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**COUNSELING SELF-EFFICACY IN PRACTICUM STUDENTS:
CONTRIBUTIONS OF SUPERVISION**

A Dissertation in

Counselor Education

by

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ABSTRACT

The purpose of this study was to assess how supervisory styles, supervisory working alliance, and supervisor behaviors impact on the development of counseling self-efficacy during the practicum experience. Participants completed instruments related to demographic characteristics, supervisory style (*Supervisory Style Inventory-Trainee*), supervisor working alliance (*Supervisor Working Alliance Inventory-Trainee*), supervisor behaviors (*Modified-Clinical Supervision Questionnaire*), and counseling self-efficacy (*Counseling Self-Estimate Inventory*). Using path type models and multiple regression, this study showed that supervision components as a group (i.e., supervisory styles, supervisory working alliance, supervisory behaviors) are predictive of counseling self-efficacy at mid-semester and the end of supervision. Use of repeated measures Analysis of Variance (ANOVA) revealed statistically significant increases in counseling self-efficacy throughout the course of practicum and that incremental increases (i.e., Time One to Time Two; Time Two to Time Three) were also statistically significant. Earlier studies on supervisory styles, supervisor working alliance, supervisor behaviors, and counseling self-efficacy are discussed as well as implications for training and supervision. Future research recommendations on supervision, counseling self-efficacy, and supervision models are also provided.

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But I have promises to keep,
And miles to go before I sleep,
And miles to go before I sleep.” ~ Robert Frost*

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CHAPTER 1

INTRODUCTION

Clinical supervision for counselors-in-training as well as experienced counselors has been at the forefront of counseling literature and research since the late 1970s. Since this time several models, theories, and practice guidelines have been developed to assist supervisors in providing the most appropriate supervision to counselors; thereby allowing counselors to become more proficient at providing services to both present and future clients. Available literature suggests that a lack of precision and consistency within the research base for counseling supervision has led to a well-documented empirical gap (Borders, 1989; Ellis, 1991; Ellis, Kregel, Ladany, & Schultz, 1996). Researchers also contend that this gap has contributed significantly to the lack of clarity about the supervision process itself (Herbert, 2004a; Herbert & Ward, 1989; Maki & Delworth, 1995). While a wealth of information is available to counselors, supervisors, and educators, the dearth of empirically based information may hinder further growth within the field of counselor supervision.

Problem Statement

Background

It has been noted that clinical supervision in rehabilitation may differ somewhat from general counseling supervision due to the focus on case conceptualization related to disability issues (Herbert & Trusty, 2006), however, the need for enhancement of processing skills and use of appropriate psychosocial interventions indicates a need for clinical supervision in addition to administrative supervision (Herbert & Trusty). For this reason, Maki and Delworth suggested that rehabilitation counseling adopt the same

general definition of clinical counseling supervision as presented by Bernard and Goodyear (2004):

Supervision is an intervention provided by a more senior member of a profession to a more junior member or members of that same profession. This relationship is evaluative, extends over time, and has the simultaneous purposes of enhancing the professional services offered to the clients that she, he, or they see, and serving as a gatekeeper for those who are to enter the particular profession. (p. 8)

Supervision is seen primarily as a means of transmitting skills and knowledge via education and as a means to maintain and enhance professional competence during and after the completion of formal education (Bernard & Goodyear; Maki & Delworth).

Because this definition is the one that is most used within supervision literature, it will be the one used for the purposes of this study as well. Additionally, the term counselor will therefore refer to both rehabilitation counselors as well as other kinds of counselors.

Supervision has been identified as an essential entity to counselor development and ongoing professional learning. While standards indicate that students have likely received necessary supervision while in their program, studies show that post graduate supervision may not adequately reflect the ongoing needs of professional counselors. For example, Herbert and Trusty (2006) found, overall, clinical supervision was given mostly on an as needed basis and that counselors may be dissatisfied with the degree and level at which supervision was given. Understanding of the differences between clinical and administrative supervision may further complicate the degree to which appropriate supervision is given or sought out by counselors employed in rehabilitation settings (Herbert, 2006). Specific practices for needed supervision may not be implemented.

Supervision, when provided on a regular, ongoing basis helps contribute to better counselor skills and, therefore, better—consistent—client outcomes. As indicated by Herbert and Trusty (2006) supervision practices settings such as vocational rehabilitation may not be implementing appropriate supervision on a consistent basis. With this lack of appropriate supervision it is no wonder that client outcomes from such settings are not consistent, or retained even one or two years following case closure (Allaire, Niu, & LaValley, 2005). Clinical supervision is an essential function for both counselor and client outcomes. Additionally, inclusion of supervisory goals and interventions and establishing a supervisory working alliance allow supervisees to gain therapeutic competence, professional confidence and independence, self awareness, theoretical knowledge, increased awareness of how a professional counselor functions, increased interest in counseling, and a positive outlook on what it is like to be a counselor (Nelson, 1978).

Clinical supervision has been seen as separate from the counseling process in that it incorporates developmental models of supervision and acknowledges the importance of sequential learning for supervisees (Borders, 1989). The learning that takes place for supervisees throughout their development is tantamount, especially during the pre-service and training years. Advancement of counseling skill level and professional development are often dependent upon the learning experience given to students during these formative years. The responsibility for assisting counselors in developing and refining their professional skills is that of the clinical supervisor. Effective practices of supervision, while broadly defined, fall into three basic categories: supervisory style, working alliance, and supervisor behavior. Empirically, these categories allow for a

greater break down of what supervision is, and what it is not, and suggests potential direction for future research within counseling supervision.

Supervision and Counselors-in-Training

Pre-service learning within graduate programs allows counselors to develop and practice needed skills for professional success. Because supervisors act as gatekeepers for the profession, it is their primary responsibility to not only support the supervisees in honing their professional skills, but also work to identify those who may require additional training or supervision prior to entering the field. Identifying impaired trainees is an essential function of supervisors as it helps to protect the client. In addition to providing essential training and gate keeping activities, the supervisor's other responsibility is the welfare of the client. Although not fully investigated in available literature, client outcomes may reflect the adequacy of supervision practices both during pre-service training and throughout one's professional development post graduate. For this reason both the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and the Council on Rehabilitation Education (CORE) have developed standards that require counselors to receive ongoing supervision at both practicum and internship phases. CACREP requires that students receive at least one hour a week of individual and/or triadic supervision as well as one and a half hours of group supervision per week during both practicum and internship. CORE programs also require intensive supervision, but the CORE standards state that students must engage in either one hour a week of individual supervision or one and a half hours a week of group supervision for practicum and internship (Council for Accreditation of Counseling and Related Educational Programs, 2009; Council on Rehabilitation Education, 2008).

To best understand the developmental process that supervisees undergo during their formative years as counselors several models on supervisee development have been proposed (Holloway, 1987). The process of professional development, particularly for novice counselors, promotes that supervisees move through a series of qualitatively different stages as they gain experience and work toward becoming effective counselors. For this reason, supervision provided at different levels of development may also need to be qualitatively different since supervisors are reasonably accurate at understanding and accommodating to supervisees' developmental level (Chagnon & Russell, 1995). One of the most commonly used models to explain this developmental process was first proposed by Stoltenberg (1981). Initially proposed as the Counselor Complexity Model, and later developing into the Integrated Developmental Model, Stoltenberg based this theory on two previously proposed developmental models: one by Hogan (1964, as cited in Stoltenberg, 1981) that identified four levels of supervisees and suggested some general supervisory methods to optimize development, and one by Hunt (1971, as cited in Stoltenberg, 1981) that described different cognitive and personality stages of students.

Stoltenberg's (1981) model proposes that supervisees develop in a predictable way over the course of their graduate training and that counseling supervision should, therefore, be adapted in ways that match their needs. Level One supervisees are those who have a minimal amount of counseling experience. They are dependent, insecure, and lack insight, but are highly motivated and require a congruent supervisory environment that involves instruction, structure, support, interpretation, awareness training, and modeling. Level Two supervisees begin to struggle with dependence versus autonomy and are beginning to develop counseling insight. They need less structure and instruction,

but still require support, clarification, and modeling in supervision. As counselors continue to develop, Level Three supervisees will have increased confidence and begin to understand both their healthy and neurotic motivations. Noting this, supervision needs at Level Three begin to become substantially different in that supervisees will need to share and will need appropriate confrontation during supervision. Level Three supervisees will also benefit more from collegiality in supervision than supervisees at either Level One or two. Supervisees at the fourth level of development are independent practitioners, have the most secure professional identity, and have been practicing for several years. Supervision, therefore, should be consultative in nature (Stoltenberg).

Research on Stoltenberg's proposed model of counselor development has yielded much support. For example, O'Leary Wiley and Ray (1986) confirmed that supervisees differ in developmental level throughout their training. Differential training needs have been confirmed as well, indicating that beginning counselors at the practicum level require more structure and directive supervision interventions than more advanced counseling students (Heppner & Roehlke, 1984; Krause & Allen, 1988; Tracey, Ellickson, & Sherry, 1989). The supervision environment has become an essential piece in aiding in the development of counselors, particularly with counselors-in-training. Development of clinical competence for counselors-in-training is therefore reliant upon how good a match the learning environment is with the training needs of the individual (Stoltenberg & Delworth, 1988). Although it has been argued that previous cognitive abilities may influence developmental level overall, Stoltenberg and Delworth note that these higher levels may assist in predicting the speed at which one progresses, but not the

level counselors-in-training begin at, as all counseling students will likely begin at Level One as they enter a novel environment.

Social Cognitive Model of Counselor Training

The Social Cognitive Model of Counselor Training (SCMCT) provides a unique perspective on variables associated with student learning and development. The focus of SCMCT concerns the interrelationships between declarative versus procedural knowledge and impeding factors. Awareness of various constructs that effect counselor development at all times during supervision allows the supervisor to have a stronger understanding of possible variables that could be effecting counseling self-efficacy, and thereby counselor competence. For example, SCMCT relies not only on the relationship between supervisor and supervisee—of which most of the existing research has been conducted—but also on the relationship between the supervisee and client as well as on the personal cognitive characteristics of the supervisee, often referred to as personal agency. These characteristics incorporate counseling self-efficacy as well as other cognitive, affective, and motivational processes of the counselor that occur during a counseling session between the supervisee and his or her client (Larson, 1998).

Components of personal agency include prior counseling related knowledge, counseling self-efficacy, outcome expectancies, supervision and counseling goals and plans, cognitive processes, affective processing, and self-evaluation. These seven components of the counselor's personal agency explain the ability of the counselor to respond effectively to the client and generate appropriate interventions. Characteristics of personal agency constitute the self-determining ability of the counselor to “respond

effectively to the client and to generate appropriate actions” (Larson, 1998 p. 235). The most potent of these, however is counseling self-efficacy.

Perceived Self-Efficacy

Counselor developmental process is particularly relevant as one considers perceived self-efficacy as a desired outcome for counselors-in-training. Originating from Social Cognitive Theory (Bandura, 1977), this theory suggests that learning and outcomes occur as a result of cognitive interpretation of one’s environment and reactions and interaction within it.. Larson (1998) indicates that self-efficacy beliefs, intervening cognitive, affective, and motivational processes serve as the link between knowing what to do and executing the action. Perceived self-efficacy is an essential component of this model as it helps to describe a part of how this learning process. Self-efficacy is a contributing factor in identifying people’s confidence, competence, and potential outcomes across various domains. It has been explored in depth with relationship to treatment of individuals with various psychological needs and is an essential component of the three factors that contribute to the tenants of the original theory.

Perceived self-efficacy is based upon the framework that one has the ability to integrate cognitive, social, and behavioral skills into courses of action (Bandura, 1982). Development of specific competencies has been noted to take place via mastery modeling, instructive modeling, guided skills, and transfer training (Bandura, 1997). Mastery modeling has been noted as one of the most effective modes of instruction in that it allows for occupational skills to be modeled, teaching basic rules and strategies of the profession. Trainees then receive guidance practice under simulated conditions to perfect skills and are helped to apply their new skills in work situations in ways that will

bring them success. Instructive modeling is a piece of mastery modeling in that it allows for the break down of specific skill sets to allow for sub-skills to develop in easily mastered steps. Instructive modeling goes beyond traditional lecture by allowing for cognitive modeling of how to solve problems and develop strategies for reasoning. For this reason it can produce higher perceived self-efficacy than instruction alone (Bandura, 1997).

After understanding the basic tenants guided skills perfection allows trainees to translate abstract rules into concrete courses of action and practice skills, obtaining needed feedback. This allows trainees to make corrective adjustments to their behavior since feedback is the most informative intervention. Transfer training by self-directed success further allows trainees to model and practice their new skills under simulated conditions thereby allowing them to experience sufficient success with what they have learned. Given this, self-efficacy is based on four contributing factors: enactive attainments, vicarious experiences, verbal persuasion, and physiological state. Enactive attainments, or performance attainments, is the foremost contributor to perceived self-efficacy since successful mastery experiences raise perceived self-efficacy and repeated failures typically lower it (Bandura, 1977).

Additionally, people are more likely to act on self-precepts of efficacy inferred from mastery experiences than other social learning experiences (Bandura, 1986). Independent performance enhances efficacy expectations by creating additional exposure to former threats and reducing emotional arousal. It also provides the opportunity to perfect coping skills, and reinforce expectations of self-competency. After strong efficacy expectations are developed through repeated successful mastery experiences the negative

impact of occasional failures is more likely to be reduced as well Interventions that may reinforce self-efficacy as it relates to enactive attainments include participant modeling, performance desensitization, performance exposure, and self-directed performance (Bandura, 1977).

Although preexisting views affect how one views current self-efficacy, it is not a construct that is singularly affected by past performance alone (Bandura, 1986).

Vicarious experiences, often obtained via live modeling and symbolic modeling, have the ability to affect one's perceived self-efficacy as seeing one's peers successfully perform can raise one's efficacy expectations. As the behavior is modeled, or performed, observers believe that they too are capable of achieving such standards via social comparison (Bandura, 1982). Since this component of self-efficacy is often weaker and more vulnerable to change, it is often a less dependable predictor of one's self-efficacy than enactment achievements (Bandura, 1977).

Verbal persuasion is the third contributor to development of self-efficacy. Social influence allows people to be persuaded that they are able to perform, or have the ability to perform (Bandura, 1982). Although it's total contribution to self-efficacy is limited if used in isolation from other constructs, if people have some reason to believe they can produce a desired effect it may lead them to try hard enough to succeed and develop or refine the needed skills. Often influenced by suggestion, exhortation, self-instruction, and interpretive treatments, it is, again, likely to be much weaker than self-efficacy gained from mastery experiences because it does not provide an authentic experiential base (Bandura, 1977). A variety of induction methods outside of traditional feedback must be used since feedback alone does not strengthen self-efficacy. Other contributing factors

(e.g., mastery experiences, emotional arousal) must also be taken into consideration as substantial influences on development of self-efficacy (Bandura, 1986).

Emotional arousal, also termed physiological state by Bandura (1977), is induced by specific situations or states that have the ability to impede or enhance one's performance (Bandura, 1982). Influenced by attribution, relaxation, biofeedback, symbolic desensitization, and symbolic exposure, the cognitive appraisal of arousal determines the level and direction of motivation and the behavior that will follow. This appraisal will ultimately effect how physiological information, such as anxiety, may be processed and interpreted (Bandura, 1977). The highest levels of self-efficacy are often achieved when vulnerability is present with minimal anxiety.

Cognitive appraisals of these four components of self-efficacy help to explain variations in personal gains associated with enactive attainments, vicarious learning, verbal persuasion, and physiological state. Contextual factors (i.e., social, situational, temporal) also influence the cognitive processing of efficacy expectancies. Self-efficacy is arrived at as a result of cognitive processing of each of these factors (Bandura, 1986). Because perceived self-efficacy is ultimately concerned with one's judgments of how well he or she can execute specific behaviors under given circumstances, its basic premise holds in the cognitive processing of efficacy information (Bandura, 1977, 1982). Those who judge themselves to be incompetent or ineffective will dwell on their deficiencies and risk impairing their actual performance. Due to the substantive risk that may be involved in making erroneous judgments regarding personal self-efficacy, self-efficacy influences both the choices of activities and places in which people believe they can be successful, accurate appraisal of their capabilities is essential (Bandura, 1982).

Judgment of self-efficacy is inferential in that it evaluates the unique contribution of people's ability and non-ability as well as the interaction of both internal and external factors. People have to judge the limits of their own abilities. Accurate assessment of self-efficacy entails the evaluation of the level and strength of perceived self-efficacy. Perceived self-efficacy ultimately effects how much effort people will choose to expend, and how long they will persist in a certain task (Bandura, 1977). Whether this perception is faulty or accurate it is used to provide a cognitive framework for future performance and possible outcome variables. The higher the level of perceived self-efficacy the greater the performance accomplishments, and the lower the perceived self-efficacy the lower the accomplishments (Bandura, 1982).

Supervision Outcomes

If supervision contributes to the development or enhancement of counseling self-efficacy, it is likely that it will also contribute to other desired outcomes in clinical supervision. Despite the consensus that supervision is an essential component to counselor development, little research has been conducted with regard to specific outcomes for counselor functioning (Holloway, 1984; Thielsen & Leahy, 2001). Thielsen Common outcomes, as assessed by Holloway and Neufeldt (1995) include supervisee acquisition of attitudes, beliefs, and skills, performance in counselor role, interactional process events, and client change as related to supervision. Outcomes in supervision should also be examined from the perspective of the supervisee, supervisee practice, skills, and knowledge, and client outcomes (Spence, Wilson, Kavanagh, Strong, & Worrall, 2001). These outcomes, however, are difficult to evaluate and may be affected by a variety of factors. For example, supervisor training may effect desired positive

outcomes of supervision, such as increased counseling self-efficacy (Spence et al.). To be most effective as professionals it is vital that counselors-in-training receive appropriate supervision to develop, refine, and enhance their counseling skills to best influence client outcomes. This first exposure to clinical supervision for counselors-in-training is an essential component to not only evaluating student outcomes, but also in assessing influential components in the supervisory process that directly and indirectly affect student success and understanding of the counseling process.

Further, assessment of clinical competence among counselors-in-training is intertwined with a myriad of confounding factors. Measurable outcomes for student learning have proven to be quite variable across different programs. Training program specific instruments for student assessment are common and, therefore, may impede accurate expenditure of measurable outcomes of rehabilitation counselors-in-training since there is no consistency from one program to the next. In addition, the supervisory component of the internship and practicum experience has not been fully explored due to the limited understanding of field supervision (Herbert & Ward, 1989). Empirically, common measurements used to inform research on supervision outcomes have been fraught with psychometric issues that hinder the ability to interpret and apply past studies in clinical supervision (Scofield & Yoxtheimer, 1983).

Several instruments have been developed to assess various components of the supervision process and have been utilized with counselors across employment setting (e.g., vocational rehabilitation, schools, private practice, graduate programs) and developmental level (e.g., counselors-in-training, beginning counselors, advanced counselors). Within the last twenty-five years supervision assessment instruments have

sought to evaluate effective practices of supervisors that contribute to positive outcomes for supervisees. These include the *Supervisor Emphasis Rating Form* (Lanning, 1986), *Role Conflict and Role Ambiguity Inventory* (Olk & Friedlander, 1992), *Clinical Supervision Questionnaire* for rehabilitation counselors (Stebnicki, Allen, & Janikowski, 1997), *Clinical Supervision Questionnaire* (McMahon & Simons, 2004), *Supervisory Styles Inventory* (Friedlander & Ward, 1984), *Supervisory Working Alliance Inventory* (Patton & Kivlighan, 1997), *Rehabilitation Counselor Supervision Inventory* (Thielsen & Leahy, 2001), *Supervision Questionnaire* (Worthington & Roehlke, 1979) and *Supervision Questionnaire-Revised* (Worthington, 1984). Each of these instruments assess for a singular construct within the supervisory relationship. These constructs allow for a greater understanding of vital content domains within supervisory practices that may affect clinical competence outcomes of counselors-in-training.

Counseling Self-Efficacy and Supervision

Assessment of supervision in the past has not, however, fully investigated the link between supervision and counseling self-efficacy as a significant outcome to supervision. Understanding outcomes of supervision appears to be the next logical step in the continuum of empirical investigation in counseling supervision. Because client outcomes and direct counseling outcomes are difficult to assess via existing instruments and current models of practice (Holloway, 1984), it is necessary to look at additional outcomes that may be resultant of supervision practices. Mastery of specific skill sets may come as a result of several confounding factors indicative of the development of self-efficacy: mastery experiences, vicarious learning experiences, direct feedback, and physiological response. These factors should also be present throughout appropriate supervision.

Drawing from Bandura's (1977) model of self-efficacy development, it could be likely that by evaluating counseling outcomes of counseling self-efficacy one could draw a stronger understanding of actual counselor outcomes that result from appropriate supervision. Because people with higher self-efficacy tend to have better performance outcomes in general it is likely that supervisees who have higher counseling self-efficacy will produce better client outcomes, and be more competent and confident counselors.

Definition of Terms

Supervisory Working Alliance

The supervisory working alliance has been investigated to some extent within supervision research in terms of how it affects the professional development of counselors-in-training (Burke, Goodyear, & Guzzard, 1998; Crutchfield & Borders, 1997; Efstation, Patton, & Kardash, 1990; Ladany, Ellis, & Friedlander, 1999; Ladany & Friedlander, 1995; Patton & Kivlighan, 1997). It is based upon the therapeutic working alliance which entails mutual agreement on goals, tasks, and development of bonds (Borden, 1983). The supervisory working alliance allows for greater exploration of client factors, Rapport, and supervisor identification as well as Client Focus and Rapport from the perspective of the supervisee. In recent years, the supervisory working alliance has been explored with regard to supervisee satisfaction, performance, therapeutic working alliance during counseling sessions and counseling self-efficacy.

Supervisory Style

In addition to the supervisory working alliance, supervisory style has been a significant contributor to understanding specific dynamics within supervision that affect supervisee outcome (Dodenhoff, 1981; Friedlander & Ward, 1984; Heppner & Handley,

1981). Style has been segregated into three constructs that help to identify specific supervisory style: Attractive, Interpersonally Sensitive, and Task Oriented. The Attractive dimension indicates a warm, supportive, friendly, open, and flexible supervisory style; the Interpersonally Sensitive dimension indicates a relationship-oriented approach, invested, committed, and therapeutically perceptive; and the Task Oriented dimension indicates that the supervisor is content focused, goal oriented, thorough, practical, and structured (Friedlander & Ward). Supervisory style has been studied with regard to its impact on supervisee satisfaction (Fernando & Hulse-Killacky, 2005), counseling self-efficacy (Steward, Breland, & Neil, 2001), and supervisor effectiveness (Dodenhoff, 1981).

Supervisor Behaviors

Although supervisory style often indicates a precise set of supervisor behaviors, further exploration of behaviors and interventions used within supervision have indicated that a stronger understanding of specific supervisory practices and preferences for novice counselors is needed (Falender et al., 2004; Friedlander & Snyder, 1983; Heppner & Handley, 1981, 1982; Herbert, 2004a; Little, Packman, Smaby, & Maddux, 2005; Rabinowitz, Heppner, & Roehlke, 1986; Stebnicki et al., 1997; Worthington, 1984). Supervisor behaviors have been given much attention in the counseling supervision literature with respect to identified supervisor behaviors that are helpful to supervisees (Rabinowitz et al.), which behaviors contribute to professional attitudes and behaviors of supervisees and satisfaction with supervision (Heppner & Handley), how supervisor behavior contributes to counseling self-efficacy (Friedlander & Ward, 1984; Larson et al.,

1999), helpfulness (Lanning, 1986), and supervisee experience level (Friedlander & Snyder).

Effective supervisors possess specific skill sets with regard to modes of supervision, building the supervisory relationship, providing feedback, teaching didactic skills, and flexibility. Because they value their responsibility for the supervisee and their client, they are respectful, and provide a balance between supporting and challenging. They are also committed to their own clinical and training needs, have a commitment to lifelong learning, and know their own limitations. They have received specific training on supervision competencies including coursework in supervision and supervision of supervision (Falender et al., 2004). In tracking the supervisee's needs and responding based on their theoretical orientation, supervisors can focus on immediate experiences of the supervisee (Shanfield, Matthews, & Hetherly, 1993). Patterns identified within counseling supervision indicate that there is an interplay between supervisors' experience, orientation, and approach with regard to their specific behaviors in supervision (Borders, 1991b).

Given the significant difficulty in assessing outcomes in supervision it is possible to assess counseling self-efficacy as it relates to various components of supervision. Assessment of how each of these components (i.e., supervisory style, supervisory working alliance, and supervisor behaviors) contributes to the development and maintenance of counseling self-efficacy will allow for supervisors to monitor and adjust their styles and behavior during supervision to assist counselors in developing higher self-efficacy and therefore become more competent, confident counselors. To best understand the relationship between these factors and counseling self-efficacy it is

necessary to assess the impact that supervisory styles, supervisory working alliance, and supervisor behaviors have on counseling self-efficacy.

Purpose of the Study and Research Questions

Assessment of the contribution that clinical supervision makes to the enhancement of counseling skills is essential for understanding how to best train supervisors and future counselors to enhance client outcomes. Given that counselors are only a product of their experience and formal training, a more concrete understanding of this contribution is likely to contribute to the development and enhancement of training for supervisors and counselors alike. Additionally, as counselors and their supervisors alike can become better trained in the supervisory process it is likely that improved outcomes for clients will also result. The purpose of this study, therefore, was to further assess the predictive relationship that supervisory styles, supervisory working alliance, and supervisor behaviors have on the development of counseling self-efficacy over time.

Since this is an exploratory study, the research questions were examined with respect to the relationship between constructs (Heppner, Kivilghan, & Wampold, 1999).

1. How do demographic variables under investigation (i.e., gender, ethnicity, program, practicum setting, satisfaction in supervision, and anxiety) relate to development of counseling self-efficacy for counselors-in-training?

2a. How do supervisory style, supervisory working alliance, and supervisor behaviors at the beginning of practicum, impact the development of counseling self-efficacy at the middle practicum?

2b. How do supervisory style, supervisory working alliance, and supervisor behaviors at the middle of practicum, impact the development of counseling self-efficacy at the end practicum?

2c. How do supervisory style, supervisory working alliance, and supervisor behaviors at the beginning of practicum, impact the development of counseling self-efficacy at the end practicum?

3. To what degree does practicum student counseling self-efficacy change during the practicum experience?

4. Are changes in counselor anxiety, satisfaction with individual supervision, and satisfaction with group supervision correlated with changes in counseling self-efficacy when measured at the beginning of practicum and end of practicum?

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter will focus on providing an in depth review of the literature regarding clinical supervision and the development of counseling self-efficacy in practicum students. Additionally, a thorough description of each construct will be presented as it pertains to research the questions. Based upon Bandura's (1977) theory of self-efficacy, explored in Chapter One, further discussion on how this construct applies to counseling self-efficacy will further develop an understanding of self-efficacy as it applies to the research questions. Discussion of supervision as it applies to counseling self-efficacy will follow. Additionally, supervision will be succinctly related to counseling self-efficacy with respect to supervisory style, working alliance, and behaviors. Other constructs presented within this study of supervisory style, supervisory working alliance, and supervisor behaviors will be expounded upon with applicable research critiques presented.

Supervision and Counselors-in-Training

As discussed in Chapter One, Level One counselors, based upon Stoltenberg's Counselor Complexity and Integrative Development Models, require specific interventions during supervision and may experience a great deal of anxiety as they are highly motivated but also very dependent, insecure, and lacking in counseling insightful. Supervisors at this stage should provide a congruent supervision environment that institutes instruction, structure, support, interpretation, awareness training, and modeling (Stoltenberg, 1981). Given these specific needs supervisees at this level have found it

helpful for their supervisors to be supportive, collegial, facilitative, nonjudgmental, and Task Oriented (Ladany, Ancis, & Walker, 2001). These factors are congruent with the needs of minimally experienced counselors as explored by Stoltenberg and reflect the specific learning needs required by Level One counselors. If these needs are met in early supervision experiences, supervisees are more likely to gain professional competence, a strengthened sense of self, and further skill development. Negative experiences in supervision, however, such as a lack of support, power struggles, supervisor responsibility, and ongoing conflict can cause supervisee cynicism and an ongoing distrustfulness of supervisors (Nelson & Friedlander, 2001).

Worthington and Roelke (1979) further described supervisee's perception of effective supervisors. Using a self-report measure that indicated ratings of satisfaction with supervision, ratings of supervisor competence, and ratings of the extent to which supervision contributed to improving their counseling, supervisees were asked to monitor specific supervisor behaviors and rate them. Supervisee satisfaction with supervision was highly correlated with supervisors helping the supervisee to develop their own styles, establishing Rapport with the supervisees, and helping supervisees develop self-confidence. Further, modeling, Task Oriented behavior, case conceptualizations, and giving feedback were also correlated with satisfaction with supervision for counselors-in-training. Providing structure, modeling, Task Oriented behaviors, and evolving case conceptualizations predicted perceptions of supervisor competence by supervisees (Worthington & Roelke).

Further investigation into supervisory preferences of practicum students across counseling fields is necessary. The first such study to undertake this exploration with

rehabilitation counselors was by Herbert, Hemlick, and Ward (1991), who sought to investigate how counseling supervisees perceive the supervision process in terms of satisfaction, supervisor competence, and impact on their skill development. Herbert et al. found that supervisees, in general preferred three methods of training: delayed supervision, live supervision, and delayed in addition to live supervision. Supervisees displayed a moderate preference for live supervision in addition to delayed supervision and a low preference for live supervision alone. Supervisees also tended to rate their supervisors as being competent more often than not, and rated they were satisfied with supervision in general. These positive perspectives of beginning rehabilitation counselors parallel expectations presented within the general counseling literature with respect to needed supervision as a Level One counselor (Stoltenberg, 1981) and general satisfaction with supervision (Worthington, 1984; Worthington & Roehlke, 1979).

In a similar study, Herbert and Ward (1989) conducted a national survey to investigate professional supervision and what program characteristics that are typical during rehabilitation counseling practica. The authors also discussed what modifications were needed to improve training. Surveying program coordinators at 55 CORE accredited programs Herbert and Ward collected 80 narrative comments that tended to fall into two categories: the need for administrative and policy change issues and the development of supervisory standards approved by CORE. Make up of programs revealed that White males primarily conducted practicum supervision and gender differences seemed to influence the supervisory relationship. The primary interventions that were being used included case presentation, use of audiotape, and continued feedback during supervision. Like the Herbert et al. 1991 study, Herbert and Ward postulated that, in general,

supervisors tended to have a positive response to the supervision process with Level One rehabilitation counselors. Researchers in both studies recommended further investigation of the supervisory relationship and supervision practices within rehabilitation counseling practicum to further understand the process and improve counselor outcomes.

A later study by Herbert (2004a), however, revealed significant inconsistencies across rehabilitation counseling graduate programs with regard to documented supervisory practices. Herbert conducted a content analysis of syllabi used in counseling practica and internship in 59 CORE accredited programs. The analysis showed that there was little uniformity among programs concerning content of topics and the extent of coverage provided. These findings, used in conjunction with earlier empirical data on supervision of counselors and rehabilitation counselors are particularly concerning. Given that little is known about supervision processes with respect to identified variables commonly presented in counseling literature (i.e., supervisory styles, supervisory working alliance, supervisor behaviors), this study makes it difficult to assume that all programs are providing similar modalities of clinical supervision to students. Further, it is likely that inconsistencies within documentation of supervision practices would also be found within CACREP programs as well. To build upon existing literature and further inform educational practice for counselors the current study sought to identify the effect that supervision within counseling programs had on counseling self-efficacy of Level One counselors. This is an essential step in further understanding specific supervision practices within the counseling field and how they effect supervisee professional development.

Self-Efficacy

Self-efficacy was used as an outcome variable throughout this study. As presented in Chapter One, perceived self-efficacy represents one's judgment of whatever he or she can do with whatever skill he or she possesses. Further, it is a more accurate predictor of subsequent behavior than performance attainment alone (Bandura, 1977, 1982). Much research has been conducted with respect to perceived self-efficacy since the advent of Bandura's (1977) presentation of his social cognitive theory on learning. Researchers have used perceived self-efficacy to explore future performance outcomes with respect to job seeking skills (Strauser & Berven, 2006), rehabilitation attainments with clients (Altmaier, Russell, Kao, Lehmann, & Weinstein, 1993), academic success (Zajacova, Lynch, & Espenshade, 2005), career assessment and counseling (Betz, 2004), and interest in research (Bard, Bieschke, Herbert, & Eberz, 2000). Further, it has also been related to other constructs within human development and functioning such as stress, well-being, personality, and social relations (Luszczynska, Gutierrez-Dona, & Schwarzer, 2005). Since perceived self-efficacy has been noted as a means of psychosocial behavioral change—it has a unique effect on one's choice of behavior, persistence, and self-guiding thought in a variety of contexts (Bandura, Adams, Hardy, & Howells, 1980)—it can be assumed that there is also a direct connection between perceived self-efficacy in counseling and counseling performance outcomes.

Individuals judge their self-efficacy over a variety of situations and environments (Bandura, 1986). Incorporating perceptions of knowledge and skills that one has on demand, it is expected that self-efficacy will likely vary across different domains.

Because this individual measure tends to vary between different contextual factors as well, Bandura (1977, 1986) suggests measuring self-efficacy at the micro level so that it can be measured via domain-specific assessments. Efficacy expectations and performance is best assessed at significant transitions in the change process when measured at specific junctures. It is possible to identify discrepancies between efficacy expectations and performance that may arise as a result of situations, factors, or ambiguous task expectancies. Using this model it is possible to generalize the self-efficacy model beyond the original domain of psychotherapy to further explore other psychological phenomena related to behavioral choices and regulation of effort in activities (Bandura, 1977).

Counseling Self-Efficacy

Counseling self-efficacy comes about as a direct result of the interaction between the training environment and trainee personal agency factors such as outcome expectancies, affective arousal, and self-evaluation, which are representative of the factors associated with Bandura's (1977) Social Cognitive Theory (Larson & Daniels, 1998). The process of internal cognitive and affective processing of enactive attainments, vicarious learning, social persuasion, and physiological arousal allows for further understanding of the contributions that clinical supervision can play with regard to development of counseling self-efficacy. This is particularly true in counselor development since skill level depends not only on training or skill acquisition, but on the counselor's perception of his or her ability to perform counseling behaviors with clients (Cashwell & Dooley, 2001). Although Barnes (2004) contends that research has not yet been able to show a direct link between counseling self-efficacy and counselor

performance, self-efficacy has been described as one component that contributes to outcomes. It also helps to describe and measure the likelihood that counselors will engage in certain situations or in certain environments based on their perceived skill level. Research on counseling self-efficacy suggests that methodological issues such as lack of consistency of instrumentation, use of analogue settings, and variation of assessment in counselor performance may be reasons that a direct link between counseling self-efficacy and performance exists, and that it is likely that a direct link between counseling self-efficacy and counselor performance also exists (Barnes).

Research in counseling self-efficacy is founded on the principles of Bandura's (1977) theory of self-efficacy and the Social Cognitive Theory, and has been described within the counseling literature as the "initiation and regulation of those counseling actions [that] are partly governed by judgments of operative capabilities" (Larson & Daniels, 1998, p. 179). This perceived self-efficacy is concerned with these judgments of how well a counselor can execute identified actions. Larson and Daniels identified 32 studies conducted with respect to counseling self-efficacy between 1983 and 1998 investigating various practices as they contribute to development and enhancement of counseling self-efficacy. During this time studies generally focused on describing specific interventions and training programs and their relative contribution to increases in self-efficacy based upon its four identified constructs (i.e., enactive attainment, vicarious learning, social persuasion, physiological arousal). A majority of these studies found that these constructs often acted as predictors of counseling outcomes and significantly contributed to the variance of counseling self-efficacy (Larson & Daniels).

Other studies that investigated counseling self-efficacy identified similar trends. For example, Larson et al. (1992) investigated whether scores taken from the *Counseling Self-Estimate Inventory* (COSE) would be significantly different across training level, years of counseling experience, and amount of supervision received. In this particular study a link was found between all three variables and counseling self-efficacy as measured by the COSE. Authors also examined whether COSE scores would increase over the course of a semester of master's practicum due to exposure to performance accomplishments, vicarious learning, and verbal persuasion. This study indicated counseling self-efficacy was, in fact, directly affected by the identified constructs within Bandura's (1977) model. Larson et al. also found that years of experience, and total time spent in supervision were directly related to counseling self-efficacy scores.

Building upon assessment of the impact that experience and time spent in supervision has on counseling self-efficacy, other studies further investigated the link between counselor development level and its relationship to counseling-self-efficacy. For example, Melchert, Hays, Wiljanen, and Koloceck (1996) explored how counselor developmental level influenced counseling self-efficacy. Researchers sampled 138 students in counseling psychology using a cross-sectional design to ascertain whether the amount of clinical experience or training had an effect on counseling self-efficacy. Within this sample, researchers reported that 34% were first-year master's students, 22% were second-year master's students, 38% were postmaster's doctoral students, and 5% were practicing psychologists. Using a scale developed for this study, the *Counseling Self-Efficacy Scale*, Melchert et al. found that level of training and clinical experience together contributed to 43% of the total variance, and that level of training alone

contributed to 18%. Building upon earlier studies of counseling self-efficacy, this study leads to additional questions regarding the measurement of specific variables that contribute to counseling self-efficacy within training programs and within clinical experience. Although researchers note that many factors are likely to impact counselor development, it is likely that counseling self-efficacy directly corresponds to previously identified models of counselor development. Melchert et al. recommended that other factors that contribute to counselor developmental level be studied in relationship to counseling self-efficacy.

To further explore counseling self-efficacy as it relates to counselor developmental level, Leach and Stoltenburg (1997) investigated whether the developmental level of the counselor would have an effect on counseling self-efficacy. They postulated that knowing how developmental level impacted self-efficacy would allow for greater precision within counselor supervision. Using 142 master's and doctoral level students from different universities, Leach and Stoltenburg used the COSE to measure counselor beliefs in working with clients across the five factors of the scale. They found significant differences between Level One and Level Two trainees in that Level Two trainee mean scores were significantly greater than those of Level One trainees. The authors also found that trainees who reported more previous clinical experience also reported higher scores in counseling self-efficacy, specifically with regard to difficult client behavior. This study supports results obtained in previous studies that measure counseling self-efficacy in that a direct relationship has been noted not only between counselor developmental level and counseling self-efficacy, but also between clinical experience and training and counseling self-efficacy.

Additionally, studies of specific interventions and how they affect counseling self-efficacy have heavily influenced the use of counseling self-efficacy as an important construct within the counseling literature. In 1999 Larson et al. Investigated the link between specific interventions used in counselor education and counseling self-efficacy, as measured by the COSE. Sixty-six students participating in a pre-practicum counseling class were asked to rate their counseling self-efficacy following a brief training intervention of either video taping or role play. In general, Larson et al. noted that both interventions (i.e., videotaping, role play) contributed to 78% of the variance. This indicates that the use of specific interventions, such as videotaping and role-play helps to explain the gain made in counseling self-efficacy. They also noted that contributions of physiological arousal within the role-play were particularly evident for novice counselors. The use of interventions within this study leads to a greater understanding of the implications that Bandura's self-efficacy theory can have for counseling and clinical supervision, particularly with respect to the training of counselors and their supervisors. Based upon the four identified components that lead to increased self-efficacy (i.e., mastery experiences, social persuasion, vicarious learning, physiological arousal) interventions that are often used in clinical supervision, such as the ones presented in this study like review of video tapes or role-play, are most likely to have a direct impact on the trainee counseling self-efficacy as the trainee is able to learn via mastery experience, vicarious learning, and physiological arousal.

Use of feedback as a supervisory intervention has also been investigated as a contributor to counseling self-efficacy. Daniels and Larson (2001) studied the influence of performance feedback on counseling self-efficacy and counselor anxiety with graduate

level counselor trainees using an experimental laboratory design. In this study researchers used the COSE, *State Trait Anxiety Inventory* to evaluate counseling self-efficacy outcomes as they pertained to supervisory feedback. The authors found that there was a significant relationship between performance feedback and ratings of anxiety, as well as ratings of anxiety based upon type of feedback received. Supervisees who received positive feedback reported significant decreases in anxiety from pretest to posttest and participants who received negative feedback reported increases in anxiety from pretest to posttest. Additionally, positive feedback significantly increased scores on the COSE by one third of a standard deviation, while negative feedback decreased the COSE scores by nearly two thirds of a standard deviation. This study supports the idea that at least two components within counseling self-efficacy (i.e., social persuasion and physiological arousal) may interact with one another. Daniels and Larson recommended further investigation to understand the relationship between supervision and counseling self-efficacy, and counseling self-efficacy and counselor performance.

In order to further understand differential parts of counseling self-efficacy, Tang and associates (2004) studied the relationship between the training background of graduate students and counseling self-efficacy. They also studied the variation in training experiences between students enrolled in schools accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and those enrolled in non-CACREP accredited programs. This study involved 116 students from six different programs (three programs with CACREP accreditation, three programs without CACREP accreditation), and used the *Self-Efficacy Inventory* (SEI). Although no significant difference was found, overall, for differences in counseling self-efficacy for

students in CACREP and non-CACREP programs, CACREP students showed more self-efficacy in terms of measuring counseling anxiety reactions, assessment using a clinical interview, counseling adjustment reactions, and counseling people with affective disorders. Counseling self-efficacy itself seemed to be most strongly related to course work, internship hours, and clinical instruction (Tang et al.). This finding suggests that a variety of contributors may affect the development of counseling self-efficacy. Students from CACREP accredited programs are required to obtain weekly individual supervision in addition to weekly group supervision. These standards also dictate standards for coursework completion prior to practicum and internship. It is likely that students, who participate in programs that adhere to such policies, including those students enrolled in programs accredited by the Council on Rehabilitation Education (CORE), will be more likely to obtain higher levels of counseling self-efficacy. Acquiring this additional coursework and supervision could significantly contribute to the development of counseling self-efficacy since it builds upon vicarious learning and social persuasion components of Bandura's (1977) theory.

Supervision and Counseling Self-Efficacy

Over the last three decades research has pointed to specific qualities of behavioral interventions and predictors of supervisee satisfaction in supervision. Few studies, however, have investigated the link between specific supervision practices and their effect on supervisee counseling self-efficacy. The learning that takes place for supervisees throughout their development is of paramount concern, especially during the pre-service training years. Advancement of counseling skill level and professional development are often dependent upon the learning experience given to students during

these formative years. The responsibility for assisting counselors in developing and refining their professional skills is that of the clinical supervisor. The relationship between the supervision process and its effect on counseling self-efficacy, however, has yet to be fully investigated.

By 1998 only two studies researched supervisors' perceptions of counselor performance and counseling self-efficacy. Counseling self-efficacy has been related to other counselor training variables such as counselor performance, counselor anxiety, and the supervision environment (Larson & Daniels, 1998). Although a majority of the above factors have been examined to some extent within counselor education it is difficult to determine the immediate impact that supervision itself has on counseling self-efficacy based upon available research. Although several studies have investigated links between various components of supervision and related outcomes (e.g., supervisory working alliance, supervisory style), few have investigated the link between clinical supervision and counseling self-efficacy. Based upon Bandura's (1977, 1986) theory of self-efficacy it is realistic to contend that investigation of such a link would yield a greater understanding of specific supervisory variables that contribute to increased counseling self-efficacy, and therefore, stronger counselor outcomes with respect to overall performance, anxiety level, and confidence in successfully executing identified counseling interventions and skills.

Among the studies that have started to examine this link, most have explored specific components of supervision and their contributions to counseling self-efficacy. For example, investigation of the influence that supervisory styles, supervisory working alliance, and supervisor behaviors have on counseling self-efficacy has revealed that

various components specific to supervision do, in fact, have an effect on supervisee development of counseling self-efficacy. The isolated measurement of these constructs, however, has yielded mixed results and requires further investigation to fully understand how each of these variables contributes to the development of counseling self-efficacy.

Friedlander and Snyder (1983) investigated the relative contributions of level of experience and individual differences in predicting trainee general expectations for the supervisory process. Using 82 trainees in counseling psychology in part time practica or full time internships the authors used counseling self-efficacy as a moderating variable to assess the influence of experience level on the supervision process. Friedlander and Snyder administered the *Self-Efficacy Inventory (SEI)*, the *Trainee Experiences Questionnaire* and the *Supervision Questionnaire* and found that supervisor variables such as Attractive, trustworthiness, and evaluation were most strongly associated with expected effects of supervision on personal development and counseling self-efficacy. Specifically, those trainees who expected their supervisors to be more Attractive, trustworthy, and evaluative also tended to have higher scores on the SEI. Friedlander and Snyder hypothesized that students who expected more of themselves (i.e., higher self-efficacy) also expected more from their supervisors. The authors also noted, however, that participants whose supervisor was viewed as being more trustworthy, expert, and evaluative also consistently had higher scores on the SEI. The authors did not attribute amount of experience to outcome level, but rather, level of education and professional aspirations. Because this particular study addressed both doctoral and master's level trainees it is possible that an accurate depiction of what a novice counselor was not fully explored. Instead, this study raises question about the development of counseling-self-

efficacy that occurs at varying training levels, and the influence that training level does, in fact, have on it. Further, recent studies that utilize more standardized assessments (i.e., *Counseling Self-Estimate Inventory*) may more accurately define and explain the construct of counseling self-efficacy. In this study it is unclear if counseling self-efficacy is, in fact, related to the original building blocks identified by Bandura (1977) or simply to a singular construct of counselor confidence. Friedlander and Snyder raise an interesting connection, however, between components of supervisory style (i.e., Task Orientated, Attractive, Interpersonal Sensitivity) within this study as they paired participant reports of self-efficacy with their reports of perceived supervisory components (i.e., Expertness, Trustworthiness, Attractiveness).

Steward, Breland, and Neil (2001) investigated supervisory style with respect to perceived supervisor Attractive, trustworthiness, and Task Oriented styles, and counseling self-efficacy. Steward et al. postulated that novice trainees' perceptions of supervisory style would influence self-evaluation of counseling competency and accuracy of self-evaluation of counseling competency. Using 36 supervision dyads in a master's level practicum, the trainees were asked to submit self-evaluations using the *Evaluation of Counselor Behaviors—Long Form* and the trainee version of the *Supervisory Style Inventory*. Steward et al. found those supervisees' perceptions of style, particularly as indicated on the Attractive subscale of the *Supervisory Styles Inventory*, was most highly associated with the degree of the supervisees' accuracy in self-evaluation of counseling competence. Novice counselors who perceived their supervisors as being more Attractive tended to make less accurate self evaluations while those who rated their supervisor to be less Attractive made more accurate self reports of counseling competency (Steward et

al.). Although this finding seems surprising, it is likely that by measuring supervisor Attractive (i.e., openness, friendliness, supportiveness) researchers inadvertently tapped into supervisee satisfaction. This finding reflects some of the earlier problems noted within supervision research by Holloway (1984), which includes errors with self-report and difficulty in assessing supervision outcomes by degree of satisfaction. Since satisfaction is not a good predictor of effective supervision, it is also not likely a meaningful predictor for accurate self-evaluation.

Further investigation of counseling self-efficacy as it relates to supervisory style was conducted by Fernando and Hulse-Killacky (2005) who noted that if supervisors were able to identify specific variables that influence the outcome of supervision that they may be able to modify supervision practices to be most influential within their practice. To ascertain this, the researchers investigated which supervisory styles (i.e., Task Oriented, Attractive, Interpersonally Sensitive) related to supervisee satisfaction with supervision and perceived self-efficacy of master's level counseling students enrolled in an internship class. Using 82 counseling students in six master's degree programs accredited by CACREP that met the criteria for the study (i.e., weekly, individual supervision of students) the researchers asked supervisees to complete the *Supervisory Styles Inventory (SSI-T)*, the *Supervisory Satisfaction Questionnaire (SSQ)*, and the *Counseling Self-Estimate Inventory COSE*). Fernando and Hulse-Killacky found that the Task Oriented style was the only style predictive of perceived self-efficacy, however, the Interpersonally Sensitive Style was the only predictor variable that was statistically significant in predicting satisfaction with supervision. They also found that the strength of the overall relationship between style and self-efficacy was less significant

than the relationship between that of styles and satisfaction of supervision. Additionally, the authors found that there was no relationship between supervisees' satisfaction with supervision and perceived self-efficacy. This suggests, again, that satisfaction may not be a valid measure for predicting actual supervision outcomes or in predicting advancements in supervisee self-efficacy.

This study also raises questions about the influence of developmental level of supervisees and their need for more directive supervision that is more likely to be found within the Task Oriented supervisory style. Instruments chosen for evaluation in this study are commendable, however. The SSI-T and COSE have become standard instruments to measure identified constructs within this study (i.e., supervisory style, counseling self-efficacy) but the authors did not comment on the potential overlap between the SSI-T and SSQ. Additionally, the SSQ itself has not been normed on similar populations and represents a modification from an earlier instrument—the *Client Satisfaction Questionnaire*—where items on the adapted SSQ asked participants to rate the quality of their supervision in addition to their specific satisfaction. It is possible that if a more standardized approach to measure satisfaction were utilized with respect to other instruments in this study (i.e., SSI-T, COSE) it is possible that higher correlations between satisfaction and counseling self-efficacy, or other styles and satisfaction (e.g., Task Oriented), could have been identified. Fernando and Hulse-Killacky reported that other external factors could also be influential such as supervisee culture, gender, theoretical orientation, and experience level. Given past research on the impact that supervisory style has on counseling self-efficacy at various developmental levels, it appears that further investigation is needed to understand its relative contribution to

supervision outcomes. Future research using this construct as it relates to counseling self-efficacy to assess how developmental level, supervisory style, and other confounding demographic variables contribute to counseling self-efficacy is needed.

Investigation of the supervisory working alliance has been arguably one of the most important common factors in the change process of supervision (Ladany et al., 1999). The *Supervisory Working Alliance Inventory* has been one of the most frequently used instruments to investigate components of the supervisory working alliance as they influence other factors related to counseling supervision. Researchers have struggled with how to adequately measure self-efficacy as it relates to the supervisory working alliance. Questioning whether changes in this working alliance over time would predict changes in counselor's self-efficacy and changes with their reported satisfaction with supervision, Ladany et al. chose to measure the supervisory working alliance and counseling self-efficacy over time. They noted the supervisory working alliance is dynamic throughout the supervision process. This was the first such longitudinal study to investigate the impact that the supervisory working alliance has on counseling self-efficacy. Ladany et al. adapted the *Working Alliance Inventory*, which assesses goals of supervision, agreement on the tasks of supervision, and the emotional bond, and the *Self-Efficacy Inventory*.

A total of 107 counselor trainees in counselor education and counseling psychology programs supervised in the community at various levels of practicum and internship were asked to complete the instruments across time. Ladany et al. found that the working alliance was not significantly related to changes in trainees' ratings of self-efficacy but that it was significantly related to ratings of satisfaction and supervision.

This study presents some particularly interesting results as they contradict those of Efstation et al. (1990) in which the supervisory working alliance was found to be a predictor of counseling self-efficacy. It appears that the differences between the two studies however, preclude critical comparison of the two. Variations in instruments used and samples used, with regard to experience, professional identity, and educational level, lead to questions as to whether or not results could be replicated if presented in a similar way. Although many strengths can be taken from Ladany et al., it appears a great deal more empirical rigor is necessary to further investigate the link between the supervisory working alliance and counseling self-efficacy.

Specific supervisor behaviors within counseling supervision have been investigated even less. Beverage (1989) investigated the relationship between evaluation in counseling supervision and its impact on counseling self-efficacy. Again, based on the premise of Bandura's (1977) theory of self-efficacy, Beverage proposed that the supervisor has the opportunity to impact supervisee behavior on all four dimensions of self-efficacy development (i.e., mastery experiences, vicarious learning, social persuasion, and physiological arousal). Thirty-one students participated in this study and completed the *General Self-efficacy Scale* and the *Counselor-Specific Self-efficacy Scale* at two different times, six weeks apart. Investigation of the relationship between supervisory evaluation and counseling self-efficacy yielded unexpected results: the relationship between supervisory evaluation and change in counseling self-efficacy was not significant, but there was a significant correlation between subsequent administrations of the Self-Efficacy Scale used indicating that counselors who believed they were effective maintained this position and visa versa for counselor with a more

negative perception of their effectiveness. The two supervisors with the highest evaluation ratings, however, also maintained the highest percentage of supervisees with a positive change in counseling self-efficacy. This supports earlier results obtained by Friedlander and Snyder (1983), potentially indicating that supervisees who expect more from their selves also expect more from their supervisors. As in previous studies, however, this study is difficult to compare to existing literature given the use of non-standardized instruments. Additionally, Beverage concluded that evaluation in supervision was neither related to, nor helpful to change in counseling-self-efficacy, but rather reinforced existing self-efficacy, which is somewhat inconsistent with existing knowledge on the effects of Task Oriented supervisory style and Level One counselors.

Despite the inconsistencies in sampling, instrumentation, and outcomes, it is clear, however, that clinical supervision does have some effect on counseling self-efficacy. In 2001 Cashwell and Dooley sampled 33 individuals (22 who were receiving clinical supervision and 11 who were not receiving supervision). Of these participants, 29 worked as counselors at a community agency, while the remaining four were doctoral students in counselor education in a CACREP accredited program currently completing their internship. The 22 who were receiving clinical supervision were also seeking professional licensure. Cashwell and Dooley administered the *Counseling Self-Estimate Inventory* (COSE) to all participants. The group of counselors receiving clinical supervision showed higher levels of counseling self-efficacy based upon their scores on the COSE than did those who were not receiving clinical supervision (Cashwell & Dooley).

Although this study indicates an important link between supervision and counseling self-efficacy, future research is needed to connect specific qualities of clinical

supervision that contribute to the development of counseling self-efficacy. Further, counselors in this particular study were not randomized to different groups, but rather those receiving supervision were working towards licensure and may have had higher base levels of counseling self-efficacy. As previous studies have shown variations in education and experience level tend to effect counseling self-efficacy, as do mediating variables such as degree, age, gender, and culture. The single administration of the COSE is also a questionable practice in that it does not show whether counseling self-efficacy can change over time as a result of clinical supervision. Instead, it is possible that from this study one could assume that scores on the COSE may be affected by other attributes such as training, experience, and past supervision.

Supervision Constructs

Supervisory Style

Advancement of counselors-in-training has often been linked to supervisory style, or the “distinctive manner of approaching and responding to trainees and of implementing supervision” (Friedlander & Ward, 1984, p. 541) Interpersonal relationship dynamics that occur within supervision are parallel to the processes that occur within counseling dyads and are closely linked with the theoretical orientation of the supervisor. Development of the *Supervisory Styles Inventory* allowed for a greater breakdown of supervisory style and supervisory behavior that was attributed to each style. Breaking down these behaviors across three domains (Attractive, Interpersonally Sensitive, and Task Oriented) allowed for greater, more specific dissemination of effective supervisory behaviors. These dimensions are parallel to identified supervisory roles such as consultant, counselor, and teacher, and they also provide a valuable tool in relating counseling theory

to supervision since they also provide a reliable breakdown of theoretical orientation and supervisory style. Behaviors that represented high factor loadings for supervisory style in Friedlander and Ward's (1984) instrument include the following: Attractive—friendly flexible, trusting, warm, open, positive, and supportive; Interpersonally Sensitive—intuitive, invested, committed, perceptive, reflective, creative, resourceful, and therapeutic; and Task Oriented—structured, focused, goal oriented, prescriptive, thorough, explicit, evaluative, didactic, practical, and concrete.

Other studies have linked components of supervisory style with supervision either via self-report of supervisor or supervisee. For example, Dodenhoff (1981) questioned whether high interpersonal attraction to the supervisor resulted in more effective supervisee behavior and whether a direct influencing message resulted in significantly more effective counselor behaviors. To investigate this report, using 44 trainees enrolled in counseling practicum of different levels (i.e., pre-practicum, practicum, advanced internship) and several measures including a counselor evaluation scale and an interrater observation scale, Dodenhoff found that counselor trainees who were highly attracted to their supervisors were more effective at the end of practicum than counselor trainees who are less highly attracted. A Task Oriented supervisor style, however, was noted as a significant determinant of greater trainee effectiveness (Dodenhoff). This could be related to the need for greater structure, intensive feedback, and specific instruction that is likely to occur during initial counselor development.

Even in studies of supervisory dyads with counselors-in-training who report minimal impact, supervisee perceptions of the supervisor's levels of expertness, Attractive, trustworthiness, and interpersonal relationship sensitivity were correlated with

overall trainee satisfaction with supervision (Heppner & Handley, 1981). In fact, it has been argued that supervisee perception is a finite predictor of clinical outcomes for supervisee satisfaction (Friedlander & Snyder, 1983) but may not be related to overall ratings of supervisor impact over time.

A majority of research conducted in counselor supervision has focused on counseling psychology students and not on counselor education or rehabilitation counseling students. The first such study to investigate the use of the *Supervisory Styles Inventory* with counseling students was by Herbert and Ward (1995). Using 123 counseling students Herbert and Ward conducted a confirmatory factor analysis to examine the interrelationships between the *Supervisory Styles Inventory* and *The Revised Supervision Questionnaire*. They found that although the analysis did not support the original factor structure of either scale, direct feedback moderately correlated with Attractive and Interpersonally Sensitive supervisory styles. This study suggests that more research within clinical supervision with counseling students is needed to further understand the effects of supervision as well as specific components of supervision, such as supervisory style and how these components contribute to overall outcomes related to supervision.

Supervisory Working Alliance

Available research within counseling supervision indicates that the working alliance is one of the primary contributors to positive outcomes for supervision. The supervisory working alliance is determined by a set of identifiable tasks performed by each participant in the relationship. Dimensions of this construct have been measured in

the past by the *Supervisory Working Alliance Inventory* (Efstation et al., 1990) and the *Role Conflict and Role Ambiguity Inventory* (Olk & Friedlander, 1992).

The *Role Conflict and Role Ambiguity Inventory* was developed and validated with trainees and supervisors in practicum, internship, and post-internship settings. Content of this instrument contains items that assess for role ambiguity (e.g., uncertainty about supervisory expectations and evaluation procedures) and role conflict (e.g., confusion about various professional roles of supervisees including student, counselor, and colleague). Explanation and definition of supervisory roles and processes greatly contribute to the supervisory working alliance. This bond, if measured over time, is significantly related to supervisee satisfaction and positive perception of supervisor behavior (Ladany et al., 1999). In addition, conflict within supervisory relationships that lead to a repair, or conflict resolution, within the supervisory dyad has also been linked to positive outcomes within supervision (Burke et al., 1998).

Such weakenings and repairs within the supervisory relationship are likely to contribute to supervisee anxiety level during supervision and counseling practice. For example, Ladany and Friedlander (1995) investigated whether the task and goal dimensions of the supervisory working alliance (as measured by the *Working Alliance Inventory—Trainee Version*) predicted role ambiguity (as measured by *Role Conflict and Role Ambiguity Inventory*). They found that the working alliance was related to trainees' perceptions of role conflict and role ambiguity in that when trainees perceived the supervisory working alliance as weaker, they experienced more role conflict and more ambiguity. This becomes particularly salient when assessing factors that may also

contribute to counseling self-efficacy and their influence on actual counselor outcomes. For example, because physiological state is an essential component to perceived self-efficacy it is likely that trainees whose anxiety level was increased as a result of a poor supervisory working alliance or due to role conflict and role ambiguity would be less likely to develop high counseling self-efficacy and may be more inclined to not engage in specific counseling behaviors as a result. Future research is needed to determine other factors that may also influence role conflict and role ambiguity such as pairing of supervision dyads by sex, racial identity interactions, personality characteristics of participants, supervisory style, and cultural considerations (Ladany & Friedlander).

The supervisory working alliance has been researched for both counselors-in-training (Crutchfield & Borders, 1997; Patton & Kivlighan, 1997; Worthington, 1984) and for advanced counselors (Herbert & Trusty, 2006; Schultz, Ososkie, Fried, Nelson, & Bardos, 2002; Tucker, McNeill, Abrams, & Brown, 1988) as a key contributor to supervision outcomes. Establishment of the supervisory working alliance has also been identified as an essential skill for competent supervision (Falender et al., 2004). This alliance could be used as a behavioral predictor that is measured via self-report of both supervisor and supervisee as well as by direct observation of session and supervisee outcomes. The alliance includes such factors as sensitivity to multiple roles with supervisee/supervisor, ability to build a supervisory relationship or alliance, ability to promote growth and self-assessment, ability to set appropriate boundaries, and flexibility (Falender et al.). Further description of specific knowledge related to the supervisory working alliance includes trust issues in supervision, sources of conflict in the supervisory relationship, impact of various supervisory styles on relationship, influence

of supervisor's counseling orientation on relationship, implications of culture and ethnicity similarities and differences between the supervisor and supervisee, power issues, and diversity issues (Thielsen & Leahy, 2001). To this end supervisees should be able to observe the modeled working alliance within supervision and translate it directly into their counseling practice. Perceptions of supervisor and supervisee can be compared to behavioral observations taken during supervision and to behavioral observations of the supervisee's clinical work.

Based upon this construct, Heppner and Handley (1982) conducted an exploratory study to investigate relationships between various supervisor behaviors and trainee perceptions for supervisor expertness, Attractive, and trustworthiness. Using 33 graduate students enrolled in four beginning master's level practicum courses in counseling psychology, students were asked to complete the *Counselor Rating Form* and the *Supervisory Questionnaire* to assess which components of the supervisory working alliance contributed most to their perception of supervision. Heppner and Handley found that trainee perceptions of each of the three variables tended to be more highly correlated with supervisor behaviors of the evaluation factor than with behaviors found on the support factor. For example, supervisees who perceived their supervisors using evaluative behaviors more often than supportive behaviors rated them as more expert, Attractive, and trustworthy. This is consistent with findings commonly associated with the development of counseling self-efficacy and supervisory style in that a more directive approach (e.g., Task Oriented style) is more effective for Level One counselors (e.g., Daniels & Larson, 2001; Dodenhoff, 1981). Assessment of the supervisory working alliance in this study is questionable since the instrument chosen had not been

standardized for use in supervision. Of the constructs measured, it appears that Heppner and Handley tapped into the supervisory style and its effect on counselor perception of supervision. Future research should include more standardized instruments. Additionally, report of supervisee perception of supervision could be strengthened by report of the perception of the supervisor.

Several studies have investigated whether supervisory working alliance contributes to various outcome variables in supervision. This includes supervisee satisfaction, performance, and therapeutic working alliance in session. It was not until 1990, however, that the most commonly used instrument to assess supervisory working alliance was developed by Efstation et al. (1990) Measurement of the supervisory working alliance via the *Supervisory Working Alliance Inventory* (SWAI-T) allows for a break down of further descriptors that contribute to influencing factors within the supervision relationship. These factors include Client Focus, Rapport, and identification for supervisors; and Client Focus and Rapport for supervisees. The SWAI-T provides a satisfactory measure of perceptions of the supervisory working alliance as it measures the alliance from both the perspective of the supervisor as well as the supervisee. This particular inventory provides adequate measures that relate to both supervisor theoretical orientation as well as to specific supervisory approaches to working with supervisees with varying developmental levels (Efstation et al., 1990)

Efstation et al. (1990) selected 185 supervisors and 178 trainees from psychology internship programs to aid in the development of the SWAI-T (trainee form) and the SWAI-T-S (supervisor form). Results indicated that the instrument measured three domains on the supervisor scale (i.e., Client Focus, Rapport, identification) and two

domains on the trainee version (i.e., Rapport, Client Focus). The instrument was also found to have intercorrelations with the *Supervisory Styles Inventory* and with the *Self-Efficacy Inventory*. Additionally, researchers used the *Self-Efficacy Inventory* to assess trainee self-efficacy as it relates to variables within the supervisory working alliance. Efstation et al. (1990) found that scores on the Rapport and focus domains of the SWAI-T were predictors of scores on the SEI. The authors failed to examine all components of counseling self-efficacy as previously presented by Bandura (1977), however. Instead the variable was examined with respect to trainees' feelings about their abilities to perform certain counseling skills including therapy assessment and crisis intervention. Little consideration was provided for the four domains representative of counseling self-efficacy or their unique contribution to the development and description of self-efficacy, as it would relate to the working alliance in supervision. This study, while an expansive contribution to the field in explaining components of the supervisory working alliance, set out to measure it at a singular point in time. Additional research should focus on the change over time that is likely to occur as a result of unique supervision variables such as the supervisory working alliance (Efstation et al.)

Another outcome investigated as it pertains to the supervisory working alliance is the correlation between the trainee's perception of the strength of the supervisory working alliance and the trainee's actual working alliance with their client. Patton and Kivlighan in (1997) paired 75 counseling psychology graduate students with 75 clients, and 25 doctoral level psychology supervisors and asked them to complete the *Working Alliance Inventory* the *Supervisory Working Alliance Inventory* and the *Therapeutic Strategies Scale*. Patton and Kivlighan found that the supervisory working alliance had a

differential effect on the types of learning that occurred during supervision. Although the supervisees did not appear to be effected by the technical activity of the supervisor, the primary gain from supervision was in the supervisee's acquisition of working alliance skills. In terms of helping the trainees develop a working relationship with their client the most significant impact was the working alliance they developed with their supervisor as opposed to characteristics of the supervisor. Patton and Kivlighan recommended that future research focus on the technical aspects of the supervisory relationship and how they specifically translate to help trainees develop technical skills. Further research is needed to investigate how the supervisory working alliance contributes to other outcome variables associated with counseling. This particular study was one of the first to use a multifaceted assessment in which perspectives were obtained from three different participating parties (i.e., supervisee, supervisor, and client). Future research to eventually assess the influence on client outcomes as a result of mediators within supervision would be valuable to educators and clinicians alike.

Presently, a majority of the research conducted on clinical supervision practices has focused on graduate level trainees in counseling or counseling psychology programs. Few studies have been conducted that examine phenomena related to supervision within rehabilitation counseling. Of these studies, however, research within public vocational rehabilitation settings usually provides a framework for supervision practices for practicing rehabilitation counselors. Given this, Herbert and Trusty (2006) investigated elemental components of supervision and the supervisory working alliance within public vocational rehabilitation settings to assess how satisfied counselors were with administrative and clinical supervision. Participants were 148 counselors employed with

public vocational rehabilitation who completed the SWAI-T and the *Rehabilitation Counselor Supervision Inventory*. Herbert and Trusty found that supervision within this environment occurred mostly on an as-needed basis and that the consultant role of the supervisor was the one most often adopted during supervision. Counselors reported being moderately satisfied with supervision, but supervision itself was correlated with supervisory roles, frequency of supervisory meetings, and gender of supervisor. Given the limited supervision that was taking place in this study it is difficult to determine the actual extent of the supervisor working alliance. Although some participants indicated satisfaction with supervision the duration and quality of supervision itself was questionable. Additionally, because of the lack of consistent supervision in this study, the researchers may have benefited from also assessing the actual developmental level of the counselor or their counseling self-efficacy as it pertained to the time spent in supervision. Hebert and Trusty recommended that future research examine the effectiveness of training interventions that improve counselor effectiveness as well as, investigate the extent to which supervisor competence in clinical supervision contributes to outcome (Herbert & Trusty).

Supervisor Behaviors

Supervisor behaviors are also a known contributor to supervisee success. For counselors-in-training, behaviors such as supporting, reassuring, and nurturing, as well as directing, advising, and teaching are among the most cited for helpful behaviors (Rabinowitz et al., 1986). Use of the skilled counselor training model also emphasizes supervisor behavior of modeling and feedback (Little et al., 2005). Advanced counselors benefit from specific supervisor behaviors that are developmentally appropriate for their

stage of development. Modeling and direct and indirect teaching techniques that assist supervisees in understanding the career ladder, succession planning, impact of professionalization of rehabilitation, licensure, and assisting supervisee in understanding local outreach opportunities are most beneficial to experienced rehabilitation counselors (Schultz, 2007). In addition, being proactive in clinical supervision, including spending a set amount of time regularly with each supervisee and avoiding as-needed supervision alone also helps enhance the supervisees' level of clinical competence (Herbert & Trusty, 2006; Schultz et al., 2002). These professional behaviors not only assist the supervisees in concretely understanding counseling concepts and application of theory and technique, they also provide a foundation of skills by providing them with a mentor who models these behaviors.

In 1979, Worthington and Roehlke looked at specific supervisor behaviors perceived as the most effective by supervisees. Using 16 supervisors in counseling psychology, participants were asked to rate the importance of good supervision on 42 supervisory behaviors. Ratings on this scale fell onto three dimensions: satisfaction with supervision, supervisor competence, and contribution to supervision to counselor ability. The behaviors that supervisors believed to most important to good supervision were not always the same as those that correlated with the supervisee's ratings of satisfaction with supervision, supervisor competence, and improved counseling skills. Beginning counselors, for example, rated supervision as better when supervisors directly taught within the relationship and encouraged them to try out the newly learned skills (Worthington & Roehlke). This direct teaching falls in line with other supervision

research in that counselors-in-training often require different interventions within supervision than do more advanced counselors.

Given the variability in supervision setting, supervisee experience level, and supervisee training level research needs to move forward by investigating confounding variables that may interfere with results. Worthington (1984) investigated dynamics of supervision across a wide variety of supervisors with numerous theories of counseling. Behaviors investigated included encouragement of independence; infrequently taught skills, Task Oriented supervision; focus on the supervisory relationship, feedback, and personal interest in supervisee, respect for supervisee, support, role differences, and Rapport. Findings indicated that supervision differed across settings but, overall, the more satisfied supervisees reported encouragement for finding their own style of counseling and that supervisors were perceived as more competent if they offered more suggestions on conceptualizing clients as well as support and encouragement (Worthington).

Additionally, specific aspects of the supervision process was researched by Rabinowitz, Heppner, and Roehlke (1986) who authors compared process and outcome variables within supervision using a session by session measurement to control for random chance fluctuations. The instrument itself included questions about the most important issue discussed and the most important supervisory intervention. Interestingly, the two most important issues for supervisees were developing a treatment plan and getting support from the supervisor. The two most frequently endorsed interventions were (a) supporting, reassuring, and nurturing, and (b) directing, advising, and teaching (Rabinowitz et al.). This appears to be consistent with what would be expected from

Level One counselors, in that they would need more support and more directive supervision than counselors with more experience.

Stebnicki et al. (1997) further enhanced the understanding of helpful supervisor behaviors in rehabilitation counseling practica. Using 88 post practica students from a rehabilitation-counseling program the authors identified five domains of helpful supervisory behaviors. These behaviors fell into (a) personal development as a counselor, (b) clinical professional development, (c) case conceptualization, (d) supervisor-supervisee relationship and supervisor style and approach, and (e) other supervisor behaviors. Items were then constructed to make up the *Clinical Supervision Questionnaire*.

Thielsen and Leahy (2001) sought to identify essential supervisory knowledge and skills for advanced rehabilitation counselors. Using 793 Certified Rehabilitation Counselors (CRC) with more than five years of experience who worked in a variety of settings, the authors developed the *Rehabilitation Supervision Inventory*. This instrument measures supervisory behavior across six domains: (a) ethical and legal issues, (b) theories and models, (c) intervention techniques and methods, (d) evaluation and assessment, (e) rehabilitation counseling knowledge, and (f) supervisory relationship. Using this instrument researchers found that although most practicing rehabilitation counselors and supervisors endorsed ethical and legal issues as the most important supervisor knowledge domain, significant differences were found as a result of gender, job title, employment level, educational level, and training in clinical supervision.

Conclusion

Clinical supervision literature within the last three decades has revealed a myriad of supervision dynamics relevant to the ongoing professional development of counselors. Additionally, outcome measures such as satisfaction and supervisory working alliance have proved somewhat inconsistent across studies and lead future research in a direction to further investigate other outcomes of effective clinical supervision. As previously discussed, a desired outcome of clinical supervision, particularly for counselors-in-training is that of an increase in counseling self-efficacy, and improved client outcomes. An increase in counseling self-efficacy as a result of specific supervisory style, working alliance, or behaviors would indicate specific modifications to the supervisory environment that could directly affect supervisee outcomes in a positive manner. Few studies have investigated the relationship between these variables and counseling self-efficacy, however. Further investigation is needed to explore their specific impact on the variance within supervision as it relates to counseling self-efficacy. Increases in counseling self-efficacy could also be a sound indicator of improved performance of the supervisee and therefore an impetus of improved client outcomes over time.

CHAPTER 3

METHODOLOGY

This chapter builds upon presented literature and provides information about research procedures, data analysis assumptions, scale constructs and operational measurements, and psychometric properties of instruments used. Further, independent and dependent variables are discussed with respect to this study and their unique contributions to statistical analyses and hypotheses. A brief discussion of the statistical analysis for each hypothesis, as well as an in-depth review of the theoretical assumptions used when applying the relevant statistical analysis are presented. The chapter concludes by identifying research questions and hypotheses generated in this study.

Participants

Level One counselors represented the population of interest for this study. As such, potential participants were recruited from the 100 CORE accredited programs and from the 220 CACREP accredited programs. Participation criteria included (a) current enrollment in first practicum class, (b) current enrollment in master's degree counseling program with either CORE or CACREP accreditation, and (c) current participation in weekly individual and/or group supervision. A letter of invitation was sent to coordinators of all CORE and CACREP accredited programs requesting their students be invited to participate in the study (See Appendix B) Approximately two weeks following the initial letter of invitation, a follow up letter was sent. From these mailings 53 programs agreed to participate. Only 41 of these programs offered practicum during spring semester, however, excluding 12 programs for the purpose of this study. Student

invitation letters were then forwarded to these 41 programs (see Appendix A). A link to the PsychData website was included in the student invitation letter for potential participants. Upon linking to the site participants were guided through a formal informed consent (see Appendix E). At the end of the consent a statement appeared at the bottom of the first page indicating that continuation of the study implied informed consent and that they could stop at any time.

Online Data Entry

PsychData offers a secure platform for data collection and was used throughout this study for data collection. In order to protect confidentiality each participant was provided a pass code to access the website. There was no compensation for involvement in this study; however, students who participated in all three parts of the assessment were entered into a drawing for a \$100 Visa gift card. One gift card per every 25 participants was randomly selected. One gift card was distributed.

Participation was voluntary and students were able to terminate involvement at any time during the study without risk of penalty. Informed consent was presented at the login screen at www.psychdata.com. Following informed consent participants were asked to complete a demographic questionnaire (see Appendix F) followed by the *Supervisory Styles Inventory*, (Friedlander & Ward, 1984; see Appendix G), *Supervisory Working Alliance Inventory-Trainee version* (Efstation et al., 1990; see Appendix H), *Modified Clinical Supervision Questionnaire* (Stebnicki et al., 1997; see Appendix I), and the *Counseling Self-Estimate Inventory* (COSE) (Larson, 1992; see Appendix J).

PsychData is a secure website where data are collected and kept confidential. The investigator was given a unique identification number that allowed only her to download

completed materials and other documents. Only study participants given an access code were able to view and participate in this study. Encryption was used to preserve this confidentiality of participants and to ensure that no part of the study questionnaires could be downloaded from the website by participants. This encryption also protects the rights of authors who have granted permission to use copyrighted materials.

Online data collection was chosen because of its flexibility, cost effectiveness, and the probability of engaging more participants in completing the study. It was assumed that a majority of students enrolled in practicum classes in both CORE and CACREP accredited programs would have access to computers, either their own or on campus. Response rates for direct mailings and online surveys range from 30% to 40% with an additional 20% increase for follow up mailings (Heppner et al., 1999). Due to the unknown number of total students enrolled in practicum during spring semester who were eligible to participate it is not possible to determine the response rate for this study.

Study Design

A repeated measures design was used to identify the influence of selected components of clinical supervision (i.e., supervisory style, supervisory working alliance, supervisor behavior) have on counseling self-efficacy. This design was chosen as it allowed the researcher to analyze data where the same people participated in all parts of the study. Further, this study also examined the relationship of these selected components of supervision.

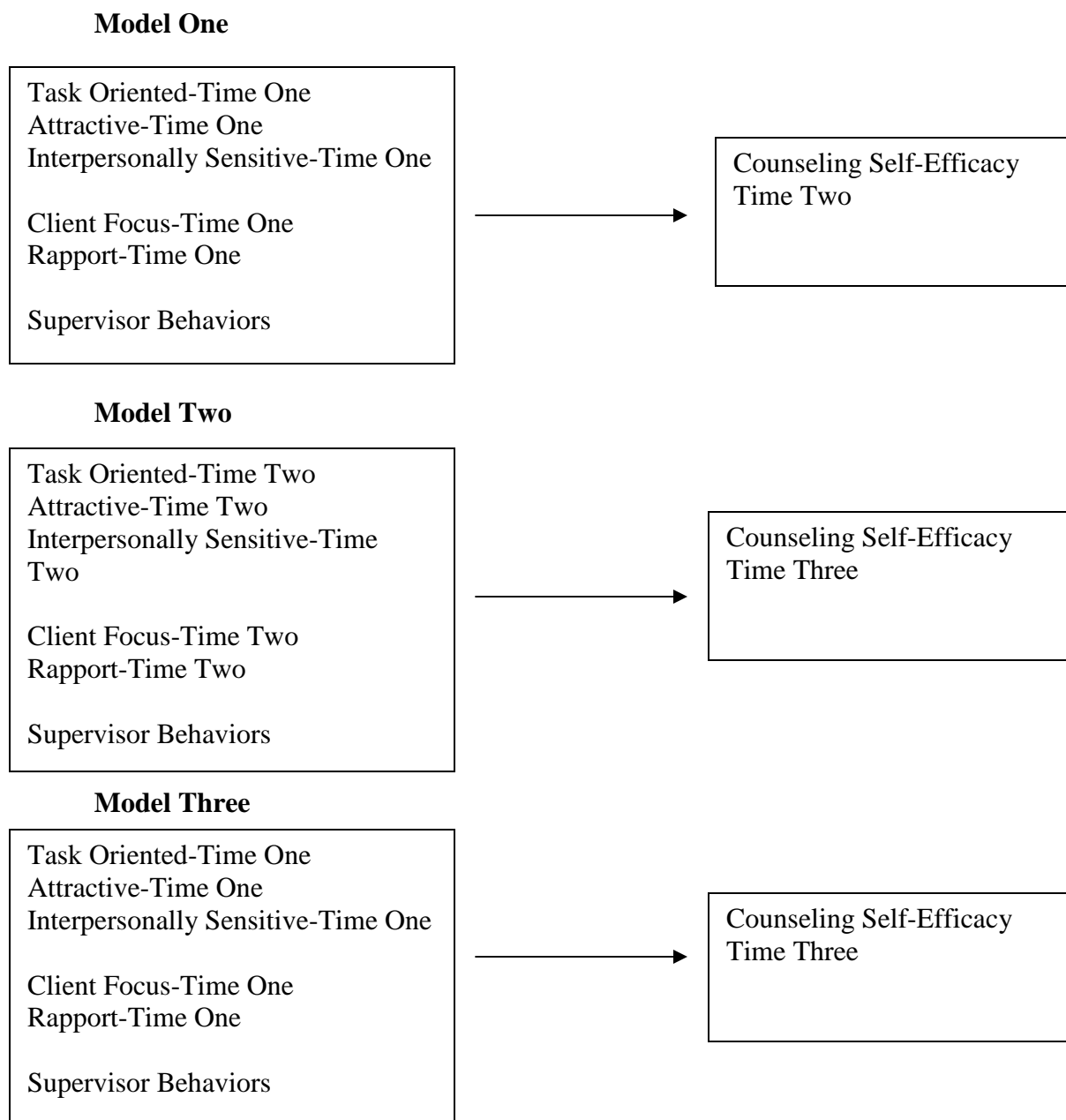
It was expected, using this repeated measures design that the dependent variable (Y) of counseling self-efficacy, would vary with the predictor variables. Given this, a path type model was used to study scores on the COSE at Time Two and Time Three as

predicted by identified components of supervision. Three path type models were used to assess the predictive nature of supervision on counseling self-efficacy. In the first model subscale scores of the SSI-T at Time One (i.e., Task Oriented, Attractive, Interpersonally Sensitive), SWAI-T scores at Time One (i.e., Client Focus, Rapport), and total scores for the Modified-CSQ were the identified independent variables (X_1 Task Oriented, X_2 Interpersonal Sensitive, X_3 Attractive, X_4 Client Focus, X_5 Rapport, and X_6 Helpful Supervisor Behaviors), with scores on COSE as measured at Time Two as the dependent variable (Y). Model two used subscale scores for the SSI-T, SWAI-T, and total scores from the Modified-CSQ as measured at Time Two as independent variables (X_1 Task Oriented, X_2 Interpersonal Sensitive, X_3 Attractive, X_4 Client Focus, X_5 Rapport, and X_6 Helpful Supervisor Behaviors) with scores on COSE as measured at Time Three as the dependent variable (Y). Finally, model three used subscale scores from the SSI-T, SWAI-T, and total scores from the Modified-CSQ as independent variables (X_1 Task Oriented, X_2 Interpersonal Sensitive, X_3 Attractive, X_4 Client Focus, X_5 Rapport, and X_6 Helpful Supervisor Behaviors) with scores on the COSE as measured at Time Three as the dependent variable (Y). Figure 1 illustrates the identified path type models used in this analysis. Use of a path type model with multiple regression allowed for a greater understanding of the statistical relationship between the dependent and identified independent variables. Further, the means of these probability distributions vary in a systematic fashion with X (Kutner, Nachtsheim, Neter, & Li, 2005).

Use of a general linear model further helped to explore how the independent variables (i.e., Task Oriented supervisory style, interpersonal supervisory style, Attractive supervisory style, supervisory working alliance, supervisory behaviors) influenced the

pattern of responses on counseling self-efficacy. Additionally, since the most predominant problem within supervision research is the use of cross sectional designs (Holloway, 1984), a repeated measures design was used for this study. A repeated measures design uses multiple observations over time and, for the purpose of this study, used the same subjects (Heppner et al., 1999).

Figure 1

Path Analysis Model

Procedures

During the beginning of the 2009 spring semester program coordinators were contacted from CORE and CACREP accredited programs. These coordinators received an e-mail inviting their program to participate in the study. The e-mail also contained an invitation letter for students that directed them to the PsychData website. The coordinators were asked to forward the e-mail to students who were enrolled in their practicum during spring semester. Student participants were directed to an informed consent upon sign in at PsychData. Following completion of the informed consent participants were asked to complete the assessments in the following order: demographic questionnaire (first time only), *Modified Clinical Supervision Questionnaire* (third time only; Stebnicki et al., 1997), *Supervisory Styles Inventory-Trainee Form* (Friedlander & Ward, 1984), *Supervisory Working Alliance—Trainee Form* (Efstation et al., 1990), and the *Counseling Self-Estimate Inventory* (Larson et al., 1992). Participants also answered three additional questions at each time to assess counselor anxiety, satisfaction with individual supervision, and satisfaction with group satisfaction. The assessments required approximately 15 minutes to complete based on pilot testing.

The first administration of instruments occurred during the fourth week of the spring semester. It was assumed that by this time in the semester students would have started seeing clients and were receiving supervision regularly. Students were sent an initial invitation to the study during the third week of practicum, with a follow-up e-mail during week four. The second administration of assessments occurred at week eight using the same procedures as the initial assessment. Finally, a third administration of the

instruments occurred during the 14th and 15th week of the semester. Students completed the same assessments each time, with the exception of the demographic questionnaire, which was completed only the first time, and the *Modified Clinical Supervision Questionnaire*, which was completed only during the third time.

Constructs and Measures

Demographic questionnaire. During the first assessment, students were asked to complete a demographic questionnaire developed by the investigator for the purpose of this study. Based upon available literature in counseling supervision, common confounding variables with outcomes of supervision are gender of supervisor (Herbert et al., 1991), years of counseling experience (Melchert et al., 1996; Stoltenberg, 1981), education (Beverage, 1989), race, ethnicity, and culture (Fernando & Hulse-Killacky, 2005), group versus individual or combined supervision (Ray & Altekruze, 2000), how often supervision is provided and the length of supervision (Herbert, 1997; Herbert & Trusty, 2006), practicum placement (e.g., on or off campus), number of clients seen on average, and expectations for supervision (Worthington, 1984). Additionally, questions were included to assess counselor anxiety level and counselor satisfaction with supervision. Although participants completed the demographic questionnaire only once, questions that assessed counselor anxiety and satisfaction with supervision were included throughout all three waves of data collection (see Appendix F).

Supervisory Styles Inventory—Trainee (SSI-T). Next, participants were asked to complete the SSI-T. As presented in Chapter Two, supervisory style has been found to be a significant contributor to counseling self-efficacy (Fernando & Hulse-Killacky, 2005; Steward et al., 2001). Use of the SSI-T paired with other assessments could lead to a

better understanding of its unique contribution in combination with other commonly cited variables within supervision. Supervisory Style was defined by Friedlander and Ward (1984) as “the supervisor’s distinctive manner of approaching and responding to trainees and of implementing supervision” (p. 541). To develop the assessment, Friedlander and Ward used an orthogonal varimax rotation, which revealed three factors that accounted for 53% of the variance in the trainee’s ratings of supervisory style. These factors include Attractive—warm, supportive, friendly, open, and flexible; Interpersonally Sensitive—committed, invested, therapeutic, and perceptive; and Task Oriented—goal oriented, thorough, focused, practical, and structured (Friedlander & Ward). For the purposes of this study only subscale scores of the trainee version (i.e., Task Oriented, Interpersonally Sensitive, Attractive) were used.

The scale was normed on master’s level and doctoral level students in conjunction with their supervisors. For the purpose of this study, only the trainee version of the assessment was used. This version contains 33 items that trainees used to rate their supervisors on their supervisory styles. Only 27 of these items are included in any of the subscales. Participants responded via a Likert type scale from “not very” (1) up to “very” (7) based upon specific traits participants ascribed to their supervisors such as “friendly,” “didactic,” and “creative.” Total scores for each subscale are as follows: Task Oriented-70, Interpersonally Sensitive-56, and Attractive-49. Higher scores on each scale indicate specific Supervisory Style. The total score for the SSI-T could range from 27-189. Higher total scores on the SSI-T indicate a more eclectic supervisory style that may suggest supervisors have more than one dominant supervisory style (Efstation et al., 1990).

Friedlander and Ward (1984) used Cronbach's alpha to determine initial internal consistency for each of the three subscales separately and combined. Both versions of the instrument had alphas that ranged from .76 to .93, indicating moderate to high internal consistency. Item-scale correlations ranged from .70 to .88 for the Attractive scale; from .51 to .82 for the Interpersonally Sensitive subscale; and from .38 to .76 for the Task Oriented scale. Further, test-retest reliabilities of ratings of master's trainees for the combined subscales was .92, overall, and .94 for Attractive, .91 for Interpersonally Sensitive, and .78 for Task Oriented (Friedlander & Ward).

Convergent validity was also calculated based upon three composite variables of teacher, counselor, and consultant items. This revealed that the Attractive subscale correlated highly with the counselor and consultant items ($r > .65$) but at .42 for teacher items. Similarly, the Interpersonally Sensitive subscale correlated highly with all three variables ($r > .80$) and the Task Oriented subscale correlated most strongly with the teacher variable ($r > .61$) as opposed to the counselor ($r > .21$). Overall, there was a strong relationship between the SSI-T and a measure of supervisory role behavior (Friedlander & Ward, 1984).

Both administrations of the SSI-T showed high internal consistency. In their second study, Friedlander and Ward (1984) attempted to cross-validate the scale. Using Cronbach's alpha, researchers found internal consistency reliabilities at .84 to .89. Item scale correlations for the SSI-T specifically were .70 to .83 for the Attractive subscale, .64 to .79 for the Interpersonally Sensitive subscale, and from .55 to .72 for the Task Oriented subscale. Intercorrelations among the three subscales revealed moderate to low correlations in both studies. Subscales with the SSI-T are somewhat more interdependent,

but the strongest association was between the Attractive subscale and the Interpersonally Sensitive subscale, with the most independent subscale being that of Task Oriented (Friedlander & Ward).

Further analysis of this scale has resulted in mixed results, however. In their confirmatory factor analysis, Herbert and Ward (1995) found that although the SSI-T subscales were reliable, they were not independent of one another. The SSI-T internal consistency estimates revealed significant intercorrelations between the Attractive and Interpersonally Sensitive subscales (.79) and the Attractive and Task Oriented subscales (.64) as well as the Interpersonally Sensitive and Task Oriented subscales (.85). Although original factor structures were not supported in this study, Herbert and Ward contend that it could be attributable to the difference in sample selection from that of the original sample. Use of the instrument with rehabilitation counseling trainees as opposed to psychologists may have interfered with replicating the factor structure originally proposed. Further, Herbert and Ward also indicated that supervisor evaluation may have impacted the factor structure and that specific needs of rehabilitation counselor-trainees may have had an effect on which style (e.g., Task Oriented) was elicited from the supervisor. For these reasons, further analysis of this instrument with rehabilitation counseling students is needed to determine if supervisory style does, in fact, have an impact on the development of counseling self-efficacy.

Supervisory Working Alliance—Trainee (SWAI-T). Participants also completed the SWAI-T. Measurement of the supervisory working alliance assesses the portion of the supervisory relationship in which supervisors act to influence trainees through their use of knowledge and skill, and trainees reciprocate via display of their acquisition of

knowledge and skill (Efstation et al., 1990). The SWAI-T was developed along with the supervisor version of the SWAI-T. For the purpose of this study only the SWAI-T was used. Efstation et al. conducted an orthogonal varimax rotation and revealed a two-factor solution for trainees that contributed to 38% of the overall variance measured within the supervisory relationship.

Participants completed 19 items that rated the counselor trainee perceptions of the clinical supervision relationship. Items were measured on a 7-point Likert-type scale with responses that range from “almost never” (1) to “almost always” (7). Higher scores on the Rapport subscale indicate that the supervisor focused on building Rapport with supervisees. Scores can range from 12-84. Higher scores on the Client Focused subscale indicate a greater focus on understanding clients. Scores can range from 7 to 49. Additionally, a total scale score for the SWAI-T indicates a stronger supervisory working alliance. These scores can range from 19-133. Questions represented on the SWAI-T include “My supervisor makes the effort to understand me” and “My supervisor welcomes my explanations about the client’s behavior.” Factor one represents Rapport and accounted for 30% of the common variance. The 12 items that load onto this factor ($> .40$) represent the trainee’s perception of support from the supervisor. The second factor measured by the SWAI-T is that of Client Focus. This factor accounted for 8% of the common variance, with 7 items loading highly at $> .50$. Internal consistency using Cronbach’s alpha for both subscales was estimated at .90 for Rapport and .77 for Client Focus. Further, item subscale correlations ranged from .44 to .77 for Rapport and from .37 to .53 for the Client Focus subscale (Efstation et al., 1990).

Researchers also used the SSI-T to estimate convergent and divergent validity for the SWAI-T. Efstation et al. (1990) found that the Client Focus subscale correlated moderately with the Task Oriented style from the SSI-T at .52, but revealed low correlations between the Attractive subscale (.04) and the Interpersonally Sensitive subscale (.21). Moderately high correlations were found for the Rapport subscale of the SWAI-T and the Attractive and Interpersonally Sensitive subscales. Further, the Rapport subscale of the SWAI-T had low correlations with the Task Oriented subscale of the SSI-T. In a follow up study, researchers conducted additional tests of validity between the SWAI-T and Holloway and Wampold's *Personal Reactions Scale-Revised* (Patton, Brossart, Gehlert, Gold, & Jackson, 1992). A cross-factor analysis revealed a two-factor solution for the trainee version, consistent with that of Efstation et al. Internal reliability subscale scores for the trainee version were .82 for the Client Focus subscale and .91 for the Rapport subscale, consistent with the findings from the original study as well (Patton et al.).

Modified Clinical Supervision Questionnaire (CSQ). Measurement of supervisor behavior is the final contributing independent variable assessed for the current study. The full version of this scale was originally developed to "identify supervisor behaviors perceived to be helpful to rehabilitation counselors-in-training" (Stebnicki et al., 1997, p. 307). The original version of the CSQ consists of 46 supervisor behavior items that can be answered using a 5-point Likert type scale ranging from "not helpful" (1) to "extremely helpful" (5). For scale development, Stebnicki et al. consulted a panel of experts to place items into identified domains. Interrater agreement of .70 was used to determine appropriateness of items to the scale and to the domains provided (Stebnicki et

al.). For the purposes of this study the researcher selected 14 of the 46 items that encompassed specific supervisor behaviors and/or interventions that were not otherwise addressed via the other two scales. These items focused on specific supervisor behaviors such as use of audio or videotape, live supervision, and case presentation. They also addressed availability of the supervisor. Because of the specificity of these items it was not necessary to include them in all three waves of assessment. Participant scores could range from 14-70, with higher scores indicative of more helpful supervisor behaviors (Stebnicki et al.).

Domains for the CSQ were originally developed from a comprehensive review of the clinical supervision survey research but were not necessarily represented via statistical analysis. Internal consistency was estimated via Cronbach's alpha at .94. For each of the domains researchers also provided internal consistency information: personal development as a counselor (.59-.63), clinical professional development (.52-.62), case conceptualization (.48-.55), supervisor approach (.48-.63), and other supervisor behaviors (.52-.63). Further, researchers examined the interrelationships among domains and used mean domain scores to conduct a Pearson Product-Moment correlation that varied from .49 to .63. Stebnicki et al. had concerns about the moderate correlations between domains identified. Empirically, these domains were not supported by the factor structure, and researchers contend that the scale itself should measure helpful supervisory behaviors, overall, even though overlap existed between identified domains.

Counseling Self-Estimate Inventory (COSE). The COSE was developed by Larson and colleagues (1992) specifically for use with beginning counselor trainees. It is the most widely used scale for measurement of counseling self-efficacy and is one of the

only scales developed for measurement of counseling self-efficacy that reports adequate reliability and validity estimates (Larson & Daniels, 1998). For this reason, it was used to assess the dependent variable, counseling self-efficacy. Items are randomly ordered and include both positive and negative statements about counseling self-efficacy.

Using this instrument, participants rated 53 items on a Likert scale with responses ranging from “strongly disagree” (1) to “strongly agree” (6). Questions presented on this scale included such items as “I am sure that the content of my responses, i.e., reflection of feeling, clarification, and probing, will be consistent with and not discrepant from what the client is saying” and “I feel that I have enough fundamental knowledge to do effective counseling.” Questions presented on the COSE were categorized into five domains that emerged as a result of principal-factor extraction with varimax rotation. The first domain, Micro Skills contains 12 items and had factor loadings from .41 to .64. This factor represents the fundamental pre-practicum course content and focuses on the quality of the counselors’ responses and basic tracking of client responses (Larson et al., 1992).

The Process Domain contains 10 items with factor loadings ranging from .43 to .58, and is focused on definition of the problem, selection of concrete goals, and related issues such as generation of intensity and energy needed to promote client confidence. The third domain, Difficult Client Behaviors, contains 7 items with factor loadings ranging from .46 to .63 and focuses on clients who are unmotivated, suicidal, abused, alcoholic, indecisive, or silent. Two items on this domain concern the possession of adequate knowledge and techniques for dealing with client problems, and one item concerns basic performance of a micro skill associated with difficult clients. Cultural Competence, the fourth domain, contains four items with loadings ranging from .51 to

.66 and pertains to working with clients from different cultural and ethnic groups or social classes. Finally, the fifth domain, Awareness and Values, contains four items with factor loadings ranging from .42 to .64 and all items concern the counselor's awareness of biases or values." Although Larson et al. identified specific domains for this scale, they recommended use of the total score as opposed to subscales. For the purpose of this study only the total score of the COSE was utilized. Scores could range from 62-222 with higher scores indicative of higher levels of counseling self-efficacy (Larson et al.)

Larson et al. (1992) report convergent validity with the *Tennessee Self Concept Scale*, the *State Trait Anxiety Inventory*, and the *Problem Solving Inventory*. Discriminate validity was reported via minimal correlation with measures of defensiveness and faking as measured by the *Social Desirability Scale* and on the *Tennessee Self Concept Scale*. Scores on the COSE also correlate minimally with initial estimates of academic performance as measured by the GRE and undergraduate grade point average. Test-retest reliability for the COSE revealed adequate reliability estimates. Overall, the reliability coefficient was reported at .87 and for the remaining scales: Micro Skills at .68, Process at .74, Difficult Client Behaviors at .80, Cultural Competence at .71, and Awareness of Values at .83 (Larson et al.).

Data Analysis

Power analysis. An a priori power analysis was conducted using a web-based statistical program designed to calculate power called G*Power (Faul & Erdfelder, 1992). Examination of power is important in order to know the probability that a test of the null hypothesis is likely to find an effect that does, in fact, exist in the population. Power should also provide an estimate that a false null hypothesis would be rejected. For

multiple regression the overall F-test statistic value is used in evaluating how well the independent variables (i.e., supervisory style, supervisor alliance, supervisor behavior) predict the dependent variable (counseling self-efficacy). Given the prediction model for six independent variables (i.e., Task Oriented supervisory style, Interpersonal Sensitive supervisory style, Attractive supervisory style, Client Focused supervisory working alliance, Rapport supervisory working alliance, supervisor behaviors) and based upon previous research on clinical supervision and counseling self-efficacy, a medium effect size of .13 and alpha of .05 was used to compute power.

In general, social science research recommends a minimum power of .80 (Cohen & Cohen, 1983); however, previous investigation of supervision and counseling self-efficacy has attained a stronger power of .90 (Efstation et al., 1990). Power is important in order to know the probability that a test of the null hypothesis will find an effect that does, in fact, exist within the population. Reduction of Type I and Type II error is essential for best understanding research outcomes. A Type I error is made when the researcher rejects a null hypothesis when there really is no difference between groups; a Type II error occurs when the researcher accepts a false null hypothesis. Previous studies also reported a small effect size ranging from .13 (Fernando & Hulse-Killacky, 2005; Steward et al., 2001) to a moderate effect size of .15 (Efstation et al., 1990; Ladany et al., 1999). A smaller effect size means that scores measured tend to be very similar to one another, and such finite differences require larger sample sizes to articulate (Salkind, 2007). To understand these differences, a larger sample size is often needed. A more stringent model, however, would allow for a smaller effect size, at .13, power of .90, as suggested by Efstation et al., and significance detected at the $p < .01$. At this level, 187

observations would be needed to acquire desired power. Based upon a moderate effect size of .15 and an estimated power of .80, a total of 98 observations would need to be taken at $p < .05$. (Salkind). Given the nature of the study, however, it may have been difficult to attain 187 observations. For this reason, a less stringent model was calculated to attain power at .80, the recommended level for social science research (Cohen & Cohen, 1983). Using a medium effect size of .15, as documented in the literature, and a lower alpha of .05 ($\lambda = 14.70$; $F(6, 98) = 2.199$ would yield a power estimate of .80 for the study. To attain this less stringent level, a total of 98 observations were needed. Therefore, to keep Type II and Type I error at a minimal, the total number of observations needed for this study was between 98 and 187 yielding a total sample size of 33 up to 62 participants.

Variables

Independent variables for this study included demographics (i.e., experience, education, type and duration of supervision, gender, counselor anxiety level, counselor satisfaction with supervision), supervisory style, supervisory working alliance, and supervisory behaviors. These independent variables were operationalized via self-report by the participant on the SSI-T, SWAI-T, and Modified CSQ. Higher scores on subscales of the SSI-T allowed for greater understanding of specific supervisory style (i.e., Attractive, Interpersonally Sensitive, and Task Oriented). The supervisory working alliance was examined via use of the SWAI-T and was operationalized in a similar manner in that higher scores on each of the subscales (i.e., Client Focus, Rapport) indicated relationship approaches used in supervision. The CSQ was used to define helpful supervisory behavior. Higher scores on the CSQ indicate use of a greater variety

of helpful behaviors in supervision. Scores on each assessment were given via self-report of the supervisee who participated in the study.

Research Questions

The dependent variable was counseling self-efficacy. For this study, counseling self-efficacy was measured via the COSE and operationally defined by high scores on the total assessment. The research questions and methods used in this investigation follow:

Research Question 1: How do demographic variables (i.e., gender, ethnicity, program, practicum setting, satisfaction in supervision, anxiety) relate to development of counseling self-efficacy for counselors-in-training?

The hypothesis for this research question was that variations in demographics such as experience level, education, supervisor gender, length of time in supervision, expectations of supervision, and counselor anxiety level will be significantly related to counseling self-efficacy.

To investigate the effect that specific demographic variables had on counseling self-efficacy point biserial correlations were used to examine the relationships between the demographic variables and COSE scores. Point biserial correlations with Pearson based coefficients were used to test the correlations between categorical variables and continuous variables.

Research Question 2a: How do supervisory style, supervisory working alliance, and supervisor behaviors at the beginning of practicum, impact the development of counseling self-efficacy at the middle practicum?

The hypothesis for this research question was that supervisory style, supervisory working alliance, and supervisor behaviors as measured at Time One would predict levels of counseling self-efficacy as measured at Time Two.

Path analysis models were used with multiple regression procedures to analyze these data. Independent variables were placed into the regression equation using data collected at Time One as follows: Task Oriented supervisory style (X1), Interpersonally Sensitive supervisory style (X2), Attractive supervisory style (X3), Rapport in supervisory working alliance (X4), Client Focus in supervisory working alliance (X5), and supervisor behaviors (X6). The dependent variable for this model was counseling self-efficacy as measured at Time Two (Y). It was expected that independent variables would show a significant level of shared and unique variance with dependent variables. Further, standardized coefficients were used to determine which independent variables had the greatest impact on the dependent variable. The coefficient of multiple determination was calculated to measure the percentage of variation in counseling self-efficacy that could be explained by variations in the independent variables taken together.

Research Question 2b: How do supervisory style, supervisory working alliance, and supervisor behaviors at the middle of practicum, impact the development of counseling self-efficacy at the end practicum?

The hypothesis for this research question was that supervisory style, supervisory working alliance, and supervisor behaviors as measured at Time Two would predict levels of counseling self-efficacy as measured at Time Three.

Path analysis models were used with multiple regression procedures to analyze these data. Independent variables were placed into the regression equation using data

collected at Time Two as follows: Task Oriented supervisory style (X1), Interpersonally Sensitive supervisory style (X2), Attractive supervisory style (X3), Rapport in supervisory working alliance (X4), Client Focus in supervisory working alliance (X5), and supervisor behaviors (X6). The dependent variable for this model was counseling self-efficacy as measured at Time Three (Y). It was expected that independent variables would show a significant level of shared and unique variance with dependent variables. Further, standardized coefficients were used to determine which independent variables had the greatest impact on the dependent variable. The coefficient of multiple determination was calculated to measure the percentage of variation in counseling self-efficacy that could be explained by variations in the independent variables taken together.

Research Question 2c: How do supervisory style, supervisory working alliance, and supervisor behaviors at the beginning of practicum, impact the development of counseling self-efficacy at the end practicum?

The hypothesis for this research question was that supervisory style, supervisory working alliance, and supervisor behaviors as measured at Time One would predict levels of counseling self-efficacy as measured at Time Three.

Path analysis models were used with multiple regression procedures to analyze these data. Independent variables were placed into the regression equation using data collected at Time One as follows: Task Oriented supervisory style (X1), Interpersonally Sensitive supervisory style (X2), Attractive supervisory style (X3), Rapport in supervisory working alliance (X4), Client Focus in supervisory working alliance (X5), and supervisor behaviors (X6). The dependent variable for this model was counseling self-efficacy as measured at Time Three (Y). It was expected that independent variables

would show a significant level of shared and unique variance with dependent variables. Further, standardized coefficients were used to determine which independent variables had the greatest impact on the dependent variable. The coefficient of multiple determination was calculated to measure the percentage of variation in counseling self-efficacy that could be explained by variations in the independent variables taken together.

Research Question 3: To what degree does practicum student counseling self-efficacy change during the practicum experience?

The hypothesis for the third research question was that counseling self-efficacy would increase over time with respect to identified independent variables (e.g., supervision), indicating that supervision during practicum in counselor education likely has a significant effect on counselor growth and development.

To analyze data with respect to the above research questions repeated measures Analysis of Variance (ANOVA) and a general linear model was used. Time was used as the independent variable (X) with the dependent variable counseling self-efficacy (Y) as indicated by scores on the COSE collected at the beginning, middle, and end of the practicum. It was expected that scores on the COSE would show a significant, positive, linear relationship with respect to times measured. Pair wise t-tests were used during post hoc analysis to determine at which time interval significant changes took place.

Research Question 4: Are changes in counselor anxiety, satisfaction with individual supervision, and satisfaction with group supervision correlated with changes in counseling self-efficacy when measured at the beginning of practicum and end of practicum?

The hypothesis for this research question was that the change in scores seen in counselor anxiety, satisfaction in both group and individual supervision would be related to changes in scores in counseling self-efficacy. Change scores were calculated for counseling self-efficacy, counselor anxiety, and satisfaction with individual supervisor, and satisfaction with group supervisor from Time One to Time Three. Pearson r correlations were conducted to test the relationship between changes in scores in anxiety, satisfaction, and scores on counseling self-efficacy. Results were relative only to major outcomes for the three waves of data collection in this study.

CHAPTER 4

RESULTS

This chapter provides descriptive analysis of the sample and results of the online surveys. Pre-analysis procedures used to verify the data and examine the assumptions needed for multiple regression are also reviewed with respect to data collected.

Additionally, this chapter presents the analysis of data as it pertains to stated research questions.

Sample Demographic Characteristics

Participants were recruited from the 105 CORE accredited programs and from the 220 CACREP accredited programs. Of these, 53 programs agreed to participate. Only 41 of these programs, however, offered practicum during spring semester, excluding 12 programs for the purpose of this study. A total of 76 individuals currently enrolled in practicum began the study. At Time Two of the online survey administration only 58 of these original 76 students participate and, at Time Three, 44 individuals completed the entire study. For this reason, only data across the three administrations for these 44 individuals were used. Due to the unknown number of total students enrolled in practicum during spring semester who were eligible to participate, however, it is not possible to determine the response rate for this study.

Table 1 provides a summary of demographic data. Demographic data was reported by 43 of the 44 participants. Eighty one percent of participants were female ($n = 35$) and 19% were male ($n = 8$). Seventy two percent of participants ($n = 31$) reported having a female supervisor while 28% reported having a male supervisor ($n = 12$). Regarding racial and/or ethnic identity, 5% indicated they were African-American ($n =$

2); 2% indicated they were Asian-American ($n = 1$); 81% reported they were Caucasian-American ($n = 35$); 7% reported they were Latino-American ($n = 3$), 2% identified as Native-American ($n = 1$), and 2% identified as other ($n = 1$).

Participants who completed the study saw an average of 7 clients per week ($M = 6.91$; $SD = 5.77$), engaged in an average of 60 minutes of individual supervision per week ($M = 64.86$; $SD = 18.90$), and received approximately 2 hours of group supervision per week ($M = 2.07$; $SD = .961$). Participants reported that their individual supervisor saw an average of 3 supervisees during practicum ($M = 3.40$; $SD = 2.128$). Of those who completed the study, 12% were from CORE accredited programs and 88% were from CACREP accredited programs. Participants were taking practicum in off campus, community based settings (70%).

Table 1
Participant Demographics (n = 44)

	n	% of sample	M	SD
<i>Supervisee Gender</i>				
Male	8	18.6		
Female	35	81.4		
<i>Supervisor Gender</i>				
Male	12	27.9		
Female	31	72.1		
<i>Race/Ethnicity</i>				
African-American	2	4.7		
Asian-American	1	2.3		
Caucasian-American	35	81.4		
Latino-American	3	7.0		
Native American	1	2.3		
Other	1	2.3		
<i>Program Accreditation</i>				
CORE	5	11.6		
CACREP	38	88.4		
<i>Practicum Setting</i>				
On Campus Counseling Center	13	30.2		
Community Based Setting	30	69.8		
<i>Number of Clients per Week</i>				
			6.91	5.77
2 Clients	6	13.6		
3 Clients	6	13.6		
4 Clients	7	15.9		
5 Clients	6	13.6		
6 Clients	3	6.8		
7 Clients	3	6.8		
8 Clients	1	2.3		
10 or more Clients	11	24.9		
<i>Number of Supervisees per Supervisor</i>				
			3.40	2.128
1 Student	10	22.7		
2 Students	6	13.6		
3 Students	9	20.5		
4 Students	8	18.2		
5 Students	3	6.8		
6 Students	2	4.5		
7 Students	4	9.1		
10 Students	1	2.3		

(Continued) Participant Demographics (n = 43)

	n	% of sample	M	SD
<i>Time in Individual Supervision</i>			1.49	.189
Less than an hour	3	6.8		
1 hour	29	65.9		
1.5 hours or More	11	25		
<i>Time in Group Supervision</i>			2.07	.961
Less than an hour	2	2.3		
1 hour	9	20.5		
2 hours	19	43.2		
3 hours	10	22.7		
4 hours	3	6.8		

Note: Percentile total less than 100% as one participant did not report demographic information.

Preliminary Analysis.

Missing data. Data were downloaded from PsychData into an SPSS data file designed for this survey (SPSS Inc., 2006). Prior to downloading the data file, an SPSS codebook was developed to coincide with the study variables. A frequency report was generated for each variable in the data file. This report, as well as visual inspection of the data, were conducted to identify any miscoded data, data points that were outside the theoretical range of scores established by each instrument, and any patterns of missing data.

Upon inspection of the data, one participant out of the 44, one participant failed to complete the demographic survey, but completed all other instruments for the study. Although less than 5% of data points were missing from the final data set of 44, it was necessary to review the pattern of non-response to determine if there was a systematic bias in whether participants completed all three waves of the study (Tabachnick & Fidell, 2001). To determine if there was a difference between those who chose to participate in all parts of the study and those who chose not to participate, a one-way ANOVA was conducted to compare the three groups of participants (i.e., participated in all three rounds, participated in two rounds, participated in only the first round). Demographic data collected during the first round was used to compare these groups. Because eight demographic variables were used to test the non-response bias a Bonferroni correction was used to adjust the alpha to $p < .006$ and control for Type I error. No significant difference was found between those who participated in all parts of the study, and those who dropped out at round one or round two. Therefore, only those 44 completed surveys were used for analysis.

Statistical assumptions. Data were examined to determine if the assumptions of parametric statistics were tenable. Variables should be continuous and measure the interval level needed for parametric analysis. Further, data were assumed to be derived from normally distributed populations. Initially, data were examined visually to check for obvious skewness or kurtosis. A frequency distribution was used to allow for creation of histograms and box plots to visually inspect the data in all scales used for the independent and dependent variables (see Appendix P). Assessment of the approximate linearity of the points plotted via a normal probability plot helped in assessing whether the normality assumption had been met. Additionally, each variable was inspected for skewness and kurtosis. Skewness is a measure of the lack of symmetry of a distribution or whether scores are distributed unequally on one side of the mean or the other. When the mean of a measured variable is not at the center of the normal curve, the distribution is skewed. Skewness can be determined by examining means and median values for the distribution: if the median is greater than the mean, the distribution is negatively skewed, and if the mean is greater than the median, then the distribution is positively skewed (Salkind, 2007). Kurtosis refers to the peakedness of a distribution. If the distribution is relatively flat compared to a normal curve it is called platykurtic; one that is relatively peaked compared to a normal curve is leptokurtic. In platykurtic curves the distribution will be more dispersed where as in leptokurtic curves it will be less disperse—or less variable. In a normal distribution skewness and kurtosis values are equal to zero. The further away from zero these values are, the greater the skewness or kurtosis. Skewness divided by standard error equal or greater than 1.96 that is significant at the $p < .05$ level indicates that the distribution is not normally distributed.

Appendix K includes values of skewness, kurtosis, and skewness over standard error of skewness as measured at Time One, two, and three. As noted in the table, subscales and the total scale scores of the SSI-T, SWAI-T, and the Modified-CSQ have a skewness value greater than 1.96. The independent variable scales skewness values ranged from -0.048 to -2.167 and the dependent variable scales skewness values ranged from -0.045 to -0.606. The dependent variable scale did not have skewness/skewness SE equal to or greater than 1.96 but independent variable scales greater than 1.96 included the SSI-T Total scale at times two and three; SSI-T Task Oriented subscale at Time Three; SSI-T Interpersonal subscale at times two and three; SSI-T Attractive subscale at Times One, Two, and Three; SWAI-T Client Focus subscale at Times One, Two, and Three; SWAI-T Rapport Subscale at Times One, Two, and Three; the SWAI-T Total Score at Times One, Two, and Three; and the Modified-CSQ Total Score at Time Three.

Additionally, the Shapiro-Wilks test of normality was completed on all independent and dependent variable scales to further clarify whether the sample distributions were significantly different from a normal distribution. Use of this test along with visual inspection of histograms and box-plots of each scale is recommended to check for normalcy (Field, 2005). A statistically significant outcome indicates that the data are not normally distributed whereas a non-significant test indicates that the distribution is assumed normally distributed. As previously indicated by measures of skewness and kurtosis the SSI-T, SWAI-T, and Modified-CSQ were significant at $p < .001$. The Shapiro-Wilks test values are presented in Appendix L. As a result, these distributions were not normally distributed. When this outcome occurs, it is

recommended that the data be adjusted (transformed) to approximate a normal distribution (Tabachnick & Fidell, 2001)

Because distributions were negatively skewed the total scores and subscale scores for the SSI-T, SWAI-T, and Modified-CSQ were squared. If a variable is only moderately negatively skewed, a squared transformation will make it more positively skewed, thereby adjusting the data to a more normal distribution. By squaring negatively skewed data, the larger scores force the distribution to expand away from the non-skewed portion of the distribution, thereby creating a more normally distributed set of scores (Tabachnick & Fidell, 2001). By squaring the scales and subscales of the SSI-T, SWAI-T, and Modified-CSQ, the distribution was brought into a normal distribution shape. To check that the transformation procedures had been successful, the Shapiro-Wilks test was conducted a second time on all transformed scales. Results of the follow up Shapiro-Wilks test are presented in Appendix M. When Shapiro-Wilks was conducted a second time, none of the tests for any of the independent or dependent variables were statistically significant, which meant that all of the scales, according to the statistical test, had relatively normal distributions following transformation.

Inspection of box-plots of independent variables indicated that several outliers existed that could be potentially problematic in the distribution. The SSI-T had had three outliers while the SWAI-T had two outliers. Following the data transformation a Mahalanobis Distance (D^2) was calculated for the total scores of the SSI-T and SWAI-T as well as the Modified-CSQ. The Mahalanobis Distance was calculated because it is used to measure the distance of cases from the mean in predictor variables. In small samples, such as that involved with the current study, a value of 15 or more indicates that

an outlier may be problematic (Field, 2005). For the transformed data the SSI-T had $D^2 = 2.93$ and the transformed data for the SWAI-T had a value of $D^2 = 2.567$. These outcomes indicated that the outliers in these scales were not overly influential in the distribution.

Homoscedascity. Data was also inspected to determine homoscedascity of variance, in which error variances are equal. Therefore, it is assumed that variability in scores for one continuous variable is about the same as all values of another continuous variable. When this assumption is not met, heteroscedasticity occurs in which error variance is not constant over all cases (Kuehl, 2000). This condition must be met when interpreting correlational and regression analysis (Cohen & Cohen, 1983). To determine data homoscedascity, the Brown-Forsythe test, a modified Levine's test was calculated. This test is based on variability of the residuals: the larger error variance, the larger the variability of the residuals will be. This test was used to test whether error terms had constant variance and it is particularly useful as it does not depend on distributions to be normal (Kuehl). Levene's test was conducted for the total, and subscale scores of each independent variable as well as the dependent variable with program entered as a factor. None of the values were significant indicating that the assumption of homoscedascity was met. Levene statistics based on the mean values of all of the variables are presented in Appendix N.

Independence. Because data are assumed to be orthogonal, or independent, it is assumed that variables presented for study are unrelated to one another. In terms of the major analysis conducted for this study, it means that independent variables of interest are not predictive of one another or stated differently the correlation between them should be zero. To test this assumption Pearson Product Moment correlations were calculated for

independent variables of supervisory style (Task Oriented, Attractive, Interpersonally Sensitive), working alliance (Client Focus, Rapport), and supervisory behavior. In previous studies, multicollinearity existed between supervisory style and supervisory working alliance (Efstation et al., 1990). This correlation, however, was small and consequently one would expect this effect in the present study to be small as well and should not affect overall independence of variables. The correlation matrix for these variables is represented in Table 2.

The correlation coefficient between the SSI-T Total Score and the SWAI-T Total score was significant at $r = .657$ ($p < .01$). In addition there was a significant correlation between the SWAI-T Total Score and the subscales of the SSI-T: Task Oriented at $r = .443$ ($p < .01$), Attractive at $r = .538$ ($p < .01$), and Interpersonally Sensitive $r = .636$ ($p < .01$). These results indicate that there was some potential redundancy in the scales and that multicollinearity existed. Field (2005) reports that multicollinearity “exists when there is a strong correlation between two or more predictors in a regression model” (p. 174). Additionally, Variance Inflation Factor (VIF) values and tolerance values were calculated and inspected to assess collinearity. VIF values larger than 10 and tolerance values less than .1 indicate a violation of the assumption of no multicollinearity. Results found that VIF and tolerance values were not indicative of multicollinearity. Tolerance and VIF values can be viewed in Appendix O.

Although it was expected that the SWAI-T and SSI-T subscales would be moderately correlated (Friedlander & Ward, 1984; Efstation et al., 1990) the observed correlations were higher than those found in earlier studies. In order to further understand the inter-scale relationships as they pertain to this study, a principal components analysis

was conducted on the SWAI-T and the SSI-T. When the two specified factors for the SWAI-T (i.e., Client Focus and Rapport) were entered into the factor analysis model using varimax rotation, both factors loaded on the same component, explaining 70% of the variance between the two. Similarly, when values for the three subscales of the SSI-T (i.e., Task Oriented, Interpersonally Sensitive, and Attractive) were entered into the factor analysis with varimax rotation, all three factors loaded onto one component, explaining 65% of the variance. Table 3 includes the initial Eigenvalues, variance, and component scores of the SWAI-T and SSI-T subscales. As a result, the original hypothesized model that included each of the subscales within the SWAI-T and SSI-T in predicting counseling self-efficacy was reduced to a three-factor prediction model where SWAI-T (X1), SSI-T (X2), and M-CSQ (X3) were entered as the independent variables.

Table 2

Correlations for Independent Variables of SSI-T Total and Subscale Score, SWAI-T Total and Subscale Scores, and Modified-CSQ Total Scores as Measured at Time One

	Task Oriented	Attractive	Interpersonally Sensitive	Total SSI-T	Client Focus	Rapport	Total SWAI-T	Modified CSQ
Supervisees ($n = 44$)								
Task Oriented								
Attractive	.182							
Interpersonally Sensitive	.594*	.649*						
Total SSI-T	.812*	.686*	.898*					
Client Focus	.635*	.043	.499*	.530*				
Rapport	.215	.712*	.563*	.570*	.417*			
Total SWAI-T	.443*	.538*	.636*	.657*	.748*	.913*		
Modified CSQ	-.036	.202	.074	.063	.089	.277	.232	

* $p < .01$

Note: SSI-T = Supervisory Styles Inventory-Trainee, SWAI-T = Supervisor Working Alliance Inventory-Trainee, Modified CSQ = Modified Clinical Supervision Questionnaire

Table 3

Principal Components Analysis for Independent Variables SSI-T and SWAI-T Subscale Scores

	Total Eigenvalues	% of Variance	Component Scores
<i>Supervisory Styles</i>			
Task Oriented	2.258	75.254	.790
Attractive	.150	5.012	.853
Interpersonally Sensitive	.592	19.734	.952
<i>Supervisory Working Alliance</i>			
Client Focused Subscale	.378	18.918	.900
Rapport Subscale	1.622	81.082	.900

Research Questions 1, 2, 3, and 4

Research Question 1:

How do demographic variables under investigation (i.e., gender, ethnicity, program, practicum setting, satisfaction in supervision, and anxiety) relate to development of counseling self-efficacy for counselors-in-training?

The hypothesis for this research question is that variations in demographics such as supervisor gender, length of time in supervision, satisfaction with supervision, and counselor anxiety level will be related to counseling self-efficacy.

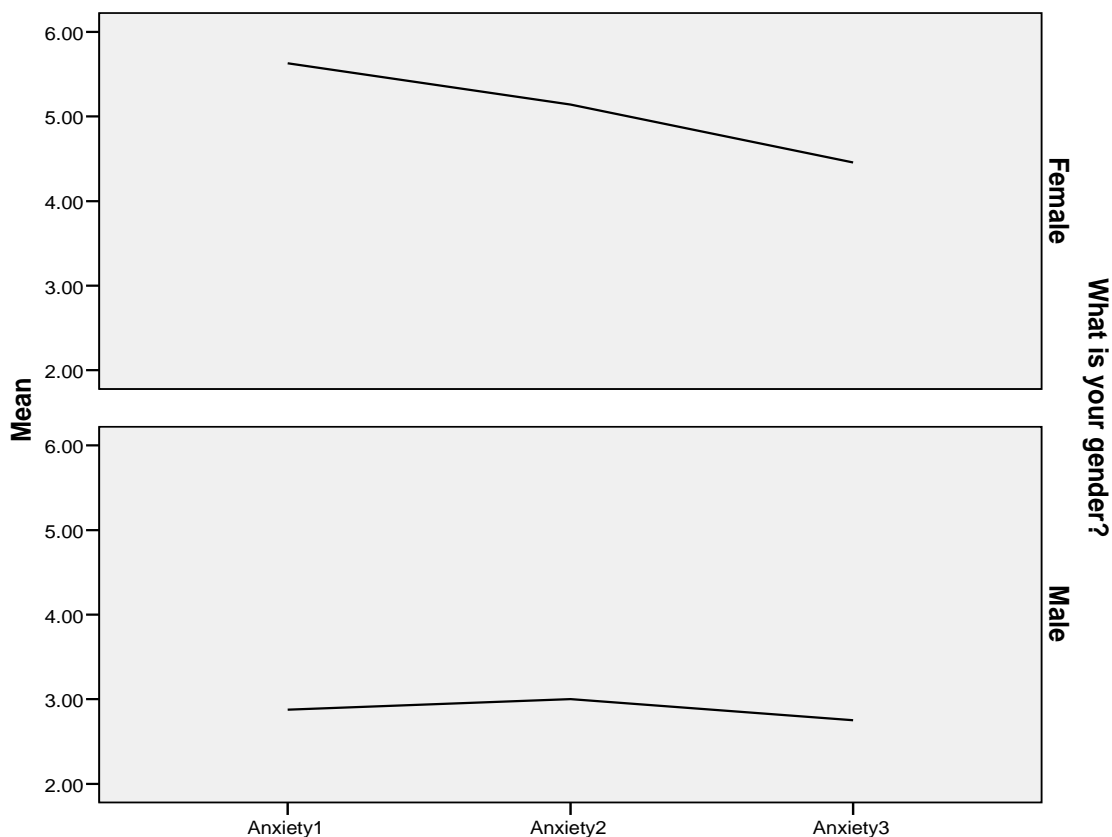
To investigate the relationships of specific demographic variables with counseling self-efficacy Pearson Product Moment correlations were conducted. As noted in Table 4 scores on the COSE were significantly correlated with counselor anxiety $r = -.519$ ($p < .01$) and supervisee gender $r = .355$ ($p < .05$). Females appeared to have greater levels of anxiety $M = 5.62$; $SD = 1.89$ compared to $M = 2.87$; $SD = 1.45$ for males. This may be related to differences in the sample size with the majority of participants being female: males $n = 8$, and females $n = 35$. Gender differences and anxiety are illustrated in Figure 2. The negative correlation between counselor anxiety and scores on the COSE indicates that as counselor anxiety increases counseling self-efficacy decreases and visa versa. No other demographic variables under investigation were significantly related to counseling self-efficacy as measured by the COSE.

Table 4
Correlation Matrix of Demographic Variables and Dependent Variable COSE

	COSE	Anxiety	Individual Supervisor Satisfaction	Group Supervisor Satisfaction
Anxiety	-.519**			
Satisfaction	.116	.002		
Ethnicity	-.030	-.071	.181	.181
Supervisee Gender	.355*	-.515**	.187	.187
Supervisor Gender	-.131	-.010	.123	.123
Program	.040	.125	-.218	-.218
Clients	-.056	-.161	-.205	-.205
Time Group Supervision	.037	.196	-.133	.019
Time Individual Supervision	-.113	-.052	-.102	-.125
Practicum Setting	-.138	-.012	-.122	-.222

* $p < .05$; ** $p < .01$

Figure 2
Gender and Anxiety



Research Question 2:

Prior to conducting the analysis for research question two, preliminary analyses were conducted to test the assumptions on which multiple regression rests. These assumptions include non-zero variance, heteroscedascity, normally distributed errors, and linearity (Field, 2005; Tabachnick & Fidell, 2001). These are in addition to pre-analysis procedures presented earlier. First, a review of variances of all of the predictor variables determined that none of the variances equaled zero, therefore the assumption of non-zero variance was met. To check for heteroscedascity, Field (2005) recommends use of the Durbin-Watson values to determine whether this assumption has been met. Durbin-Watson values less than 1 and greater than 3 indicate that this assumption has not been met. The Durbin-Watson value for the COSE at Time Two as measured in the regression

equation was 1.905 while the value at Time Three it was 2.145 indicating that the assumption for heteroscedascity was met. Further, plots of regression-standardized residuals for both multiple regression equations used were inspected for linear characteristics. Residual plots revealed that the data fit the assumption of linear relationships. These plots can be reviewed in Appendix R.

Research question 2a: How do supervisory style, supervisory working alliance, and supervisor behaviors at the beginning of practicum, impact the development of counseling self-efficacy at the middle practicum?

The hypothesis for this research question was that supervisory style, supervisory working alliance, and supervisor behaviors as measured at Time One would predict levels of counseling self-efficacy as measured at Time Two.

Several steps were taken to examine the predictive relationship between supervisory style, supervisory working alliance, supervisory behaviors , and counseling self-efficacy. Path analysis models were used with multiple regression procedures to analyze these data. For the first analysis, independent variables were placed into the regression equation based upon the pre-analysis findings that only three variables should be used with respect to the SSI-T, SWAI-T, and Modified-CSQ. Path models for all three analyses can be viewed in Figure 3. Therefore, total scores for assessments were entered into the first regression model as follows: supervisory style Time One (X1), supervisory working alliance Time One (X2), and supervisor behaviors (X3). Counseling self-efficacy as scored at Time Two was the outcome variable (Y1). With counseling self-efficacy at Time One accounted for an additional 7% ($R^2 = .066$) of variance was explained by independent variables (supervisory style, working alliance, and behaviors).

Counseling self-efficacy scores alone accounted for 44% of the variance ($R^2 = .441$). Although the overall F change was not significant at $F(3, 39) = .172$ $p > .05$, the model itself showed statistical significance $F(3, 39) = 10.027$ $p < .001$. Further review of the independent variables, however, revealed that only supervisory style was statistically significant alone in predicting counseling self-efficacy. A partial correlation was conducted for supervisory styles, which was .332. This result indicates the independent variables measured at Time One were influential as a group at predicting counseling self-efficacy at Time Two, but not statistically significant in isolation from one another. This regression model is represented in Table 5 under Model One.

Research Question 2b: How do supervisory style, supervisory working alliance, and supervisor behaviors at the middle of practicum, impact the development of counseling self-efficacy at the end practicum?

The hypothesis for this research question was that supervisory style, supervisory working alliance, and supervisor behaviors as measured at Time Two would predict levels of counseling self-efficacy as measured at Time Three.

Path analysis models were used with multiple regression procedures to analyze these data. Independent variables were entered into the second regression model as follows: supervisory style Time Two (X1), supervisory working alliance Time Two (X2), and supervisor behaviors (X3). Counseling self-efficacy as scored at Time Three was the outcome variable (Y1). Measures of independent and dependent variables at Time One were accounted for. The constant accounted for approximately 68% of the variance ($R^2 = .677$) with independent variables explaining only an additional 1% of the variance ($R^2 = .012$). The overall F change was not significant $F(2, 36) = .717$ $p > .05$. The second

model was statistically significant when all independent variables were included $p < .001$, but none of these (i.e., supervisory style, supervisory working alliance, supervisor behaviors) were statistically significant outside of the model. This outcome can be viewed as Model Two in Table 5.

Research Question 2c: How do supervisory style, supervisory working alliance, and supervisor behaviors at the beginning of practicum, impact the development of counseling self-efficacy at the end practicum?

The hypothesis for this research question was that supervisory style, supervisory working alliance, and supervisor behaviors as measured at Time One would predict levels of counseling self-efficacy as measured at Time Three.

Further analysis was conducted to assess the influence that the independent variables (supervisory style, supervisory working alliance, and supervisory behaviors) had on counseling self-efficacy at Time Three. Again, scores of counseling self-efficacy were accounted for. Using a path analysis model, independent variables used for model three were entered into the regression equation as follows: supervisory style at Time One (X1), supervisory working alliance at Time One (X2), and supervisor behaviors (X3) with the dependent variable counseling self-efficacy as measured at Time Three (Y1). The constant accounted for 63% of the variance, ($R^2 = .632$) and an additional .5% was accounted for by adding the predictor variables, ($R^2 = .045$). For this model the overall F change was not statistically significant $F(3, 38) = 1.773 p > .05$, while the model itself was significant $F(5, 38) = 15.921 p < .05$. This result is similar to findings in model two in that independent variables as a group appear to be predictive of counseling self-

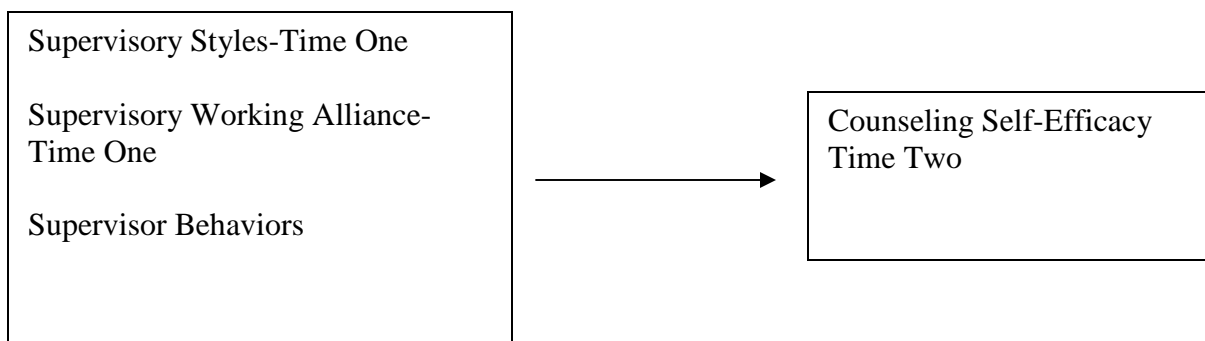
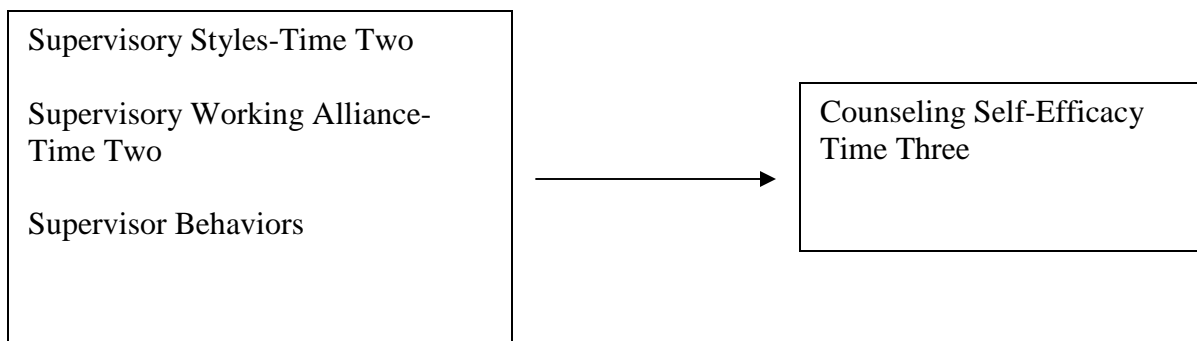
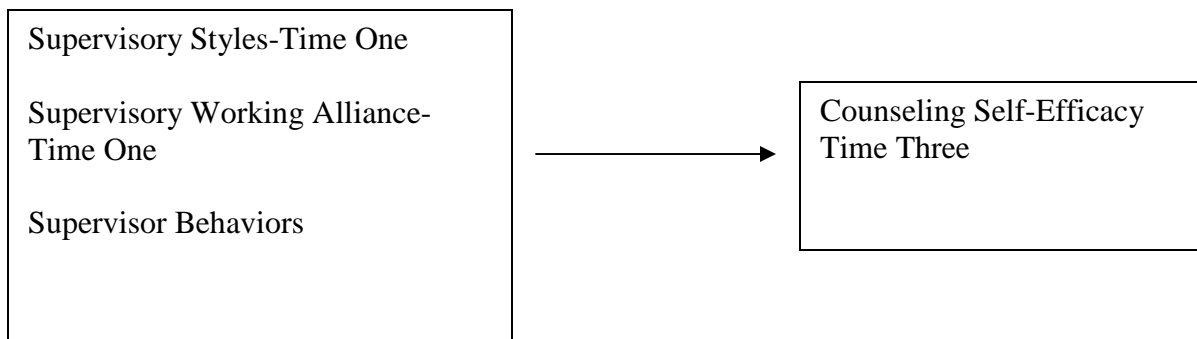
efficacy, but are not individually predictive. This outcome is listed as Model Three in Table 5.

Table 5
Regression Analysis for Supervision on Counseling Self-Efficacy

	B	SE B	B	R ²
Model One				.507*
Y = COSE (2)				
SSI-T (1)	.389	.177	.334	
SWAI-T (1)	-.001	.001	-.180	
Behaviors	.002	.003	.082	
Model Two				.689*
Y = COSE (3)				
SSI-T (2)	-.028	.143	-.038	
SWAI-T (2)	.001	.001	.175	
Behaviors	-.000	.002	.004	
Model Three				.677*
Y = COSE (3)				
SSI-T (1)	.234	.135	.229	
SWAI-T (1)	.000	.001	-.008	
Behaviors	-.000	.002	.022	

* $p < .001$

Figure 3

*Final Path Analysis Model***Model One****Model Two****Model Three**

It appeared that supervisory style was the only independent variable predictive of counseling self-efficacy. Therefore, post hoc analyses were conducted to better understand this relationship. First, simple regression was used to determine if scores of supervisory style at Time One (X1) were predictive of scores of supervisory style at Time Two (Y1). As expected, this was statistically significant $F(1, 42) = 20.325 p < .05$. Since supervisory style at Time One was predictive of supervisory style at Time Two a second simple regression was conducted to determine if supervisory style at Time Two (X1), alone, was predictive of counseling self-efficacy at Time Three (Y1). This result was also significant $F(1, 42) = 10.925 p < .05$. The same model was entered with counseling self-efficacy at Time Two accounted for, and was statistically significant $F(2, 42) = .37.389 p < .05$. To see if supervisory style at Time Two was a moderating variable between supervisory style at Time One and counseling self-efficacy at Time Three supervisory style at Time One and counseling self-efficacy at Time One were accounted for while supervisory style at Time Two (X1) was entered with counseling self-efficacy at Time Three (Y1). For this model the overall change in F was not statistically significant $F(1, 40) = .288 p > .05$. This finding indicates that stability is higher between times two and three and changes at Time One in supervisory style are more predictive than changes in supervisory style at Time Two.

Research Question 3:

To what degree does practicum student counseling self-efficacy change during the practicum experience?

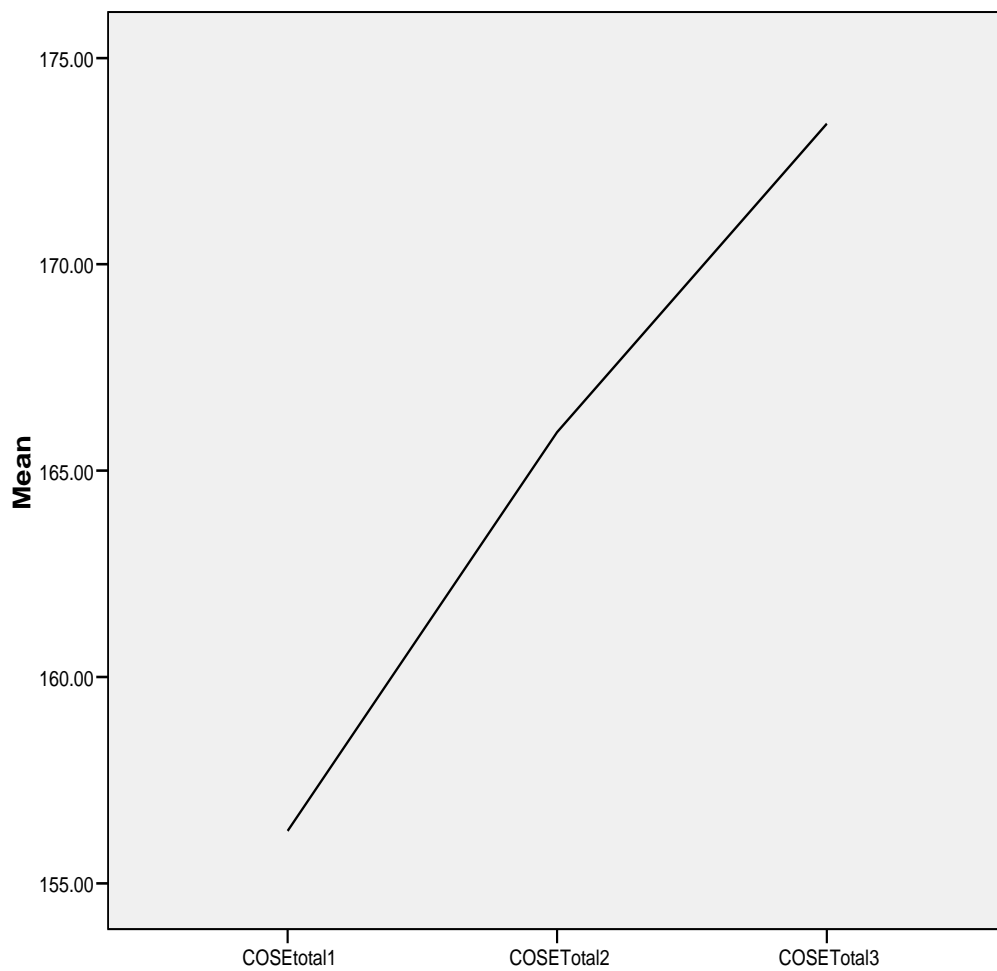
The hypothesis for the third research question is that counseling self-efficacy will increase over time as measured during the course of practicum.

Before calculating ANOVA using repeated measures, sphericity must be examined. Sphericity in repeated measures indicates that variances of differences between levels (e.g., time) are equal. This requirement can be likened to the assumption of homogeneity of variance (Field, 2005). Sphericity is calculated by conducting Mauchly's Test of Sphericity. A significant test indicates that the assumption of sphericity has been violated. Mauchly's test was not significant, which indicates that the data met the assumption of sphericity for this procedure. Time was entered as the independent variable (X) and counseling self-efficacy as the dependent variable (Y) using the general linear model. Results of the repeated measures ANOVA indicated a significant main effect for time and counseling self-efficacy $F(2, 42) = 47.792; p < .05$. Further examination of the mean scores on the COSE over Times One, Two, and Three using paired samples confirmed positive changes in COSE scores during practicum.

Paired t-tests were done as a post hoc analysis to determine statistically significant changes in counseling self-efficacy during practicum. These scores are as follows: from the beginning of the semester to mid-semester $t = -3.846; p < .001$ and from mid-semester to the end of the semester $t = -3.856; p < .001$. When measured from the beginning of the semester to mid-semester, COSE scores had a mean change of 9.66 points from $M =$

156.273; $SD = 20.424$ to $M = 165.931$; $SD = 20.203$. A similar increase for COSE scores between Time Two and Time Three of 7.48 points was noted (Time Two $M = 165.931$; $SD = 20.203$ to Time Three $M = 173.4091$; $SD = 17.806$). These results indicated that increases in counseling self-efficacy occur in equal increments during practicum. Figure 4 illustrates the change in counseling self-efficacy during practicum.

Figure 4
Change in Counseling Self-Efficacy



Research Question 4:

Are changes in counselor anxiety, satisfaction with individual supervision, and satisfaction with group supervision correlated with changes in counseling self-efficacy when measured at the beginning of practicum and end of practicum?

The hypothesis for this research question was that the change in scores seen in counselor anxiety, satisfaction in both group and individual supervision would be related to changes in scores in counseling self-efficacy. Changes scores in counseling self-efficacy, anxiety, satisfaction with individual supervision, and satisfaction with group supervision were obtained by calculating the difference in scores obtained from Time One to Time Three. Pearson Product Moment correlations were conducted to test the relationship between changes in scores in counseling self-efficacy, anxiety, satisfaction in individual supervision, and satisfaction with group satisfaction. A correlation matrix can be viewed in Table 6. No statistically significant correlations were found with respect to changes in counseling self-efficacy and anxiety, satisfaction in individual supervision, and satisfaction in group supervision. Statistically significant correlations were found between overall scores in anxiety measured at Time One, Two, and Three, and counseling self-efficacy scores at Time One, Two, and Three as well as overall scores in satisfaction with individual and group supervision.

Table 6
Correlation Matrix for Change-Scores in Counseling Self-Efficacy, Anxiety, and Satisfaction in Supervision

	COSE Time One	COSE Time Two	COSE Time Three	COSE Change Scores
Anxiety Time One	-.519**	-.275	-.451**	.170
Anxiety Time Two	-.401**	-.495**	-.470**	-.010
Anxiety Time Three	-.568**	-.490**	-.506**	.158
Change in Anxiety	.152	-.073	-.205	.057
Satisfaction Individual Supervision Time One	.116	-.025	.168	.044
Satisfaction Individual Supervision Time Two	.155	.158	.108	-.075
Satisfaction Individual Supervision Time Three	.320*	.154	.307*	-.065
Change in Individual Satisfaction	.269	.130	.331*	.032
Satisfaction Group Supervision Time One	.055	.205	.354*	.357*
Satisfaction Group Supervision Time Two	.104	.108	.124	.006
Satisfaction Group Supervision Time Three	.197	.091	.310*	.090
Change in Group Satisfaction	.274	-.121	.425**	-.125

* $p < .05$; ** $p < .01$

CHAPTER 5

DISCUSSION

This study examined the effect of clinical supervision on the development of counseling self-efficacy among beginning counselors-in-training and which supervision components (i.e., style, alliance, behaviors) impact counseling self-efficacy. Results from this study can help to better understand how supervision components impact on counseling self-efficacy and allows for a better understanding as to how supervisors could interact more effectively with their practicum supervisees. This chapter provides an overview of study results and its implications for training, practice, and research. Additionally, a critique of the research design and methodology will be provided.

Overview of Study Results

Hypothesis one. Although most demographic variables looked at in this study revealed no significant relationship to counseling self-efficacy, gender of the supervisee and supervisee anxiety both showed statistically significant correlations with counseling self-efficacy. The positive correlation between gender and counseling self-efficacy indicates that male participants were more likely than females to have higher scores on the COSE. Although gender was not necessarily correlated with other variables under investigation (i.e., supervisory styles, working alliance, behaviors, satisfaction) it was also related to anxiety. Again, female supervisees appeared to exhibit higher levels of anxiety about becoming a counselor than did their male counterparts. Results of this study are difficult to generalize, however, due to the small sample size (i.e., males $n = 8$; females $n = 35$).

Previous studies indicate that supervisee gender may have an effect on relationship dynamics in supervision, supervisor behaviors, and supervisee behaviors (e.g., Gatmon et al., 2001; Haag Granello, 2003). The link between gender and self-efficacy, however, is less understood. This construct has received little attention in the literature, but is likely related to changes in supervision practices with male and female supervisees. Within the supervisory relationship male and female supervisees have a history of different experiences with respect to their supervisors. For example, males are often given a chance to explore their own ideas and opinions more often than females (Doughty & Leddick, 2007). When females provide their ideas during supervision, however, they are more likely to have the supervisor respond by building on their ideas (Haag Granello, Beamish, & Davis, 1997). Haag Granello et al. also found that females are more likely than males to have more directive, didactic supervision than males. Although gender of supervisee has previously been related to satisfaction in supervision among experienced rehabilitation counselors, (Herbert & Trusty, 2006), no statistically significant correlation was found between gender and satisfaction. Results of this study did not indicate significant differences in supervisory style, working alliance, or behaviors, however.

While gender was not significantly related to other aspects of supervision it correlated with anxiety. Females tended to have higher levels of anxiety than males. This finding is particularly interesting since individuals with higher levels of anxiety often exhibited lower levels of counseling self-efficacy (Haag Granello et al., 1997). The relationship between anxiety and counseling self-efficacy is not surprising and supports Bandura's (1977) original theoretical constructs for self-efficacy (i.e., enactive

accomplishments, vicarious experiences, verbal persuasion, and physiological state). Visceral arousal induced by specific situations—in this case counseling and supervision—tends to impede performance expectations (Bandura, 1982). How anxiety is manifested also tends to effect self-efficacy (Bandura, 1986). This relationship supports the idea that higher levels of anxiety lead to lower levels of counseling self-efficacy (Larson & Daniels, 1998). Researchers have postulated that the increase in anxiety level in supervision settings may be accounted for by use of different supervisory interventions such as the use of role-play or video (Larson et al., 1999). Anxiety in this study, however, was not significantly related to components of supervision studied here (i.e., supervisory styles, supervisory working alliance, supervisor behaviors).

In a study by Barbee, Scherer, and Combs (2003) a strong association was found between the level of counselor training and their development and counseling self-efficacy. Additionally, Barbee et al. found a negative association with counseling self-efficacy and anxiety. The relationship between counseling self-efficacy and anxiety has also been related to counselor performance. Friedlander, Keller, Peca-Baker, and Olk (1986) found a negative relationship between anxiety and counseling self-efficacy in addition to an inverse relationship between anxiety and actual counselor performance. Higher levels of anxiety in counselor-trainees may be indicative of lower levels of counseling self-efficacy, and perhaps to counselor performance.

Hypothesis two. All three models of the regression equation were predictive of gains in counseling self-efficacy. This finding indicates that supervisory occurrences during practicum produce incremental gains in counseling self-efficacy. This is consistent with previous findings that suggest professional psychologists and counselors reported

higher COSE scores than people without supervision (Larson et al., 1992). The most interesting finding with respect to the regression models is that supervisory style at Time One was the only variable that contributed significantly to the variance in counseling self-efficacy as measured at Time Two. In previous studies investigation of supervisory styles and supervisory working alliance yielded similar results with respect to counseling self-efficacy. For example, Ladany et al. (1999) investigated the link between supervisory working alliance and counseling self-efficacy and found that SWAI-T was not significantly related to changes in trainees counseling self-efficacy. Supervisory style, however, has been a consistent, significant contributor to counseling self-efficacy. Dodenhoff (1981) found that the Task Oriented style was a significant determinant of trainee effectiveness and scores on the COSE, while Fernando and Hulse-Killacky (2005) found a positive significant relationship between Task Oriented style and scores on the COSE. The current study supports the finding that scores on the SSI-T are predictive of scores on the COSE. Additionally, this study built upon these previous studies and found that as a group, supervisory styles, supervisor working alliance, and supervisor behaviors at the beginning and middle of practicum are predictive of counseling self-efficacy at the middle and end of practicum.

Although use of the SSI-T with rehabilitation practicum students has provided inconsistent factor structures (Herbert & Ward, 1995), it was assumed that the original factor structure (i.e., Task Oriented, Interpersonally Sensitive, and Attractive) would be supported. In both this study, and that by Herbert and Ward in which the factor structure for the SSI-T came into question, students currently enrolled in practicum were the identified participants. This may suggest that supervisory styles, as demonstrated in later

stages of counselor development (e.g., the population on which the instrument was normed; Efstation et al., 1990), may not be consistent with those used during training at the practicum level. Supervisory style, however, appeared to have the greatest impact on development of counseling self-efficacy. It is likely that supervisory style at pre-service stages of counselor development (e.g., Levels One and Two) differs from the type of supervisory style traditionally relied upon for graduates and post-graduates who may be at a higher developmental level. For example, a dominant supervisory style (such as Task Oriented) may be seen in conjunction with a less dominant, but still highly rated one (Interpersonally Sensitive). If this is the case for students enrolled in practicum, supervisors could have various supervisory styles instead of one dominant one that contributes to counselor development of self-efficacy.

Hypothesis three. Built upon Bandura's (1977) model, one would expect self-efficacy to increase with respect to systematic changes that allow for mastery experiences, vicarious learning, feedback, and physiological arousal. Supervision within the practicum setting provides all four components so it is no surprise that gains in counseling self-efficacy were consistently positive and represented a linear pattern of development. With respect to these gains in counseling self-efficacy both external and internal factors must be considered. For example, increases in counseling self-efficacy may be related to the expected growth that occurs for a Level One counselor. Additionally, external factors that occur as a result of individual and group supervision are apt to influence gains in counseling self-efficacy. This gain is consistent with previous research in that counseling self-efficacy scores tend to improve over time (Leach & Stoltenberg, 1997), particularly during the practicum experience (Larson et al.,

1992). This result is likely because the practicum experience includes all four components of self-efficacy. Findings from this study also appear to be consistent with findings from other studies that have used the COSE. Use of the COSE and measurements of counselor anxiety have been found to effect counselor performance. Additionally, as seen here, Larson et al., also found that trainee's scores on the COSE increased about one standard deviation over practicum.

Counselor developmental level may also affect demonstrated gains in counseling self-efficacy. Given that this study focused on students currently enrolled in practicum, it did not take into consideration students at potentially different developmental levels. Other studies indicate that counseling self-efficacy scores on the COSE become stable as students enter advanced practicum (Larson & Daniels, 1998). Larson and Daniels attribute this plateau in scores to the focus of beginning practicum skills on the COSE. Leach and Stoltenberg (1997) examined this finding more closely with Level One (masters) and Level Two (doctoral) counselors and found that there were significant differences between self-efficacy scores overall, and across subscales of the COSE. Although not used in this study, the COSE encompasses five domains of counseling self-efficacy: Microskills, Process, Difficult Client Behaviors, Cultural Competence, and Awareness of Values. It is possible that when used with counselors at a higher developmental level these domains would be more useful in assessing systematic gains. A larger sample size is needed to effectively determine if scores on COSE subscales are representative of Level One counselors in that they would likely show higher gains in Microskills and Process Skills early in their practicum while cultural competence and

managing difficult client behaviors may not fully develop until internship or post-graduate employment.

Hypothesis four. Practicum provides a sound foundation of structural components necessary to develop counseling self-efficacy (i.e., mastery experiences, vicarious experiences, verbal persuasion, physiological arousal). Therefore, as expected, scores increased in counseling self-efficacy during the course of practicum. To establish whether the change in COSE scores was related to changes in counselor anxiety or satisfaction with supervision, Pearson Product Moment correlations were conducted. None of the correlations between anxiety and satisfaction were statistically significant. A statistically significant negative correlation was found between anxiety score changes and changes in group supervision satisfaction (as measured from Time One to Time Three). This could indicate that, while not related to counseling self-efficacy, an increase in satisfaction with group supervision helps trainees decrease their anxiety about being effective counselors. Studies that have examined the potential link between satisfaction in supervision and counseling self-efficacy have found that satisfaction is not significantly related counseling self-efficacy (Fernando & Hulse-Killacky). This finding is consistent with results from this study in that satisfaction was not significantly related to total scores in counseling self-efficacy or to changes in counseling self-efficacy.

Given the statistically significant negative correlation between anxiety and counseling self-efficacy it was also expected that increases or decreases in anxiety, when compared between Time One and Time Three, would be related to changes in counseling self-efficacy. Specifically, lower levels of anxiety would be positively correlated with higher levels of counseling self-efficacy. Other studies that have explored counselor

anxiety as it relates to counseling self-efficacy have found that changes in anxiety have significantly influenced changes in counseling self-efficacy (Daniels & Larson, 2001; Larson & Daniels, 1998). Results of these studies are inconsistent with the findings presented here. One possible explanation to account for differences between current and previous studies may be a result of the measure used to assess counselor anxiety. For instance, the two aforementioned studies used the *State-Trait Anxiety Inventory Scale* whereas the present study used a single self-report question to rate anxiety with respect to providing counseling to others.

Implications for Training

Use of clinical supervision in practicum and internship classes is a requirement for both CORE and CACREP accredited programs (Council for Accreditation of Counseling and Related Educational Programs, 2009; Council on Rehabilitation Education, 2008). During these formative years supervision plays an integral part in allowing counselors in-training to develop a stronger foundation of counseling self-efficacy. For this reason, findings from this study are applicable to the training of counselors and supervisors.

The first major finding of this study is that counselor anxiety has a negative effect on counseling self-efficacy. Educators and supervisors who are aware that an over-anxious supervisee may feel less confident and not perform to the best of their ability would be able to identify supervisee anxiety early to implement appropriate interventions (e.g., additional supervision, extra practice, counseling) to help the supervisee adjust to anxiety related to being a counselor. Although this study did not explicitly look at interventions for anxious supervisees, it is likely that this is already common practice in

the programs that participated in the study. In general, anxiety decreased during the course of practicum while counseling self-efficacy increased. This finding indicates that the practicum experience and supervisory components may influence supervisee anxiety in addition to counseling self-efficacy.

The most interesting finding from this study that lends itself well to modification of training for counselors is that as a group, components of supervision (i.e., supervisory styles, supervisory working alliance, supervisor behaviors) are predictive of counseling self-efficacy. This finding suggests that for counselors-in-training to be successful during practicum they must experience a positive working alliance with their supervisor, an eclectic supervisory style, and appropriate supervisor interventions. Interestingly, the strongest predictive relationships were between the beginning and middle of the semester and between the beginning and end of the semester, suggesting that components of supervision are integral in the development of counseling self-efficacy at the beginning of a supervisory relationship.

Training for counselors. Given these findings, practicum and internship provide a unique opportunity for students to have mastery experiences, vicarious learning, verbal persuasion, and process anxiety related to counseling and supervision. Putting these factors into practice for counselors-in-training, Larson (1998b) suggests using integration of counseling self-efficacy and other foundational tenants of Bandura's (1982) Social Cognitive Theory for counselor training via the Social Cognitive Model of Counselor Training.

With SCMCT there are three basic supervisory functions: modeling, social persuasion, and feedback (Kincade, 1998). Modeling, or vicarious learning, can occur in

both individual and group supervision. Larson (1998b) specifies that in order for modeling to be effective it must meet specified criteria. Effective modeling includes modeled behavior that (a) is counseling just beyond the skill level of the counselor, (b) is clear, (c) demonstrates that counseling was successful, (d) displays effort and that the task is difficult, (e) portrays a model that is perceived by the counselor as similar, (f) is not already mastered by the counselor, (g) demonstrates that the counseling task is predictable, controllable, and realistic, (h) provides a diversity of counseling tasks, (i) is perceived as relevant by the counselor, and (j) produces success with effort over time. During supervision modeling may occur indirectly as the relationship between supervisor and supervisee develops. The supervisor may also model basic counseling skills during supervision (e.g., active listening, reflection of feeling, paraphrase) that the supervisee can use with his or her client (Goodyear, 1998). The use of videotape or audiotape in supervision may also allow the supervisee to become his or her own model in that he or she is able to safely practice counseling skills and refine them during the supervisory process.

Modeling also occurs during group supervision as the supervisee is exposed to other students who are likely not far beyond the skill level of the counselor (Goodyear, 1998). In the group setting students are also exposed to case presentations by other students (Herbert, 2004a; Herbert & Ward, 1989) that allow them to see other students as appropriate models. Group supervision versus individual supervision has not been greatly explored. In a study by Ray and Altekruze (2000), however, it was revealed that group supervision alone and combined group and individual supervision were equally significant at increasing counselor effectiveness and counseling self-efficacy.

Social persuasion, the second factor identified as an essential component of the SCMCT, is defined as “the extent to which the supervisor provides realistic, supportive encouragement and structured learning situations that increase the chance of counseling success for the counselor” (Larson, 1998b, p. 240). Social persuasion is similar to the concept of evaluation in clinical supervision in that it allows the supervisor to provide informative support and encouragement to the supervisee based upon his or her current behavior and counseling goals. The dynamic that evaluation adds to individual supervision has been explored with respect to counselor development and the proper use of evaluation as an intervention (Borders, 2004; Beverage, 1989; Borders, 1991a). The role of evaluation in supervision during counselor training appears to be inconsistent across programs, however (Herbert, 2004). Because most measures are not standardized it appears that assessment of actual clinical competencies is also inconsistent. Evaluation of student performance generally includes at minimum the following: (a) behavioral competencies, (b) basic knowledge, and (c) response to supervision. To be uniform in implementing appropriate and consistent evaluations, use of a measure of counseling self-efficacy, such as the COSE, is recommended throughout the course of practicum. Larson indicates that monitoring the supervisee’s counseling self-efficacy across time will allow the supervisor to assess the match between counseling self-efficacy and actual performance. In this way supervisors are able to identify incongruities early on and address them. A supervisor should be aware that when counseling self-efficacy scores are too much of an underestimation or overestimation relative to performance, the supervisee may be afraid to take risks, choose models that are either too advanced or too easy, or may be only open to receiving negative feedback. Additionally, the supervisee may come

to have unrealistic outcome expectations and goals, or may be overwhelmed with anxiety. Awareness of counseling self-efficacy may allow the supervisor to intervene to increase the counselor's self-efficacy and/or lower anxiety (Larson). In this way, evaluation can be used as a tool to not only monitor supervisee progress, but also structure immediate and effective interventions (e.g., modeling, positive feedback).

Likened to evaluation and social persuasion, feedback has been noted as one of the significant contributors of the SCMCT model. Positive feedback, in previous studies, has been linked to higher degrees of counseling self-efficacy (Daniels & Larson, 2001). Accurate feedback on behalf of the supervisor is essential for counselor development. If the supervisor's feedback is specific, constructive, positive, and changeable it allows the supervisee to pay attention to necessary aspects during supervision. If, on the other hand, feedback is minimal, inaccurate, or negative then the counselor will not be able to effectively process it and his or her performance will be negatively affected. Feedback is most effective when it is (a) systematic, (b) timely, (c) clearly understood, and (d) reciprocal (Carifio & Hess, 1987). Larson (1998b) contends that supervisees learn what an effective counselor is partly from direct feedback from his or her supervisor. Feedback also helps supervisees determine whether they had a mastery experience.

Training for supervisors. In addition to incorporating tenants of SCMCT and counseling self-efficacy in supervision, it is also necessary to comment on the need for training for supervisors. Goodyear (1998) indicated that addressing supervisors' self-efficacy was just as important as the counseling self-efficacy of supervisees. He indicated that supervisors tend to vary on their supervisory self-efficacy. Goodyear also stated that supervisor self-efficacy is likely to fluctuate across trainees and the type of clients with

whom they are working. Supervisor self-efficacy is likely to affect the extent of the impact a supervisor's modeling, social persuasion, and feedback have on the supervisee (Goodyear). Larson (1998a) explains supervisor self-efficacy as "confidence in helping counselors grow while simultaneously helping counselors to assist clients to change" (p. 331) Exploration of effective supervisor behavior has yielded mixed results as training for supervision has proven to be inconsistent. For example, Herbert and Ward (1989) found that nearly one-third of rehabilitation counseling practicum supervisors were not licensed counselors and one-fourth reported no prior training in supervision. More recently, supervisors within state vocational rehabilitation practice continued to report a need, and desire, for additional training (Herbert, 2006; Herbert & Trusty, 2006). While these studies examined supervisory practices in post-graduate settings, they suggest that those who are providing supervision may not have adequate training or experience to do so effectively. It is likely that, given this limited experience and education, supervisor self-efficacy may be fairly low with respect to attending to basic counselor developmental needs of their supervisees.

Schultz et al. (2002) reported that training for supervisors should consist of a specific explanation of types of supervision (i.e., administrative, clinical). Additionally, training for supervisors ought to encompass a strong foundation of legal and ethical issues in supervision, evaluation and assessment, counseling knowledge, and the supervisory relationship (Thielsen & Leahy, 2001). Additional instruction on supervision, counselor development, and supervision techniques is also recommended for supervisors (Borders & Brown, 2005). Additionally, formal assessment of competencies in these areas that incorporates documentation of supervisory experience and coursework in

supervision is necessary to assess readiness of supervisors to provide effective supervision to counselors and/or counselors-in-training (Falender et al., 2004). These supervision models can, and should, be used in conjunction with recommendations of SCMCT (Larson, 1998b).

Implications for Counselors

Counselors-in-training In this study, supervisory style, the supervisory working alliance, and supervisor behavior were the primary foci with respect to influencing counseling self-efficacy. Supervisees should be aware of their developmental level as a counselor and what their specific supervision needs may be. For example, as addressed in Chapter 1, a Level One supervisee is more likely to need didactic, structured supervision while a more advanced supervisee/counselor may require a more consultative approach (Stoltenberg, 1981). Although this study showed positive, consistent gains in counseling self-efficacy during supervision a plateau may occur in counseling self-efficacy as the counselor enters the field. This may be likened to limitations of the COSE in measuring advanced counseling self-efficacy (Larson, 1998b), or to the difficulty of assessing developmental level and counseling self-efficacy of counselors at Level Two (Stoltenberg, 1981). Little is known about the relationship between counseling self-efficacy and advanced level counselors (Stoltenberg, 1998). Stoltenberg (1998) contends that in order for counselor development to continue to advanced levels, a stronger foundation within SCMCT must take place that extends beyond the development of basic skills. He states that at advanced levels, “simply acquiring more facts and skills is not sufficient in explaining how to move from novice to expert counselor” (p. 320). This statement indicates that counselors must (a) be aware of supervision modalities and

practices, (b) be aware of their personal and professional needs in supervision, and (c) seek out appropriate supervision that meets both needs.

Post-graduate counselors. Although clinical supervision is a formal requirement for counselor licensure in most states (Lum, 2007), appropriate supervision may be difficult to come by. For postgraduate counselors there are two primary concerns for supervision: (a) a documented history of ineffective or inappropriate supervision provided in the field (Herbert & Trusty, 2006; Schultz et al., 2002), and (b) limited understanding of professional development in seeking supervision (Holloway, 1987).

Research on supervision practices within vocational rehabilitation indicates that supervisees may receive an average of 20 minutes of clinical supervision per month (Herbert & Trusty, 2006). Although supervision needs of practicing counselors are different than those in training (e.g., teaching versus consulting) supervision continues to be an essential part of professional development for all levels of counselors. Counselors in the field should be knowledgeable about differences between administrative and clinical supervision so that they can obtain appropriate supervision for their professional development. The primary focus of clinical supervision is for the supervisor to provide suggestions, feedback, and interventions that help the supervisee to develop enhanced skills in client assessment, counseling, and relationships. Administrative supervision focuses on documenting services, adhering to agency policy, and monitoring caseload practices (Herbert, 2004b). Clinical supervision can be provided in multiple formats (e.g., peer supervision, individual supervision) and may include a variety of supervisory interventions (e.g., videotaping, role-play, consulting) based upon the supervisee's need and the supervisor's style (Brislin & Herbert, 2008). Seeking out appropriate supervision

requires the supervisee become aware of various supervision practices. Awareness of these practices has, in the past, helped the supervisee to better understand the elements of supervision and make more positive gains in his or her counseling practice (McMahon & Simons, 2004).

Implications for Research

Although this study provides a general depiction of changes in counseling self-efficacy during the course of practicum and supervision it fails to draw a direct link between the counselor's perceived self-efficacy and their actual performance as counselor. Barnes (2004) contends that none of the existing literature has drawn an empirical link between counseling self-efficacy and counselor practice. Instead, the link has been assumed based upon existing theory (i.e., SCT). Larson (1998b) based her assumptions of counseling self-efficacy and the SCMCT model on SCT as well. Future research on counseling self-efficacy and supervision should focus on drawing a better connection between the two. With counselors-in-training this may be done by administering a measure of counseling self-efficacy (such as the COSE) across the semester in conjunction with the supervisor's rating of the counselor's abilities. Additionally, counseling self-efficacy has mainly been explored with novice counselors, and little research has been conducted on changes in counseling self-efficacy in advanced counselors (Stoltenberg, 1998). Further, longitudinal studies that follow students from practicum through internship and eventual entry-level employment may provide valuable information about changes in counseling self-efficacy and relative contributions of changes in supervision, training, and experience. More longitudinal research is also consistent with prior recommendations for research in supervision (Holloway, 1984).

Extension of the current study to evaluate changes in counseling self-efficacy over time may be most effective if measures are administered at critical points in learning. For example, this study had 32 students who began the study but did not complete all three waves of data collection. At Time One, 76 individuals completed the surveys, while at Time Two 58 continued, with 44 remaining at Time Three. It was evident in the findings that students showed an incremental increase in counseling self-efficacy over the course of practicum. To increase the sample size, evaluate changes and perhaps address the attrition rate that occurs with a repeated measures research design use of cross-sectional sampling may be necessary. This design would allow the researcher to determine if changes in counseling self-efficacy are stable over time for different groups. Because counselors with more experience tend to have more confidence, it is likely that as the counselors gain experience via mastery accomplishments they will also increase their counseling self-efficacy.

The SCMCT model, as proposed by Larson (1998b), incorporates three basic functions of supervisors: modeling, evaluation, and feedback. These functions, however, have not been explored empirically. For example, Goodyear (1998) indicates that few studies have addressed these functions across supervision formats (i.e., individual, group) or the effect of live and videotaped supervision on counseling self-efficacy. Additionally, he describes the types of power that supervisors have during supervision, and notes that this influence (with respect to evaluation) has not been fully explored either. Schultz et al. (2002) explored the effects of power with respect to the supervisory relationship using five bases of power: (a) reward power, (b) coercive power, (c) legitimate power, (d) referent power, and (e) expert power. He found that supervisors who scored higher on

expert and referent power typically had a stronger supervisory working alliance with their supervisees. His study was conducted with practicing vocational rehabilitation counselors and may not be indicative of power in supervision during counselor training. Schultz et al.'s results suggest that future research could further explore the five bases of power with respect to evaluation in supervision.

Although more research has been conducted on the effects of feedback and supervision (Daniels & Larson, 2001), the interrelationship between feedback, counselor anxiety, and counseling self-efficacy appears to be an important component to understanding how counselors-in-training gain experience and competency. The current study evaluated relationships between satisfaction with supervision, counselor anxiety, and counseling self-efficacy. While none of these yielded statistically significant correlations, a correlation between counselor anxiety and counseling self-efficacy was statistically significant. Because little has been done with respect to examining relationships between feedback, anxiety, and counseling self-efficacy perhaps a qualitative assessment of feedback provided during supervision may allow for a better understanding of how these variables interact and help the supervisee to develop counseling self-efficacy. Assessment of interrelationships between the counselor's personal agency, supervision, and counseling is the next step in understanding contributions of the SCMCT and the link between supervision outcomes and counseling outcomes.

The SCMCT model is likely to be one that supervisors can draw from using their own theoretical orientation in supervision (Larson, 1998b). Therefore, an important part of understanding connections between supervisory style, working alliance, and behaviors

is to measure them with respect to counseling self-efficacy. Although each of these components is theoretically important in developing and enhancing counseling self-efficacy, results from the current study suggest that these three components of supervision create an essential model in understanding the development of counseling self-efficacy. More exploration with respect to supervisory style is needed to understand its unique contribution to counseling self-efficacy during practicum. Supervisory style at Time One was the only independent variable that was statistically significant individually at predicting counseling self-efficacy in the middle of practicum. Additionally, other supervision components (i.e., supervisory working alliance, supervisor behaviors) in addition to supervisory styles appeared to be more predictive as a group than individually. Although these results provide a foundation for understanding supervision and counseling self-efficacy future research should address the following: (a) subscale soundness of the SSI-T and SWAI-T with counselors-in-training, (b) integration of supervisor reports of own supervisory style in conjunction with their supervisees, (c) coordinated use of supervision measures throughout practicum paired with measures of counseling self-efficacy by both the supervisor and the supervisee, and (d) use of client reports of outcomes paired with supervisor reports of supervisee to further understand counseling self-efficacy's relationship to supervision. SCMCT states that there exists an interrelationship between the supervisor and supervisee, counselor and client, and counselor and environment. Each of these factors is an important component to be assessed in future research. For example, this study helped to identify those components of supervision that may be predictive of counseling self-efficacy. Further research is needed to clarify the connections between perceptions of supervisory style and actual

supervisor style, and perceived counseling self-efficacy and actual counselor performance. Additionally, the supervisory working alliance could be measured in both the supervisor-supervisee, counselor-client dyad with respect to counseling self-efficacy to determine relationship patterns that contribute to higher counseling self-efficacy.

Although the problem with multicollinearity associated with SSI-T and SWAI-T subscales found in this study may be more attributable with not having a sufficient number of participants, it is interesting to note that a prior study with rehabilitation practicum students by Herbert et al. (1995) did not support the factor structure of the SSI-T either. The SSI-T is of particular concern because styles appeared to have a small, yet statistically significant effect in predicting counseling self-efficacy while other supervision components under investigation (i.e., supervisor working alliance, supervisor behaviors) were only predictive of counseling self-efficacy as a group. Past studies have shown that with novice counselors, the Task Oriented style was the most predictive of positive counseling outcomes (Fernando & Hulse-Killacky, 2005; Friedlander & Ward, 1984; Usher & Borders, 1993). Limited information exists on the preference of style for advanced counselors. A stronger understanding of supervisory styles and their impact on counseling self-efficacy would likely impact supervisor training, counselor ability, and client outcomes. Future studies involving supervisory style may focus on expanding the view of supervisory style to encompass dominate styles (i.e., Task Oriented, Interpersonally Sensitive, Attractive) combined with a less-dominate style. Consequently, rather than being one of three styles, supervisors may be categorized by one of six orientations (a) Task Oriented-Interpersonally Sensitive, (b) Task Oriented-Attractive, (c) Interpersonally Sensitive-Task Oriented, (d) Interpersonally Sensitive-Attractive, (e)

Attractive-Task Oriented, and (f) Attractive-Interpersonally Sensitive. This diversity may allow for a better understanding of the supervision process and perhaps allow for a finer discrimination in research studies.

Because supervision is a difficult entity to measure it is likely that despite direct measure of variables (i.e., supervisory style, supervisory working alliance, supervisor behavior) latent variables are present that would help to further explain components of supervision and how these translate into changes in counseling self-efficacy and counselor effectiveness. As indicated by the SCMCT, factors that contribute to the counselor's personal agency (e.g., environment, anxiety, relationships) may represent latent variables that mediate the supervision process and, therefore, the development of counseling self-efficacy. Such factors may include (a) counselor characteristics, (b) antagonistic supervisory relationship, (c) ambiguous learning, (d) obscure supervision and/or counseling goals, (e) inaccurate cognitive processing, (f) affective arousal that is debilitating, and (g) insufficient or inaccurate information regarding counseling performance (Larson, 1998). Replicating this study with a larger sample size may allow for the use of more systematic analysis that controls for latent variables such as structural equation modeling. This was not used in the current study due to the small sample size.

Limitations

One of the primary limitations to this study is the sample size and number of hypothesized original variables. A priori power estimation necessary for the multiple regression indicated that given the number of independent variables, Type I error, and expected small effect size, the total number of observations taken for the study would need to be between 98 and 187. Clearly, the final number of participants in this study ($n =$

44) was insufficient and, as a result, it was necessary to modify the planned statistical analysis. To some extent because the expected subscales of the SSI-T and SWAI-T were not supported in this study (possibly due to a low number of participants), it was necessary to reduce the six independent variables (three from the SSI-T and two from the SWAI-T) to three (SSI-T Total, SWAI-T Total, supervisor behaviors). Given the sample size and the use of multiple regression, this number, while limiting the original design, was sufficient in understanding the overall contribution to supervisory style, working alliance, and a select group of supervisor behavior to counseling self-efficacy. Additionally, due to the low sample size the results of this study may not be generalizable to counselor education programs.

Limited program participation is also a limitation in this study. As indicated earlier, only 53 programs out of all CORE and CACREP programs responded ($N = 325$), and of these only 41 of these responding programs reported offering practicum during the spring semester. Collecting data across semesters—from fall through the summer—may have allowed for a larger number of programs, and students to participate in the study. Additionally, no control group was used for this study so there is no basis for comparison between groups. In order to better understand the impact of practicum supervision, future research should incorporate the use of a control group to assess how counseling self-efficacy changes throughout the course of master's level counselor training.

For the dependent variable, counseling self-efficacy, use of the COSE was the preferred method of measurement, given that it was the only measure of counseling self-efficacy that had accurate estimates of reliability and validity (Larson et al., 1992). Whether change in scores on the COSE is reflective of actual behavior changes for the

counselor is unknown. It is impossible to assess true behavioral gains made by supervisees during practicum based upon results from the current study as this study relied upon supervisee self-report. Using a multi-method approach, future researchers may wish to obtain supervisor perceptions of counseling self-efficacy as one way to corroborate supervisee perception. As indicated by the SCMCT, it is recommended that supervisors also assess the supervisee's counseling self-efficacy throughout the semester. Future studies could incorporate this additional measure of counseling self-efficacy and compare it with client reports of counselor performance, or with reports of counselor performance from an independent observer.

Although scales used for this study demonstrated adequate reliability and validity, as discussed in Chapter 3, the subscales were not supported. This limitation makes it difficult to draw concise conclusions about how supervisory styles impact counseling self-efficacy. For example, as presented in previous studies (e.g., Friedlander & Ward, 1984) it would be expected that the Task Oriented style of supervision would be most predictive of changes in counseling self-efficacy. Because only total scale scores could be used it was not possible to infer relationships between specific supervisor style (i.e., Task Oriented, Interpersonally Sensitive, Attractive) and counseling self-efficacy.

Additionally, the same problem arose with the SWAI-T: both subscales (i.e., Rapport, Client Focus) were not represented by the data. Therefore total scores for the SWAI-T were used. Although a higher score on the SWAI-T indicates a stronger supervisory working alliance, the discard of subscales inhibits further inference between components of that relationship and their effects on counseling self-efficacy. The intercorrelation among subscales used to measure independent variables was an important concern.

Because subscales were moderately correlated it is not possible to determine how much they were each uniquely contributing to counseling self-efficacy. Task Oriented accounted for 75% of the common variance for supervisory style.

The Modified-CSQ presented some difficulty for this study as well. Supervisor behaviors (e.g., role-play, use of videotape, feedback) were assumed to have occurred throughout the semester and were therefore only measured at Time Three. Because supervisor behaviors were only measured once, it is difficult to rate the true causality of these to counseling self-efficacy. It is possible that supervisor behaviors changed over time during the course of practicum. Additionally, the Modified-CSQ only measures the perceived helpfulness of the behaviors and does not provide an inventory as to whether the supervisor actually performed these behaviors. Future studies may wish to verify these supervisor behaviors by asking supervisees on multiple occasions throughout the practicum experience.

Strengths

This study builds upon existing research available in counseling supervision. Previous studies have shown a lack of consistency of instrumentation, use of analogue settings, and variation of assessment in counselor performance (Ellis, 1991; Ellis et al., 1996; Holloway, 1984). Instrumentation for this study was chosen based upon its psychometric properties. In past studies concerning counseling self-efficacy, particular problems were found among consistency among assessments. The COSE is the only assessment of counseling self-efficacy that has been tested for reliability and validity (Larson & Daniels, 1998). Use of the COSE also allowed for direct comparison to other studies that measured supervision with respect to counseling self-efficacy.

Additionally, laboratory settings were not used in this study and responses were based upon practicum and supervision experiences of students enrolled in CORE and CACREP accredited programs. Past studies have also limited participation to either students enrolled in CORE or CACREP accredited programs. The inclusive nature of this study allows for a broader understanding of supervision as it pertains to counselors across specialty areas. A larger participant base was more likely to be obtained due to the online format of this study. Use of PsychData allowed participants to securely log-on to the study, save their responses and return at a later time, and be contacted for follow up for additional waves of the study. The repeated measures format of the study is also the first of its kind to measure counseling self-efficacy changes during practicum.

Conclusion

The purpose of this study was to assess how supervisory styles, supervisory working alliance, and supervisor behaviors impact the development of counseling self-efficacy during the practicum experience. Using inferential and descriptive statistics, this study showed that supervisory style at the beginning of practicum was predictive of changes in counseling self-efficacy at mid-semester. Additionally, supervision components as a group (i.e., supervisory styles, supervisory working alliance, supervisory behaviors) are predictive of counseling self-efficacy at mid-semester and the end of supervision. This study found that counseling self-efficacy continued to increase as counselors gained experience in both supervision and counseling activity. Although counseling self-efficacy increased during practicum, however, it is not clear whether this change is a result of training, supervisor style, working alliance, supervisor behaviors or some combination of these variables. Further, because counseling self-efficacy was

inversely related to counselor anxiety, it is possible that anxiety may serve as a mediating variable in predicating counseling self-efficacy that was not taken into account in the regression model here.

This study provides evidence as to how counseling self-efficacy develops during practicum and potential variables that may impact on its growth through supervision and counseling experience. Further study on practicum students, interns, and beginning counselors in the field is necessary to better understand how supervision and professional experience impacts one's belief regarding effectiveness as a counselor. Ultimately, understanding the contribution that clinical supervision makes in professional counseling allows for better training models for counselors as well as improved outcomes for clients. End.

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APPENDIX A
Participant Invitation Letter

315 CEDAR Building
University Park, PA 16801

Dear Student:

You are part of a small group of people who have been asked to participate in a research study that explores how clinical supervision influences the development of counseling self-efficacy for counselors-in-training. Very little research exists that explores the impact of clinical supervision on counseling self-efficacy. Your responses to the questionnaires will lead to a better understanding of supervision and its relationship to counselors and their development. A better understanding of this will eventually contribute to better training for supervisors and counselors that will lead to better client outcomes.

Participation in this study will take approximately 15 minutes at three different intervals. You will be asked to complete an online survey at the beginning, middle, and end of the semester in which you are enrolled in practicum. The questions will focus on your relationship and perception of your current supervisor and your confidence in your own counseling ability. In order to participate, please go <https://www.psychdata.com/s.asp?SID=127651> and enter password **CSIC09**. Survey instructions will be provided on the website. Confidentiality will be maintained to the extent permitted by the website. Every attempt will be made to protect third party access. The data is encrypted as soon as it is submitted and is immediately stored on the PsychData website. If you do not have access to the Internet or prefer to complete a paper copy of the survey, please contact me at the telephone number or e-mail address listed below.

Participation in this study is voluntary. Participants who participate in all three parts of the study are eligible for entry into a drawing for a \$100 Visa Gift Card. One winner per 25 participants will be selected. If you have questions about this study please contact me at dcb232@psu.edu or by telephone at (814) 441-9511. Questions for my advisor should be directed to Dr. James T. Herbert by e-mail at jth4@psu.edu. Thank you for your participation in this study.

Sincerely,
Dawn C. Lorenz, M.Ed., NCC

APPENDIX B

Program Invitation Letter

315 CEDAR Building
University Park, PA 16801

Dear Practicum Coordinator:

Your program has been selected to participate in a research study that explores how clinical supervision influences the development of counseling self-efficacy for counselors-in-training. Very little research exists that explores the impact of clinical supervision on counseling self-efficacy. Your program's participation in this study will provide insight into issues that affect counselor training and supervision.

Students who participate in this study will be asked to complete an online survey at the beginning, middle, and end of their practicum semester Spring, 2009. The survey takes about 15 minutes to complete the surveys each time.

We are asking if you would please forward the attached invitation for student participation to your students who are enrolled in practicum this semester. If you have questions about this study please contact me at dcb232@psu.edu or by telephone at (814) 441-9511. Questions for my advisor should be directed to Dr. James T. Herbert by e-mail at jth4@psu.edu.

Please note that this study has been approved by the Office for Research Protections at Penn State University as well as the Research Committee of the National Council on Rehabilitation Education.

Thank you for your assistance.

Sincerely,

Dawn C. Lorenz, M.Ed., NCC
Doctoral Candidate

James T. Herbert, Ph.D.
Dissertation Chairperson

APPENDIX C

Reminder Emails

At the beginning of the semester you received a letter asking you to participate in a study, for research purposes only, exploring how clinical supervision impacts the development of counseling self-efficacy. Since you are now half-way through your semester it is time to complete the second survey online. Your participation in this study provides valuable information for the future training of counselors and is very much appreciated!

Please go to www.psychdata.com enter survey #_____and password _____. Your participation is greatly appreciated.

Remember that as an incentive one student out of every 25 will be randomly selected to receive a \$100 Visa gift card upon completion of the study at the end of the semester. Only students who have participated in all three parts of the study will be eligible.

If you have any questions or concerns, you may contact me at 814-441-9511 or dcb232@psu.edu.

Thank you,
Dawn Lorenz

At the beginning and middle of the semester you received a letter asking you to participate in a study, for research purposes only, exploring how clinical supervision impacts the development of counseling self-efficacy. Since you are finished with your semester it is time to complete the third and final survey online. Your participation in this study provides valuable information for the future training of counselors and is very much appreciated!

Please go to www.psychdata.com enter survey #_____and password _____. Your participation is greatly appreciated.

Remember that as an incentive one student out of every 25 will be randomly selected to receive a \$100 Visa gift card upon completion of the study at the end of the semester. Only students who have participated in all three parts of the study will be eligible.

If you have any questions or concerns, you may contact me at 814-441-9511 or dcb232@psu.edu.

Thank you,
Dawn Lorenz

APPENDIX D
Follow-up E-mails

One week ago you received a letter asking for your participation in a study, for research purposes only, exploring how clinical supervision impacts the development of counseling self-efficacy. If you have already completed the survey, thank you! Your participation in this study provides valuable information for the future training of counselors and is very much appreciated!

If you have not yet completed the survey, please go to www.psychdata.com enter survey #_____and password _____.

Remember that as an incentive one student out of every 25 will be randomly selected to receive a \$100 Visa gift card upon completion of the study at the end of the semester. Only students who have participated in all three parts of the study will be eligible for the gift card.

If you have any questions or concerns, you may contact me at 814-441-9511 or dcb232@psu.edu.

Thank you,
Dawn Lorenz

At the beginning of the semester you received a letter asking you to participate in a study, for research purposes only, exploring how clinical supervision impacts the development of counseling self-efficacy. Since you are now half-way through your semester it is time to complete the second survey online. If you have already completed the second survey, thank you! Your participation in this study provides valuable information for the future training of counselors and is very much appreciated!

If you have not yet completed the second survey, please go to www.psychdata.com enter survey #_____and password _____. Your participation is greatly appreciated.

Remember that as an incentive one student out of every 25 will be randomly selected to receive a \$100 Visa gift card upon completion of the study at the end of the semester. Only students who have participated in all three parts of the study will be eligible.

If you have any questions or concerns, you may contact me at 814-441-9511 or dcb232@psu.edu.

Thank you,
Dawn Lorenz

At the beginning and middle of the semester you received a letter asking you to participate in a study, for research purposes only, exploring how clinical supervision impacts the development of counseling self-efficacy. Since you are finished with your semester it is time to complete the third and final survey online. If you have already completed the third survey, thank you! Your participation in this study provides valuable information for the future training of counselors and is very much appreciated!

If you have not yet completed the third survey, please go to www.psychdata.com enter survey #_____ and password _____. Your participation is greatly appreciated.

Remember that as an incentive one student out of every 25 will be randomly selected to receive a \$100 Visa gift card upon completion of the study at the end of the semester. Only students who have participated in all three parts of the study will be eligible.

If you have any questions or concerns, you may contact me at 814-441-9511 or dcb232@psu.edu.

Thank you,
Dawn Lorenz

APPENDIX E

Requirements and Implied Informed Consent Statement:
The Pennsylvania State University**Implied Informed Consent Form for Social Science Research**
The Pennsylvania State University**Title of Project: Contributions of Clinical Supervision to the Development of
Counseling Self-Efficacy in Counseling Practicum Students**

Principal Investigator: Dawn C. Lorenz
The Pennsylvania State University
Department of Counselor Education, Counseling
Psychology, and Rehabilitation Services
315 CEDAR Building
University Park, PA 16802-3110
Phone: 814-441-9511
Email: dcb232@psu.edu

Advisor: James T. Herbert, PhD
The Pennsylvania State University
Department of Counselor Education, Counseling
Psychology, and Rehabilitation Services
314 CEDAR Building
University Park, PA 16802-3110
Phone: 814-863-3412
Email: jth4@psu.edu

1. **Purpose of the Study:** The purpose of this study is to gain information about practicum students' development of counseling self-efficacy through clinical supervision.
2. **Procedures to be Followed:** You will be asked to fill out questions about your clinical supervision during your first practicum and then will be asked to complete questions about how prepared you feel as a counselor.
3. **Benefits:** A potential benefit to you is that you may gain more awareness about your personal development as a counselor and how clinical supervision affects your development throughout the semester. The benefits to society include a better understanding of how supervision helps counselors to develop sufficient skills to be competent counselors.
4. **Duration/Time:** It will take approximately 20 minutes to complete the survey and you will be asked to complete the survey three times during your practicum semester.

5. **Statement of Confidentiality:** Confidentiality will be maintained to the extent permitted by the technology used. Since this is an Internet survey, every attempt will be made to protect third party access, however, this cannot be guaranteed. The use of the Psychdata.com website does increase safety via encryption of data, and storage on a secure server. Additional information on security is available on the Psychdata.com website. The online survey does not ask for any information that would identify who the responses belong to. The primary investigator and her advisor will have access to the final records. In the event the findings are published or presented. Each survey will be coded with a combination of your initials and birth date in order to track your responses. Participants' names and ID numbers will be destroyed once the data from the third survey is collected.
6. **Payment for Participation:** There is no payment for participation in this study, although if you participate in all three waves of data collection throughout the semester you will be entered into a drawing for a \$100 Visa Gift Card. One gift card for every 25 participants will be awarded.
7. **Voluntary Participation:** Your decision to participate in this research is voluntary. You can stop at any time, and you do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would otherwise receive.

You must be 18 years or older to participate in this study.

If you agree to take part in this research and understand the information above, please click the "continue" button below. Clicking on "continue" indicates your consent to participate in this research study. Clicking on Box 2 ends your participation at this point. It is recommended that you print this statement for your records. A progress bar is displayed at the bottom of the page so you know how much of the survey you have completed.

APPENDIX F

Demographic Questionnaire

1. Please enter your e-mail address (for study purposes only to send you a reminder later in the semester). _____
2. Please enter your first and last initials followed by the the two digit month and two digit day of your birth date only (i.e. Dawn Lorenz born on July 30, 1981 would enter dl0730). This code number will be used to track your responses. _____
3. Is your program accredited by CORE or CACREP?
 - a. Council on Rehabilitation Education (CORE)
 - b. Council for the Accreditation of Counseling and Related Educational Programming (CACREP)
4. What type of counseling setting is your current practicum (e.g., mental health agency, private non-profit, private practice, hospital, on campus facility)?
 - a. On Campus Counseling Center
 - b. Community Based Setting
5. On average, how many clients do you work with per week at your practicum?
6. How many other students does your individual supervisor supervise?
7. Who is primarily responsible for your individual supervision?
 - a. University faculty
 - b. Site supervisor
 - c. Doctoral student
8. How many hours a week do you spend in individual supervision?
9. How many hours a week do you spend in group supervision?
10. What is the gender of your individual supervisor?
 - a. Female
 - b. Male
 - c. Transgender/Transsexual
11. What is your gender?
 - a. Female
 - b. Male
 - c. Transgender/Transsexual

12. What is your race/ethnicity?

- a. African-American
- b. Asian-American
- c. Caucasian-American
- d. Latino-American
- e. Native American
- f. Multi- or Bi-racial
- g. Other: _____

13. Please rate your anxiety about your performance as a counselor with 1 being not anxious at all and 9 being very anxious

1 2 3 4 5 6 7 8 9

14. Please rate your satisfaction with your individual supervisor with 1 being not satisfied at all and 9 being very satisfied.

1 2 3 4 5 6 7 8 9

15. Please rate your satisfaction with your group supervisor with 1 being not satisfied at all and 9 being very satisfied.

1 2 3 4 5 6 7 8 9

APPENDIX G

Supervisory Style Inventory-Trainee Version (SSI-T)

Please indicate your perception of your supervisor's style on each of the following descriptors. Circle the number on the scale, from 1 to 7, which best reflects your view of him or her. If you have more than one primary (i.e., individual) supervisor, please fill this out with reference to the one whose style you know best. You will be asked to reference the same supervisor for all three parts of the study.

	1	2	3	4	5	6	7
	<u>not very</u>						<u>very</u>
1. goal-oriented	1	2	3	4	5	6	7
2. perceptive	1	2	3	4	5	6	7
3. concrete	1	2	3	4	5	6	7
4. explicit	1	2	3	4	5	6	7
5. committed	1	2	3	4	5	6	7
6. affirming	1	2	3	4	5	6	7
7. practical	1	2	3	4	5	6	7
8. sensitive	1	2	3	4	5	6	7
9. collaborative	1	2	3	4	5	6	7
10. intuitive	1	2	3	4	5	6	7
11. reflective	1	2	3	4	5	6	7
12. responsive	1	2	3	4	5	6	7
13. structured	1	2	3	4	5	6	7
14. evaluative	1	2	3	4	5	6	7
15. friendly	1	2	3	4	5	6	7
16. flexible	1	2	3	4	5	6	7
17. prescriptive	1	2	3	4	5	6	7
18. didactic	1	2	3	4	5	6	7
19. thorough	1	2	3	4	5	6	7
20. focused	1	2	3	4	5	6	7
21. creative	1	2	3	4	5	6	7
22. supportive	1	2	3	4	5	6	7
23. open	1	2	3	4	5	6	7
24. realistic	1	2	3	4	5	6	7
25. resourceful	1	2	3	4	5	6	7

26. invested	1	2	3	4	5	6	7
27. facilitative	1	2	3	4	5	6	7
28. therapeutic	1	2	3	4	5	6	7
29. positive	1	2	3	4	5	6	7
30. trusting	1	2	3	4	5	6	7
31. informative	1	2	3	4	5	6	7
32. humorous	1	2	3	4	5	6	7
33. warm	1	2	3	4	5	6	7

APPENDIX H

Supervisory Working Alliance Inventory-Trainee (SWAI-T)

INSTRUCTIONS: The following items are about events that occur in supervision between a trainee and a supervisor. Please read each item and then indicate on the scale the frequency with which the event described in the item occurs in your individual supervisory sessions.

	1	2	3	4	5	6	7
	almost never						almost always
1. My supervisor treats me like a colleague in our supervisory sessions.	1	2	3	4	5	6	7
2. My supervisor helps me talk freely in our sessions.	1	2	3	4	5	6	7
3. In supervision my supervisor places a high priority on our understanding the client's perspective.	1	2	3	4	5	6	7
4. I work with my supervisor on specific goals in the supervisory session.	1	2	3	4	5	6	7
5. My supervisor helps me work within a specific treatment plan with my clients.	1	2	3	4	5	6	7
6. I feel free to mention to my supervisor any troublesome feelings I might have about him/her.	1	2	3	4	5	6	7
7. My supervisor makes the effort to understand me.	1	2	3	4	5	6	7
8. My supervisor's style is to carefully and systematically consider the material I bring to supervision.	1	2	3	4	5	6	7

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9. My supervisor encourages me to take time to understand what the client is saying and doing. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. In supervision, I am more curious than anxious when discussing my difficulties with clients. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. I understand client behavior and treatment technique similar to the way my supervisor does. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. My supervisor helps me stay on track during our meetings. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. When correcting my errors with a client, my supervisor offers alternative ways of intervening with that client. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. My supervisor is tactful when commenting about my performance. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. I feel comfortable working with my supervisor. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. My supervisor stays in tune with me during supervision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. My supervisor welcomes my explanations about the client's behavior. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. My supervisor encourages me to formulate my own interventions with the client. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. My supervisor encourages me to talk about my work with clients in ways that are comfortable to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

APPENDIX I

Modified-Clinical Supervision Questionnaire (CSQ)

Please evaluate the specific supervisor behaviors and approaches that you found helpful during your practicum experience. Please evaluate each of the following items using the 5-point scale and circle the number that you feel best reflected your first clinical practicum experience. If a particular supervisor behavior approach did not occur during your supervision, please mark N/A.

N/A Did Not Occur During My Supervision

1. Not Helpful
2. Somewhat Helpful
3. Helpful
4. Very Helpful
5. Extremely Helpful

Generally speaking, how helpful was it for you when your individual supervisor...

- | | | | | | | |
|--|---|---|---|---|---|-----|
| 1. Gave you feedback about positive things you did during client sessions? | 1 | 2 | 3 | 4 | 5 | N/A |
| 2. Gave you feedback about negative things you did during the client sessions? | 1 | 2 | 3 | 4 | 5 | N/A |
| 3. Focused your supervision sessions on your own personal issues? | 1 | 2 | 3 | 4 | 5 | N/A |
| 4. Asked you to discuss major client themes? | 1 | 2 | 3 | 4 | 5 | N/A |
| 5. Helped you develop skill in critiquing and gaining insight from client tapes? | 1 | 2 | 3 | 4 | 5 | N/A |
| 6. Was available to discuss urgent or emergency client needs? | 1 | 2 | 3 | 4 | 5 | N/A |

7. Shared their own personal experiences with you regarding clients they have counseled?	1	2	3	4	5	N/A
8. Utilized your client's videotapes to give you feedback?	1	2	3	4	5	N/A
9. Utilized your client's audiotapes to give you feedback?	1	2	3	4	5	N/A
10. Observed you live during client sessions to give you feedback?	1	2	3	4	5	N/A
11. Modeled counseling techniques for you?	1	2	3	4	5	N/A
12. Assigned counseling literature for you to read?	1	2	3	4	5	N/A
13. Used role play as a supervisory approach?	1	2	3	4	5	N/A
14. Had you make a client case presentation as a supervisory approach?	1	2	3	4	5	N/A

APPENDIX J

Counseling Self-Estimate Inventory (COSE)

This is not a test. There are no right or wrong answers. Rather – it is an inventory that attempts to measure how you feel you will behave as a counselor in a counseling situation. Please respond to the items as honestly as you can so as to most accurately portray how you think you will behave as a counselor. Do not respond with how you wish you could perform each item - rather answer in a way that reflects your actual estimate of how you will perform as a counselor at the present time.

Below is a list of 37 statements. Read each statement, and then indicate the extent to which you agree or disagree with that statement, using the following alternatives:

- | | |
|-------------------------|----------------------|
| 1 = Strongly Disagree | 4 = Slightly Agree |
| 2 = Moderately Disagree | 5 = Moderately Agree |
| 3 = Slightly Disagree | 6 = Strongly Agree |

PLEASE – Put your responses on this inventory by marking your answer to the left of each statement.

_____ 1. When using responses like reflection of feeling, active listening, clarification, probing, I am confident I will be concise and to the point.

_____ 2. I am likely to impose my values on the client during the interview.

_____ 3. When I initiate the end of a session, I am positive it will be in a manner that is not abrupt or brusque and that I will end the session on time.

_____ 4. I am confident that I will respond appropriately to the client in view of what the client will express (e.g., my questions will be meaningful and not concerned with trivia and minutia).

_____ 5. I am certain that my interpretation and confrontation responses will be concise and to the point.

_____ 6. I am worried that the wording of my responses lack reflection of feeling, clarification, and probing, and may be confusing and hard to understand.

_____ 7. I feel that I will not be able to respond to the client in a non-judgmental way with respect to the client's values, beliefs, etc.

_____ 8. I feel I will respond to the client in an appropriate length of time (neither interrupting the client nor waiting too long to respond).

- _____ 9. I am worried that the type of response I use at a particular time, reflection of feeling, interpretation, etc., may not be the appropriate response.
- _____ 10. I am sure that the content of my responses, i.e., reflection of feeling, clarification, and probing, will be consistent with and not discrepant from what the client is saying.
- _____ 11. I feel confident that I will appear competent and earn the respect of my client.
- _____ 12. I am confident what my interpretation and confrontation responses will be effective in that they will be validated by the client's immediate response.
- _____ 13. I feel confident that I have resolved conflicts in my personal life so that they will not interfere with my counseling abilities.
- _____ 14. I feel that the content of my interpretation and confrontation responses will be consistent with and not discrepant from what the client is saying.
- _____ 15. I feel that I have enough fundamental knowledge to do effective counseling.
- _____ 16. I may not be able to maintain the intensity and energy level needed to produce client confidence and active participation.
- _____ 17. I am confident that the wording of my interpretation and confrontation responses will be clear and easy to understand.
- _____ 18. I am not sure that in a counseling relationship I will express myself in a way that is natural, without deliberating over every response or action.
- _____ 19. I am afraid that I may not understand and properly determine probable meanings of the client's nonverbal behaviors .
- _____ 20. I am confident that I will know when to use open or closed-ended probes and that these probes will reflect the concerns of the client and not be trivial.
- _____ 21. My assessments of client problems may not be as accurate as I would like them to be.
- _____ 22. I am uncertain as to whether I will be able to appropriately confront and challenge my client in counseling.
- _____ 23. When giving responses, i.e., reflection of feeling, active listening, clarification, probing, I'm afraid that they may not be effective in that they won't be validated by the client's immediate response.

_____ 24. I do not feel that I possess a large enough repertoire of techniques to deal with the different problems my clients may present.

_____ 25. I feel competent regarding my abilities to deal with crisis situations that may arise during the counseling sessions (e.g., suicide, alcoholism, abuse).

_____ 26. I am uncomfortable about dealing with clients who appear unmotivated to work towards mutually determined goals.

_____ 27. I may have difficulty dealing with clients who do not verbalize their thoughts during the counseling session.

_____ 28. I am unsure as to how to deal with clients who appear noncommittal and indecisive.

_____ 29. When working with ethnic minority clients, I am confident that I will be able to bridge cultural differences in the counseling process.

_____ 30. I will be an effective counselor with clients of a different social class.

_____ 31. I am worried that my interpretation and confrontation responses may not, over time, assist the client to be more specific in defining and clarifying his/her problem.

_____ 32. I am confident that I will be able to conceptualize my client's problems.

_____ 33. I am unsure as to how I will lead my client towards the development and selection of concrete goals to work towards.

_____ 34. I am confident that I can assess my client's readiness and commitment to change.

_____ 35. I feel I may give advice.

_____ 36. In working with culturally different clients, I may have a difficult time viewing situations from their perspective.

_____ 37. I am afraid that I may not be able to effectively relate to someone of lower socioeconomic status than me.

APPENDIX K

Skewness and Kurtosis Values for All Scales Used in the Study

Scale	Skewness	Kurtosis	Skewness/SE Skewness
<i>Time One</i>			
SSI-T Total Scale	-0.048	-0.381	-0.133
SSI-T Task Oriented Subscale	-0.278	-0.568	-0.770
SSI-T Interpersonal Subscale	-0.184	-0.627	-0.509
SSI-T Attractive Subscale	-1.194	1.58	-3.307
SWAI-T Client Focus Subscale	-0.721	0.117	-1.99
SWAI-T Rapport Subscale	-1.282	0.869	-3.551
SWAI-T Total Scale	-0.778	-0.093	-2.155
COSE Total Score	-0.606	0.147	-1.67
<i>Time Two</i>			
SSI-T Total Scale	-1.231	3.099	-3.41
SSI-T Task Oriented Subscale	-0.516	0.462	-1.42
SSI-T Interpersonal Subscale	-1.511	3.009	-4.186
SSI-T Attractive Subscale	-1.607	2.697	-4.452
SWAI-T Client Focus Subscale	-0.967	1.119	-2.664
SWAI-T Rapport Subscale	-1.847	4.791	-5.11
SWAI-T Total Scale	-1.198	2.369	-3.319
COSE Total Score	0.045	-0.687	0.125
<i>Time Three</i>			
SSI-T Total Scale	-1.891	4.832	-5.253
SSI-T Task Oriented Subscale	-1.232	2.275	-3.413
SSI-T Interpersonal Subscale	-1.935	4.957	-5.360
SSI-T Attractive Subscale	-1.754	2.978	-4.859
SWAI-T Client Focus Subscale	-0.918	0.835	-2.543
SWAI-T Rapport Subscale	-2.167	6.215	-6.002
SWAI-T Total Scale	-1.958	5.236	-5.424
Modified-CSQ Total Score	-1.552	3.379	-4.347
COSE Total Score	-0.489	-0.421	-1.355

APPENDIX L

Shapiro-Wilks Test for Normality for Independent and Dependent Variables Scales and Subscales-Before Transformation of Data

	Shapiro-Wilks
<i>Time One</i>	
SSI-T Total Scale	0.977
SSI-T Task Oriented Subscale	0.972
SSI-T Interpersonal Subscale	0.955
SSI-T Attractive Subscale*	0.870
SWAI-T Client Focus Subscale	0.948
SWAI-T Rapport Subscale*	0.853
SWAI-T Total Scale*	0.933
COSE Total Score	0.973
<i>Time Two</i>	
SSI-T Total Scale	0.900
SSI-T Task Oriented Subscale	0.958
SSI-T Interpersonal Subscale*	0.872
SSI-T Attractive Subscale*	0.819
SWAI-T Client Focus Subscale*	0.915
SWAI-T Rapport Subscale*	0.842
SWAI-T Total Scale*	0.895
COSE Total Score	0.984
<i>Time Three</i>	
SSI-T Total Scale	0.829
SSI-T Task Oriented Subscale*	0.912
SSI-T Interpersonal Subscale*	0.818
SSI-T Attractive Subscale*	0.783
SWAI-T Client Focus Subscale	0.923
SWAI-T Rapport Subscale*	0.781
SWAI-T Total Scale*	0.815
Modified-CSQ Scale Total Score	0.874
COSE Total Score	0.965

Note. * Values significant at $p < .001$

APPENDIX M

Shapiro-Wilks Test for Normality for Independent and Dependent Variables Scales and Subscales-After Transformation of Data

	Shapiro-Wilks
<i>Time One</i>	
SSI-T Total Scale	0.971
SSI-T Task Oriented Subscale	0.975
SSI-T Interpersonal Subscale	0.954
SSI-T Attractive Subscale	0.890
SWAI-T Client Focus Subscale	0.967
SWAI-T Rapport Subscale	0.895
SWAI-T Total Scale	0.958
COSE Total Score	0.973
<i>Time Two</i>	
SSI-T Total Scale	0.957
SSI-T Task Oriented Subscale	0.975
SSI-T Interpersonal Subscale	0.944
SSI-T Attractive Subscale	0.890
SWAI-T Client Focus Subscale	0.955
SWAI-T Rapport Subscale	0.929
SWAI-T Total Scale	0.946
COSE Total Score	0.984
<i>Time Three</i>	
SSI-T Total Scale	0.935
SSI-T Task Oriented Subscale	0.977
SSI-T Interpersonal Subscale	0.917
SSI-T Attractive Subscale	0.858
SWAI-T Client Focus Subscale	0.956
SWAI-T Rapport Subscale	0.883
SWAI-T Total Scale	0.909
Modified-CSQ Scale Total Score	0.925
COSE Total Score	0.965

Note. * Values significant at $p < .001$

APPENDIX N

Levene's Test of Homogeneity of Variance of Independent and Dependent Variables

Scale Statistic	Levene
<i>Time One</i>	
SSI-T Total Scale	1.025
SSI-T Task Oriented Subscale	0.381
SSI-T Interpersonal Subscale	2.946
SSI-T Attractive Subscale	0.005
SWAI-T Client Focus Subscale	0.123
SWAI-T Rapport Subscale	1.918
SWAI-T Total Scale	1.522
COSE Total Score	1.383
<i>Time Two</i>	
SSI-T Total Scale	0.589
SSI-T Task Oriented Subscale	0.273
SSI-T Interpersonal Subscale	0.455
SSI-T Attractive Subscale	0.829
SWAI-T Client Focus Subscale	0.104
SWAI-T Rapport Subscale	0.118
SWAI-T Total Scale	0.003
COSE Total Score	0.192
<i>Time Three</i>	
SSI-T Total Scale	0.029
SSI-T Task Oriented Subscale	0.642
SSI-T Interpersonal Subscale	0.000
SSI-T Attractive Subscale	0.689
SWAI-T Client Focus Subscale	0.012
SWAI-T Rapport Subscale	0.035
SWAI-T Total Scale	0.109
Modified-CSQ	3.618
COSE Total Score	0.234

APPENDIX O

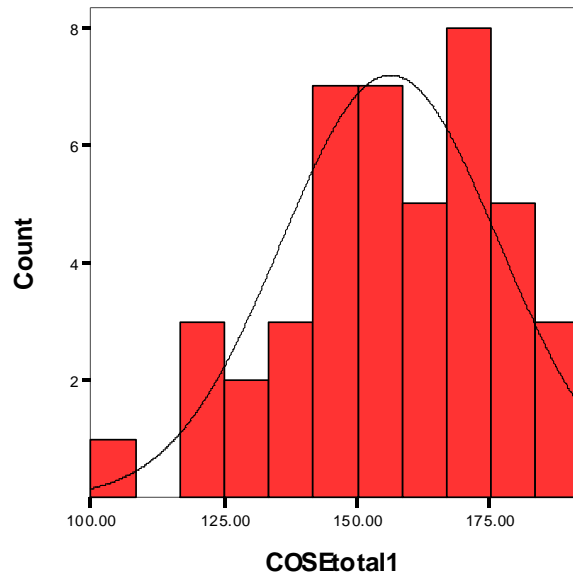
VIF and Tolerance Values for Final Regression Models

Model	Tolerance	VIF
<i>Beginning of Semester</i>		
Supervisory Styles	.560	1.784
Working Alliance	.532	1.878
Supervisor Behavior	.932	1.073
<i>Middle of Semester</i>		
Supervisory Styles	.301	3.321
Working Alliance	.301	3.322
Supervisor Behavior	.874	1.145
<i>Combined Model</i>		
Supervisory Styles (1)	.421	2.378
Working Alliance (1)	.430	2.327
Supervisor Behavior	.826	1.210
Supervisory Styles (2)	.230	4.352
Working Alliance (2)	.246	4.072

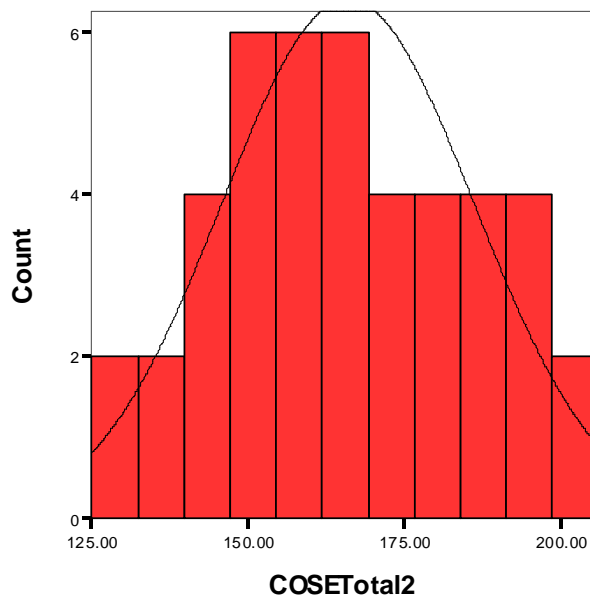
APPENDIX P

Histograms of Independent and Dependent Variables

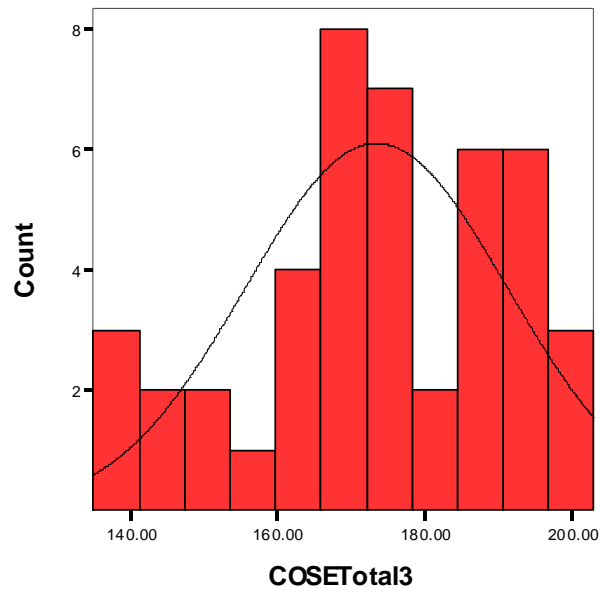
Histogram of Dependent Variable Counseling Self-Efficacy at Time One



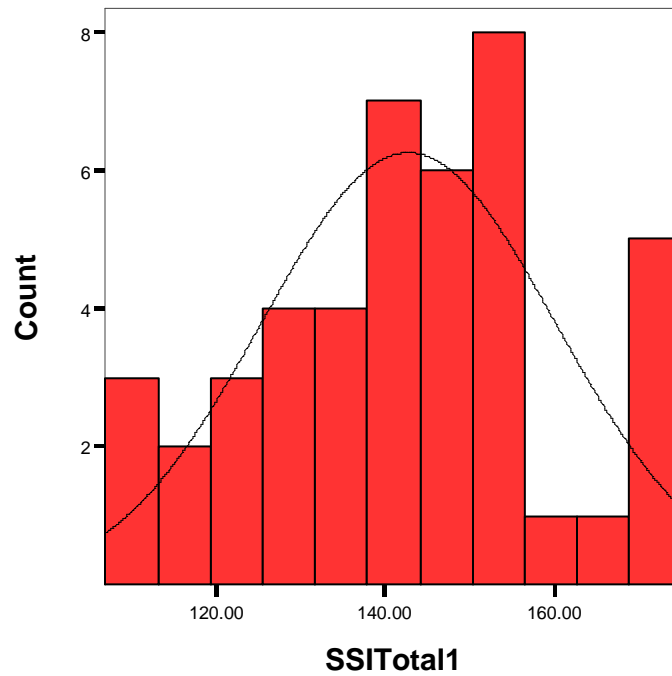
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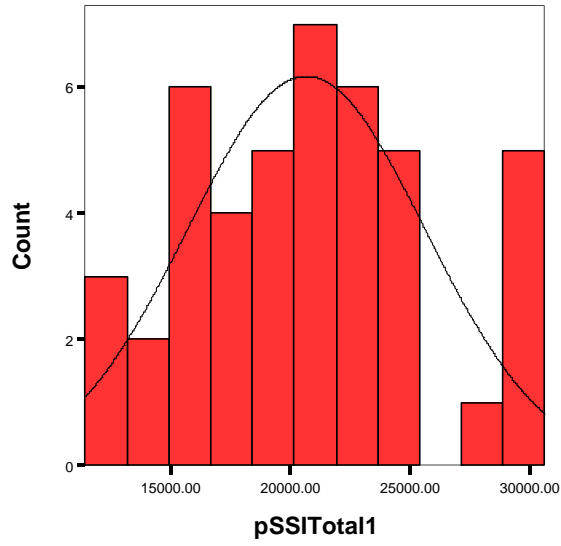
Histogram of Dependent Variable Counseling Self-Efficacy at Time Three



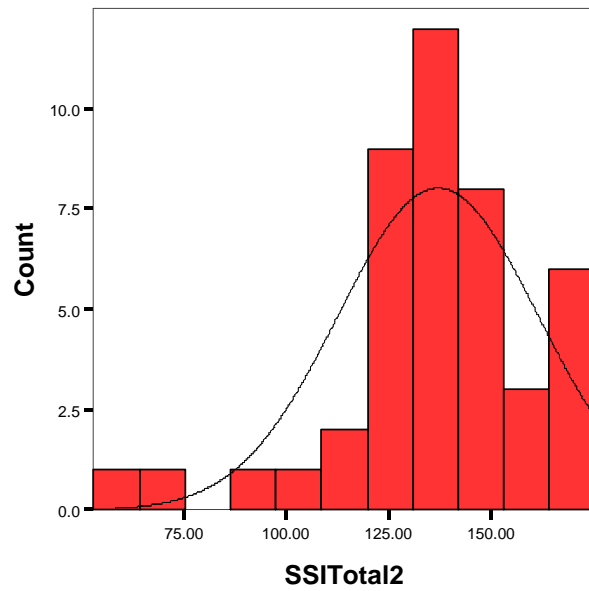
Histogram of Independent Variable Supervisory Style Time One



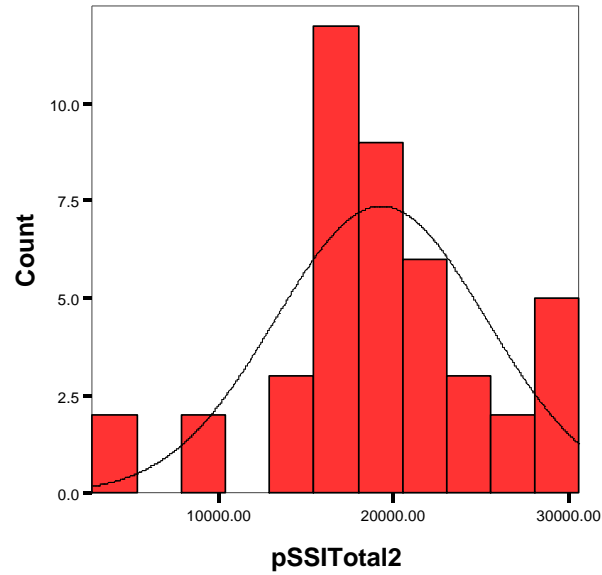
Histogram of transformed Independent Variable Supervisory Style Time One



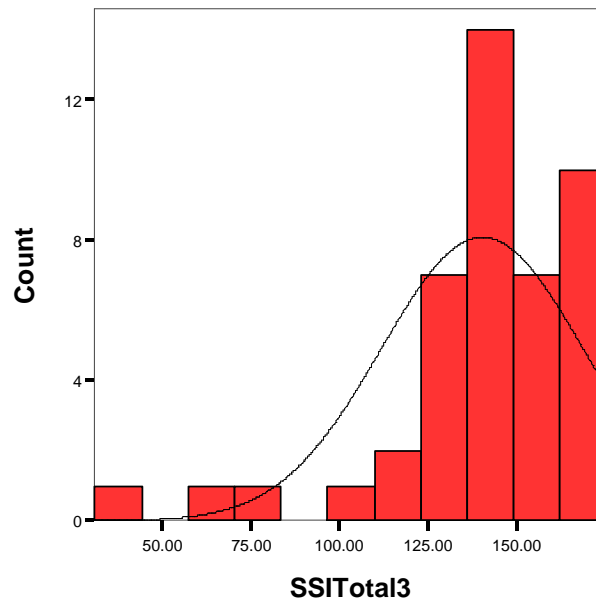
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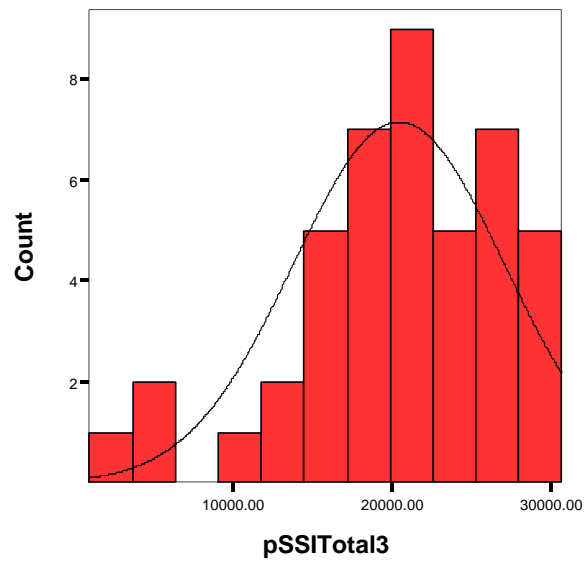
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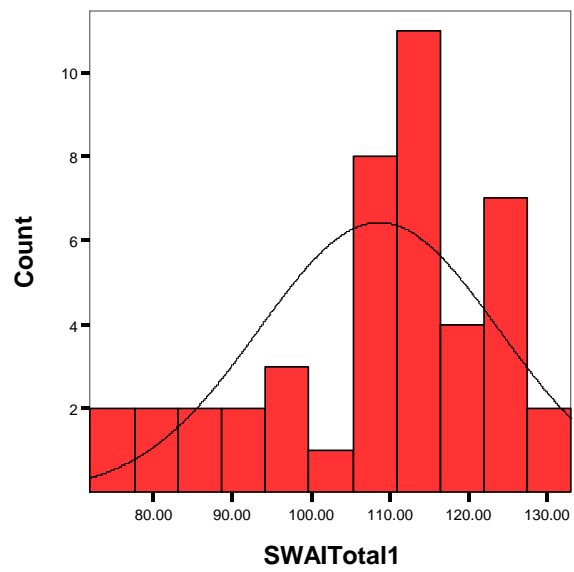
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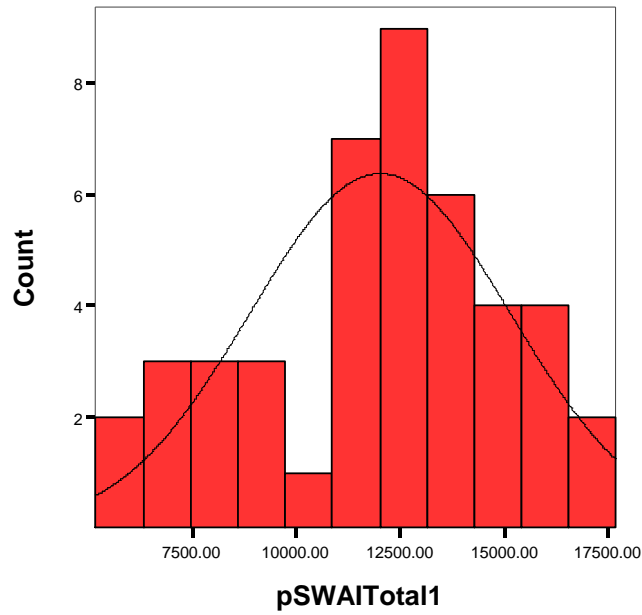
Histogram of transformed Independent Variable Supervisory Style Time Three



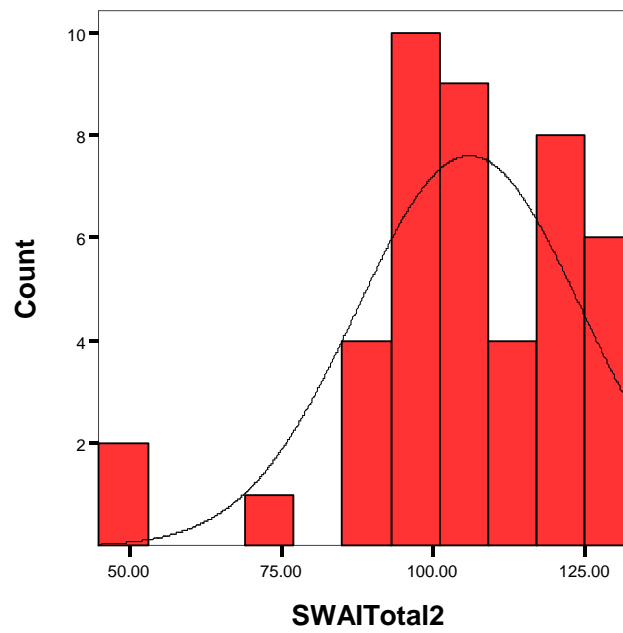
Histogram of Independent Variable Supervisory Working Alliance Time One



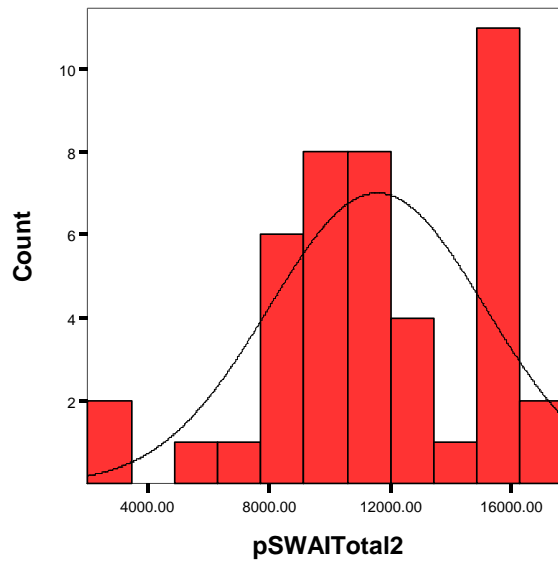
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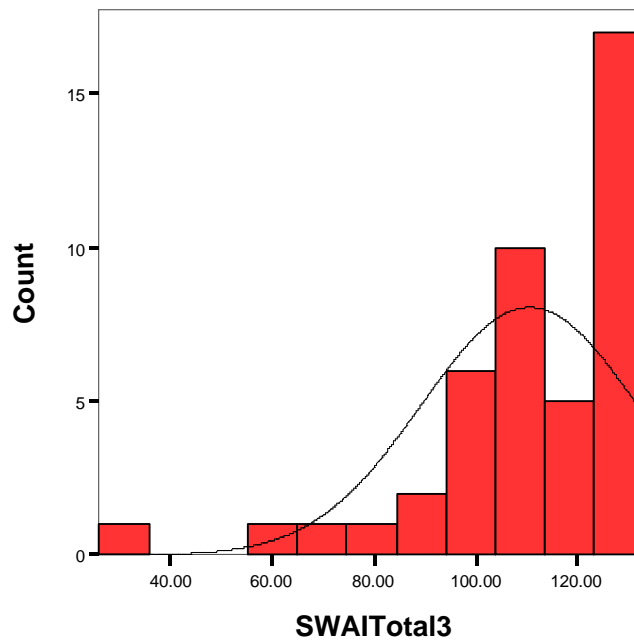
Histogram of Independent Variable Supervisory Working Alliance Time Two



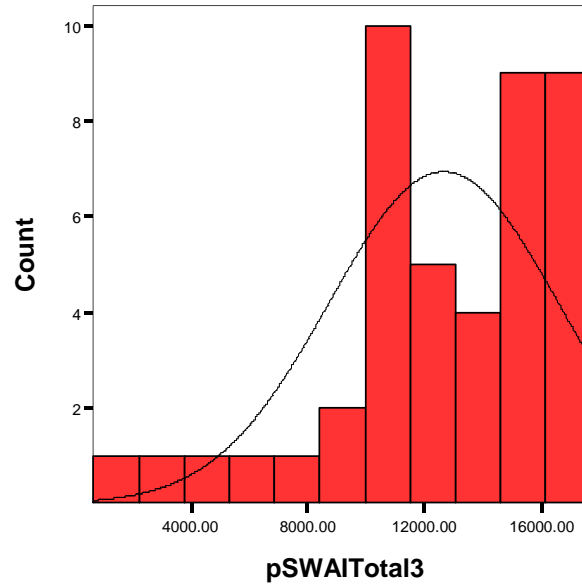
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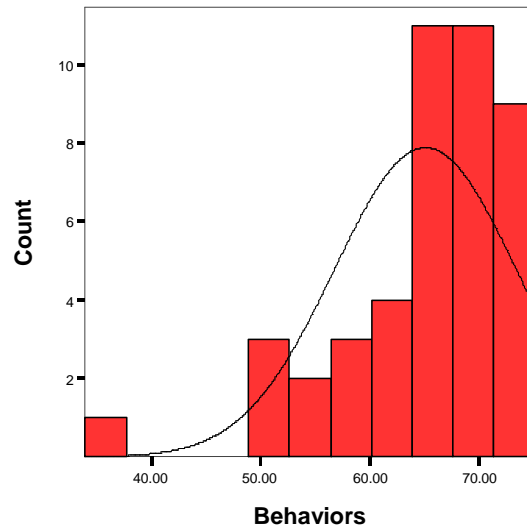
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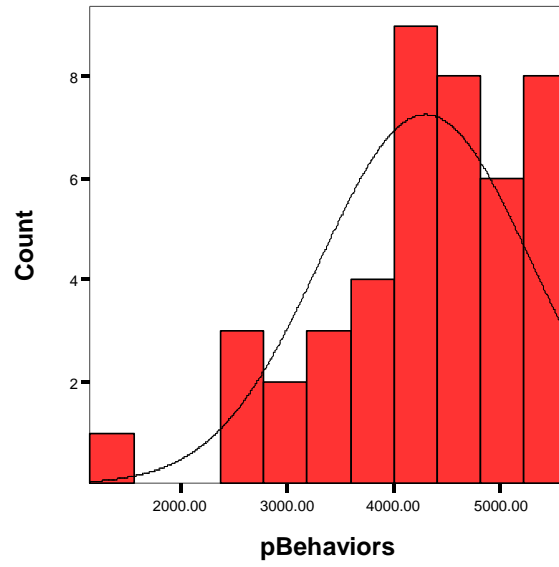
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Histogram of Independent Variable Modified-CSQ



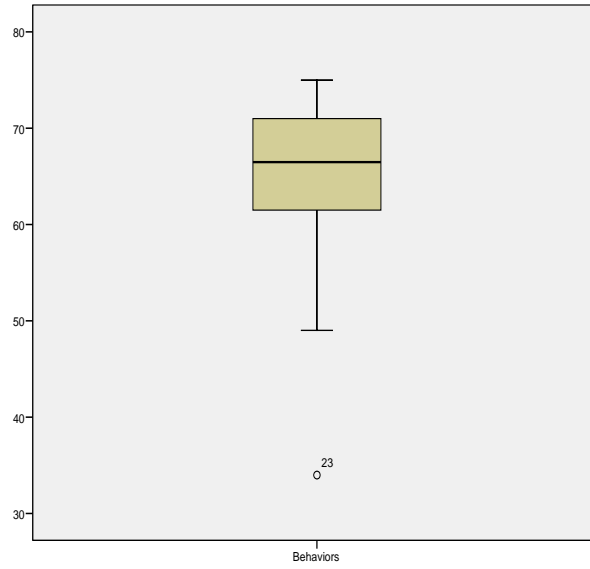
Histogram of transformed Independent Variable Modified-CSQ



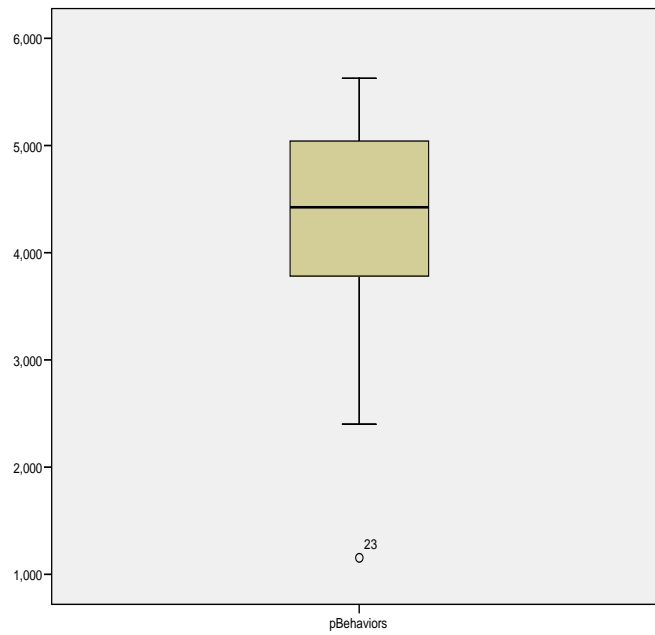
APPENDIX Q

Box Plots of Independent and Dependent Variables

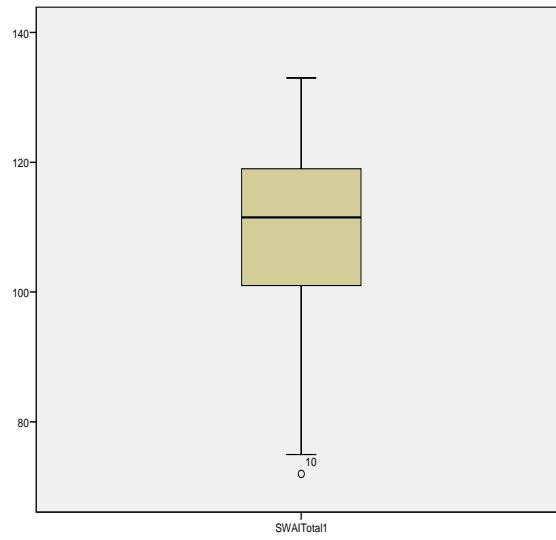
Box Plot of Independent Variable Modified-CSQ



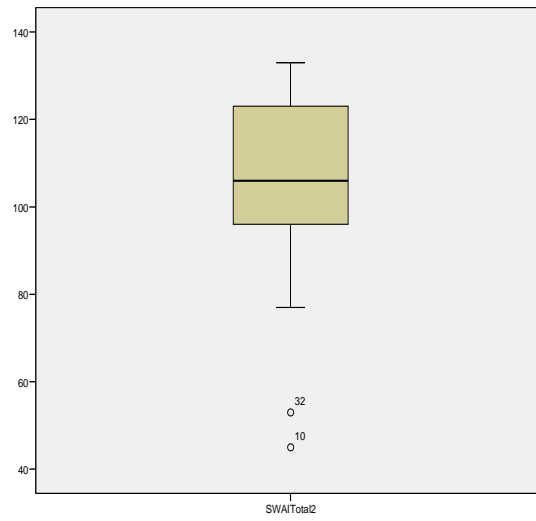
Box Pot of transformed Independent Variable Modified-CSQ



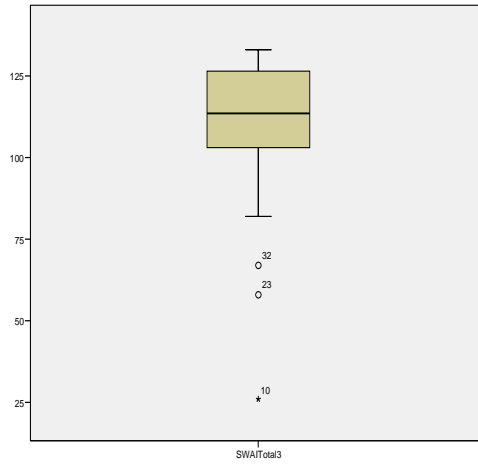
Box Plot of Independent Variable Supervisory Working Alliance Time One



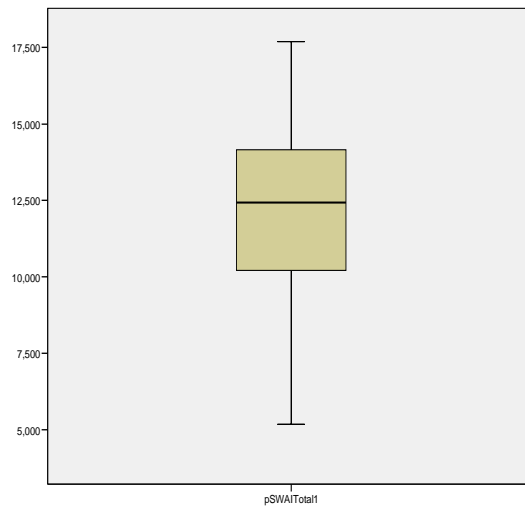
Box Plot of Independent Variable Supervisory Working Alliance Time Two



Box Plot of Independent Variable Supervisory Working Alliance Time Three

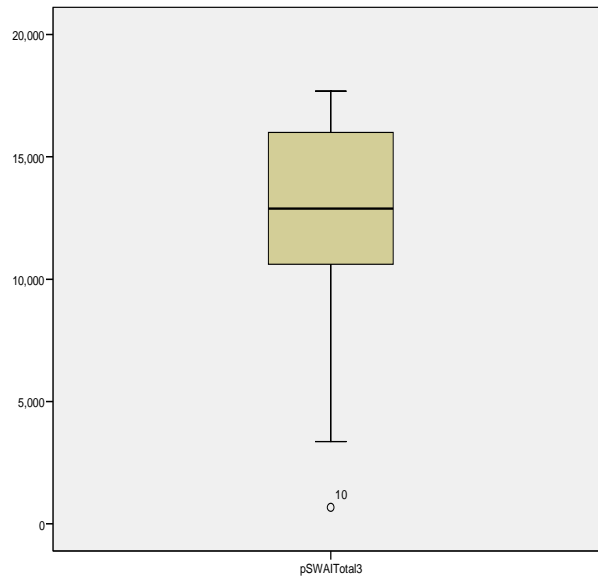


Box Plot of transformed Independent Variable Supervisory Working Alliance Time One

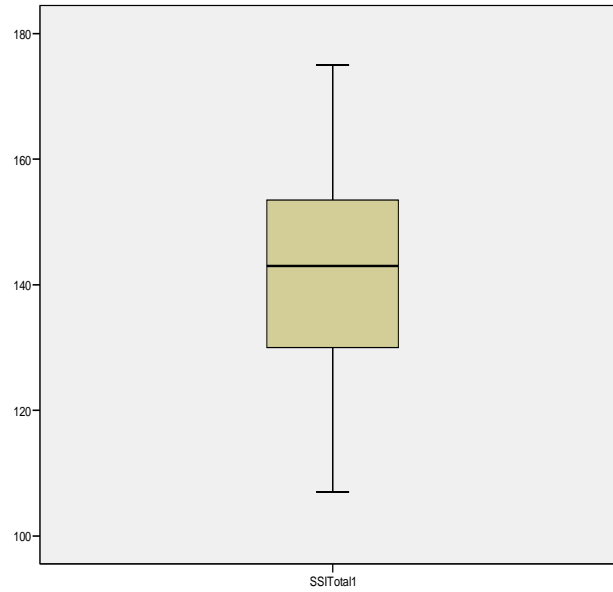


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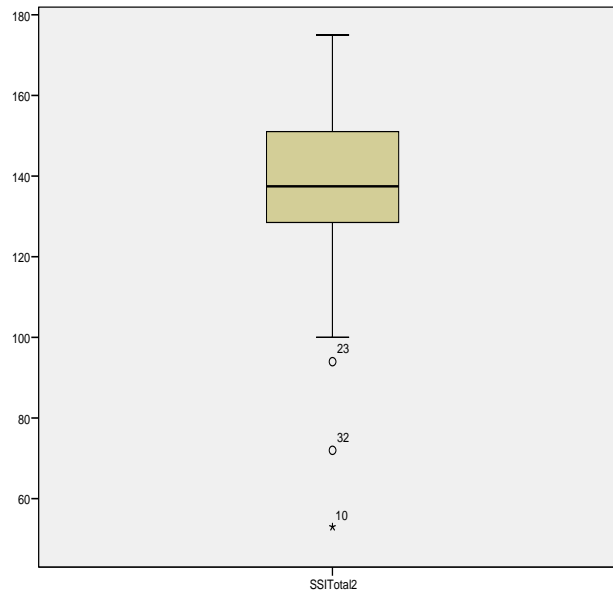
Box Plot of transformed Independent Variable Supervisory Working Alliance Time Three



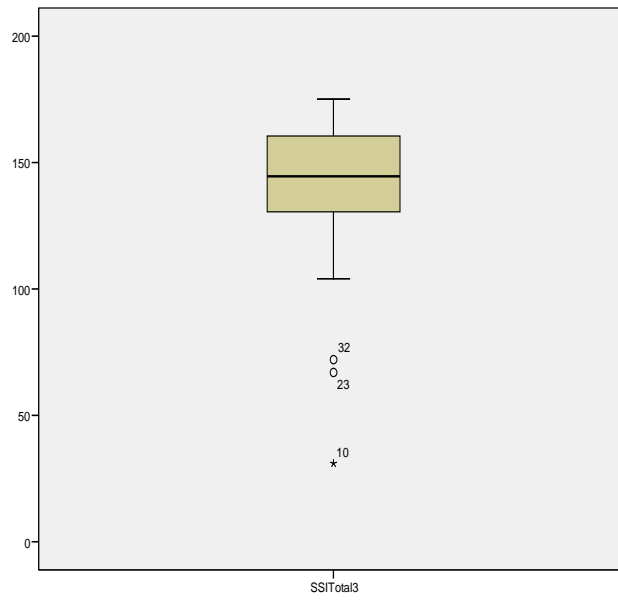
Box Plot of Independent Variable Supervisory Style Time One



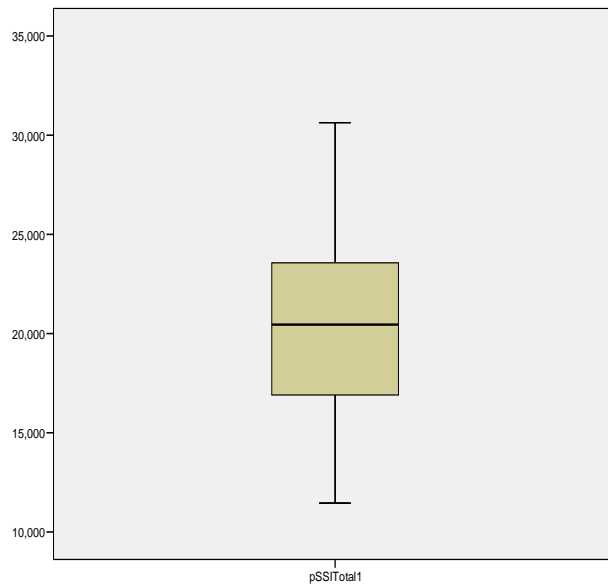
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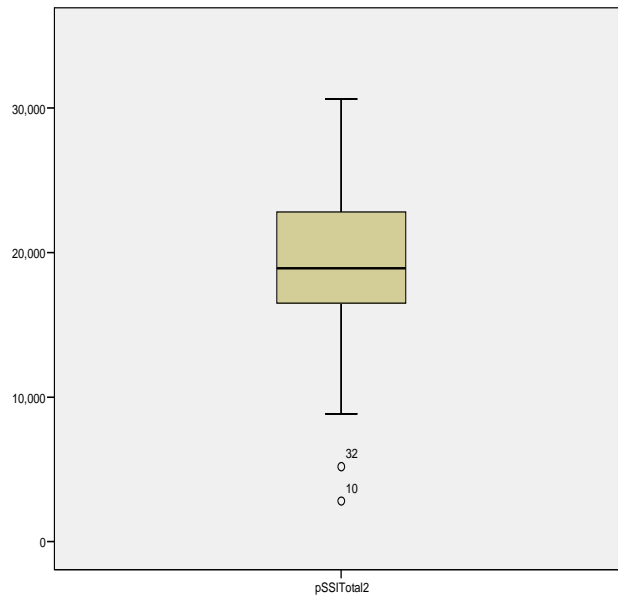
Box Plot for Independent Variable Supervisory Style Time Three



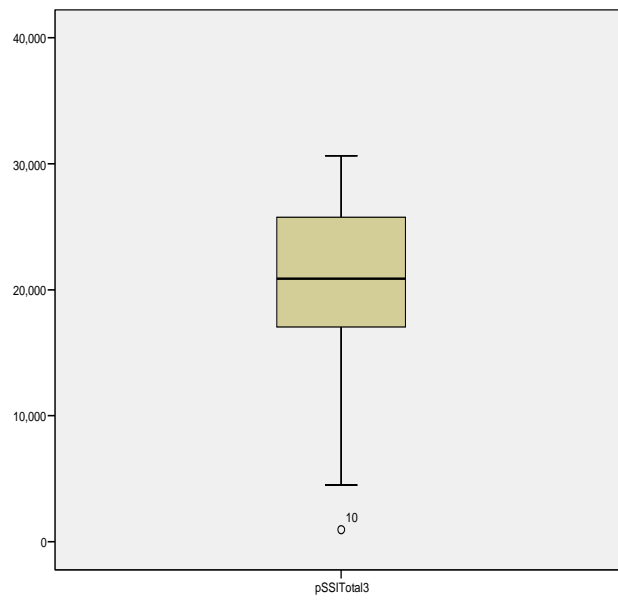
Box Plot for transformed Independent Variable Supervisory Style Time One



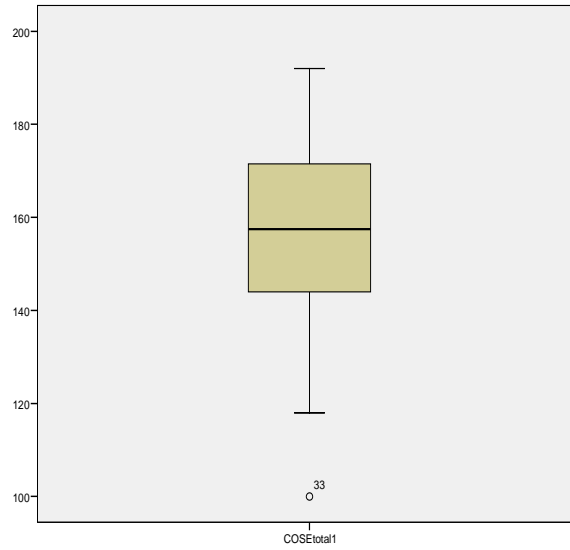
Box Plot for transformed Independent Variable Supervisory Style Time Two



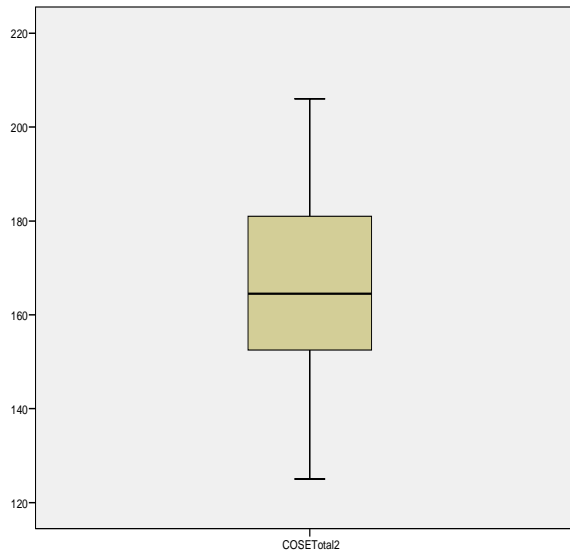
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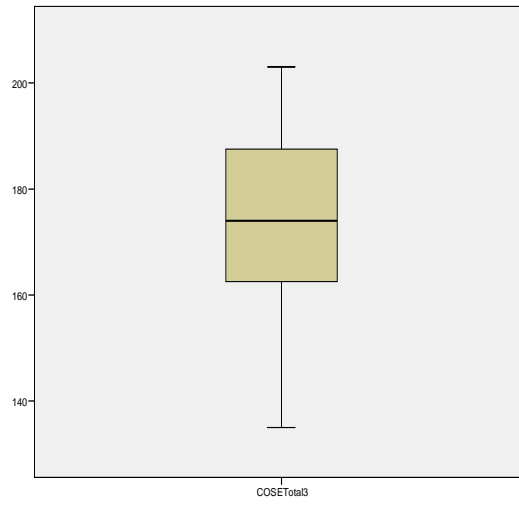
Box Plot of Dependent Variable Counseling Self-Efficacy Time One



Box Plot of Dependent Variable Counseling Self-Efficacy Time Two



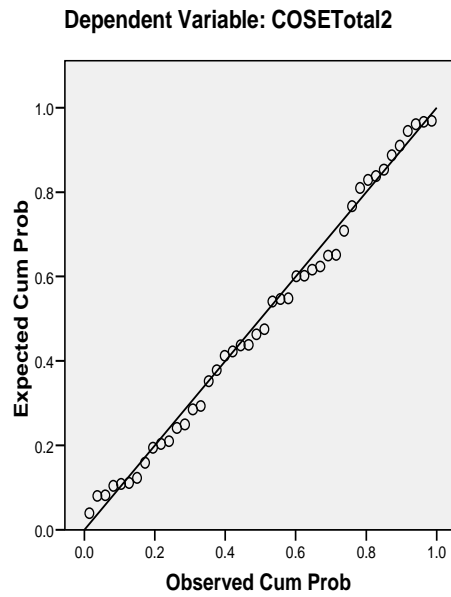
Box Plot of Dependent Variable Counseling Self-Efficacy Time Three



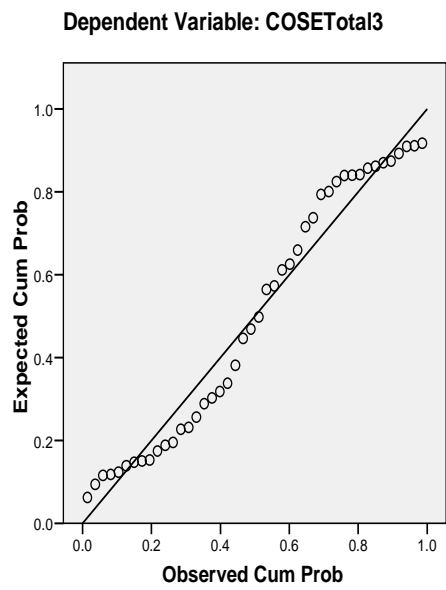
APPENDIX R

Normal P-P Plots of Regression Standardized Residuals

Normal P-P Plot of Regression Standardized Residual



Normal P-P Plot of Regression Standardized Residual



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Brislin, D., & Herbert, J. T. (2008). Clinical supervision for developing counselors. In M. A. Stebnicki (Ed.), *The professional counselor's desk reference*. (pp. 39-46): Springer.

Brislin, D. (2007, August). On the back of an angel. *Counseling Today*.

Brislin, D. (2008). Reaching for independence: Counseling implications for youth with spina bifida. *Journal of Counseling & Development*, 86, 34-38.

Mellin, L., Hunt, B., & Brislin, D. (2009). Rehabilitation counselor preparation in working with youth with psychiatric disabilities. *Rehabilitation Education*, 23.