselors are often less prepared when they graduate from training programs. However, counselor educators are still able to find foundations for building supervision support for school counselors from professional organizations, and especially for peer supervision. As

reported in the ASCA (2004) ethical standards, it is expected that (a) school counselors will seek professional growth that continues throughout their careers, and (b) members will contribute to the profession through the sharing of skills and ideas with colleagues as well as providing support and mentoring for novice school counselors (Standard E 1.c & Standard F. 2.b & c). Scholars have also emphasized the responsibilities of school counselors in their accountability for referring students with serious mental health concerns (Barrett & Schmidt, 1986; Sutton & Page, 1994). Without sufficient clinical supervision and support, school counselors may not be aware of their limitations, which might compromise client welfare. Herlihy et al. (2002) also stated that multiple disadvantages, including an isolated environment, lack of professional support, and complicated and urgent situations, all add up to higher stress levels for school counselors and may increase the risk of legal and ethical problems. Similarly, highly competent and well-prepared school counselors may be hard to find as a result of insufficient clinical supervision (Portman, 2002).

Peer Group Supervision for School Counselors

Agnew, Vaught, Getz, and Fortune (2000) conducted a qualitative study to investigate the impact of a peer group clinical supervision program that was implemented for 4 years in a Virginia school system. Thirty-two elementary school professionals including 13 school counselors participated in this study to answer questions about their experience. Four questions were asked to collect data concerning their evaluation of the project: (a) What counseling skills were gained or improved; (b) what changes in their professional growth occurred; (c) what personal gains were achieved; and (d) what were the perceived strengths, weaknesses, and barriers of this peer group supervision program? Results showed that the peer group supervision program received positive feedback from school counselors and enhanced their perceptions of professionalism. A content analysis of the professional gains indicated “increased awareness” and “improved consultation and referral knowledge” as the two most frequent answers. Evaluation from participants

also found that merged themes in the strengths were “improved professional relationships with other counselors,” “peer support,” “self-awareness or personal growth,” “supervision training,” “supervision feedback,” and “administrative support.” The factor of most concern was “lack of adequate time for supervision.”

Factors Influencing Supervision Effectiveness

The goal of this study was to assess the effectiveness of three online peer supervision groups and to compare the supervision outcomes with supervisees’ developmental levels. Based on the research questions, the dependent variables were case conceptualization skills and self-efficacy. To understand the mediating role of supervisee developmental levels, the Integrated Developmental Model (IDM; Stoltenberg et al., 1998) and four levels of supervisees were introduced. Furthermore, additional studies related to those constructs were reviewed.

Case Conceptualization Skills and Supervision

Case presentation and conceptualization skills have been emphasized in counselor training for almost three decades (Holloway & Johnston, 1985). As illustrated by Loganbill and Stoltenberg (1983), case conceptualization skills are the ability of a counselor to synthesize and integrate the interpersonal, emotional, and environmental information presented by clients in order to set up goals and develop appropriate intervention plans. It is believed, however, that the cognitive process, which is the critical ability in case conceptualization, is different for novice and experienced counselors (Anderson, 1996). Although it is not easy to measure the cognitive process of case conceptualization, several strategies have been used to facilitate the cognitive development of trainees in the counseling profession, such as “thinking out loud” and debriefing with their supervisors. Others use documentation such as case notes, templates, and reports as a tool to help trainees improve case conceptualization skills (Jongsma & Peterson, 1999). Based on their research on how to facilitate counselor trainees’ case conceptualization skills with case documentation, Prieto and Scheel (2002)

suggested a STIPS format: S (signs and symptoms), T (topics of discussion), I (interventions), P (progress and plan), and S (special issues). The goal of the STIPS case documentation format is to help trainees gain more comprehensive understanding using information collected from those five areas. In addition, the STIPS format provides supervisors with both a solid structure and problem areas on which to focus. To incorporate the benefit of case documentation, the two experimental peer supervision groups in the current study shared and presented their case notes to their peers and gained insight from synchronous verbal feedback or asynchronous comments via text postings.

Enhancing counselors' case conceptualization skills via a cognitive model has been shown to be effective. Willhelm (2000) conducted a 3-hour intervention using a cognitive model and assessed the training outcome on the students' hypothesis-generation skills. The intervention protocol included an introduction, a "free trip exercise" that taught more effective problem-solving cognitive skills, followed by a video tape that demonstrated the information-attending skills and hypothesis-developing process. Results showed a significant difference between the treatment group and the control group. Willhelm also concluded that conceptualization skills can be learned from training even for beginning-level counselors. In the current study, in both the Online Structured Peer Supervision Group (S group) and the Online Peer Discussion Group (D group), all participants had the opportunity to present their cases, ask questions, and exchange ideas on the cases presented by their peers.

Counselor Self-efficacy and Supervision

Clark (2006) defined counselor self-efficacy as "a complex concept related to a counselor's beliefs or judgments about his or her capabilities to effectively counsel a client" (p. 54). The essentials of Bandura's (1986) self-efficacy theory included four elements: (a) performance accomplishments, (b) vicarious experience, (c) verbal persuasion, and (d) emotional arousal. Therefore, counselor-self efficacy is highly related to counselors' experience working with clients, and how they perceive and evaluate their

ability to accomplish tasks during the process and to perform effective counseling. Measuring self-efficacy has been a challenge because it is correlated with many constructs. As illustrated by scholars, it can be situational depending on the environment and feedback of others (Maddux, 1995). It is not a predictor of the actual outcome, but more of a mediator that has a strong impact on the anticipated outcome. In other words, high self-efficacy may not guarantee successful counseling outcomes, but it means that counselors have confidence in what they are doing and have strong beliefs and positive feelings about themselves professionally. Studies have shown that self-efficacy is a valid factor that influences counseling effectiveness. For example, Larson et al. (1992) found that counselor self-efficacy had a positive correlation with counselors' years of experience and training, and according to Daniels and Larson (2001), counselors with higher levels of self-efficacy have less anxiety.

Among several instruments that measure counselor self-efficacy, the School Counselor Self-efficacy Scale (SCSE) was developed specifically based on the expectations of the ASCA National Model and their description of school counselors' competency (Bodenhorn, 2001). The SCSE consists of five subscales, including (a) Personal and Social Development, (b) Leadership and Assessment, (c) Career and Academic Development, (d) Collaboration, and (e) Cultural Acceptance. This comprehensive scale incorporates all the tasks school counselors are likely to encounter during their work; however, for the purpose of the current study, an instrument that focused more on the counseling competencies related to self-efficacy, the Counselor Self-Efficacy Scale (CSES; Melchert et al., 1996), was used to measure school counselors' self-efficacy regarding their skills and knowledge in counseling.

Self-efficacy is also a good indicator of supervision effectiveness. Cashwell and Dooley (2001) conducted a study to determine the impact of supervision on counselor efficacy. Participants were 33 counselors from a community agency and a doctoral internship program. Twenty-two participants received supervision on a regular basis for

their license requirement, and 11 participants did not receive supervision. The Counseling Self-Estimate Inventory (COPSE; Larson et al., 1992) was applied to investigate their levels of counselor self-efficacy. Results showed a significant difference between the two groups. Counselors who received clinical supervision showed a higher level of self-efficacy than those who received no supervision. The authors also suggested that continuous clinical supervision needs to be provided to practicing school counselors so that they are better prepared to face the rapid challenges in today's school environment.

Tang et al. (2004) further examined the factors that influence students' self-efficacy and whether there were differences between those who graduated from Accreditation of Counseling and Related Educational Programs (CACREP) and those from non-CACREP accredited programs. Participants were 116 students from six counselor education programs, and a demographic questionnaire and the Self-Efficacy Inventory (SEI; Friedlander & Snyder, 1983) were used as instruments. No significant difference was found in overall self-efficacy scores, but several factors were positively correlated with students' counseling self-efficacy. They were the time investment in internship hours and the students' working experience related to counseling before entering the program. That finding is consistent with self-efficacy theory and provides evidence of supervision effectiveness. In sum, with more practicing experience and exposure to counseling-related courses and internship hours, students have a better chance of developing higher self-efficacy and gaining more confidence. Similarly, it was expected that the participants in the current study would expose themselves to additional time and practice opportunities outside of formal training, which would help them gain more experience in supervision and higher levels of self-efficacy.

Years of Experience and Supervision

Another research goal of the current study was to investigate school counselors' developmental levels and how they influence the outcome of supervision. The concept of developmental levels is based on the Integrated Developmental Model (IDM) developed

by Stoltenberg et al. (1998). An overview of IDM theory and findings from supervision studies related to supervisees' developmental factors are presented in the following section.

The Essence of the Integrated Developmental Model (IDM)

As summarized by Stoltenberg (2005) in *The American Psychologist*, the IDM was based on the variations of supervision environments that would effectively help supervisees' professional development. The supervision setting may shift from a high degree of structure or directive supervision toward a less structured and nondirective supervision style. Each of these levels is characterized by changes in "three overriding structures" and provides guidelines to assess professional growth (Stoltenberg et al., 1998). The three structures can be explained as follows: (a) awareness of self and others, (b) motivation (refers to the supervisee's willingness and involvement in clinical training), and (c) autonomy (represents the independence level of the supervisee).

Stoltenberg et al. (1998) also identified eight domains of professional functioning that help supervisees to become effective counselors. In the current study, many of those functions were addressed in the supervision intervention, including the "interpersonal assessment," "case conceptualization skills," and "treatment plans and goals."

Furthermore, Stoltenberg (1998) described four levels of supervisee development (Level 1 to Level 3i) and suggested that supervisors need to adjust their styles and focus of supervision to match the supervisees' needs. A more detailed description of the four supervisee levels follows.

Level 1 supervisees have limited experience and background knowledge; therefore, they tend to focus more on themselves than on their clients. Their motivation is usually high, and their dependency is low. This level of development requires more structured supervision and less directive feedback because the supervisees' anxiety level may be high. Supervision goals at this level should be to encourage autonomy and provide learning opportunities for the supervisees to develop the required competencies.

Level 2 supervisees. After gaining more experience and knowledge, supervisees move from Level 1 to Level 2. They have more complex cognition toward their clients, but might be discouraged by the complicated nature of the cases. They are more sensitive to verbal and non-verbal cues, and their feelings may be influenced by their clients' reactions. For example, their motivation may fluctuate according to the feedback they receive from their clients, and they might experience a parallel process with the intervention. The most significant characteristic of Level 2 supervisees is their struggle for autonomy. They are at the midpoint of their independence, yet they sometimes feel confused and uncertain. The supervision goals for this level of supervisees should include the following. First is assessing their functioning levels and their strengths and weaknesses so that the supervisor can develop appropriate interventions for the supervisees. Second, to avoid the conflict of a power struggle between the supervisor and the supervisee, comments given to the supervisee need to be direct and also encouraging. A supervisor might start the discussion by generating alternative strategies and asking questions related to the process rather than the outcome; an example is allowing supervisees to explore alternative interventions and asking them to explain the rationale for their choices. Third, the supervisor needs to help the supervisee to deal with problems at a higher level. This means that problems in the relationship between the client and the supervisee may also appear in the parallel process of the supervisory relationship.

Level 3 supervisees. The major difference between Level 2 and Level 3 supervisees is stability. At this level, supervisees understand their strengths and weaknesses, and are more competent in helping clients with complex problems. They have more independence and autonomy in performing counseling tasks and applying their knowledge to action plans. As the supervisees' confidence levels grow, they are treated more like peers or colleagues than supervisees. The supervisor and supervisee can take turns leading the supervision, and the supervisor is not the only expert in the

supervisory relationship. In other words, more a consultation-oriented supervision will replace the traditional hierarchical supervision.

Level 3i supervisees. Supervisees at this level have integrated their knowledge and skills, and have a strong professional identity relative to the counseling profession. They are competent across different domains of their job requirements and perform with stable effectiveness in their counseling practices. However, in the IDM latest edition, Stoltenberg and McNeill (2011) ruled out the 3i level and questioned the possibility that a counselor or therapist can ever reach this point. “Indeed, we can safely say that no one will be able to function equally well across all the domains and subdomains of clinical practice” (p.135). They also emphasized the fact that the development of counselors or therapists is an ongoing and continuing process that never stops.

In sum, the IDM provides a foundation and theory base for the current study, and the findings also support similar assumptions that supervisees from different developmental levels require different levels of support in their supervisory relationships and also prefer flexible supervision styles. These conclusions support the rationale and purpose of this study, which is to provide more flexible supervision interventions that satisfy the needs of supervisees, especially those that match their developmental levels with more or less structured group formats.

Findings on Supervisees’ Developmental Differences

Several studies have incorporated developmental theories and examined their impact on supervision effectiveness. For example, Shechtman and Wirzberger (1999) conducted a survey in Israel. The results collected from 202 Israeli school counselors showed significant differences between school counselors who had more or less than 7 years of working experience. The needs of counseling, process, and personalization components were highly valued across all supervisees, and the findings confirmed that professional growth needs are common across practicing school counselors. This study provides insight for counselor educators regarding the needs of supervisees at different

developmental levels, including supervisors with different styles; however, questions regarding what kind of group format may benefit supervisees from diverse developmental levels remain unanswered. Therefore, one of the research questions of the current study examined the relationship between the supervisees' developmental levels and the outcomes of supervision treatment formats.

Findings concerning supervisees from lower developmental levels showed that they prefer individual supervision over group supervision. However, the conclusions derived from counseling students in training may not be consistent with the population of practicing school counselors. Given that practicing school counselors who have finished their training are at different levels of professional experience, the group supervision format may fit their needs and provide them with more autonomy. For example, Ray and Altekruze (2000) designed an experimental study to compare the supervision effectiveness of three different groups. The samples were 64 master's students from two Southern universities who were randomly assigned to large, small, and mixed groups to experience both individual and group supervision. This 10-week group supervision program used two instruments to measure the variables of interests. The Counselor Rating Form-Short Version (CRF-S; Corrigan & Schmidt, 1983) was used to test counselor effectiveness, and the data were gathered from the supervisor, the client, and the raters. The Supervisee Levels Questionnaire-Revised (SLQ-R; McNeill et al., 1992) was used in pre- and post-tests to measure the change in counselors' development levels. Findings in this study supported positive changes in all three groups, but the counselors in training (lower level supervisees) expressed a higher preference for individual supervision than for a group format. In addition, the authors reported that the large group supervision format helped to increase the supervisees' autonomy.

Studies have suggested that for senior school counselors who are in the higher developmental levels, peer group supervision is the better approach because it helps to develop counseling skills, consultation skills, and peer support from group members

(Crutchfield & Borders, 1997). As elaborated in IDM theory (Stoltenberg et al., 1998), counselors who achieve the highest level of developmental levels work independently and understand their strengths and weaknesses. Therefore, a more consultation-oriented supervisory relationship may be more appropriate when working with school counselors at higher developmental levels. A study by Protivnak (2003) examined a variety of different supervision modalities in relation to Littrell's four levels of development of school counselors (Littrell, Lee-Borden, & Lorenz, 1979): (a) dependence, (b) pseudo-dependence, (c) interdependence, and (d) independence. For beginning counselors, more intensive supervision might be needed, such as e-mail support that provides autonomy and independence (Myrick & Sabella, 1995), or a long-term clinical supervision program such as the 3-year program implemented in a Virginia school system (Agnew et al., 2000) and the Northside Independent School District (NISD) model (Henderson & Lampe, 1992) that provides five separate supervision conferences to enhance counseling skills and learning of new techniques. Another model used an informal peer support network in conjunction with counselor educators, school counselors, and administrators in Missouri and developed the Performance-Based Professional School Counselor Evaluation System (Bunch, 2002). The results showed that a systematic evaluation tool like this could provide more self-evaluation opportunities and increase self-reflection in school counselors' professional development.

Portman (2002) also conducted a qualitative study to understand the supervision experience of early-entrant school counselors. Participants were seven novice school counselors, five who had finished their graduate degrees in school counseling and two who had not. The average working experience of the participants was less than 3 years, and the average credit hours when employed as school counselors were 15 hours. Due to the shortage of required graduate credit hours (CACREP increased the credential hours from 48 to 60 in 2009), early-entrant school counselors may face challenges involving requisite knowledge, skills, and awareness, which are critical to performing their services

as a school counselor. Data collected by telephone interviews revealed four major themes from the participants: (a) early employment considerations, (b) personal anxiety, (c) professional growth and development, and (d) supervision. Early-entrant school counselors might still have a connection with their professors from their university programs; however, practicing school counselors who graduated some time ago might have fewer supervision opportunities. Therefore, one of the suggestions from the author was to build professional networks to support the professional growth of novice counselors and provide benefits for school counselors in the field.

School Counselors' Needs and Preferences for Supervision

According to the literature review, the most common supervision needs of school counselors' can be described in two parts: professional growth and self-development. For example, the qualitative data gathered from school counselors' evaluations of their supervision needs suggested two themes: to increase their professional identity and to fulfill their professional roles as school counselors (Cook, 2009). Similar findings such as taking appropriate action with clients' problems, developing skills and techniques, and initiating treatment plans that serve short-term and long-term goals have appeared in earlier studies (Sutton & Page, 1994). Recently, a large-scale qualitative study (p = 51) focused on the perceived benefits of supervision by guidance officers in Australia and suggested that "emotional well-being, reduction of stress, and prevention of burnout" (p. 348) were the most important benefits from clinical supervision. Therefore, in order to successfully communicate and connect practicing school counselors, supervision intervention needs to fulfill their professional and personal needs, and balance individual preferences by providing peer support that meets them where they are in their developmental levels.

In Australia, McMahon and Patton (2001) initiated a project with the Department of Education in Queensland to study the perceptions of school guidance officers (the title used in Australia for school counselors) in clinical supervision. Fifty-one guidance

officers were randomly assigned to 15 focus groups, and structured interview questions were used in group discussions. The objectives of the study had two dimensions. Two general questions regarding their previous supervision experience and their needs in supervision were asked of all of the participants. However, for participants who had never experienced clinical supervision, the follow-up questions were related to the effects of lacking supervision while the others who had experienced clinical supervision were asked to report their perceived benefits of supervision. Data were analyzed using axial and selective coding techniques (Neuman, 1997; Strauss, 1987) and revealed nine themes: isolation, support, accountability, debriefing, skill development, personal development, developmental issues, professional development, and induction and client welfare. The findings provided several insights for further study. First, school counselors' needs for clinical supervision are diverse and broad across personal and professional aspects. Therefore, it is not easy to meet those needs with one model or approach. Second, supervision needs can be summarized as one concept called "professional support." In the discussion section of their study, the authors clearly suggested that "clinical supervision serves as a means of addressing the professional isolation felt by the guidance officers" (p. 348). In addition, half of the participants expressed a desire for a higher frequency of supervision and more time in supervision, and most of them participated in informal networks that satisfied their needs outside of formal supervision. In sum, this study showed that school counselors can benefit from clinical supervision and that they need to receive support from members within their profession.

Miller and Dollarhide (2006) reviewed the literature relative to clinical supervision of school counselors in a special issue of *CES* and provided several suggestions for future research. They recognized the challenges of supervision for school counselors such as insufficient frequency and time for supervisors, the concern of time for supervision, and accessibility to qualified supervisors in the community. Furthermore, the lack of mandatory requirements from professional associations or state governments

made it more difficult to meet the supervision needs and facilitate awareness among practicing school counselors.

In United States, Page et al. (2001) surveyed 267 practicing school counselors and found that only 23% were receiving individual or group supervision. The motivation for seeking supervision included improving counseling skills (46%) and preparing for licensure (35%). In general, 57% of practicing school counselors expressed a desire for clinical supervision, and their top three goals for supervision were (a) taking appropriate action with client problems, (b) developing skills and techniques, and (c) improving skills in diagnosis. Those goals fit the characteristics of adult learners, which are described as (a) “problem-centered” (seek educational solutions to where they are compared to where they want to be in life), (b) “experience accumulated” (use their personal experiences as useful resources), (c) “results-oriented” (have specific results in mind for education and will drop out if education does not lead to those results because their participation is usually voluntary), and (d) “self-directed” (typically not dependent on others for direction) (Knowles, 1980).

Technology and Supervision

The development of the internet has changed the way individuals live and communicate with others. Through computer networking, people share services and information and interact with each other directly (Myrick & Sabella, 1995, p. 37). The counselor education and supervision profession has also adopted computer technology in curriculum design, distance learning, and supervision practicum or internship. Increasing attention has been paid to the special characteristics, advantages, and applications of using computer technology in clinical supervision. For example, Glover and Stebnicki (2001) concluded that “recent advances in computer and internet technology for distance learning have had a considerable impact on the general graduate-level curriculum in psychology and counseling programs”(p. 283). The terms “technology-mediated supervision” (Conn, Roberts, & Powell, 2009), “e-supervision” (Alger & Kopcha,

2009),” “computer assisted supervision” (Nelson, Nichter, & Henriksen, 2010), “cyber supervision” (Chapman, 2008), and computer-based supervision (Vaccaro & Lambie, 2007) have been used to define the phenomenon of applying computer technology to counseling supervision, but a comprehensive definition of technology-assisted supervision has not been reported, and systematic studies about this topic are unsatisfactory at present.

Another study using web-based technology for clinical supervision was conducted by Christie (1999) at Oregon State University. This study applied a qualitative design and focused on analyzing textual materials collected during supervision sessions. Findings suggested that “attitudes, prior experiences, and social expectations influenced participant meaning-making and subsequent self-construction of students’ ideal learning environment” (p. 89). In other words, the developmental stage of supervisees appeared to be an important factor that fit the theoretical constructs of Stoltenberg’s model of supervisee development (Stoltenberg, 1981). The result was positive, and the participants reported additional opportunities to gain autonomy. However, distance supervision or cyber-communication can be very different, depending on how messages are exchanged. Some distance supervision methods use text content; others use webcams or telephones to establish contact. Wilczenski and Coomey (2006) pointed out that “computer mediated conversation will lead to more task-oriented discussions than on social-emotional issues” (p. 4). Other research suggested that the “anonymity” of web communication actually allows group members to talk more freely, especially for those who are more introverted in face-to-face supervision.

Sindlinger (2011) explored the feasibility of online supervision by comparing face-to-face supervision to online supervision with a popular supervision model, the Reflective Team (RT) model. He used a qualitative method to address two major questions: (a) the general experience and impression of online RT supervision, and (b) the differences between online RT supervision and the face-to-face format. Data were

collected from focus group interviews and individual interviews from five doctoral students and one supervisor. Several themes emerged: (a) the benefit and convenience of online technology; (b) the distractions of the home environment; (c) the challenges of using technology, such as few interactions and missing non-verbal cues; and (d) the effectiveness of RT online supervision. The result of online supervision varies by the supervisees' learning style and developmental levels. Researchers have been interested in comparing traditional supervision approaches with technology-assisted supervision. Coker, Jones, Staples, and Harbach (2002) conducted two studies on the effectiveness of technology-assisted supervision using a chat room format and compared overall satisfaction with face-to-face sessions. The ratings from internship school counseling students averaged 6.6 out of 7 for the online format and 6.9 for the face-to-face format. The effectiveness of the two formats was very similar based on participants' evaluations. Nelson et al. (2010) at Sam Houston State University also conducted qualitative research to compare the internship students' experience with online and face-to-face supervision. The six participants were divided into two groups and met for 3 hours every 2 weeks either in a face-to face format or an online format. Data were collected via a quantitative method using the Group Supervision Scale (Arcinue, 2002) and also via a qualitative method using a constant comparison approach in analyzing the data gathered from a focus group discussion after the experiment. The overall conclusion was that no significant differences were found between the two formats, and comments were provided most frequently from the online group in the following categories: technology challenges, successful trust-building process, convenience in taking the course, and listening to tapes.

Gainor and Constantine (2002) conducted a study using multicultural supervision groups to compare the effects of face-to-face and web supervision formats. Forty-five school counselor trainees participated in peer group supervision. Results suggested that for multicultural supervision purposes, an in-person peer group format was more

effective than the web-based format in developing case conceptualization skills. This study raised a question regarding what kind of supervision theory or models may be more appropriate when using technology to assist supervisees with group supervision. The authors suggested that web-based supervision is the best approach when in-person supervision is not accessible and that the effectiveness of supervision may vary depending on the focus and expected outcome of supervision.

Synchronous and Asynchronous Online Supervision

Even though synchronous (same time) communication seems to be more similar to traditional supervision, there are some advantages to using asynchronous (different time) communication formats such as bulletin boards or discussion forums. Research has shown that asynchronous communication allows multiple topics and focuses of discussion on the same webpage, and it also helps to break the hierarchical power differences between the supervisors (or the educator) and the supervisees (or the students) because every participant is able to facilitate or post a new topic of interest and provide a feedback loop in a continuous format (Ruberg, Taylor, & Moore; 1996). However, several disadvantages were noted such as the “overloading of information” and inappropriate discussion based on “misinformation” (Picciano, 2002, p. 23). Further inquiry of distance supervision techniques and instruments needs to occur to help make distance supervision more effective and to incorporate complementary methods of web-based supervision and face-to-face supervision.

Online Supervision for School Counselors

The use of technology in counselor education has been practiced in many programs, and at least 25 school counseling programs offer distance learning curriculum online. However, it might be even more effective to use the internet as a tool to provide knowledge and guidance for experienced school counselors. Access to the internet allows practicing school counselors to receive continuing education and professional consultation from their professional colleagues especially when dealing with stressful

situations. Laurie, Portman, and Bartlett (2006) conducted a survey to investigate professional school counselors' readiness for technology. Results showed that most school counselors are comfortable with applying computers to daily work but might be apprehensive about using novel software. They also reported that e-mail and VCRs are the most common types of technology that practicing school counselors have been using and with which they have a higher comfort level in operation. In addition, a correlation analysis indicated that school counselors who received more training in technology also had a higher level of comfort and were more apt to learn new software technology. In other words, exposing school counselors to additional technology training and learning opportunities may be the key to increasing their comfort level and allowing them to benefit from the advantages of technology, such as the online supervision groups that were implemented in this study.

Butler and Constantine (2006) conducted a study of school counselor trainees to compare the outcome of a web-based peer supervision group and a traditional supervision group. Forty-eight school counselor trainees were conveniently placed into two equal-size groups; one was the web-based supervision group (N = 24) which met for 1 hour weekly for 12 weeks in addition to individual face-to-face supervision. The web environment was a chat room (online discussion forum) that was conducted by the supervisor in a real-time format. Results showed that the web supervision group had significantly higher levels of collective self-esteem and also achieved higher scores in their conceptualization ability. Implications from this study indicated that web-based supervision groups (a) might develop a strong sense of community, (b) are more cost-effective, (c) provide possibilities for school counselors in the same regions to gain consultation and support from a web community, and (d) could expand their network and provide more communication and interactions for school counselors in rural areas.

Online Peer Group Supervision

The application of technology to clinical supervision is a recent trend in the profession, and it provides many possibilities for connecting isolated school counselors across geographic areas. A recent qualitative study by Cummings (2002) explored an innovative approach by comparing virtual peer group counseling supervision with face-to-face group counseling using a Peer Group Supervision model. Three counselors were invited to participate in 3 weeks (6 hours total) of online supervision using a chat room format online group with the researcher as the facilitator. Transcripts were analyzed from participants' text dialogue during the group sessions and from their self-report journals. The results showed that the virtual peer group actually facilitated group support, enhanced more open and honest communication due to the "disinhibition effect" (people behave differently on the internet due to the lack of inhibition and may be more friendly and open to others), and produced parallel process. Overall, participants believed it was a valuable and meaningful group experience, and the benefits included "being in a group," "personal exposure to an enjoyable experience," and "powerful effects" even without the physical presence of a supervisor. The disadvantages were technical difficulties, misunderstanding of "typos" in a text-based conversation, and uncertainty about emotional reactions caused by the absence of visible cues. However, one participant did express that absence of "body language" actually provided more freedom and openness in conversation.

A study by Wilczenski and Coomey (2006) on the use of cyber communication in school counseling practice supported the positive effects of internet-mediated communication; however, they were also concerned about the ethical issues in distance education and supervision. For example, the lack of non-verbal cues may increase the difficulty for supervisors to communicate with their supervisees. Also, people with disabilities may require accommodations to access the technology, and a universal design might be helpful to resolve these problems. The authors suggested the involvement of

counselor educators with the critical dialogue of the training, preparing and educating the school counselors for the next generation, and continuing to explore the application of computer technology to school counselor practice and education.

Application of Online Technology in Supervision

Many companies have developed online technology that can be applied to supervision practice. However, this study reviewed only the technology applications that were appropriate for research purposes. Burck and Ellison (2011) gave a presentation at the ACA 2011 annual conference comparing five different available types of technology for “cybersupervision.” They examined Cisco Webex, OnSync, Second Life, Skype, and Webinar and analyzed the pros and cons of each platform. The results indicated that many of the applications shared similar advantages such as allowing video conferencing and multiple users, and providing real time communication via video or phone. However, only Second Life is free and allows more than three users to log online at the same time. Technology applications such as Webinar (<http://www.gotomeeting.com/fec/webinar>), Blackboard (<http://www.blackboard.com>), and Iowa Course Online (ICON) have been used for long distance education, web conferencing, or training; however, people without an affiliation with an educational institution may not be able to use those systems for free (usually potential users are offered a 30-day trial and the functions are limited).

Recently, a virtual community called Counselor Education in Second Life (CESL) was developed by Marty Jencius (2009) on Second Life (www.secondlife.com). This virtual space was established for counselor educators to use for classroom teaching and training, and it is a tool for communication and education purposes. During the past 2 to 3 years, two on-line virtual conferences have been conducted by CESL in which dozens of online trainings that included supervision theory, play therapy theory, and practice and reality therapy workshops were hosted. Scholarly discussions and presentations introducing this application have been accepted at both the ACA and the ACES annual conferences. Efforts to incorporate technology into supervision and counselor education

are increasing, yet little research has examined the effectiveness and benefit of this application.

Numerous studies have used Second Life as a platform for training and educational purposes; examples include “ESL students' interaction in Second Life: Task-based synchronous computer-mediated communication” (Jee, 2011) and “The effects of practice teaching sessions in Second Life on the change in pre-service teachers' teaching efficacy” (Cheong, 2011). However, among more than 180 studies using Second Life, few studies have been found related to supervision. One example is “Using three-dimensional virtual environments in counselor education for mental health interviewing and diagnosis: Student perceived learning benefits” (Walker, 2010). So far, even though scholars and counselor educators in CESL are using Second Life to conduct workshops and trainings and to offer continuing education hours for participants, an online group that meets regularly has not been implemented, and a structured group format using the Second Life virtual environment has not been used.

Summary

In sum, research has shown almost equal effectiveness between face-to-face supervision and online supervision in training students in school counseling. In addition, positive feedback has been gathered from pioneering qualitative studies with school counselors in practice. However, less than 30% of practicing school counselors have experienced clinical supervision after entering the workforce, and their needs and preferences regarding supervision have mostly been explored by survey research and self-reported data. Few studies involving school counselors who participate in technology-assisted supervision have indicated the possibility of integrating traditional supervision models into an online environment. More research is needed to evaluate the effectiveness of online peer supervision groups and how this technology can be applied to facilitate the professional growth of school counselors.

CHAPTER III

METHODOLOGY

Purpose Statement and Research Questions

The purpose of this research was to apply online technology to two peer group supervision models and to examine supervision effectiveness as measured by the variables of case conceptualization skills and self-efficacy. In addition, the researcher investigated the influence of developmental levels on supervision effectiveness using the variable of “years of experience” of school counselors. Specifically, the following three research questions were examined:

Research Question 1

Are there significant differences between school counselors’ case conceptualization skills after participating in the three online supervision groups (Online Structured Peer Supervision Group, Online Peer Discussion Group, and Control Group) as measured by the Clinical Hypothesis Exercise Form (CHEF; Wantz & Morran, 1994)?

Research Question 2

Are there significant differences between school counselors’ self-efficacy after participating in the three online supervision groups as measured by the Counselor Self-efficacy Scale (CSES; Melchert, Hays, Wiljanen, & Kolocek, 1996)?

Research Question 3

Do the outcomes of supervision treatments vary by school counselors’ years of experience?

a. For the variable of case conceptualization skill, are there significant differences between the high experience level (more than 7 years’ experience) and the low experience level (less than 7 years’ experience) school counselors after the online supervision treatment as measured by the CHEF?

b. For the variable of case conceptualization skill, are there significant differences between the high experience level (more than 7 years’ experience) and the

low experience level (less than 7 years' experience) school counselors after the online supervision treatment as measured by the CSES?

First, the study provided two different formats of online supervision groups and evaluated the effectiveness of each group with the two independent variables, case conceptualization skills and self-efficacy of the participants. Second, it examined the relationships between the school counselors' developmental levels and their responses to the outcome variables.

Research Design

The core design of this study consisted of a pre-test and post-test with a quasi-experimental design that included a two by three factorial design in structure: the two levels of school counselors' years of experience (low and high experience levels) versus the three online peer supervision conditions. The treatment variables were the three different formats of online supervision interventions, namely, the Online Structured Peer Group (S group), Online Peer Discussion Group (D group), and Control Group (C group). The two outcome variables (dependent variables) were school counselors' case conceptualization skills and self-efficacy.

Participants

Participants in this study were 40 practicing school counselors who worked in nationwide K-12 school settings. To be eligible for this study, participants agreed to the online group conditions for 5 weeks and completed the pre- and post-test surveys at the beginning and conclusion of the study. In addition, participants indicated their level of comfort using technology as a communication and social tool. School counselors with different years of experience, gender, race, school size, professional training, and other demographic characteristics were recruited via email from different sources: (a) members of the American School Counselor Association (ASCA); (b) state-level school counselor associations, including New York, North Carolina, Minnesota, and Iowa; (c) members of school counselor social groups, such as ASCA SCENE and Yahoo Groups' (e) email list

servers, such as the Counselor Education and Supervision Network listserv (CESNET) and Counselor Education and Supervision Students (CESS).

Procedures

This study was divided into four phases: The recruiting phase, the orientation phase, the experimental phase, and the post-test phase. More than 10,000 research invitation emails were sent to potential participants (see Appendix A). Embedded in this email was the pre-test survey link, which was set up using the Qualtrics online survey tool. From the same survey link, participants could sign the consent letter (see Appendix C) and view information related to the nature of this study, time commitment, and the goals and framework of the groups. Five screening questions were used to evaluate the readiness of potential group members (see Appendix B). Instruments used for the pre-test were also included to enable participants to complete the consent form and pre-test questions before the experimental phase. Initially, after three emails were sent, 35 participants finished the pre-test survey and agreed to participate during the first recruiting period (December 2011 to February 2012). However, after the first contact, only 8 people committed to the weekly meeting schedule for the S group condition. Therefore, to attain the needed sample size, a follow-up email was sent during April 2012, at which time 17 more people agreed to participate. In sum, a total of 52 people agreed to participate; however, only 40 took part in the experimental phase and finished the post-test survey.

The orientation phase of this research study consisted of the following tasks. First, the researcher divided participants into three treatment groups according to their time availability. Due to the nature of the design, participants whose schedules accommodated the group meeting times were eligible to enroll in the S group; those unable to join regularly scheduled meetings were assigned to the D or C groups. Second, detailed step-by-step instructions and a group session schedule were sent to the group members via e-mail (see Appendix D). Third, the researcher contacted each group

member to ensure appropriate activation of their accounts. For participants who were assigned to the S group, an orientation session was provided 1 week before the first formal meeting so that members were able to test their audio equipment, practice some basic skills in Second Life, and understand the structure of the online supervision group. Participants in the D group were encouraged to practice the Google Group tasks and to post a brief self-introduction before the first case discussion.

Upon completion of the orientation phase, groups entered the experimental phase. Three S groups arranged to meet on a weekly basis on a fixed schedule for 60-minute synchronous online meetings in the Second Life virtual conference room. The two D groups had more variability in their schedules and logged onto the discussion board to post their comments and share case information on Google groups. Both the S and the D groups continued meeting with their professional peers on the websites for 1 month after the orientation week, and the researcher/facilitator intensively monitored the communication and comments throughout the experimental phase. In addition, to ensure research integrity, the researcher used e-mail and telephone contacts to remind group members of the meeting times and case presentation schedules. During the experimental phase, a challenging case was presented by group members, followed by questions and comments by all group members.

After 4 weeks of the experimental phase, the final phase was the post-test phase. A post-test survey link was sent to the participants via email, and a window of time lasting 2 weeks was given for responding. Data were collected and analyzed after the group process was completed.

Interventions

Two on-line peer group supervision formats were applied as the interventions of this experimental study; the third format was the control group which received no intervention. Specific descriptions of the interventions follow.

Online Structured Peer Supervision Group (S group)

The Online Structured Peer Supervision Group (S group), designed in a structured peer supervision format, was adapted from Wilbur et al. (1991). Each session followed a five-stage model and each group member was responsible for presenting one case analysis to the group during the 5 weeks of group supervision. A sequence of case presentations was decided upon and discussed during the group's first session. Also, each subgroup had a facilitator who managed the time frame and flow of the group discussions; this facilitator also helped troubleshoot when group members were using the Second Life features and functions. However, responsibility and autonomy were given to the group members. The group members treated each other as "peer supervisors" and worked collaboratively to facilitate professional development and provide support within the group process.

Using peer supervisors rather than a single superior supervisor in group supervision was suggested in early studies by Seligman (1978) and Spice and Spice (1976). According to those studies, peer supervisors were more sensitive to and aware of the needs of their peers, with two benefits being received by participants having the opportunity to supervise their peers: (a) They gained a positive attitude toward supervision and how supervision can facilitate professional growth, and (b) they were able to transfer the experience of working with peers to actual work settings. These benefits were also the goals of this study in developing a sustainable group supervision model that practicing school counselors could apply and utilize in their professional careers. Therefore, this study used the concept of peer supervisors, and participants were encouraged to be autonomous and active in achieving their personal and developmental goals.

This web-based peer-structured group model was an integration of two previous models and was modified to fit the unique characteristics of the web environment. First, the group structure and levels were revised from the Structured Group Supervision (SGS)

model (Wilbur et al., 1991). The original SGS model had five phases in addition to a “pause” break (some studies in the literature used six phases to apply this model). However, in this study, the “pause” phase (10 to 15 minutes) was usually skipped in order to save more time for discussions. Second, because this online structured supervision group used a virtual environment, which was a new experience for some group members, and the use of peer supervisors was also challenging for them, they shared any technological difficulties, uncomfortable feelings, or anxiety associated with the group process before the end of each session. During that time, the group facilitator answered any questions to help clarify the process and enhance the group members’ confidence in using online technology. Therefore, 5 minutes were added to Phase 5 (the discussion period), and ideas for how to more effectively apply technology in this structured group supervision model were discussed. The five phases of the S group and the activities of each session were as follows.

Phase One: The Request for Assistance Statement (10 minutes). Each week, a group member was encouraged to present a written case analysis of a client whom he or she considered challenging to work with. A template of case notes were given to group members during the first week of the experiment, which were completed at least 2 days before the presenting session. The researcher sent the completed case notes to all group members before the next meeting time so that they had a written copy in addition to the verbal summary of the presenter. Statements such as “I would like to have some help from the group with...” and “I would like to hear some ideas about...” were used to solicit assistance from the group members.

Phase Two: The Questioning Period and Identification of Focus (15 minutes). After the presenter provided the information regarding the case, group members asked questions of the presenter using a “round table” format to increase their understanding of the case. Questions were used to gather more detailed information, such as the severity or

the antecedent of the presenting problems. For example, group members asked, “When did the problem become worse?” and “How often did it happen?”

Phase Three: The Feedback Statements (15 minutes). Using the “round table” discussion technique, group members took turns providing suggestions and insights to the presenter. The presenter took notes but remained silent during this period. In order to avoid judgmental opinions and lower the tension between group members and the presenter, the researcher provided examples of questions: (a) I am wondering whether you have thought about...; (b) I am not sure if you have tried...; (c) I wonder what would be different if you tried to use... (a counseling skill or intervention); and (d) other variants of those phrases.

Phase Four: The Supervisee Response (15 minutes). The case presenter responded to the suggestions and comments given by the peer supervisors and evaluated possible actions followed by the insights gained from the group. Some responses were (a) “I found it helpful (or not helpful) in the aspect of...,” (b) “I thought it was interesting that...,” and (c) “The question caught my attention because... ”.

Phase Five: The Discussion Period (5 minutes). Group members shared their concerns and suggestions with the facilitator and also with the group members regarding the group structure, time management, technology issues, or other concerns. For example, the difficulties of using Second Life features or interruption of audio or video connections were addressed.

Online Peer Discussion Group (D group)

The D group was an asynchronous peer support group parallel to the Online Structured Peer Supervision Group (S group). Even though the D group members posted comments on the discussion forum at any time, to make this forum more organized, group members were also responsible for presenting a challenging case analysis and sharing their thoughts by following a certain sequence. For example, each of the eight group members took turns being the case presenter for a week at a time and was the first

to begin the discussion for that week. The other group members were free to post their comments and feedback for that case during the week. The dialogues continued back and forth among the presenter and the group members for as many postings as they chose. Although the weekly group presenter also served as the “content leader,” the group facilitator monitored the discussion and group dynamics to prevent any negative effects and ethical violations. This was an innovative idea for an online text-based peer support group, and the component of “structure” was designed to prepare group members for more in-depth discussion. Even though text-based online supervision and discussion groups were used for training school counselors as interns, they had not been used with practicing school counselors. The goal of this study was to apply the successful experiences of counseling interns to practicing school counselors and to address their individual needs. The D group operated using a Google Group web site (connecting school counselors.googlegroup.com) and was account-protected through invitation only. It was not open to the public, and participation occurred only via postings on the forum. To ensure research integrity, no private messages or e-mails were used in communication, and personal contact outside the discussion forum was not encouraged.

Control Group (C group)

The Control Group (C group) members were self-selected based on their schedule availability. They represented a non-treatment condition that provided a baseline for statistical comparison with the two treatment groups. After the experiment began, the C group did not receive any supervision activities and did not interact with their group members. They were given the pre-test and post-test links that included the same instruments and scales as the S and D groups received during the same time period.

Instrumentation

Four measurement tools were used in this study: the Demographic Questionnaire, the Clinical Hypothesis Exercise Form (CHEF; Wantz & Morran, 1994), the Counselor Self-efficacy Scale (CSES; Melchert et al., 1996), and the Supervision Experience

Questionnaire. The Demographic Questionnaire and the open-ended Supervision Experience Questionnaire were developed by the researcher, but the other instruments were developed by authors of previous studies and had been used for counselors in training.

Demographic Questionnaire

For the purpose of this study, the Demographic Questionnaire (see Appendix F) consisted of seven items that gathered information regarding the following areas: (a) years of experience, (b) gender, (c) race, (d) peer support, (e) school size, (f) supervision experience (individual/group), (g) professional training, and (h) experience using social media, such as e-mail, Facebook, chat rooms, video chats and/ or conferences.

Clinical Hypothesis Exercise Form (CHEF)

To measure the professional development in school counselors' case conceptualization skills, the Clinical Hypothesis Exercise Form (CHEF) developed by Wantz and Morran (1994) was used (see Appendix G). The CHEF is a systematic evaluation tool for measuring the case conceptualization competencies of counselors, especially focusing on how counselors integrate a holistic perspective when working with their clients. It is believed that expert counselors think differently compared to novice counselors.

To use this instrument required two steps. First, a 15-minute video clip recording from a counseling session (or a written transcript of the dialogue from the video; see Appendix G) was presented. Second, a form with five items was distributed to participants. This form included three items designed to explore counselors' hypotheses regarding the client's major problems, supportive evidence for their hypotheses, and also their rationale behind those hypotheses. For example, one item on the questionnaire was, "Write a hypothesis describing your client and his or her major concerns." The score was calculated based on the numbers of answers generated from the participants, and a scoring example and explanation are provided in Appendix G. The reliability of this

instrument was based on interrater reliability; the correlation coefficients ranged from .91 to 1.0 in the established study.

The validity of the CHEF was supported by the rationale and validity study of the “thought-listing technique” tested by Cacioppo and Petty (1981). It was based on similar techniques used in hypothesis formation studies (e.g., Hirsch & Stone, 1983; Holloway & Wolleat, 1980; Morran, 1986). The CHEF has also been used in studies to examine the impact of metaphor and clinical hypothesis formation (Young & Borders, 1998) and in a study of a cognitive-skills training model to help practicum students learn better case conceptualization skills (Willhelm, 2000). The results showed a significant difference in the CHEF scores between the control and experimental groups ($M= 3.5$ vs. $M=6.2$), and therefore supported the discrimination and validity of this instrument.

CHEF Raters’ Training

To evaluate the CHEF scores, three doctoral students in the counselor education program at the University of Iowa, including the researcher, were trained to be raters. The training process was divided into three sections. First, the three raters watched the 15-minute CHEF case video online to gain the same experience as all participants. Then an instruction sheet and scoring example from the original CHEF study was given to all raters. In addition, the raters discussed their understanding of the grading process. After coming to an agreement on general rules, five answer sheets from participants who dropped out of the current study were used as practicing examples. Each grader then graded their answers independently, followed by another discussion session. Scores were closely examined and compared; a 70% consistency rate was reached before starting the actual grading for all participants. For all scores in pre- and post-tests, raters were reliable at levels from $r=.75$ to $.93$. The average rater reliability was $.78$ in the pre-test and $.89$ in the post-test, indicating a high correlation coefficient score among raters.

Counselor Self-Efficacy Scale (CSES)

The Counselor Self-efficacy Scale (CSES) was developed by Melchert et al. (1996) with 138 participants from diverse backgrounds: 56% were master's students enrolled in counseling psychology courses, 38% were doctoral students, and 5% were professional psychologists who worked in the university counseling center. This instrument (see Appendix H) uses a 5-point Likert-type scale (from 1 = *strongly disagree* to 5 = *strongly agree*) and contains 20 items for measuring the knowledge and skill levels related to individual or group counseling. The items have both positive and negative statements designed to investigate self-reported counseling efficacy. For example, Item 13 states, "I can effectively facilitate appropriate goal development with clients," and Item 1 states, "My knowledge of personality development is adequate for counseling effectively."

The validity and reliability of the CSES has been reported in numerous studies. The convergent validity with the previous Self-Efficacy Inventory (SEI), developed by Friedlander and Snyder (1983), showed a coefficient of .83. The criterion validity of the CSES was tested by the scores in counselor experience levels. Multiple regression analyses showed positive relationships between clinical training experiences and counselor self-efficacy. The correlations contributed to 43% of the variance ($r^2 = .65$). The reliability of the CSES was also established by the authors. The split-half reliability of CSES indicated a Cronbach's alpha coefficient of .91, and the test-retest reliability coefficient was .85.

The CSES has been one of the most frequently used instruments in counseling and supervision studies. According to Johnson (2009), the CSES is a valid and reliable instrument for the following reasons. First, studies have shown that it is related to counselor experience (Larson et al., 1992) and the Supervisory Working Alliance Inventory (SWAI). Kokarec (2002) also reported that counselor self-efficacy is a significant predictor variable for counselor performance compared to other factors.

Therefore, this study used the CSES to measure positive professional development post treatment.

However, there are also limitations with using the CSES. As Daniels and Larson (2001) suggested, self-efficacy is a self-report psychological status, and it may fluctuate depending on the feedback of others. The authors designed a study to test the impact of client evaluations on counselors' self-efficacy and found that the counselors who received negative feedback reported significantly lower self-efficacy than the ones who received positive feedback. This might explain why many studies on self-efficacy do not find significant changes after trainings or interventions, because a counselor's self-efficacy may be influenced by a challenging case or a client who provides negative feedback. Therefore, for the current study, the researcher added the statement, "Please answer the questions based on your general impressions during the past month and ignore a unique situation or incident," to gain more reliable responses from the participants.

Supervision Experience Questionnaire

To gain insight from the participants and obtain feedback regarding their overall experience after the interventions, three open-ended supervision experience questions were asked of the participants (see Appendix I): "In what specific ways was the group supervision experience helpful?" "In what specific ways was the group supervision experience **not** helpful?" "In what aspects did you perceive more support from your peer group members (e.g., emotional support/knowledge/ skills/ information support/personal growth support)?"

Qualitative data were gathered from the Supervision Experience Questionnaire. Information from the four open-ended questions was used to assist in the interpretation of the results. Patterns observed in these responses are included in the discussion and implication sections.

Analysis

This section provides a description of how the data were analyzed in response to the research questions. For Research Questions 1 and 2 regarding the differences between the three conditions before and after online supervision interventions, a 3 (group) by 2 (time) analysis of variance (ANOVA) with repeated measures was used to examine group differences between the two variables of case conceptualization skills and self-efficacy. For Research Question 3, which examined the factor of years of working experience on the two variables of interest, two separate 2 (time points) by 2 (levels of experience) ANOVA tests were conducted. School counselors who had more than 7 years of working experience were assigned to the advanced (high experience) developmental level group, whereas those who had worked fewer than 7 years were assigned to the beginning (low experience) developmental level group. The effect of online supervision was then compared with the two levels of experience, and whether school counselors respond differently in their case conceptualization skills and self-efficacy. Descriptive statistics were used to present the results gathered from the Demographic Questionnaire, and an overall summary of the open-ended questions (see Appendix J) was used in the interpretation of the results.

Summary

Chapter III presented an overview of this study, the research questions, design, interventions, and instrumentation. In addition, this chapter provided a description of the research participants and the procedures of the study phases. It also presented the validity and reliability for the instruments developed by previous research and the statistical analyses used to answer the research questions.

CHAPTER IV

RESULTS

This chapter presents the findings of this study as guided by the research questions. The purpose of this study was to examine the supervision effectiveness of three online peer supervision models as measured by the two outcome variables of case conceptualization skills and self-efficacy. Also, it explored the impact of years of experience of school counselors and whether developmental levels influenced the outcomes of supervision.

Research Question 1

Are there significant differences between school counselors' case conceptualization skills after participating in the three online supervision groups (Online Structured Peer Supervision Group, Online Peer Discussion Group, and Control Group) as measured by the Clinical Hypothesis Exercise Form (CHEF; Wantz & Morran, 1994)?

Research Question 2

Are there significant differences between school counselors' self-efficacy after participating in the three online supervision groups as measured by the Counselor Self-efficacy Scale (CSES; Melchert, Hays, Wiljanen, & Kolocek, 1996)?

Research Question 3

Do the outcomes of supervision treatments vary by school counselors' years of experience?

a. For the variable of case conceptualization skill, are there significant differences between the high experience level (more than 7 years' experience) and the low experience level (less than 7 years' experience) school counselors after the online supervision treatment as measured by the CHEF?

b. For the variable of case conceptualization skill, are there significant differences between the high experience level (more than 7 years' experience) and the

low experience level (less than 7 years' experience) school counselors after the online supervision treatment as measured by CSES?

Description of Participants

Participants in this study were 40 practicing school counselors who worked in K-12 school settings across the U.S. To be eligible for this study, participants agreed to the online group conditions for 5 weeks and completed the pre- and post-test surveys at the beginning and conclusion of this study. In addition, participants indicated their level of comfort using technology as a communication and social tool. School counselors with different years of experience, gender, race, school size, professional training, and diverse experiences in supervision were recruited for the study.

Participants in this study consisted of 34 women (85%) and 6 men (15%); years of working experience ranged from 4 months to 25 years ($M=8.5$). Of the participants who completed the experimental phase and finished the post-test survey, Caucasians made up the largest group, 28 (70%); Black/African American, seven (17.5%); Hispanic, three (7.5%); and multicultural, two participants (5%). The school size in which they worked ranged from 200 to more than 500 students. Eight school counselors were working in schools with less than 200 students (20%), 13 were working in schools with 200 to 500 students (32.5%), and 19 (47.5%) were working in schools with more than 500 students. The results are quite similar to the data collected by the National Survey of School Counselors done by The College Board National Office for School Counselor Advocacy (NOSCA, 2011), school counselors are predominantly female (77%), and their ethnicity are 75% Caucasians.

The majority of the participants functioned as the only school counselors in their schools with no professional peer support. The average number of professional peers in their schools ranged from 0 to 10, with the average being 2.8. Fourteen school counselors were the only school counselors in their schools (35%), 10 had one peer (10%); school

counselors who worked with fewer than two peers consisted of 70% of the total participants. Frequency distributions of demographic variables are presented in Table 1.

Table 1. Demographics of Participants

Variable	Frequency	%
Years of Experience as a school counselor (N=40)		
Low (<7 years)	20	50.0
High (>7 years)	20	50.0
Gender (N=40)		
Male	6	15.0
Female	34	85.0
Race (N=40)		
White	28	70.0
Black/ African-American	7	17.5
American Indian/Alaska Native	0	0.0
Asian	0	0.0
Native Hawaiian & or Pacific Islander alone	3	7.5
Multiracial	2	2.0
Hispanic or Puerto Rican	0	0.0
Race not listed	0	0.0
Peer Support (N=40)		
0	14	35.0
1	10	25.0
2	4	10.0
3	3	7.5
4	3	7.5
6	1	2.5
9	2	5.0
12	1	2.5
15	1	2.5
20	1	2.5
School Size (N=40)		
<200 students	8	20.0
200-500 students	13	32.5
>500 students	19	47.5

The participants' individual or group supervision experiences were limited to experiences after graduating from training programs; 26 (65%) school counselors had no individual supervision, and those who received individual supervision reported a frequency range of every second day to once per year. The average frequency of individual supervision was 15.3 times per year, and among those who received individual supervision, the more common frequency was weekly or monthly. For group supervision experiences, the results were quite similar to those for individual supervision. A majority of 23 school counselors (57.5%) reported that they had no group supervision experiences in their practice, and the frequency of receiving group supervision ranged from once per year to once per week, with the average being 11.3 times per year. For school counselors who did receive group supervision, the once-a-week format was the most common type. Six participants (15%) reported weekly group supervision.

In response to the question regarding school counselors' supervision training, eighteen (45%) took courses related to supervision or received some workshop or clinical experience in supervision whereas 22 (55%) had no experience in supervision. For the question, "Please specify the forms and the amount of time you had on supervision training," answers varied from 3 to 800 hours, but 11 participants (27.5%) did not provide clear answers regarding their supervision training experience. Some were confused whether the answers should include their internship and practicum hours with their supervision training hours.

Regarding the question about school counselors' experience with social media for connecting with their friends, families, and colleagues, the participants' time spent using social media ranged from 0 to 28 hours per week, while the average time spent was 6 hours per week. The most common frequency for school counselors to use social media was 2 hours per week (17.5%), followed by 3.5 hours (10%) and 14 hours (10%). For all participants, the average amount of time spent using social media was 5.93 hours per

week. Frequency distributions of other demographic variables are presented in Table 2 and Table 3.

Table 2. Demographics of Participants (Supervision Experience)

Variable	Frequency	%
Individual Supervision Frequency		
(hours per year) (N=40)		
0	26	65.0
1	2	5.0
2	2	5.0
12	3	7.5
27	1	2.5
36	1	2.5
54	3	7.5
162	1	2.5
183	1	2.5
Group Supervision Frequency		
(hours per year) (N=40)		
0	23	57.5
1	2	5.0
1.5	1	2.5
4	1	2.5
6	1	2.5
12	3	7.5
27	3	7.5
54	6	15.0
Professional Training (N=40)		
Yes (master's degree completed)	18	45.0
No (not completed)	22	55.0
Continuing Education Related to Supervision (hours per year) (N=40)		
0	23	57.5
18.0	1	2.5
3.0	1	2.5
320.	1	2.5
40.0	1	2.5
480.0	1	2.5
800.0	1	2.5
not clear	11	27.5

Table 3. Demographics of Participants (Experience Using Social Media)

Variable	Frequency	%
Experience Using Social Media (hours per week) (N=40)		
0.00	3	7.5
0.13	1	2.5
0.25	1	2.5
0.50	3	7.5
1.00	3	7.5
1.25	1	2.5
2.00	7	17.5
2.30	1	2.5
3.00	2	5.0
3.50	4	10.0
5.00	1	2.5
7.00	3	7.5
8.00	1	2.5
10.50	1	2.5
14.00	4	10.0
17.50	1	2.5
21.00	1	2.5
28.00	2	5.0

Results for Research Question 1

Research Question 1 asked, “Are there significant differences between school counselors’ case conceptualization skills before and after participating in the three online supervision groups (Online Structured Peer Supervision Group, Online Peer Discussion Group, and Control Group)?”

This question was answered using pre- and post-test differences from the Clinical Hypothesis Exercise (CHEF) instrument. The CHEF questionnaire was designed to investigate the case conceptualization skills of counselors. It contained the following three questions:

1. Based on your observation, hunches, and assumptions, write a hypothesis describing your client and his or her major concern or issue.

2. Describe any factors related to the client (thoughts, feelings, or behavior), the environment, the counselor-client relationship, etc., that you believe to be supportive of your hypothesis.

3. Formulate a list of questions you would like to ask your client or would like to have answered as you proceed with the client.

After participants' answers were collected, three raters followed the grading instructions according to Wantz and Morran (1994) to evaluate those answers and give five individual scores and a total score. The five items included (a) number of distinct non-redundant and relevant information units, (b) hypothesis dimensions, (c) number of support units, (d) support statement dimensions, and (e) number of questions. (See Appendix G for a sample answer sheet.)

According to the average scores graded by raters, each participant received CHEF scores in the pre- and post-tests. The total scores in the CHEF pre-test suggested good case conceptualization skills among the 40 participants ($M=19.19$, $SD=6.55$, $range=28.33$). A comparison of pre-test and post-test differences for CHEF scores is shown in Table 4. Because one participant misunderstood the questions in the post-test CHEF questions (he did not watch the case video online but used his own case presented in the group to answer the three guiding questions), he received 0 points in his post-test score. Follow-up contact was initiated with the participant to address this mistake, but no corrections were made. Therefore, to lower the impact of this outlier, the statistical analysis was conducted without his score ($N=39$). A summary of means and standard deviations for the 39 participants is shown in Table 5. Also, to further examine the differences among the three groups, pre- and post-test differences on the CHEF divided by groups are presented in Table 6.

Table 4. Total CHEF Scores in Pretest and Posttest (outlier included)

Source	<u>n</u>	Pretest		Posttest	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
CHEF	40	19.19	6.55	17.84	8.10

Table 5. Total CHEF Scores in Pretest and Posttest (outlier excluded)

Source	<u>n</u>	Pretest		Posttest	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
CHEF	39	19.49	6.71	18.04	7.20

Table 6. Means and Standard Deviations of the CHEF at Pretest and Posttest Divided by Groups (outlier excluded)

Group	N	Pretest		Posttest	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
S	15	20.76	5.22	17.53	7.75
D	11	18.15	6.15	17.36	6.42
C	13	18.92	8.12	19.97	8.78

A 3 (group) by 2 (time) analysis of variance (ANOVA) with repeated measures was used to determine whether a significant difference existed in the total CHEF scores before and after the online supervision treatment. The results of within-subject contrasts showed no significant differences between school counselors' case conceptualization skills before and after participating in the three online supervision groups ($F=2.73, p>.05$) and no significant interactions between groups and pre- and post-tests differences ($F=1.71, p>.05$). Furthermore, no significant differences were found in between-group

effects, which meant that there was no significant difference in the three treatment conditions ($F=.24$)(see Table 7).

Table 7. Summary of Repeated Measures Analysis of Variance on the CHEF

Source	df	SS	MS	<u>F</u>
Between	38			
Group	2	41.38	20.69	.24
Error	36	3157.35	87.70	
Within	39			
Time	1	33.24	33.24	2.73
Time x Group	2	41.66	20.83	1.71
Error	36	438.53	12.18	
Total	77			

To understand more clearly how the CHEF scores changed during pre- and post-tests in each treatment condition, a simple descriptive analysis was conducted to compare the total CHEF score differences in pre- and post-tests among the three treatment groups (see Table 8). Results showed a decline in post-test scores. The S group dropped 3.23 points in average scores after the online supervision interventions, and according to the mean pre- and post-test differences, the C group actually had the highest score (increased 1.05 point) compared to the other two groups. This showed that the control group, which did not experience an online supervision treatment, maintained their scores without much change, but the two treatment groups (S and D groups) showed a minor decline in their case conceptualization skills as measured by the CHEF.

Table 8. Difference in CHEF scores at Pretest and Posttest Divided by Groups

Groups	<u>n</u>	<u>M</u>	<u>SD</u>	Min.	Max.	Range
S	15	-3.22	5.27	-15.00	6.33	21.33
D	11	-0.79	4.66	-11.00	3.67	14.67
C	13	1.05	4.46	-6.00	9.00	15.00

Results for Research Question 2

The second research question asked, “Are there significant differences between school counselors’ self-efficacy before and after participating in the three online supervision groups?” This question was answered using the total score of the Counselor Self-Efficacy Scale (CSES) collected before and after the online supervision treatment. The CSES contained 20 items, and the scores ranged from 1=*strongly disagree*, 5=*strongly agree*. The total scores of the CSES recorded from all participants in the pre-test already showed a high self-efficacy level for all participants (M=81.07, SD=7.34, range=34) (see Table 9).

However, an outlier was also found in the post-test; one participant responded with 3 (3=*neutral*) for half of the questions (from Questions 10 to 20) that made his post-test score drop 30 points compared to his pre-test score. To decrease the impact caused by this outlier participant, an analysis without his score was conducted, and a new result showed a more clear difference between the CSES scores in the pre- and post-tests (see Table 10). The C group scored a little lower (M=78.08) in the pretest compared to the other two groups (Group D=82.50, Group S=82.53), but after the intervention, the S group post-test score decreased to 80.20, the D group remained stable at 82.91, and the C group score increased to 80.46. Means and standard deviations of pre- and post-tests scores on the CSES were divided according to the three groups (see Table 11).

Table 9. CSES Scores in Pretests and Posttests (outlier included)

Source	<u>n</u>	Pretest		Posttest	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
CHEF	40	81.07	7.34	81.10	8.29

Table 10. CSES Scores in Pretests and Posttests (outlier excluded)

Source	<u>n</u>	Pretest		Posttest	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
CSES	39	78.00	5.90	81.69	7.94

Table 11. Means and Standard Deviations of the CSES at Pretest and Posttest Divided by Groups

Group	<u>n</u>	Pretest		Posttest	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
S	15	82.53	5.40	80.20	7.35
D	12	82.50	9.42	82.91	8.65
C	13	78.08	6.71	80.46	9.33

To determine whether a significant difference existed in the variable of self-efficacy, an analysis of 3 (group) by 2 (time) ANOVA with repeated measures was conducted. The total results of within-subject contrasts showed no significant difference between school counselors' self-efficacy before and after participating in the three online supervision groups ($F=.73.10$, $p>.05$), and no significant interactions between groups and pre- and post-test differences ($F=.76$, $p>.05$). Furthermore, no significant differences were found in between-group effects, which means that no significant difference existed in the three different treatment conditions ($F=.74$, $p>.05$) (see Table 12).

Table 12. Summary of Repeated Measures Analysis of Variance on the CSES

Source	df	SS	MS	F
Between	38			
Group	2	115.82	57.90	.74
Error	36	2790.33	77.51	
Within	39			
Time	1	12.89	12.89	.73
Time x Group	2	26.58	13.29	.76
Error	36	629.60	17.49	
Total	77			

Results for Research Question 3

The third research question explored the factor of “years of experience” and its impact on the online supervision conditions of school counselors’ case conceptualization skills and self-efficacy. All participants were asked to provide information regarding their years of experience as a school counselor in K-12 settings on the pre-test survey, and the results were used to divide participants into two experience levels for further analysis. The low experience level was defined as participants who had worked less than 7 years as school counselors before the study took place whereas the high experience level participants had worked for 7 or more years as school counselors. To answer this research question, two separate 2 (time points) by 2 (levels) ANOVA tests were conducted. One test used the CHEF score to answer Question 3a, “For the variable of case conceptualization skill, are there differences between the high experience level (more than 7 years’ experience) and the low experience level (less than 7 years’ experience) school counselors after the online supervision treatment as measured by the CHEF?” The

other test used the CSES score to answer Question 3b, “For the variable of case conceptualization skill, are there differences between the high experience level (more than 7 years’ experience) and the low experience level (less than 7 years’ experience) school counselors after the online supervision treatment as measured by the CSES?” The results showed that very few differences were found between low and high experience level school counselors in the two variables of interest. For the variable of case conceptualization skills, the mean score presented in the CHEF from low experience level school counselors was 18.96 whereas the high experience level school counselors scored 20.11 in the pretest; in the posttest, the average scores for low and high experience school counselors were 18.00 and 18.77, respectively. For the CSES, a small increase in post-test scores was found for the low experience level school counselors, but not for the high experience level school counselors, who showed a slight decrease in the posttest scores for both instruments. A summary of the means and standard deviations divided by participants’ years of experiences for the CHEF and the CSES is presented in Tables 13 and 14.

Table 13. Means and Standard Deviations of the CHEF at Low and High Experience Levels (outlier excluded)

Source	<u>n</u>	Pretest		Posttest	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Low (<7 yrs.)	19	18.96	6.40	18.00	7.56
High (>7 yrs.)	19	20.11	6.78	18.77	8.12

Table 14. Means and Standard Deviations of the CSES at Low and High Experience Levels (outlier excluded)

Source	<u>n</u>	Pretest		Posttest	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Low (<7 yrs.)	19	81.37	6.02	83.79	7.33
High (>7 yrs.)	19	79.47	7.76	78.74	7.23

The results showed no significant differences for the two variables. For case conceptualization skills, the results of within-subject contrasts showed no significant difference before and after participation in the online supervision groups for either low or high experience school counselors ($F=1.86, p>.05$), and no significant interaction was found in between-group and pre- post-test differences ($F=.048, p>.05$). Furthermore, no significant differences were found in between-group effects, which means that no significant difference existed between low and high experience school counselors after they received the online supervision treatment ($F=.190, p>.05$). In addition, for counselor self-efficacy, no significant differences were found before and after the experiment ($F=.38, p>.05$), no significant differences were found in interaction ($F=.10, p>.05$), and no significant differences were found in between-group effects ($F=.108, p>.05$) (see Tables 15 and 16).

Results for Open-ended Questions

Three open-ended questions were developed by the researcher for the Supervision Experience Questionnaire, which helped to gather additional information regarding the overall experience of school counselors regarding the two innovative online supervision groups in which they participated. Even though the statistical analysis found no significant results for the two variables of interest, case conceptualization skills and self-efficacy; group members expressed positive feedback and comments in their responses to the following questions: (a) In what specific ways was the group supervision experience

Table 15. Summary of Repeated Measures ANOVA on the CHEF for Low and High Experience Level School Counselors

Source	df	SS	MS	<u>F</u>
Between	38			
Levels	2	17.37	17.37	.190
Error	36	3296.12	91.56	
Within	38			
Time	1	25.09	25.09	1.86
Time x Levels	1	.655	.65	.048
Error	36	485.21	13.49	
Total	76			

Table 16. Summary of Repeated Measures ANOVA on CSES for Low and High Experience Level School Counselors

Source	df	SS	MS	<u>F</u>
Between	38			
Levels	2	229.26	229.26	.108
Error	36	3034.84	84.30	
Within	38			
Time	1	13.47	13.47	.38
Time x Levels	1	47.37	47.37	.10
Error	36	607.17	16.87	
Total	76			

helpful? (b) In what specific ways was the group supervision experience not helpful? (c) In what aspects did you perceive more support from your peer group members (e.g. emotional support/knowledge/skills/ information/personal growth support)? To better understand the different experiences of the two treatment groups, answers to the three questions are divided by groups in Appendix J.

Among the 27 participants who joined the two online supervision groups (S group and D group), 24 (89%) participants completed all three questions. When compared by groups, the D group had a higher completion rate than the S group with only one item left unanswered, whereas S group members left seven items unanswered. In terms of numbers, three participants out of 15 (20%) in the S group did not complete the Supervision Experience Questionnaire compared to the D group, in which only one participant (8.3%) did not complete the questionnaire. It is interesting that the participant in the S group who did not answer Questions 2 and 3 and lowered the completion rate of the questionnaire was the same participant who was considered the outlier in the Counselor Self-efficacy Scale (CSES). In the S group, 11 out of 15 participants (73%) thought their group experience was helpful; in the D group, 11 out of 12 (92%) reported that they had gained knowledge and skills associated with their cases and that this group experience was beneficial. Only one participant in each group reported that their group experience was not helpful, and the total numbers combined with the participants who did not provide any answers to the first question totaled 4 out of 27 (15%). In other words, a small number of participants expressed negative responses to the first question, and most of the participants reported that this online peer supervision experience was beneficial. The most helpful areas were (a) receiving feedback and different perspectives from other counselors (9 responses), (b) sharing techniques and solutions (7), (c) learning new technology (2), (d) having a chance to help others (1), and (e) developing supervision skills (1). For the second question regarding what was not helpful in their group supervision experience, 13 out 15 (87%) participants in the S group provided answers

with areas that could be improved whereas 11 out of 12 (92%) participants in the D group did so. Results for this question showed similar patterns for both the S group and the D group. “Time” was the key word that appeared in many participants’ answers. Three members of the S group and two members of the D group addressed issues and concerns regarding their schedules and the length of their online group experience. They expressed a preference for having their online supervision groups continue for a longer period of time. In response to the third question, which asked participants to evaluate their group experience on what specific areas they received support from their peer group members, 13 out of 15 (87%) participants in the S group completed their answers, and 12 out of 12 (100%) participants did so in the D group. Overall, participants valued their peers and agreed that they gained emotional and professional support from other group members; only one member of the S group said the support from group members was not what he expected, and he felt more support in his personal consultation group. In sum, data and information gathered from the three open-ended questions gave a more detailed picture of what group members experienced in this experimental study.

Summary

Chapter IV presented a summary of the results of this study using statistical analyses to answer the three research questions that guided the study. A 3 (group) by 2 (time points) ANOVA repeated measures test found no significant differences in pre- and post-tests in school counselors’ case conceptualization skills as measured by the CHEF. Furthermore, the same analysis was used to compare the school counselors’ self-efficacy before and after the online supervision conditions, yet no significant differences were found as measured by the CSES scores in pre- and post-tests. A 2 (levels) by 2 (time points) ANOVA test showed no significant differences associated with school counselors’ years of experience and their case conceptualization skills or self-efficacy after the supervision interventions. Descriptive data showed that very few changes occurred after school counselors completed the online supervision treatment for a 5-week

time period, and their case conceptualization skills and self-efficacy remained relatively stable as reflected in their scores on the CHEF and CSES instruments. However, the open-ended questions provided some qualitative evidence that positive benefits were gained by group members. Further discussion and explanation will be provided in the next chapter.

CHAPTER V

DISCUSSION

Chapter V will discuss the findings regarding the effects of three online supervision groups on school counselors' case conceptualization skills and self-efficacy and will explore the influence of school counselors' years of experience on these factors. This chapter begins with a discussion of findings regarding the three research questions, then compares the findings with current literature and suggests reasonable explanations. Following is a discussion of the limitations of the study, implications for counselor educators, and recommendations for future research.

Discussion of Quantitative Findings

Research Question 1

The researcher conducted an investigation to evaluate whether online peer group supervision would increase school counselors' case conceptualization skills. Participants were self-selected into three experimental groups, the S group, the D group, and the C group, according to their time availability. The S group was a synchronous online peer supervision group that met weekly via Second Life virtual sessions. The D group was a discussion board that allowed group members to post their cases for discussion and comments on Google Group on a flexible schedule. The C group was the control group that did not receive any supervision intervention. However, no significant differences were found in this study for Research Question 1.

This is the first study that examined the case conceptualization skills of a population of school counselors in practice. In contrast to the results of this study, Butler and Constantine (2006) found significant differences between a web-based peer supervision group and a control group. They reported that school counselor trainees' scores in case conceptualization skills were significantly higher compared to the control group after a web-based peer supervision intervention. However, there were some fundamental differences in the design and analysis of that study and this investigation.

First, the instrument Butler and Constantine used to measure case conceptualization skills was less complicated than the one used in this study. Their case conceptualization exercise was based on two dimensions (case conceptualization etiology and treatment) compared to the five-dimensional instrument used in this study. Second, the analysis used to compare the pretest and posttest scores for case conceptualization abilities was tested by a multivariate analysis of covariance (MANCOVA) that used participants' pre-test scores on the same variables as covariates. A major difference between the two case conceptualization measurement methods is that Butler and Constantine (2006) relied more on coding and raters' professional judgment, but the measure in the current study took into account both quantity (number of unit scores) and quality (dimensional scores). In fact, because of the complexity of the CHEF instrument used in the current study, participants may have experienced a fatigue effect and thus scored lower in the post-test questions. These conditions may explain why the results did not show significant differences in the pre- and post-tests of the three participant groups.

It is important to note that the 40 participants in this study had reached a high level of case conceptualization competency before entering the intervention groups. These were a group of highly motivated school counselors with strong enthusiasm for participating in supervision groups outside of their work. This distinguished them from average school counselors; therefore, a "ceiling effect" (Vogt & Paul, 2005) can explain why few differences were found among the various measurements. The pre-test scores in this study were higher than scores reported in previous studies. For example, Morran and Wantz (1999) focused on divergent strategy training for school counselor trainees. The results gathered from 40 participants showed that their average scores on the CHEF were 15.39 for the divergent group and 12.3 for the convergent group after the treatment. In Wilhelm's (2000) study, the 10 participants who were students in a school counseling master's program and were engaged in their practicum experiences scored 14.98 in the pre-test and 17.8 in the post-test after 90 minutes of cognitive strategy training. However,

in the current study, the average pre-test score measured by the same instrument was 19.27.

In a study by Eames (1999), which used the CHEF to compare case conceptualization skill and its correlation with cognitive appraisal and internal dialogue, the scores obtained from 64 counselors were similar to the scores of participants in the current study. The counselors in Eames' study worked in university counseling centers, private practices, and agencies. Their working experience ranged from 5 months to 27 years, and their average score for the same pre-test questions was 21.47. The average score of 19.27 in the pre-test of the current study showed that the experienced school counselors held similar case conceptualization skills to counselors who worked in different settings. This finding also supports the fact that veteran school counselors in this study demonstrated higher competency levels in case conceptualization skills when compared to school counseling trainees but similar competency levels when compared to counselors practicing in related fields.

The lack of statistical differences based on the ANOVA test may be attributed to the fact that some external factors could not be controlled in the execution of the experimental procedures. First, not everyone in the supervision groups experienced the roles of being the case presenter and the feedback provider. In most of the groups, only three to four cases were discussed within the allotted time period. Second, for the D groups, many group members remained inactive during the process, and the resulting discussion was limited. The reasons for this will be discussed in a later section based on the responses by participants to the open-ended questions.

Furthermore, limited information was collected during each group's interactions. How group members increase their case conceptualization skills during discussion and information exchanges was not examined. In addition, even though the instrument itself provided some utility in emphasizing the "dimensional quality" of participants' case

conceptualization skills, it remained challenging to measure participants' awareness and alternative strategies that were as important as forming diverse assumptions.

Research Question 2

Many studies have investigated self-efficacy for counselors in different fields, but little has been done to show the self-efficacy of veteran school counselors. A non-significant difference was found in the pre- and post-test scores for school counselors' self-efficacy. In this study, school counselors' self-efficacy was measured by the CSES before and after the online supervision interventions. This was a 5-point Likert scale that contained 20 questions. The average CSES score for the 40 participants before the intervention was 78 and after was 81.69, which indicated an average of 3.9 and 4.09 points for each item. Thus, for most of the questions, participants reported a fairly high score based on the 5-point range. As the literature review suggested, scores on a self-efficacy scale are not equivalent to actual performance. A higher score on a self-reported self-efficacy scale may suggest higher perceptions of one's ability, which is associated with higher motivation in working toward specific goals and tasks, but the increased motivation may not reflect an actual improvement in work performance (Bandura, 1977; Harris, 2007).

In contrast to Spooner and Stone's (1977) findings, which suggested that school counselors may experience a decline in their counseling skills if no supervision is offered after graduation from their training programs, this study showed a stable level of self-efficacy among practicing school counselors. People may argue that does it mean school counselors may become "stagnant" after working for a long period of time; however, a more possible explanation may be associated with their previous experience in supervision. Even though most of the participants received no individual supervision or group supervision (65% and 57.5 %) prior to this study, 35% had regular supervision from their peers or sought support from local professional organizations and resources. The fact that this study was not able to eliminate and control these external factors might

have contributed to the nonsignificant differences before and after the supervision intervention.

Furthermore, Barnes (2004) suggested that self-efficacy may be over-reported by novice counselors, such as students in training, because they are not mature enough to accurately evaluate their abilities in real tasks. In contrast, experienced counselors who receive supervision and are open to alternative solutions and suggestions might become more neutral and objective when evaluating their self-efficacy. This may explain why there was a decline in self-efficacy as measured by the CSES and the results did not show a significant increase.

It may be possible that when school counselors from diverse experience levels form a heterogeneous group, their self-efficacy levels become more similar as a result of the supervision intervention. In other words, the changes (increase or decrease) in pre- and post-test scores for all participants may become more centralized. Accordingly, results for Research Question 2 may be an artifact of the “Central Limit Theorem” (Johnson, 2004, p. 88). It is reasonable that this group of highly confident school counselors did not report many differences in their self-efficacy after the supervision intervention. Scholars have suggested that people with high self-efficacy may show lack of motivation for tasks that they are already familiar with and may even show less motivation for new training (Schunk, 1990).

In sum, although numerous studies have supported the effect of supervision and its positive impact on students’ confidence and self-efficacy (Cashwell & Dooley, 2001; Daniels & Larson, 2001), those significant differences and increases in professional development may not be as easy to detect among experienced school counselors. Possible explanations for these results may include: (a) Supervision impacts veteran school counselors in different ways; (b) supervision does not increase school counselors’ self-efficacy after they reach a certain developmental level; and (c) experienced school

counselors, after receiving supervision from professional peers, may re-evaluate their own competency according to higher standards.

Research Question 3

According to the Integrated Developmental Model (IDM) developed by Stoltenberg et al. (1998), there are four developmental levels of supervisees. The three structures that divide counselors from low to high developmental status are (a) awareness, (b) motivation, and (c) autonomy. The more training supervisees receive, the more autonomous they become and the higher self-efficacy they gain in their professional performance. This model showed that novice counselors focus more on developing skills than on case conceptualization. Similarly, Hillerbrand and Claiborn (1990) agreed that novice counselors and experienced counselors have different cognitive styles and use different skills when reasoning. In sum, these studies all suggested that there are qualitative differences in counselors' levels of counseling skills and their ability to use case conceptualization skills. Based on the IDM, this study expected to find significant differences in school counselors' working experiences related to their case conceptualization skills and self-efficacy after the online supervision interventions. However, the results were partially discrepant with the IDM theory. The school counselors who had less than 7 years of experience and those who had 7 or more years of experience showed no significant differences in the two variables of interest.

However, IDM theory did suggest that at level 3i (integrated), counselors' motivation and levels of confidence remain stable across multiple domains such as treatment, assessment, and conceptualization. In other words, it is possible that when counselors reach a certain level of maturity, their case conceptualization skills and self-efficacy stabilize. Likewise, school counselors' self-efficacy levels may remain stable after working in a familiar environment because they feel capable of handling students' needs and problems. However, it was surprising in this study that school counselors at different levels of their development and years of working experience reported high self-

efficacy on average. This positive finding can be explained by the effectiveness of school counseling programs in preparing their trainees' ability and competency in the field.

It is reasonable to consider that school counselors' professional growth may require different indicators that focus on different aspects of professional development. For example, competencies absent from the IDM include working with parents, integrating community resources, reaching out to challenging clients, and being client advocates. These are more common indicators that separate experienced school counselors from novice counselors. They are also factors that may have a greater impact on school counselors' self-efficacy on a daily basis.

Discussion of Qualitative Findings

Based on the responses to the Supervision Experience Questionnaire, both the S and the D groups agreed that their group experiences were beneficial, and they provided various examples of how they were supported and helped by their professional peers. For example, they found it helpful to hear alternative ideas from peers and appreciated the opportunities to share their experiences, talk about issues, and brainstorm solutions. In response to the second open-ended question regarding things that were not helpful, their feedback and suggestions addressed several topics. First, time management and availability was a top concern for both the S group and the D group. Four participants out of 15 (27%) in the S group reported that their major difficulty was time. For example, one participant stated that "it was difficult coordinating everyone's schedule" while another shared similar comments on "not enough people attending and giving feedback." Even though the D group was an asynchronous group, four participants out of 12 (33%) also reported that it was difficult to "squeeze one more thing" into their busy schedules. Members of both groups expressed that "the group could have been longer" and "it was probably too short in number of sessions." Second, many comments were related to the participation and process of the groups. In the S group, only one person mentioned that "resistance" appeared in the group, but two people in the D group expressed their concern

about building up a working alliance and sense of trust. D group members also had more suggestions regarding the structure and format of the group. In addition, they provided reasons to explain why the interactions among group members were not very productive. Third, common feedback to “what was not helpful” regarding their group experience was related to technical issues. Two participants in the S group and one in the D group expressed difficulty in accommodating the technical problems. As expected, the S group had to deal with more connection and equipment issues in a virtual environment, which may have created frustration and obstacles. However, it is interesting that the only participant who complained about technical problems in the D group actually felt that the lack of “real time” communication was challenging. Fourth, members of both groups commented regarding their group peers. Although it was not a major concern, two participants expressed that their peers were not competent in providing effective feedback and lacked professional knowledge in certain areas. For example, one member of the D group said, “Some of the counselors did not have supportive comments,” and one member of the S group pointed out that “some counselors didn’t seem to know much about the mental issues.” Furthermore, the gap between group members’ specialty and familiar areas was identified in two comments about the language/terms that group members used in communication or about information exchange being difficult to follow because they were not used to working with those kinds of clients or under the same regulations. The participants’ responses provided helpful information for future online peer supervision group research and suggested some areas of improvement for designing better online supervision groups for school counselors.

In response to the third question regarding “in what aspects did you perceive more support?” the answers varied by individual, but most were very positive. More than 70% of the participants responded that they felt a sense of belongingness, less isolated from their professional peers, emotional and professional support, and reassurance regarding what they were doing. Some expected to have these kinds of online peer supervision

sessions on a regular basis but less frequently, and some wanted to keep connecting and sharing information with their group members even after the study ended. Furthermore, even though the quantitative measurement did not show significant changes in their case conceptualization skills, two participants mentioned specifically that the helpful areas were “case conceptualization skills” and the resources and solutions that they needed to work with their clients.

Observational Findings in the Group Process

Because the researcher functioned as a group facilitator and process monitor during the experimental phase, she was able to identify some patterns and trends between the two intervention groups. First, interactions and participation were more frequent and intense in the S group than in the D group. For example, during the 5 weeks of intervention, even after the group sessions, the working alliance continued in the S group, and they were willing to share contact information (emails) after the group ended. A group member forwarded a resource to the researcher and asked her to pass the information to another group member because she believed it would be helpful to the other member for the case that she had presented weeks before. In addition, S group members shared more personal feelings and concerns during group sessions whereas D group members focused more on providing suggestions and factual information on the specific cases that were posted on the Google Group discussion board. This is quite consistent with the qualitative answers provided by group members regarding the trustworthy relationship and working alliance. It seemed like the synchronous group (the S group) made it easier for group members to build safe and trustworthy relationships that helped to facilitate more active participation and productive discussions. Furthermore, the virtual interaction may have helped to maintain a higher motivation for participation and thus kept the group moving.

Second, as shown in Appendix K, there were active and inactive members in both treatment groups (S group and D group), and the participation rate was different in these

two online conditions. It was clear that participants in the Second Life virtual environment group (S group) were more committed to joining discussions on a regular basis in this peer supervision group format. This finding was consistent with the results collected from the open-ended questions that asked for school counselors' feedback on their overall experience in the study. This pattern seemed to imply that the more structured the group, the more engagement and participation could be expected. It is contrary to the assumption of the IDM model that more advanced supervisees prefer less structure but beginning supervisees need more structure. However, it is quite similar to the developmental stages of group dynamics. As Yalom (2005) illustrated, at the beginning level of the group, structure and framework are necessary for group members to feel safe and become oriented. Especially in this research, all of the group members were strangers to each other and were from diverse backgrounds and locations. As one participant pointed out, "There might be some trust issues going on," and group members might have needed more direction and instruction in a virtual environment where communication style was very different from a face-to-face environment, such as a classroom setting. Therefore, some of the rules that apply to master's-level school counselor group supervision in a traditional classroom environment may not apply to an online supervision group format.

Limitations of the Study

Due to the small sample size of this study, generalizability was limited. It is very possible that the reason for no significant results in this study was the lack of statistical power for detecting potentially significant differences before and after the online supervision intervention. Attempts to recruit more participants were made by contacting state-level school counselor professional organizations and leaders in the field. However, the difficulty of recruiting participants and reaching an ideal sample size limited the sensitivity of this study.

Another challenge of this study was the limitation of the instruments. Case conceptualization skills were examined by the CHEF, which was used in two previous studies for counseling students in training; however, there were some limitations when using this instrument with practicing school counselors. First, because it was initially developed for clinical counseling training, the mock counseling video took place in a private practice setting rather than in a school counseling environment. Second, the client in the video was an adult male talking about his career and marriage concerns; those issues were quite different from what school counselors deal with in their K-12 school settings with young students. Those differences may have created a gap for school counselors to engage and utilize their counseling skills, and also may have limited their case conceptualization skills because the presenting scenario was not a good parallel to their counseling practice. In fact, one participant brought this concern to the researcher when he finished the post-test CHEF questions. He was a little confused about why the case scenario video was not more similar to school counseling practice. However, an instrument made specifically to evaluate school counselors' case conceptualization skills has not been developed. Regarding this limitation, a better solution may require a re-make of mock counseling videos that use clients from K-12 schools and use topics and issues that occur in actual school counseling sessions. Even though participants in this study responded well in their answers and had similar scores compared to previous studies, the unfamiliarity of this non-school setting video and questions may have limited their potential to provide sufficient answers in the post-tests and restricted their professional judgment and opinions on making appropriate assumptions about the client's situation. Furthermore, a self-efficacy scale that is based on school counselors' professional tasks and performance is in the beginning stages. Boughfman (2011) completed a dissertation study on developing a School-Based Counseling Self-Efficacy Scale (SB-SES), but the construct validity was not well supported. Also, the participants in Boughfman's study were licensed mental health counselors and only half of them had

experience working in school-based organizations. Another attempt to develop a school counselor self-efficacy scale was completed by Bodenhorn (2005). However, no research has used this instrument to evaluate school counselors' self-efficacy gained after supervision in any form. This gap in the literature made it difficult to interpret the results of this study.

On the other hand, some limitations were associated with the repeated measure pre- and post-test design. Due to the nature of a pre and post experimental design, using the same instrument at two different points (before and after intervention) was necessary. However, based on the regression/decline pattern of the scores, a fatigue effect may have occurred in this study. This effect was noted by the researcher from the feedback of the participants. They delayed their post-tests for more than 2 weeks and replied that they were too busy to complete them; some were confused to see the same questions as on the pre-test and emailed the researcher to ask for confirmation. Furthermore, the average amount of time they spent on answering the same questions decreased, which suggested that some of the participants may not have watched the entire video clip again when they discovered that the video was the same as in the pre-test. Most participants used their school computers to finish the online survey during their spare time at work; some participants emailed the researcher asking for technical help because they did not have enough time to finish the questions and had to log out from the survey website. This also implied that they were taking those tests under a time restriction and may have experienced some forms of distraction. In other words, ideal test situations may not exist with this kind of environment. For example, a participant may answer fewer items and receive a lower score on the post-test, but the score may not reflect the participant's actual case conceptualization skills accurately because he or she may have to close the survey and answer a phone call, or assist a student who walks in during a class break. Especially for the CHEF instrument, 15 minutes were required to watch the video first,

and then answer the three follow-up questions, which required time for providing sufficient responses.

The interventions had some limitations in actual execution. The ideal procedures and processes were explained in Chapter III, the research design, and the same information and instructions were given to all participants. However, when implemented in real practice, some unexpected factors may have influenced the results of this study. First, the initial design sought to maintain participants in the intervention process for 5 weeks (including the orientation week), but more than half of the group members failed to commit to consistent and regular participation. For example, at least one posting per week was suggested for D group members, but even with reminder postings and personal email contact, some members did not respond for several weeks. Also, case discussion was designed to be posted by a new group member each week, but during the spring break, no posting and discussion appeared on the website. For some groups, the assigned case presenter may have delayed or forgotten to post a new case for discussion, so the pattern and dynamics may have been impeded. In fact, instead of having four cases and four presenters during the intervention, some of the groups may have experienced only two or three. This inconsistency between groups might have added more challenges to interpreting the results of this study. A possible solution for this problem could be deleting those participants and counting them as dropouts, but because of the small sample size of this study and the difficulty in recruiting more participants, the researcher had to keep them in the process. Obviously, with so many participants failing to stay until the end of the intervention and to experience the full process and interactions with other group members, the effects of the interventions may have been limited. Another example of interruption of experimental integrity can be found in the S group. Even though the group members were instructed and informed to follow the four-stage structure, group members did not wait until the third stage to answer (they were supposed to remain silent before the third stage). The researcher tried to remind them of the structure during the

process, but it seemed awkward and disruptive to the enthusiastic discussions among group members. Based on the researcher's observation, the reason why this Structured Peer Group model was difficult to implement may be associated with the nature of the online environment. It is possible that it may be better to have an immediate response from the case presenter after group members have raised questions, because within a virtual environment, some tension and or an unfriendly atmosphere may be perceived if someone says something but no one responds or follows up with comments. Therefore, some necessary adjustments were made based on the feedback of group members and on the actual behaviors that group members presented in the process. The participants were all experienced school counselors who were also independent thinkers and had different expectations for the groups. As a group facilitator, the researcher had to respect their decisions and listen to their opinions while trying to maintain the original design of this study, and it was a little more complicated in real practice. These factors also may have influenced the validity of this study and may have unavoidably changed the effect of the research outcomes.

Furthermore, because of the researcher's role as both group facilitator and gate keeper for ethical concerns, some factors that may influence the outcome of online supervision were observed. For example, more resources and solution-focused discussions were presented in both groups. Unlike novice counselors, the participants may have spent more time figuring out the exact problem and main issue of the cases presented in the groups; veteran school counselors often jumped in quickly with suggestions and forwarded resources and information based on their experiences in working with similar cases. The group dynamics of such experienced peers may cause qualitative differences in supervision outcomes, and may even be the key to successful and inspiring discussions during the group process. In addition, the lack of an authoritative figure in a newly formed online supervision group may have increased the uncertainty of the group, which impeded more constructive discussions and interactions

among group members. Perhaps inviting a well-known scholar or supervisor to be the group facilitator may help recruit more participants, and will also gain higher respect and trust from the group members. These are all possible factors that need to be examined or controlled in order to better answer the research questions.

This researcher experienced tremendous difficulty during the recruiting process. Due to many external factors, a low response rate continued throughout the 3-month recruiting phase. Several reasons may explain why it was very difficult to find participants during that time period. First, during the middle of the recruiting phase, a nationwide budget cut for education funding occurred and hundreds of school counselors were laid off. Many potential participants struggled to keep their jobs. In addition, the invitation emails were sent at multiple points in time but were mainly during the Christmas and New Year's break, then at the beginning of the 2012 spring semester. School counselors were either out of school or were busy preparing for school work, and many of them expressed their concerns about the time commitment. Because of the low response rate and completion rate in the pre-test survey, a small sample size was obtained. The fact that only 40 people were recruited for this study contributed to the lack of statistical power and created a limitation in generalization. In addition, with this small sample, the random assignment design that was originally preferred by the researcher was not possible. To accommodate group members' time availability, they were assigned to convenient groups that fit their schedule. For this reason, limitations regarding further generalization of research findings and significant differences between treatment groups might have been hard to detect. Also, this study was not able to collect data regarding the school levels, grades and types of schools that participants were currently working with, it also limited the understanding of the characteristics of their working conditions.

Recommendations for Future Research

Because this study found no significant results in answering the three guiding research questions, it raised more questions for future studies. The research assumptions

related to this study were mainly based on traditional supervision theory, the Integrative Developmental Model (IDM) described by Stoltenberg et al. (1998), and the design of the supervision intervention was a new experiment that sought to integrate technology with structured group supervision sessions to provide case discussion opportunities. The initial idea was to answer the call of previous studies that school counselors in practice were lacking professional support and were willing to receive supervision. The goal was to enhance school counselors' case conceptualization skills and self-efficacy through this convenient online format and to develop a sustainable solution for supporting school counselors in practice. Researchers who are interested in exploring relevant variables and topics with the same population can consider the following suggestions.

First, this exploratory study applied some group supervision models that were commonly used in traditional face-to-face and classroom setting supervision sessions, and the attempt to test how those models can be utilized seemed to fail. The nonsignificant results suggested that online supervision for practicing school counselors who are at a stable competency level may need a more sophisticated design. Because the reasons why this study showed no differences in the statistical analysis are complicated, future research can focus on avoiding the limitations of this study. For example, a larger sample size and a longer experimental phase may help to develop better working relationships among group members and would contribute to building up more trusting relationships. Feedback from participants' qualitative answers suggested that a longer time, more structure, and clear instructions were preferred in a peer supervision group, and would help to maintain regular participation for group members. Also, many participants agreed that online supervision groups need to develop a trustworthy and safe working alliance before moving into serious discussions; for this to occur, perhaps a face-to-face orientation or a mix of face-to-face and online supervision design would be more appropriate. For example, the group members may meet in-person for the first one or two weeks to set up the group rules and become familiar with each other, and also get used to

the technology features. After that, they will be more comfortable to work together as a group in an online environment. In addition, the online meetings or sessions can be a complementary solution for school counselors who already have developed a working relationship. For example, future research could recruit school counselors from the same graduate programs or from local school counselor organizations that have already built a working alliance. This will help to eliminate resistance among group members and facilitate better group dynamics in online supervision platforms.

Based on the nonsignificant results of this study, future studies should consider other variables for evaluating the supervision effectiveness of practicing school counselors. According to the feedback from participants, they felt professional support as well as emotional support; therefore, some psychological variables such as feelings of support, burn out, and even wellness may be good indicators when evaluating the importance of supervision for school counselors. Research can be developed on how online supervision can address those needs for school counselors, so it can directly or indirectly help their professional development. School counselors in practice are very busy and have little time to take care of themselves; supervision for them should emphasize more goals than just counseling skills. As the IDM model suggested, when supervisees reach level 3i, they seek a balance between their personal satisfaction and their professional development; a supervision model that fails to integrate those different dimensions may find little improvement or reward.

Second, qualitative studies that explore the group dynamics and interactions among online supervision group members are helpful for designing more effective supervision models for an online environment. For example, what might be a better group size for online supervision groups and under what kind of web-based technology? In this study, an unexpected change was adopted because of the low participation rate in the S groups. Therefore, each group session contained from three to five members, and their participation rate was better than in the D group, which contained six members in each

group. This raised an issue of whether a smaller group size provides stronger connections and allows more in-depth discussions, or whether the synchronous communication, which is more similar to traditional classroom settings, may have better results. In this study, because of the scope and time limitations, the researcher was not able to investigate those questions using a qualitative method. However, a qualitative study may provide more insight into the group process and reveal qualitative improvement regarding the supervision outcomes.

The two formats of online peer supervision groups received different feedback from participants. Based on their feedback, two major suggestions can be applied to future research regarding online supervision interventions. To better accommodate school counselors' busy schedules, they prefer less intense meeting frequency. Once per month or once every 2 months was preferable to once per week. Furthermore, the characteristics of school size, school districts, and the students' socioeconomic status contributed to diverse school counselors' specialty and topics of interests in the discussions. According to first-hand observation from the researcher and also feedback from participants, school counselors who worked in different school systems, locations, and school cultures had difficulty providing feedback and suggestions to others from unfamiliar environments. This also limited their postings in response to questions and lowered their motivation to participate. Furthermore, even the resources and policies were different when group members tried to provide helpful information to peers. As quoted by one participant, "Some of the terms and language are hard to understand because we are in different school districts." Therefore, a nationwide online supervision group may not be a good solution to meet school counselors' supervision needs; it may be more beneficial to design online supervision within a limited geographical area or even between similar school cultures.

Some directions for future research are focused on instrument development for school counselors' case conceptualization skills. One of the limitations of this study was

lack of an appropriate instrument made specifically for school counselors' case conceptualization skills, and it may have been an obstacle to obtaining positive results. For future researchers, it is important to use the structure of the CHEF but also to develop new case scenarios that are parallel with school counseling practice. The instrument should have good validity and reliability on the population of school counselors, and norms should be developed for reference. Also, changing questions or adding one more such as, "Can you think of any resources you may use to assist this client and practice your counseling more effectively or assist this client to better resolve his (her) problems?" would be helpful to distinguish how effectively school counselors can integrate resources to help solve students' problems.

Finally, using instruments that are specifically developed for school counselors and have been tested with good validity and reliability with the exact population and not just with students in training is important. Very few studies were able to reach this population and obtain first-hand data from them; therefore, there was a discrepancy between theory and real practice when applying the clinical supervision theories to school counseling practice. Future researchers need to explore the inconsistency or gap between school counselors' professional development needs and paths regarding the developmental stages that are suggested by counselor educators and supervision experts.

Counselor Educators and Online Supervision

This study failed to find significant results in answering the three research questions, which led to more questions for counselor educators and supervisors. Whether it was because of the design of two format online peer supervision groups that failed to address the needs of practicing school counselors, or because of the instruments that measured the variables of interests, the nonsignificant findings of this study emphasized the fact that more experimental studies on online supervision are needed, especially as they pertain to school counselors in practice rather than to students in training.

Due to the difficulty in reaching this population and gaining access to their firsthand information, few experimental studies have been completed, and most have small sample sizes similar to the current study. Therefore, this study, based on a small sample size, also precluded significant results in its findings. In addition, the effectiveness of online supervision was not fully supported. The issue is twofold; although school counselors in practice remain eager for supervision; online supervision has failed to deliver effective results that meet their needs. This dilemma needs to be addressed in research and educational training for counselor educators. The school counseling profession needs strong support from professional organizations such as the American School Counselor Association (ASCA), the American Counselor Association (ACA), or the American Counselor Education and Supervision (ACES) to work together to support research on a larger scale in related topics. For example, ASCA has its own discussion board called SCENE for school counselors and so far has reached 20,286 members. However, similar problems may occur such as lack of structure and leadership in each discussion group, and many questions posted are not answered by group members.

If the leaders in the field work together with counselor educators and supervisors, they can make online groups more effective and helpful as tools for providing online peer supervision. Also, although many university counseling programs strive to open more online courses and online supervision channels to their students in training, much less effort and attention has been given to practicing school counselors. If university counseling programs can open their online platform for both students and graduates or alumni, make those online resources available for local school counselors as well as their students, and actively build collaborations between university counseling programs and local K-12 schools, school counselors in practice will have better opportunities to receive regular supervision. Overall, participants in this study held positive attitudes toward online supervision and they valued this experience in working with professional peers in an online group. This finding suggests to counselor educators that (a) school counselors

need support from their professional peers, (b) they do not want to be isolated after graduating and entering the work force, and (c) they want to hear alternative solutions and different perspectives regarding their challenging cases. With more budget cuts and layoffs in school counselor positions, more school counselors will be working alone with hundreds of students without professional peers, and they are in need of support and supervision that can overcome geographical boundaries and time limitations. Technology still remains an important area for further research and application. Finally, many counselor educators may be concerned about school counselors' competency and ability, and whether they are ready for online supervision groups. This study suggests that school counselors are ready for technology. Even with a small sample size, this study was able to recruit participants from more than 10 states, and the years of working experience varied from 4 months to 20 years. This evidence shows that with internet technology, counselor educators are able to provide supervision and continuing education to school counselors in widespread locations and diverse working environments.

Conclusions

Chapter V presented a discussion of the findings associated with the examination of school counselors' case conceptualization skills and self-efficacy before and after online supervision interventions. The findings of this study suggested that there were no significant differences between school counselors' case conceptualization skills and self-efficacy after they participated in online supervision groups, and no differences were found regarding the school counselors' working experience and their changes in the two variables before and after their participation in the online peer supervision groups. Examining the possible explanations for those findings provides helpful information for understanding the unique professional development of school counselors after graduating from their training programs and sheds light on future research in online supervision for practicing school counselors.

APPENDIX A
ONLINE PEER GROUP SUPERVISION INVITATION

Dear School Counselors:

Practicing school counselors who are working in K-12 schools are invited to participate in this research study examining the effectiveness of online peer group supervision. You will be participating in an online discussion and receive feedback from other school counselors on an internet virtual group. Time commitment will be 60 minutes per week maximum, and the duration of this experimental study is 8 weeks. This study is free and will provide opportunities for you to connect with other school counselors across the United States and also facilitate your professional development.

For more information please contact Yi-Chun (Jean) Lin at (319) 400-0337 or by email: yi-chun-lin@uiowa.edu

Distribution of this message was approved by the University of Iowa's Institutional Review Board. Neither your name nor your e-mail address was released to the sender. The policy and guidelines for the UI Mass Mail service, including information on how to filter messages, are available at: <http://cs.its.uiowa.edu/email/massmail>.

Your participation will be deeply appreciated, and your involvement is very important for future study in supervision for school counselors.

To learn more about this study, please see our introduction video on YouTube:

[Youtube.com...](#)

Let's connect!

APPENDIX B
GROUP MEMBER SCREENING QUESTIONS

Q1: What are your expectations of the group?

Q2: What schedule will you be available for this online group? (a 60-minute per week time commitment is required, and 8 weeks of continuous participation is expected)

Q3: Do you have high speed internet access at your home or work? Will you be able to log online during the time the experiment is conducted?

Q4: Do you feel comfortable sharing your experiences and supporting others in a peer group?

Q5: Are you aware of the possible risks and limitations of an online peer group?

Q6. Do you feel comfortable using technology as a communication tool?

Q7: Are you able to provide at least one case note (with given outline) to the group?

APPENDIX C
INFORMED CONSENT DOCUMENT

Informed Consent

University of Iowa, Rehabilitation and Counselor Education

Online Supervision Groups

You are being asked to volunteer to participate in an online supervision group, and the research requires that you provide a signed agreement to participate. The investigator, Yi-Chun Lin, will explain to you, in detail, the purpose of the project at the first class session, and you may ask her any questions you have to help you understand the project. The basic explanation of the project is described below. Please read the explanation and discuss with the researcher any questions you might have. If you decide to participate in the project, please sign and date this form at the bottom. You will be given copy of this form on or before August 23, 2011, and if you have any questions at any time during this study, you may contact Yi-Chun Lin (319-400-0337).

Nature of the project: The purpose of this study is to design three types of online peer group supervision treatments that satisfy the participating school counselors' needs and match their diverse developmental levels. In addition, this study will compare the supervision effectiveness of each group as measured by case conceptualization skills, self-efficacy, and supervisory working alliance.

Explanations of the procedures: All procedures will be outlined in the invitation e-mails and will be explained via phone interviews if you agree to participate. An 8-week time period will be needed to complete this research project, and you can discontinue your participation in this study at any time. Several instruments will be applied to measure the variables of interest, and pretests and posttests will be implemented.

Confidentiality: The researcher and the participants will share the same ethical responsibilities to maintain confidentiality. The online data will be account and password protected, and the data collected by the instruments will be anonymous and will be kept in a secure location. Confidentiality will be maintained except in cases that involve rules, ethics, and standards set forth by the ACA and the ASCA.

Student Signature _____ Date: _____

Researcher signature _____ Date: _____

APPENDIX D
GROUP ORIENTATION AND INFORMATION

What we will work on:

- Case study and presentation
- Learning to be a content leader of the group
- Gaining feedback and insight from your peers
- Providing support and consultation to each other
- Building a professional community online
- Applying this group as your professional support

Knowing the Group Facilitators:

For each group, we will have a facilitator as a “process expert” who will help with technology problems, assist with time management, and monitor ethical concerns and group safety. Also, we will invite each group member to take turns as the group “content leader” who will present a challenging case to your group, ask questions, and provide feedback to other group members. The group facilitators will be doctoral students in counselor education at The University of Iowa, including the researcher. All facilitators are professional counselors who have completed supervision course work and practicum, and have diverse cultural ethnicity.

What You Will Need:

First, you will need a computer or laptop with internet access. Also, you need to have a microphone and headset for audio conversation if you are invited to our structured peer support group (S group).

Second, you will be asked to participate for at least 60 minutes per week to join our online discussion. Please provide your availability for possible group schedules on the Group Meeting Time Preference Form.

Third, please complete the Group Meeting Time Preference Form and the Informed Consent Document and send them as e-mail attachments to yi-chun-lin@uiowa.edu

We will contact you and start our group members' screening process as soon as we receive your response.

What are the Options?

You will join one of the three online peer support groups: S, D, and C groups. More details will be sent to you when the groups have been organized and the group members are assigned.

For the purpose of this study, you will not be able to choose your group. After our random assignment process is completed, we will inform you regarding the group to which you are assigned. However, if you are interested in experiencing additional group options, you will have the opportunity to join the other two group formats after this study is completed. The three online peer support groups are as follows.

S group: The Online Structured Peer Supervision Group (on Second Life)

D group: The Online Peer Discussion Group (on Google Groups)

C group: The Control Group

APPENDIX E
GROUP MEETING TIME PREFERENCE FORM

We will randomly assign you to an asynchronous group in which group members **do not** have to be online at the same time or to a synchronous group in which group members **do** have to be online at the same time. However, we would like to make sure you will have time to participate in the group and invite you to a group that fits your schedule.

The time commitment is 60 minutes per week for 8 weeks. Please indicate your time availability.

For example: Monday, 7:00 pm to 8:30 pm.

First preferred time:

Second preferred time:

Third preferred time:

APPENDIX F
DEMOGRAPHIC QUESTIONNAIRE

1. Years of experience as a school counselor:

(Please indicate how many years of experience you have as a school counselor)

Years

2. Gender

Male

Female

3. Race

(1) White

(2) Black/ African-American

(3) American Indian/Alaska Native

(4) Asian

(5) Native Hawaiian & or Pacific Islander alone

(6) Multiracial

(7) Hispanic or Puerto Rican

(8) Race not listed

4. Peer support

How many other school counselors do you work with?

5. School size

How many students are there in your school?

(1) less than 200

(2) 200-500

(3) 500 and above

6. Clinical supervision experience (except administrative supervision by principals or directors)

(1) What is your average frequency of receiving individual supervision?

(2) What is your average frequency of receiving group supervision?

7. Professional training

Have you completed a master's degree in school counseling?

(1) Yes

(2) No

8. Continuing education and training related to supervision

Have you ever received any forms of supervision education or training?

(1) No

(2) Yes (Please specify the amount of time you had on supervision training)

9. Experience using social media

Please specify your average time spent on social media such as Facebook, blogs, MSN, Yahoo, Google...etc. to connect with your friends, families, or colleagues.

(1) _____ hours per day

(2) _____ hours per week

(3) _____ hours per month

APPENDIX G
CLINICAL HYPOTHESIS EXERCISE FORM

Clinical Hypothesis Exercise

The formation of a clinical hypothesis involves the integration of the counselors' observations, assumptions, and inferences in order to establish a tentative explanation of the factors and any relationship among those factors involved in the client's concerns or issues. This "working model" provides the direction for the counselor's attempts to facilitate growth and change. The following tasks should aid in developing a tentative hypothesis.

- (a) Based on your observation, hunches, and assumptions, write a hypothesis describing your client and his or her major concern or issue.

- (b) Describe any factors related to the client (thoughts, feelings, or behavior), the environment, the counselor-client relationship, etc., that you believe to be supportive of your hypothesis.

- (c) Formulate a list of questions you would like to ask your client or would like to have answered as you proceed with the client.

From "Teaching counselor trainees a divergent versus a convergent hypothesis-formation strategy," by D. W. Wantz and D. K. Morran, 1994, *Journal of Counseling and Development*, 73, p.70.

APPENDIX H
COUNSELOR SELF-EFFICACY SCALE

Please answer the following questions by choosing the response that pertains to you.
 Note: Please answer the questions based on your general impressions during the past month and ignore a unique situation or incident.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My knowledge of personality development is adequate for counseling effectively.	1	2	3	4	5
2. My knowledge of ethical issues related to counseling is adequate for me to perform professionally.	1	2	3	4	5
3. My knowledge of behavior change principles is not adequate.	1	2	3	4	5
4. I am not able to perform psychological assessment to professional standards.	1	2	3	4	5
5. I am able to recognize the major psychiatric conditions.	1	2	3	4	5
6. My knowledge regarding crisis intervention is not adequate.	1	2	3	4	5
7. I am able to effectively develop therapeutic relationships with clients.	1	2	3	4	5
8. I can effectively facilitate client self-exploration.	1	2	3	4	5
9. I am not able to accurately identify client affect.	1	2	3	4	5
10. I cannot discriminate between meaningful and irrelevant client data.	1	2	3	4	5
11. I am not able to accurately identify my own emotional reactions to clients.	1	2	3	4	5
12. I am not able to conceptualize client cases to form clinical hypotheses.	1	2	3	4	5
13. I can effectively facilitate appropriate goal development with clients.	1	2	3	4	5

14. I am not able to apply behavior change skills effectively.	1	2	3	4	5
15. I am able to keep my personal issues from negatively affecting my counseling.	1	2	3	4	5
16. I am familiar with the advantages and disadvantages of group counseling as a form of intervention.	1	2	3	4	5
17. My knowledge of the principles of group dynamics is not adequate.	1	2	3	4	5
18. I am able to recognize the facilitative and debilitating behaviors of group members.	1	2	3	4	5
19. I am not familiar with the ethical and professional issues specific to group work.	1	2	3	4	5
20. I am not able to apply behavior change skills effectively.	1	2	3	4	5

APPENDIX I
SUPERVISION EXPERIENCE QUESTIONNAIRE

Q1: In what specific ways was the group supervision experience helpful?

Q2: In what specific ways was the group supervision experience **not** helpful?

Q3: In what aspects did you perceive more support from your peer group members (e.g., emotional support/knowledge/ skills/ information support/personal growth support)?

APPENDIX J
DATA FROM OPEN-ENDED QUESTIONS

Feedback quotes on Question 1 from S group members (N=15)

Participant No.	<i>Question 1: In what specific ways was the group supervision experience helpful?</i>
2	New cases and how other counselors were able to deal with those issues presented provided some insight on how I would do this differently or the same in a similar situation.
5	I received feedback from other counselors that was useful in my practice. I felt a sense of being included in my field that I do not have regular access to in my job. I felt more professionally connected to my profession and felt satisfaction in being able to provide and receive feedback from my peers. It gave me more satisfaction in dealing with difficult cases at my job instead of feeling just frustration. I felt that I was gaining more insight into my students' issues and what the barriers were that needed to be dealt with to create some success.
8	Having input and support from counselors on a weekly basis and knowing we are all dealing with very similar issues.
10	N/A
13	It is helpful to hear what other counselors are dealing with, and always helpful to brainstorm solutions with others in the field. It was also very helpful to introduce me to a completely new type of technology - Second Life - and help me get comfortable with that!
17	Listening and supporting peers and reviewing cases and giving peer feedback. It was very supportive when school counseling can be very lonely.
19	We help to discuss our emotions and feelings.
24	1. I received different perspectives. 2. Members could provide techniques that I had not applied or thought of.
29	I found it interesting to hear about another person's challenges and to experience a little bit of others' views and conceptualizations of both problems and solutions.
32	I appreciated hearing from the school counselors who participated. / I valued Yi-Chun's passion and experience. It is inspiring. / The opportunity to attempt doing something constructive in Second Life was an opportunity I wanted.
33	Talking with other counselors about their struggles and concerns is always helpful to me. I was not able to present a case but would have liked to in order to obtain input and help from peers.
34	It was good to be able to process issues with others. Sometimes the other group members had helpful ideas. It was also helpful to talk about the issues with clients because verbalizing it somehow made certain aspects of the problem clearer and I was able to find my own solutions with ease, versus just thinking about them in my head.
36	I thought the group supervision experience was helpful because it gave me a chance to talk to other counselors about issues I'm having with students and get some insight into other options I might try to help. It also allowed me to help other counselors with issues they are finding difficult. Plus, if I ever find myself in a situation similar to theirs, I now have knowledge about what they have tried that either worked or didn't work for them and that will help me with clients I may work with in the future.
37	N/A
38	N/A

Feedback quotes on Question 2 from S group members (N=15)

Participant No.	<i>Question 2: In what specific ways was the group supervision experience not helpful?</i>
2	The technical issues made it hard to concentrate on the discussions at hand and to become connected with the group.
5	Not enough people attending and giving feedback.
8	Not enough commitment from participants to be a part of the group so time was sometimes wasted.
10	It was difficult coordinating everyone's schedules
13	N/A
17	It was probably too short in number of sessions to build enough rapport and to gain a significant amount of information.
19	Nothing.
24	Not helpful to appear resistance of group.
29	I found that some of the cases really did not have an answer in terms of addressing the student. The parent was the main issue, and schools are limited to the types of intervention that they can do when the parent enables the child.
32	I had limited participation. Time constraints and technical issues at a particularly hectic time at work impinged on my commitment.
33	N/A
34	It was helpful, except that the time--admittedly difficult to set, with participants spanning three time zones--was a continual conflict for me. / Missing the same people each time--including me--was difficult for me.
36	It was frustrating when the other counselors didn't seem to know much about the mental issues that their clients were facing. If they knew more about certain disorders and researched it on their own when they first got their client, the issues may not have even been that big of a deal. The other issue that was frustrating when the fellow counselors would make comments that would show that they were not dealing with certain issues in an ethical manner. During one supervision group, I even pulled up the ASCA ethical standards on my computer to reference them during the discussion because when the counselor talked about how they were handling a type of situation I just cringed.
37	The most difficult part for me was not being able to hear everything. The technology sometimes was more of a hindrance than a help. It did get a bit better with time, but still was cutting out and hard to hear. / Some of the terms used by counselors in different areas of the country are different and that made it difficult sometimes to know what the others were talking about.
38	My expectations for the group were actually different from what I experienced. I have a support system in my school as well as in my district.

Feedback quotes on Question 3 from S group members (N=15)

Participant No.	<i>Question 3: In what aspects did you perceive more support from your peer group members (e.g. emotional support/knowledge/skills/ information/personal growth support)?</i>
2	I see more information sharing and emotional support from peer groups.
5	Emotional support was there when the members were present.
8	I gained a lot of support on many levels: emotional, knowledge, skills, information, and personal growth all from being able to talk professionally in a loosely structured way that allowed for some professional growth and also for some camaraderie among peers. I will miss having the opportunity to connect with the people that participated and the facilitator that brought us together. I would be very open to continuing this type of interaction on a regular basis but less frequent, 2x/mo.
10	Mostly support that we are doing all we can but also just some additional support for ideas or interventions that we may have been thinking but hadn't tried.
13	N/A
17	I felt the group was very supportive of whoever was presenting, in all ways.
19	Skills and knowledge...
24	The support more emotional pains.
29	I really enjoyed the knowledge and the variation of skills that were shared. Often, I feel alone in my situation. Listening to other people helped me gain more of an objective point of view.
32	I cannot relate the support to this group, but in other group consultations I have found peers to help me to broaden my perspective, to explore the use of strategies, to anticipate outcomes, and to identify resources.
33	N/A
34	I did not; I did not present a particular case, although I was given opportunity to do so. I felt supported when my suggestions were listened to, and affirmed.
36	It helped with emotional support and personal growth support as I could better conceptualize an issue by talking about it out loud and answering their questions.
37	I think as we went on, we started developing a camaraderie that didn't exist at the beginning. I think if we had continued on longer, that feeling would have developed further.
38	N/A

Feedback quotes on Question 1 from D group members (N=12)

Participant No.	<i>Question 1: In what specific ways was the group supervision experience helpful?</i>
4	I was able to share a difficult case with colleagues who provided me with resources and alternatives to looking at the problem.
3	It is always beneficial for me to have peer review, ask colleagues or professionals their opinion, input, and suggestions on how to handle specific situations. Sometimes getting a different point of view is very important.
7	It provided me with a differing view point and additional resources that I wasn't familiar with before.
9	I will talk in the terms of supervision; I prefer to call it collaboration. I think it was like a coaching experience, where other people added another point of view to my case.
12	It was not helpful. There were not any real case studies that I thought gave me any insights. The two that were posted were fine, but they were on issues that I deal with often.
16	Confirmation of action plans, case conceptualization, peer support, less feeling of isolation, input from counselors across the country (instead of just my county), revitalized energy for being in the profession.
18	While very brief, I think it helped reinforce that I am not alone and other counselors experience the same frustrations as myself.
20	The group supervision experience was helpful to me because it made me have to remember my counseling technique that I was taught in college.
26	Unfortunately, I did not participate as much as I would have liked to.....through my own limitations. However, I felt that the supervision provided cases that I have not had the opportunity to look at as much. It gave me an opportunity to develop some of my counselor-supervisor, trainer skills.
27	It was helpful to receive feedback and suggestions from other counselors; to hear how other counselors would deal with similar counseling situations.
35	It was nice to see what other people were doing/hear about others' experiences.
39	I was able to receive other ideas from other counselors so I can see another perspective of the client.

Feedback quotes on Question 2 from D group members (N=12)

Participant No.	<i>Question 2: In what specific ways was the group supervision experience not helpful?</i>
4	I was tired after work and was sometimes reluctant to think about difficult cases. Other group members did not reciprocate and submit a case for discussion in a timely manner.
3	Well, aside from individuals being so busy, technical challenges and just not having real-time conversations was difficult.
7	Only 2 of the 6 participants posted cases so I didn't get the breadth of knowledge and experience I had expected to develop a working relationship with the other participants.
9	I think the researcher was not very structured from the beginning letting the group member post their cases without not knowing when was their turn. This provoked lack of interest in group members and a lot of stress.
12	It was too short
16	None-- just always difficult to squeeze in one more thing.
18	It occurred during an extremely busy time of year. I think if it had occurred early in the semester (January/February) it would have been easier to participate.
20	N/A
26	I wish it could have been longer.
27	Some of the counselors did not have supportive comments.
35	I am able to find support in my own work setting. There has to be an inherent level/sense of trust within this sort of thing to help it work, and I don't think this was the best setting to build that in. Personally, I never shared a case because there was still that sense of wanting to "save face," I wouldn't want to share something I wanted legitimate feedback on, because I didn't trust these people enough not to judge and critique what I had done. We simply didn't have that time to build that bond. It is a hard connection to build in a very short amount of time in an only online setting. Also, I think the students I work with are very different from those seen by others. I'm not at the HS level, and I work with very few students of poverty/with "hard backgrounds". I didn't often feel like I had a lot to contribute, given the high SES of the population I work with. I've never had a student that has come back from incarceration, so I have very little to contribute to that discussion.
39	The timing was difficult for me. I was sick and dealing with a lot of health issues and I had a lot of work to accomplish at work.

Feedback quotes on Question 3 from D group members (N=12)

Participant No.	<i>Question 3: In what aspects did you perceive more support from your peer group members (e.g. emotional support/knowledge/skills/ information/personal growth support)?</i>
4	Other counselors were understanding and provided a vast array of resources.
3	Skills, information, and motivational support. It is great to know you are not alone.
7	I perceived knowledge, skills, and information support. There wasn't enough interaction to feel like I made any measurable personal growth through the exercise.
9	I perceived more support in terms of knowledge.
12	Emotional and knowledge/skills
16	I think that knowledge, skills, information, perception of cases were all aspects that helped me. I could be more confident when I responded to peers' scenarios and further discussions about my comments as well as what the original counselor had done when I received feedback. It was very good to share information and help people not miss anything, which I in turn could apply to my own students.
18	Many seemed to recognize how other people feel or had similar experiences themselves.
20	I felt that I got the most support from other group members because everyone brought something to the group which helped to make it more. It was a lot of different emotions and knowledge that was brought to the table made it better. I felt a little left out because other people were more into it and took it to another level. I really felt that most of the time they were in character most of the time.
26	I felt that people were very responsive and supportive.
27	I felt emotionally supported and validated that I am doing good work as a counselor. I also enjoyed the resources that other counselors shared with the group.
35	Information support was top notch. I learned some ideas. It was nice to be able to reflect on what other people did and think of if I would do the same.
39	The peers provided different aspects to an issue.

APPENDIX K
PARTICIPATION RATE

S Group (Monday sessions) Attendance (N=5)

ID	Orient.	W1	W2	W3	W4	Presentation (Y/N)	Participation Rate
33	X	X	Y	X	X	N	5/5 (100%)
36	X	X	X		X	Y	4/5 (80%)
9	X	X	X	X		Y	4/5 (80%)
18		X	X	X	X	N	4/5 (80%)
28		X	X	X	X	Y	4/5 (80%)

S Group (Thursday sessions) Attendance (N=3)

ID	Orient.	W1	W2	W3	W4	Presentation (Y/N)	Participation Rate
7	X	X	X	X	X	Y	5/5 (100%)
35		X		X	X	Y	3/5 (60%)
12	X		X			Y	2/5 (40%)

S Group (Thursday sessions) Attendance (N=6)

ID	Orient.	W1	W2	W3	W4	Presentation (Y/N)	Participation Rate
23		X					1/5 (20%)
37	X	X	X			Y	3/5 (60%)
16	X	X	X	X		Y	4/5 (80%)
32	X		X				2/5 (40%)
4	X	X	X	X		Y	4/5 (80%)
1		X		X			2/5 (40%)

D Group (Group 1) Attendance (N=7)

ID	Orient.	W1	W2	W3	W4	Presentation (Y/N)	Participation Rate
2			X			N	1/5 (20%)
3	X	X	X			Y	3/5 (60%)
6	X	X	X		X	Y	4/5 (80%)
15	X		X			Y	2/5 (40%)
17	X					N	1/5 (20%)
25		X				N	1/5 (20%)
38	X				X	N	2/5 (40%)

D Group (Group 2) Attendance (N=5)

ID	Orient.	W1	W2	W3	W4	Presentation (Y/N)	Participation Rate
11	X	X	X		Y		4/5 (80%)
26	X						1/5 (20%)
27	X	X	X			Y	3/5 (60%)
8	X	X	X			Y	3/5 (60%)
34	X		X				2/5 (40%)

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