

**A Multi-Vocal Synthesis of Supervisees' Anxiety and Self-Efficacy**

**During Clinical Supervision: Meta-Analysis and Interviews**

by

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(ABSTRACT)

Clinical supervision of counselors in training is an integral part of the professional and personal development of counselors. Accrediting bodies in academia and licensure standards in most fields require beginning professionals to receive clinical supervision. During clinical supervision, supervisees frequently experience anxiety and the supervisees' self-efficacy, or belief about their ability to counsel clients, is affected by supervision. The questions addressed in this study were to what extent does clinical supervision affect supervisees' anxiety and self-efficacy and do different types of supervision have varying effects on supervisees' anxiety and self-efficacy.

A meta-analysis comprised of ten studies was conducted to determine the influence of supervision on supervisees' anxiety and self-efficacy. Clinical supervision was found to have a medium effect,  $ES = .454$  and  $ES = .430$ , on supervisees' anxiety. Clinical supervision had a large,  $ES = .655$ , effect on supervisees' self-efficacy. In addition, a qualitative review of the studies included in the meta-analysis yielded methodological concerns in the areas of adequate control group, sample size, representativeness of sample, and follow-up assessment.

Due to the small number of studies meeting the meta-analysis criteria, quantitative findings were limited. Therefore, individual interviews with clinical supervisors and supervisees were conducted to corroborate or refute the findings of the meta-analysis and to lend multiple "voices" in an attempt to answer the research questions. Face-to-face interviews were conducted with nine supervisees and five supervisors in a Counselor Education program. The results of the interviews corroborated the finding of the meta-analysis that clinical supervision affects supervisees' anxiety and self-efficacy by increasing both. All types of supervision were described as increasing anxiety and self-efficacy with no particular type predominating.

Limitations of the research and implications for educators, practitioners, and future research are discussed. A limitation of the meta-analysis was the relatively small number of existing studies meeting the criteria for inclusion. This limited the interpretation of the findings in terms of answering the research questions. The interview portion of the research was limited due to the use of a purposive sample, participants all being students from the same program, and the researcher was also a student in this program.

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## CHAPTER 1

### INTRODUCTION

Supervision of counselors in training is an integral aspect of all counseling programs. Supervised experience occurs in masters and doctoral programs and training in supervision is a core area of doctoral preparation. An increased focus on professionalism and counselor development has led to increased research during the past couple of decades in the counseling field. One area of study, the dynamics of the supervisor-supervisee relationship, has led to research regarding supervisees' anxiety and self-efficacy.

Clinical supervision is required in academic training and in the field. The ACES (Association For Counselor Education and Supervision, 1993) Ethical Guidelines For Counseling Supervisors defines clinical supervision as "the supportive and educative activities of the supervisor designed to improve the application of counseling theory and techniques directly to clients". ACES is composed of individuals who prepare counselors for professional practice and who are responsible for the ongoing supervision of counselors. The Council for Accreditation of Counseling and Related Educational Programs (CACREP), the accreditation governing board for counselor education programs, sets standards for counselor training. Currently, CACREP requires supervision of a counseling student to include group supervision and a minimum of one hour of individual supervision each week of the practicum and internship (CACREP, 1994, Standard III.H). The APA (American Psychological Association) and the National Association of Social Workers (NASW) standards also require supervised practice. In addition, the ACA (American Counseling Association, 1995) Code of Ethics and Standards of Practice indicates that counselor education and training programs integrate academic study and supervised practice. It also states that counselors providing clinical supervision must be aware of the academic and personal limitations of students and supervisees that might impede their performance.

One such possible limitation of the counselor in training is anxiety experienced during supervision and a decrease in self-efficacy. Bernard and Goodyear (1998) suggested that anxiety is pervasive among novice supervisors and supervisees. They also indicated that anxiety does not need to be avoided altogether because moderate levels of anxiety probably improve counselor performance. However, higher levels of anxiety can negatively affect the counselor's speech rates, the accuracy of his or her perceptions, and his or her ability to provide appropriate affective feedback. Bernard and Goodyear also indicated that anxiety could lead to the supervisee playing supervision games that distort or impede supervision. If supervisors can find effective ways to combat anxiety, then the need for such games diminishes. Additionally, Yager and Beck (1985) noted that novice counselors are rarely able to avoid anxiety during early counseling sessions. The effects of this anxiety may interfere with counseling effectiveness, ability for recall in sessions, and supervisory relationships. Resistance may be used by new counselors in reaction to their fears of criticism and evaluation (Fitch & Marshall, 2002). Therefore, a supervisor having the knowledge and ability to adequately address this anxiety is imperative to successful counselor development.

Self-efficacy is the degree to which individuals consider themselves capable of performing a particular activity (Bandura, 1993). Counselor self-efficacy has been the focus of much research in the past couple of decades. A counselor's counseling self-efficacy is defined as one's beliefs or judgments about his or her capabilities to effectively counsel a client in the near future (Friedlander, Keller, Peca-Baker, & Olk, 1986; Larson, Suzuki, Gillespie, Potenza,

Bechtel, & Toulouse, 1992). The supervisory relationship can contribute to the counselor-in-training's self-efficacy. Also, self-defeating thoughts and anxiety can have a negative impact on the supervision process and impede the skills development of the counselor-in-training (Fitch & Marshall, 2002). Therefore, it seems logical to examine supervisee anxiety and self-efficacy as both affect the supervisory relationship and the development of the supervisee.

### Statement of the Problem

The relationship between the supervisor and supervisee in clinical supervision is a complex one and often a source of anxiety for the counselor trainee (Bernard & Goodyear, 1998). A supervisee's anxiety can be a result of many possible sources and can be affected by multiple factors such as the supervisee's maturity, experience level, personality, and relationships with clients and the supervisor. Another factor is the supervisee's status as a student and the evaluative function of supervision in relation to student achievement (Bernard & Goodyear, 1998).

A review of the literature on the supervisor/supervisee relationship during clinical supervision has identified supervisee anxiety as a dominant factor in the development of the supervisee (Bernard & Goodyear, 1998; Costa, 1994; Dodge 1982; Kadushin, 1976; Ladany et al., 1996; Liddle, 1986). Also, the supervisee's self-efficacy seems to be an important factor in determining the success of the supervision in terms of the professional and personal development of the supervisee (Larson & Daniels, 1998). However, there is conflicting research on the possible variables that lead to decreased anxiety and increased self-efficacy. Some research indicated that the use of audio and videotape recordings is a major source of a supervisee's anxiety (Johnson, 1989) while other literature indicated anxiety is due to the evaluation aspects of supervision (Ronnestad & Skovholt, 1993). Literature also indicates performance anxiety can threaten a supervisee's sense of competence and ability (Fitch & Marshall, 2002) thus leading to decreased self-efficacy. Still other literature indicates supervisees may have a high need for approval (Fitch & Marshall, 2002; Liddle, 1986). The supervisor may need to address their need for approval and its possible consequences, e.g. not being able to confront a client. This may lead to higher levels of anxiety (Fitch & Marshall, 2002). Lastly, fears of trying new techniques or strategies can lead to anxiety (Liddle, 1986).

Another factor identified in clinical supervision literature that seems to affect supervisee anxiety and self-efficacy is the type of supervision provided or techniques used by the supervisor. For example, Johnson (1989) found that supervisees who "showed" videotapes that were edited to include only appropriate behaviors experienced less physiological and experiential anxiety and were less preoccupied with how their performance was being evaluated than supervisees who watched their unedited tapes. However, Ellis, Krenzel, and Beck (2002) found no significant differences in supervisee anxiety and performance due to audio/videotaping and one-way mirrors. Additionally, the amount of structure provided by the supervisor in individual supervision may be related to the level of anxiety the supervisee experiences (Freeman, 1993).

The above literature raises the issues of (a) whether there is a relationship between supervisee' anxiety and self-efficacy and the types of clinical supervision, (b) the extent of the relationship, and (c) the aspects of supervision that most affect the anxiety and self-efficacy of the supervisee.

These concerns are important in determining the type of supervision and possible techniques that will result in successful outcomes in supervision, which is the supervisee's optimum professional and personal growth while monitoring the welfare of the client. Therefore,

the concern for empirical evidence is apparent because it may be possible to identify contexts in which supervision leads to decreased anxiety and increased self-efficacy thus resulting in successful supervision.

### Purpose of the Study

Clinical supervision is a critical component in the preparation of counselors and is the nexus for the practical, personal, and theoretical elements of professional functioning. A review of literature on clinical supervision identified the aspects of supervisee anxiety and self-efficacy as being paramount to achieving successful outcomes in supervision (Bernard & Goodyear, 1998; Skovholt & Ronnestad, 1992; Yager & Beck, 1985). With such emphasis being placed on clinical supervision in the development of counselors, it is important that the effects of supervision on supervisee anxiety and self-efficacy be investigated. Using meta-analysis techniques, this researcher sought to determine the degree to which clinical supervision affects supervisees' anxiety and self-efficacy.

Also, because supervision is a complex process that may affect supervisee anxiety and self-efficacy, the researcher attempted to identify, through meta-analysis, the types of supervision that were the most influential with regard to supervisee anxiety and self-efficacy. This knowledge adds to the body of literature and provides supervisors and educators the empirical base for determining appropriate clinical supervision to achieve successful outcomes in the personal and professional development of counselors. Because of the topic for this meta-analysis and the complexity of the variables being studied, a methodological qualitative review of the studies was conducted.

Due to a small number of studies meeting the meta-analysis criteria, the findings of the meta-analysis were limited. Therefore, the researcher conducted face-to-face interviews with supervisees and supervisors. The data was gathered in an attempt to provide additional voices to corroborate or refute the meta-analysis findings and answer the research questions.

### Research Questions

The following research questions were addressed in the study:

1. To what extent does clinical supervision affect supervisees' anxiety and self-efficacy?
2. Do different types of supervision, i.e. individual supervision, group supervision and live supervision, have varying effects on supervisees' anxiety and self-efficacy?

### Definition of Terms

For the purposes of this study, the following definitions are used:

Supervisee – a counselor-in-training in an accredited Master or Doctoral Counselor Education program, Counseling Psychology program, Marital and Family Therapy program or Social Work program who is receiving clinical supervision (Daniels & Larson, 2001).

Supervisor – a counselor who is providing clinical supervision to a supervisee (Bernard & Goodyear, 1998).

Clinical Supervision – an intervention provided by a more senior member of the counseling profession to more junior members of the same profession. It is an evaluative relationship that extends over time and has the simultaneous purposes of enhancing the profession functioning of the more junior person, monitoring the quality of professional services offered to the clients they serve, and serving as a gatekeeper of those who enter the counseling profession (Bernard & Goodyear, 1998).

Modalities of Clinical Supervision – Individual supervision, group supervision, live supervision, peer group supervision, in-the-room supervision and triadic supervision (Bernard & Goodyear, 1998; Getz and Esposito, 2001).

Individual Supervision – One-on-one, face-to-face conferences between the supervisor and the supervisee (Bernard & Goodyear, 1998).

Live Supervision – the combination of direct observation of the counseling session and some method that enables the supervisor to communicate with and influence the work of the supervisee (Bernard & Goodyear, 1998).

Group Supervision – the regular meeting of a group of supervisees with a designated supervisor, for the purpose of furthering their understanding of themselves as clinicians, of the clients with whom they work, and/or of service delivery in general, and who are aided in this endeavor by their interaction with each other in the context of group process (Bernard & Goodyear, 1998).

Peer Group Supervision – a form of group supervision that is ongoing, not hierarchical and does not include evaluation (Bernard & Goodyear, 1998).

In-the-Room Supervision – a form of live supervision that is a combination of monitoring and in vivo and consists of the supervisor being present during the counseling session (Getz and Esposito, 2001).

Triadic – a form of individual supervision that consists of a supervisor and two supervisees meeting together on a regular basis for supervision.

Individual Supervision Techniques – a variety of methods utilized by the supervisor during individual clinical supervision to accomplish the goals of clinical supervision. Techniques can include structure of the supervision, self-report, process notes, audio and videotapes, Interpersonal Process Recall (IPR), live observation, and skill or technique instruction (Bernard & Goodyear, 1998).

Live Supervision Techniques – a variety of methods utilized by the supervisor during live clinical supervision to accomplish the goals of clinical supervision. Techniques can include bug-in-the-ear, monitoring, in vivo, walk-ins, phone-ins, and team supervision such as reflecting teams (Bernard & Goodyear, 1998).

Supervisee Anxiety – the emotional arousal of the supervisee that can manifest itself in the inability to think properly, exercise proper judgment, make decisions, and use learned skills to the maximum. This construct is typically operationalized as a measure on the State Scale (STAI-S) of the State-Trait Anxiety Inventory or a similar scale used to measure state anxiety (Bernard & Goodyear, 1998; Daniels & Larson, 2001).

Supervisee Self-efficacy – the supervisee's judgment or belief about their capabilities to effectively counsel a client (Larson & Daniels, 1998). This construct is typically operationalized as a measure on the Interpersonal Skills Efficacy Scale (ISES), Counselor Behavior Evaluation-Self-Efficacy (CBE-SE), Counselor Self-Efficacy Scale (CSES), Self-Efficacy Inventory (S-EI), and/or the Counseling Self-Estimate Inventory (COSE). There are additional instruments specifically for group counseling, school counseling career counseling and psychiatry. According to Larson and Daniels (1998), the COSE has been used the most followed by the S-EI.

#### Limitations of the Study

A limitation of the study was in the selection of the studies to be analyzed. The researcher set the criteria for the studies that are included in the meta-analysis. Obviously, this process excluded studies that could shed light on the impact of supervision on supervisees' anxiety and self-efficacy. For example, in this study, studies using multiple regression statistics were

excluded and many dissertations on this topic use this statistical method. Also, the degree of validity that each study included in the meta-analysis possesses affected the result of the meta-analysis (Lipsey & Wilson, 2001).

A second limitation in conducting a meta-analysis was the wide variation of definitions for the concepts being examined. The term clinical supervision is an intervention that includes a multitude of techniques that can potentially affect supervisee anxiety and self-efficacy. Also, the constructs of anxiety and self-efficacy are multi-faceted with different instruments possibly measuring different aspects of these constructs. Therefore, the definitions chosen for this study may limit generalizability.

Another limitation is that the synthesis only included the studies that the researcher was able to access. It is possible that studies that meet the criterion were not available for review. Also, research may have been conducted that was not published, possibly because it found no effects or editors chose not to publish it. This research would not be available for the study. Therefore, a limitation of this meta-analysis was that it was constrained by the availability of quantitative studies on clinical supervision and its affect on supervisees' anxiety and self-efficacy.

Lastly, a possible limitation involved the actual mechanical procedures themselves involved in a meta-analysis. According to Lipsey and Wilson (2001), during some applications, "the relatively objective coding of data elements and effect sizes from research studies, and the type of analysis to which such data lend themselves, may not be sensitive to important issues, e.g., the social context of the study, theoretical influences and implications, methodological quality, more subtle or complex aspects of design, procedure, or results, and the like". In other words, a possible result of interpreting a study as an effect size statistic is that the meaning of the study is lost. Supervisees' anxiety and self-efficacy are multi-faceted, complex constructs. To counter this limitation, this research provided both a meta-analytic and methodological qualitative review of the body of research findings and drew conclusions from both. This type of approach is called *best evidence synthesis* (Slavin, 1995).

### Summary

The supervision of counselors in training is a fundamental part of all counselor education programs and professional practice. Prior research on supervisees' anxiety and self-efficacy during clinical supervision has been conducted with varying results. However, no existing studies prior to this study, had conducted a meta-analysis of existing research. A synthesis of existing research is necessary to understand the effect of clinical supervision on supervisees' anxiety and self-efficacy.

This chapter provided an overview of clinical supervision and its effect on supervisee anxiety and self-efficacy. The need for a meta-analytic study of the effect of clinical supervision on supervisees' anxiety and self-efficacy was explored. The meta-analysis attempted to determine the degree of effect of clinical supervision on supervisees' anxiety and self-efficacy and the types or techniques of supervision that have the most affect.

The research questions that guided the research are provided. The researcher tried to determine to what extent does clinical supervision affect supervisees' anxiety and self-efficacy and do different types of supervision have varying effects on supervisees' anxiety and self-efficacy. In addition, the definitions for the terminology used in the study are provided. Lastly,

the possible limitations involved in this type of study are outlined. Some of these limitations included selection methods of studies used in the meta-analysis, variations of definitions of concepts being explored, access to studies, and inherent interpretation problems in the meta-analytic process.

## CHAPTER 2

### LITERATURE REVIEW

A review of literature relevant to different types of clinical supervision, various techniques used during supervision, and their relationship to supervisee anxiety and self-efficacy are discussed in this chapter. Clinical supervision can consist of many different types and techniques. The modalities of clinical supervision used include individual supervision, group supervision, live supervision, peer group supervision, triadic supervision, and in-the room supervision. Some of the possible techniques used by supervisors during supervision include self-report, use of videotapes, Interpersonal Process recall, role-plays, and observation. The anxiety and self-efficacy of the supervisee are important factors in the learning process during clinical supervision. An exploration of existing literature indicated that supervision is a complex process that affects the supervisees' anxiety and self-efficacy.

Additionally, historical perspectives regarding clinical supervision and the theoretical perspectives regarding the constructs of anxiety and self-efficacy are presented. Many studies have been conducted exploring the sources of supervisees' anxiety and self-efficacy during supervision. Reducing anxiety and increasing self-efficacy may be as important as learning counseling skills.

Lastly, literature portraying the research method of meta-analysis is presented. Meta-analysis converts the quantitative results of studies into a common statistic, effect size. By converting the results of each study to an effect size and calculating a meta- effect, the researcher can determine the effect of particular construct, such as supervisees' anxiety and self-efficacy. Meta-analysis entails a series of sets that includes problem formulation, data collection, data evaluation, analysis, and interpretation. These steps are examined in detail in this chapter.

#### Clinical Supervision

Counselors and other mental health professionals receive extensive education and training. Although the specific content of the preparation varies for different professions, there are two basic realms of knowledge; 1) "formal theories and observations that have been confirmed, or are confirmable, by research" and 2) the knowledge and accompanying skills that have accrued through the professional experiences of practitioners" (Bernard & Goodyear, 1998, p. 1). Clinical supervision is the bridge between these two knowledge types that allows the counselor to integrate academic knowledge and clinical knowledge. Furthermore, according to Bernard & Goodyear (1992), personalization skills are a major part of development for counselors. Personalization skills involve the awareness of personal and emotional traits of the counselor.

A historical perspective of clinical supervision provides an understanding of its links to the theoretical models of counseling and its evolving definition. As with counseling, supervision's beginnings were based on psychoanalytic theory in the late 1920's. The focus during this era was on the role of the supervisor and the process of supervision. A model developed in 1959 by Eckstein and Wallerstein focused on the stages in the process of supervision (cited in Leddick & Bernard, 1980). They described three stages of supervision consisting of 1) the opening stage where the supervisor and supervisee "eye each other for signs of expertise and weakness" to determine the degree of authority and influence of each, 2) the middle stage that includes interpersonal conflict such as "attacking, defending, probing and/or

avoiding”, and 3) the final stage which is characterized by a “more silent supervisor who encourages the trainee to be more independent” (p.187).

The facilitative and behavioral theoretical approaches occurred concurrently during the 1960’s. The facilitative theory followed the nondirective client-centered approach of Carl Rogers. Empathy and unconditional positive regard directed the focus of the supervisor. The supervisor functioned in the role of a therapist modeling the behavior of the integrated, facilitative, nondirective counselor. Truax and Carkhuff (1967) refined Roger’s model and described supervision as a program of didactic training and group therapy with an empathetic, helpful supervisor. At this point in time, researchers began studying the usefulness of different supervisor roles and the supervisor/trainee relationship (Leddick & Bernard, 1980). An example of the use of facilitative theory that focuses on process is the direct model created by Kagan (1975). His Interpersonal Process Recall model created a way for supervisors to specifically help the trainee become aware of internal processes and specific thoughts that occurred during counseling (Bernard & Goodyear, 1998).

Behavioral approaches to supervision stressed learning theory. Krumboltz (1966), Lazarus (1968), and Mager (1962), and Wolpe, Knopp, and Garfield (1966) were major contributors to the use of behavioral theory for supervision. These approaches viewed client problems as learning problems and defined client goals in behavioral terms. Supervision consisted of detailed instruction in the use of behavioral techniques such as modeling, aversive conditioning, and goal setting.

During the 1970’s supervision models emerged that blended the previous theoretical orientations. Included in this group are models developed by Ivey (1971), Hackney and Nye (1973), Delaney (1972), Kell and Burrow (1970), and Mueller and Kell (1972). These models combined facilitative and behavioral approaches providing skills training models that emphasized a systematic orientation. For example, Delaney’s model proposed providing a safe environment, role clarification, a facilitative relationship while focusing on the trainee’s process behaviors and using behavioral methods (Delaney, 1972).

Developmental models of supervision began in the 1980’s and continue to be the primary theoretical orientation of supervision today. The major contributors to the developmental models are Littrell, Lee-Borden, and Lorenz (1979), Stoltenberg (1981), Loganbill, Hardy, and Delworth (1982), Stoltenberg and Delworth (1987) and Ronnestad and Skovholt (1993). The major distinction of these models is they were developed independently of psychotherapy models. Developmental models focus on how supervisees change as they gain training and experience while providing supervisees with techniques to work with the developing trainee. Although developmental models of supervision are widely accepted and used today in clinical supervision, there are critics of the models. Russell, Crimmings, and Lent (1984) criticized developmental models as being too simplistic and Holloway (1987) likewise concluded that the research on the models lacks developmental-specific methodology, is confined to the supervisory experience as a source of information, predominantly uses structured self-report questionnaires, and lacks evidence of distinct, sequential stages in the trainee’s growth.

Finally, social role supervision models, such as Bernard’s Discrimination Model, developed in 1979 (as cited in Bernard & Goodyear, 1998), are situation specific and constructed to allow supervisors to tailor their responses to the supervisee’s needs. The Discrimination Model has three foci for supervision; intervention, conceptualization, and personalization, and three roles for the supervisor; teacher, counselor or consultant. Research concerning this model

indicates that supervisors are more likely to employ the teaching role with novice supervisees and the consultant role with supervisees who are more advanced (Bernard & Goodyear, 1998).

Clinical supervision is a distinct intervention that has evolved over time to include specific aspects that distinguish it from education, psychotherapy and consultation. Although supervision may contain components of these domains, its purpose is to facilitate the development of supervisee's therapeutic skills. Clinical supervision is normally provided by members of the same profession to facilitate professional development. It also includes an evaluation aspect and is provided for an extended amount of time.

The goals of clinical supervision include 1) teaching and learning or "enhancing professional functioning" [p. 10], and 2) monitoring client welfare (Bernard & Goodyear, 1998). To function adequately in the counseling profession, supervisees must attain certain competencies. Therefore the goal of enhancing professional functioning includes specific, concrete skills training and more abstract goals such as obtaining clinical wisdom. A broad definition of clinical supervision offered by Bernard and Goodyear (1998) is as follows:

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 functioning of the more junior person(s), monitoring the quality of professional services offered to the client(s), she, he, or they see(s), and serving as a gatekeeper of those who are to enter the particular profession. (p. 6)

#### Types of Clinical Supervision

Three broad types of clinical supervision exist: individual supervision, live supervision and peer group supervision. Although these types of supervision differ in format and techniques, they all have the same above noted goals of supervision. Each type of supervision has distinct characteristics that define it and specific techniques that have been developed to accomplish these goals.

Individual supervision is a one-on-one, face-to-face conference between a supervisor and a supervisee. This type of supervision is the cornerstone of professional development (Bernard & Goodyear, 1998). In most counselor education programs, students receive individual supervision weekly during practicum and internships. Many different techniques are used during individual supervision, such as self-report, process notes, audiotape, videotape, Interpersonal Process Recall (IRP), and observation without interaction with the supervisee. Holloway (1988) noted two reasons why it is preferable during supervision with novice supervisees to use direct observation (videotapes) with self-report. First, direct observation allows the supervisor independent judgment regarding the client's problem. Secondly, the supervisor can illustrate directly with the videotape how to draw inferences from the client's information.

Live supervision is the combination of direct observation of the counseling session and some method that enables the supervisor to communicate with and influence the work of the supervisee (Bernard & Goodyear, 1998). The methods of live supervision include bug-in-the ear (BITE), monitoring, in vivo, walk-ins, phone-ins and consultation breaks. The BITE method involves the supervisee wearing a wireless earphone whereby the supervisor can coach the supervisee during the session. Monitoring consists of the supervisor observing the session and intervening when necessary. In vivo is similar to monitoring but instead of intervening with the client, the supervisor consults with the supervisee. During walk-ins, the supervisor interrupts the session and intervenes with both the supervisee and the client. Phone-ins or consultation breaks

consist of the supervisor interrupting the session and consulting only with the supervisee, either by phone or in person outside the presence of the supervisee. An additional form of live supervision, described by Getz and Esposito (2001), is in-the-room supervision. It is described as a combination of monitoring and in vivo and consists of the supervisor being present during the counseling session and intervening with the client when necessary.

Group supervision as defined by Bernard and Goodyear (1998) is “the regular meeting of a group of supervisees with a designated supervisor, for the purpose of furthering their understanding of themselves as clinicians, of the clients with whom they work, and/or of service delivery in general, and who are aided in this endeavor by their interaction with each other in the context of group process” (p. 111). CACREP standards (Council, 1994) require university training programs to use some type of group supervision. A particular type of group supervision commonly used in training counselors is peer group supervision. The method or technique of any group supervision is the group feedback that produces change in the supervisee’s thoughts or behaviors.

### Supervisee Self-Efficacy

Counseling self-efficacy (CSE), defined as one’s beliefs or judgments about her or his capabilities to effectively counsel a client in the near future, has been researched extensively (Freidlander, Keller, Peca-Baker, & Olk, 1986; Larson et al., 1992; Sharpley & Ridgway, 1993). Much of this research is based on Bandura’s social cognitive theory. This theory asserts that human beings exercise control over their thought processes, motivation, and actions. In other words, self-efficacy does not require certain behaviors but rather knowing what to do.

Bandura’s (1977) theory of self-efficacy is based on an individual’s expectation that she or he has sufficient knowledge and skills to appropriately accomplish certain tasks. These expectations are based on cognitive appraisals of past performances. The level of a person’s self-efficacy determines a) whether they attempt a task, b) the level of effort exerted to accomplish the task, and c) how long the person persists in attempting the task (Bandura, 1977).

According to Bandura (1977), there are two types of expectancies, efficacy expectancy and outcome expectancy. Efficacy expectancy is the individual’s belief in the ability to perform certain tasks, whereas outcome expectancy is the expectation that certain behaviors will lead to a specific outcome. Therefore, efficacy influences thoughts, behaviors, and feelings. Higher levels of efficacy increase the counselor’s performance levels and decrease anxiety levels (Bandura, 1982). Perceived self-efficacy entails the person’s judgments of how well they can execute the actions that are necessary to deal with a certain situation that might arise (Bandura, 1982). In counseling, this includes the ability to masterfully use many skills during the ever-changing circumstances of a counseling session.

When applying social cognitive theory to counseling, CSE beliefs are the primary causal determinant of providing effective counseling. The CSE beliefs affect the choice of a counselor’s responses, and the effort that is expended and persistence when faced with failures or risk-taking behaviors. In addition, the mediating influences of other self-generated processes, such as affective processes, motivational processes, and other cognitive processes, combine with self-efficacy to affect counseling actions (Bandura, 1991). Therefore, persons with “higher CSE would be more likely to view their anxiety as challenging; to set realistic, moderately challenging goals; and to have thoughts that are self-aiding” (Larson & Daniels, 1998, p. 181).

In Larson and Daniels’ (1998) review of 32 studies conducted between 1983 and 1998 on counseling self-efficacy, they found ten instruments used to measure CSE. Of these, the

Counseling Self-Estimate Inventory (COSE) developed by Larson et al. (1992) was used in almost half the studies with Freidlander and Snyder's (1983) Self-Efficacy Inventory (S-EI) being the second most frequently used instrument. The COSE was found to have the most adequate psychometric properties (Larson & Daniels, 1998). Other constructs frequently measured with self-efficacy were outcome expectancy, anxiety, and counselor performance (Larson & Daniels, 1998).

When examining the relationship of counseling self-efficacy to other variables, Larson and Daniels (1998) found that CSE appeared to relate minimally to other stable counselor variables, i.e. personality, aptitude, achievement, and social desirability. However, CSE did relate to self-reflective variables such as self-concept and private self-consciousness. Counselors with no experience or supervision report lower CSE than those with experience or supervision. Additionally, they found CSE to relate strongly to outcome expectancies and self-evaluation and to relate moderately negatively to anxiety.

Larson and Daniels (1998) also examined studies that explored interventions to increase self-efficacy, counselor performance, and decrease anxiety. In terms of increasing self-efficacy, they found that role-plays and modeling were equally more effective than a control group for novice counselors. Positive performance feedback also seemed to significantly impact the increase of self-efficacy. Role-plays and modeling were also more effective in improving counselor performance while positive feedback about counselor performance decreased anxiety.

A recent study conducted by Daniels and Larson (2001) investigated the impact of performance feedback on counseling self-efficacy and counselor anxiety with graduate-level counselor trainees. They extended prior research by 1) examining the effect of positive and negative performance feedback on counseling self-efficacy and anxiety, 2) having the counselor trainees perform mock counseling sessions, and 3) using an experimental design. The study results found that positive feedback slightly increased counseling self-efficacy, negative evaluation heightened anxiety and a favorable evaluation put the counselor in training at more ease. It also supported the hypothesis that novice counselor trainees translate positive feedback as a mastery experience more so than negative feedback and this leads to increased self-efficacy (Daniels & Larson, 2001).

In summary, developing a high level of self-efficacy for counselors in training may be as important as developing good counseling skills. Research has indicated that a lack of supervision and support can lead to increased stress levels, burn out, feelings of aloneness and unhappiness, counselors quitting their jobs, a decrease in confidence in abilities, and an actual decline in counseling skills (Crutchfield & Borders, 1997; Peace, 1995; Powell, 1993; Spooner & Stone, 1977; Watkins, 1997). Cashwell and Dooley (2001) investigated the differences between counselors who received clinical supervision and those who did not in terms of their level of self-efficacy. A statistically significant difference was found between counselors receiving clinical supervision and counselors not receiving clinical supervision at  $p = .024$  (Cashwell & Dooley, 2001).

#### Supervisee Anxiety

Bernard and Goodyear (1998) suggested that anxiety is pervasive among supervisees and supervisors. Anxiety can affect supervision in many ways and can arise from many different sources. Additionally, anxiety is influenced by factors such as the supervisee's maturity, experience level, personality, and relationships with clients and the supervisor. Research on

supervisee anxiety has focused on the undesirable consequences of anxiety, the relationship between anxiety and supervision styles, and the sources of anxiety.

Supervisee anxiety is a natural part of learning to become an effective counselor. Minimal levels of anxiety can be positive. According to Yerkes and Dodson's (1908) inverted-U hypothesis (as described by Bernard and Goodyear (1998), anxiety is a state of arousal that in moderate amounts motivates the person and facilitates task performance. However, if the supervisee has high levels of anxiety it can adversely affect his or her learning during supervision and his or her performance (Bernard & Goodyear, 1998). Dombek and Brody (1995) found that supervisees' capacity to observe was reduced during states of high anxiety. Therefore, their learning capacity was reduced. Also, Freidlander, Keller, Peca-Baker and Olk (1986) found that supervisee performance (i.e. comprehensiveness of the supervisee's plan for an interview with the client) was inversely related to their anxiety levels.

Also, in a study examining anxiety and performance, Ellis, Krenzel and Beck (2002) found no significant differences between supervisees due to a self-awareness condition. The study was designed to test the self-focused attention theory that individuals direct attention in two qualitatively different ways: outward toward people and events in the world (subjective awareness), or inward, toward themselves as objects in the world (objective self-awareness). In private self-awareness, individuals focus on his or her appearance and behaviors and compare it to his or her internalized standards and private self-awareness. It also involves the individual focusing on his or her appearance and behavior in terms of the perceived standards of evaluating behavior. The study also sought to determine whether the presence of a mirror and audio- or videotaping of counseling sessions would adversely affect the supervisee. The researchers used an experimental design with three manipulated self-awareness conditions; public self-awareness, private self-awareness, and subjective self-awareness. There were no differences among the three awareness conditions in how anxious participants were in counseling sessions (Ellis et al., 2002).

Research has also focused on the possible sources of anxiety. Research in counselor training has indicated that the process of supervision elicits a great deal of anxiety, which may result in an aversive experience for the supervisee (Schauer, Seymour, & Geen, 1985; Stoltenberg, 1981; Stoltenberg & Delworth, 1987). Supervision can involve an intensive exploration by the supervisor into the supervisee's understanding of what occurred during counseling and his or her communication with the client. This experience of having supervisees examine the nature and rationales of their therapeutic practices can produce anxiety. According to Rubin (1989), the supervisee's anxiety can result from three possible sources; 1) overt anxiety stemming from his or her thinking that they are not capable of becoming a counselor, 2) the façade of competence masking the supervisee's fear to learn, or 3) a personality adaptation to intrapsychic difficulties.

The relationship between the supervisor and the supervisee is complex and may entail components that produce anxiety for the supervisee. Ellis, Ladnay, Krenzel, and Schult (1996) noted that social facilitation theory is helpful in the understanding of how the evaluative aspects of this relationship produce anxiety for the supervisee. Social facilitation theory attests that the arousal caused by having others present (real or imagined) enhances the performance of easy tasks and diminishes the performance of more difficult tasks. Therefore, "the presence of the evaluative supervisor increases the supervisee's drive and anxiety, which activates well-learned responses (e.g. typical defense mechanisms) and inhibits the supervisee to engage in more complex learning involved in supervision (e.g. examining the supervisee's reaction to the client)" (Ellis et al. 1996, p. 3).

Hale and Stoltenberg (1988) examined self-awareness theory in counselor training to clarify the role of anxiety in the training process. They separated out the effects that were due to evaluation apprehension and found that self-focus significantly increased anxiety. Participants in the experimental groups who were told that their counseling session was not being taped or evaluated had lower levels of anxiety than the control group who were not aware of whether they were being evaluated.

Another possible source of anxiety is the multiple role structure of the supervisory relationship and role conflict for the supervisee. Holloway (1984) noted that the roles of student/trainee (during supervision) and counselor (with clients) are behaviorally distinct; they are subordinate in the first role and superordinate in the counseling relationship. A study conducted by Freidlander et al., (1986) investigated if and how role conflict affected supervisees' self-statements, anxiety level, and performance. The results suggested that role conflict produced few adverse effects on beginning supervisees' self-evaluations, affect, or behavior; however, supervisee performance was inversely related to anxiety level and anxiety was inversely related to the strength of the supervisees' self-efficacy expectations (Freidlander et al.).

Studies have also been conducted examining the variable of type of supervision and resultant supervisee anxiety. Costa (1994) suggested that live supervision may cause increased anxiety for the counselor trainee and may interfere with the learning process. In individual supervision, the amount of structure provided by the supervisor can affect the supervisee's level of anxiety. Structure involves the process of the supervisor delineating roles, responsibilities, and the use of various methods during supervision. Freeman (1993) suggested that by providing structure, the supervisor could reduce the level of anxiety the supervisee experiences. To provide structure, the supervisor needs to address the following issues during individual supervision: "1) roles and responsibilities of the supervisee and the supervisor; 2) information about how the session itself will proceed; 3) counseling theory orientation of the supervisor and the impact of this theoretical orientation on the performance expectations for the supervisee; 4) criteria for and process of evaluation; and 5) feedback procedure" (Freeman, 1993, p. 247).

#### Relationship Between Supervisee Self-Efficacy and Anxiety

There has been considerable research that has examined the relationship between counseling self-efficacy and anxiety (Daniels & Larson, 2001). Usually, anxiety has been operationalized in most studies by using the State-Trait Anxiety Inventory. State anxiety is defined as a situation-specific emotional reaction, whereas trait anxiety reflects a personality characteristic related to how a person handles stress. Studies commonly assess the more immediate state anxiety. Also, because self-efficacy is an immediate, present-centered cognitive appraisal, most studies usually assess state anxiety (Daniels & Larson, 2001). Counseling self-efficacy has been found to negatively correlate with anxiety (Alvarez, 1995; Freidlander et al., 1986, Larson et al, 1992).

A study conducted by Johnson (1989) examined the effects of self-observation and self-as-a model on counselor trainees' anxiety and self-evaluations. The self-observation group of subjects observed themselves on videotape while the self-as – model group of subjects observed only instances of their behavior in counseling when they were performing in a desired manner. When the trainees observed themselves using the self-as-a model technique they had less physiological and experiential anxiety. They were also less preoccupied with how their performance was being evaluated. However, there was no difference between the groups in terms of the impact on their perceptions of counseling skills (self-efficacy).

The type of feedback provided by the supervisor effects both supervisee anxiety and self-efficacy. Lane, Daugherty, and Nymann (1998) examined the relationship between counseling self-efficacy and performance feedback. They found that participants who received negative feedback reported significantly lower counseling self-efficacy than those who received positive performance feedback.

Daniels and Larson (2001) expanded this research by examining the influence of performance feedback on counseling self-efficacy and counselor anxiety. Their results showed that 1) participants altered their counseling self-efficacy depending on the performance feedback they received, and 2) participants' levels of anxiety changed following performance feedback. Participants who received positive feedback had significant increases in self-efficacy and decreases in anxiety (Daniels & Larson, 2001). Additionally, Williams, Judge, Hill and Hoffman (1997) found that self-efficacy increased and anxiety decreased when measured over an extended time of supervision.

### Models of Meta-Analysis

The research methodology involving the syntheses of empirical studies began with Glass in 1976 when he coined the term "meta-analysis" to refer to "the statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the findings" (Glass, 1976, p. 3). Since that time many researchers have refined and expanded this type of research methodology.

Cooper and Hedges' *Handbook of Research Synthesis* (1994) describes the following history of the development of meta-analysis. During the 1980's four books were published describing meta-analysis. First, as cited in Cooper and Hedges (1994), Glass, McGaw, and Smith (1981) described meta-analysis as an application of analysis of variance and multiple regression effects with effect sizes treated as the dependent variable. In 1982, Hunter, Schmidt, and Jackson introduced meta-analytic procedures that focused on comparing the observed variation in study outcomes with that expected by chance and correcting observed effect size estimates and their variance for known sources of bias. Then, in 1984, Rosenthal presented meta-analytic techniques that included combining significance levels, effect size estimation, and the analysis of variation in effect sizes. "Rosenthal's procedures for testing moderators of variation in effect sizes were not based on traditional inferential statistics, but on a new set of techniques involving assumptions tailored specifically for the analysis of study in outcomes" (Cooper & Hedges, 1994, p. 6). Lastly, Hedges and Olkin (1985) presented rigorous statistical proofs that established the legitimacy of meta-analysis. Since the mid 1980s, thousands of meta-analyses have been published in the fields of psychology, education, and social policy analysis. In the medical field, meta-analysis has been institutionalized as the preferred approach to integrating the findings of clinical trials research (Lipsey & Wilson, 2000).

Although there are several forms of meta-analysis, the most common and popular approaches were developed by Hunter and Schmidt; Glass; and Hedges and Olkin (Arthur, Bennett, & Huffcutt, 2001). All three approaches convert study results into a common statistic (Hunter and Schmidt primarily use *rs* while Glass and Hedges and Schmidt use *ds*). The Glassian approach involves three basic steps. First, all studies relevant to the research question are collected. Next, the outcomes of each study are converted to Cohen's *d* statistic. Finally, a sample-weighted mean *d* and its variance are calculated and used to describe the data. This approach may also involve tests for moderators. However, Hunter and Schmidt's model, referred to as validity generalization, corrects summary statistics for the influence of statistical artifacts

such as sampling error, measurement error, and range restriction. Glassian meta-analysis does not typically correct for statistical artifacts but rather only computes and aggregates sample-weighted *ds*. Hedges and Olkin's approach is popular in clinical and social psychology. Their approach is similar to the Glassian model (Arthur et al., 2001).

The stages of meta-analytic research are the same as for any other type of research: problem formulation; data collection; data evaluation; and analysis and interpretation. Most meta-analyses have concentrated on assessing whether a given type of intervention has a particular type of effect. More extensive meta-analyses also explore the method factors, populations and settings, and treatment variants that influence the size of the effect. Cook's (1992) method of meta-analysis focuses strongly on this second component. He recommends examining the various data-analytic techniques that are used to identify causal contingencies. The purpose of this examination is to know whether the sign or magnitude of a causal relationship varies with attributes of the person, settings, and times that are included in a database.

There are various methods as noted above to examine how well the various data-analytic techniques help to specify causal contingencies. Lipsey and Shadish (as described in Cook, 1992) prefer a multivariate approach in which they simultaneously assess how much variability in effect sizes is accounted for by the particular population, setting, and time characteristics they examine (Cook, 1992). Devine, for example, prefers to stratify the data by a large number of population and setting attributes, taken singly, in order to probe if the direction of effect is constant (Cook, 1992).

There are several advantages and disadvantages of using meta-analysis for research. According to Lipsey and Wilson (2001) the advantages are as follows:

- 1) Meta-analysis procedures impose a useful discipline on the process of summarizing research findings. It follows a structured research technique that can be scrutinized by consumers.
- 2) Meta-analysis represents key study findings in a manner that is more differentiated and sophisticated than conventional review procedures that rely on qualitative reviews. By encoding the magnitude and direction of each relevant statistical relationship in a collection of studies, meta-analysis effect sizes constitute a variable that is sensitive to different strength across studies.
- 3) Meta-analysis is capable of finding effects or relationships that are obscured in other approaches to summarizing research. The systematic coding of study characteristics typical in meta-analysis permits an analytically precise examination of the relationships between study findings and features such as respondent characteristics, nature of treatment, research design, and measurement procedures. Also, by producing synthesized effect estimates, meta-analysis shows the meaningful effects and relationships upon which the studies agree and the differential effects related to study differences.
- 4) Meta-analysis provides an organized way to handle information from a large number of study findings. The systematic coding procedures and the use of computerized databases allow unlimited capability for detailing information from each study and covering a large number of studies.

The disadvantages of meta-analysis include:

- 1) The process requires a large amount of effort and expertise.

- 2) The objective coding of data elements and effect sizes and the analysis of such data is not sensitive to important issues such as the social context of the study, theoretical influences and implication, methodological quality, and subtle or complex aspects of design, procedure and results.
- 3) Critics of meta-analysis argue that the results of meta-analysis are not meaningful if the data are aggregated over incommensurable study findings.
- 4) The mixing of study findings of different methodological quality in the same meta-analysis may be flawed (Lipsey & Wilson, 2000, p. 5-10).

An additional concern for meta-analytic research is that to compare studies with each other in a meaningful way, the same effect size statistic must be used for coding all the findings in a given meta-analysis. Effect sizes are calculated differently depending on the design of the studies and their statistical analyses. For example, studies using group contrasts are calculated differently than studies analyzing association between variables. Therefore, the meta-analyst must identify the form(s) of research findings relevant to the topic and find a common effect size statistic. It is acceptable to sort the research findings according to the type of effect size statistic they require and then the resulting categories are meta-analyzed separately (Lipsey & Wilson, 2000).

For this study, the methods of Lipsey and Wilson (2000) were used for the meta-analysis. This method was chosen because the research studies in this area differ in methodology and will require sorting and analyzing separately. Also, the studies on supervisee anxiety and self-efficacy use various populations, settings, and time characteristics that may effect causal findings and these need to be accounted for in the meta-analysis. Lipsey and Wilson's approach allows for these conditions.

### Summary

The historical perspectives of clinical supervision, theoretical orientations of clinical supervision and techniques (interventions) utilized in the various types of clinical supervision have been reviewed. Clinical supervision has mirrored counseling theory over the past century beginning with psychoanalytic approaches in the 1920's. During the 1960's, facilitative and behavioral approaches dominated the field. The 1970's brought more eclectic approaches that emphasized systemic factors. The developmental models developed in the 1980's continue to dominate today.

The constructs of supervisee anxiety and self-efficacy were fully explored in this chapter. Supervisee anxiety is the emotional arousal of the supervisee that can manifest itself in the inability to think properly, exercise proper judgment, make decisions, and use learned skills to the maximum. Many studies have documented the effect of clinical supervision on supervisees' anxiety. Self-efficacy is the supervisee's judgment or belief about their ability to effectively counsel a client. Once again, many studies have explored the effect of supervision on supervisees' self-efficacy.

Finally, an exploration of various meta-analytic techniques was examined with a recommendation for this study. A meta-analysis of supervisees' anxiety and self-efficacy determined the effect of clinical supervision on supervisees' anxiety and self-efficacy.

## CHAPTER 3

### METHODOLOGY

Meta-analysis, like other forms of scientific research is a systematic process with specific ordered steps. According to Arthur, Bennett, and Huffcutt (2001), the general steps of a meta-analytic review include the following: “1) topic selection – defining the research domain; 2) specifying the inclusion criteria; 3) searching for and locating relevant studies; 4) selecting the final set of studies; 5) extracting data and coding study characteristics; 6) deciding to keep separate or to aggregate multiple data point (correlations or effect sizes) from the sample – independence and nonindependence of data points; 7) testing for and detecting outliers; 8) data analysis – calculating mean correlations, variability, and correcting for artifacts; and 9) interpreting results and making conclusions” (p. 11). Following is a detailed description of each step of the process as designed for this study.

#### Topic of Study

The researcher investigated the affect of clinical supervision on supervisees’ anxiety level and self-efficacy using a meta-analysis. The main research question was developed to explore the overall affect of clinical supervision on supervisees’ anxiety and self-efficacy. However, as indicated in the prior literature review, various aspects of clinical supervision may affect supervisees’ anxiety and self-efficacy differently. Therefore, this study addressed the following research questions:

1. To what extent does clinical supervision affect supervisees’ anxiety and self-efficacy?
2. Do different types of supervision, i.e. individual supervision, group supervision and live supervision, have varying effects on supervisees’ anxiety and self-efficacy?

#### Inclusion Criteria

In a meta-analysis, specifying the criteria for the inclusion of studies is analogous to determining the population to which the researcher wants to generalize their findings. Clear and explicit criteria for selection of the studies to be included in the meta-analysis must be defined. Lipsey and Wilson (2001) recommend the following areas be addressed in the criteria selection; “(a) the distinguishing features of the study, (b) research respondents, (c) key variables, (d) research designs, (e) cultural and linguistic range, (f) time frame, and (g) the publication type” (p.16).

For inclusion in this meta-analysis, the researchers for each study must have investigated the effect of some type or aspect of clinical supervision on supervisees’ anxiety and/or self-efficacy. Types of clinical supervision included individual supervision, live supervision, and group supervision as defined in Chapter One. Triadic supervision was not included in the meta-analysis. Aspects of clinical supervision include, but are not limited to, techniques or factors such as using bug-in-the-ear, provision of structure during individual supervision, use of audio or videotaping, provision of feedback, and timing of supervision. All types and techniques of clinical supervision were included in the meta-analysis because this researcher is interested in the overall effect of clinical supervision on supervisees’ anxiety and self-efficacy and in the effect of different types of supervision. This is similar to Glass’s (1976) meta-analysis of the effectiveness of various types of psychotherapy (Lipsey & Wilson, 2001).

Research respondents in the studies for this meta-analysis were counselors in training in master or doctoral programs in Counselor Education, Counseling Psychology, Clinical

Psychology, Marital and Family Therapy, or Social Work. The trainees all received clinical supervision.

The other key variables that were present in each study were supervisee anxiety and/or self-efficacy. Supervisee anxiety was defined as the emotional arousal of the supervisee during supervision that can manifest itself in the inability to think properly, exercise proper judgment, make decisions, and use learned skills to the maximum. Supervisee self-efficacy was defined as the supervisee's judgment or belief about their capabilities to effectively counsel a client. Supervisees' anxiety and/or self-efficacy was operationalized in each study by the use of an instrument designed to measure these constructs. The State Trait Anxiety Inventory (STAI) and the Clinical Anxiety Scale (CAS) was frequently used to measure anxiety. Self-efficacy was usually measured using the Counseling Self-Estimate Inventory, the Self-Efficacy Inventory, and the Counselor Self-Efficacy Scale. However, other instruments or self-reports designed to measure these constructs as defined in this study and that result in a quantitative statistic were included. Studies were included that measured one or both of these constructs. Each construct was meta-analyzed separately.

A criterion for inclusion in a meta-analysis was the type of research design used in the studies. The set of studies chosen for the meta-analysis had to use comparable research designs to result in a meaningful aggregate of effect sizes (Lipsey & Wilson, 2001). Very few experimental design studies have been conducted in the area of clinical supervision due to the nature of the topic. Since supervision is ethically and educationally required for counselors in training, studies do not usually have a control group that does not receive supervision. Rather, ex post facto designs are more commonly utilized where there is no random assignment and the independent variable (supervision) is not manipulated. Therefore, this meta-analysis included studies designed to measure group differences where the respondents were being contrasted on the basis of a characteristic other than assignment to an experimental condition, i.e. positive feedback versus negative feedback and the effect on self-efficacy or beginning interns versus advanced interns and their level of anxiety. After retrieving the studies, it is found that there were significant correlation studies, so this type of study was also analyzed separately for effect size and compared to the group designs. Studies were included that measured anxiety and/or self-efficacy and these two constructs were analyzed separately. Studies using a multiple regression design and single subject designs were excluded from this study.

Only studies that were reported in English were considered for this meta-analysis due to the difficulties of translation. Studies that were conducted between 1980 and the present were included in the meta-analysis. This time frame was chosen because research in clinical supervision was limited prior to 1980. This meta-analysis included published articles during this time frame and non-published dissertations. Dissertations were included because doctoral students conduct a large portion of the research in the area of clinical supervision. Also, by excluding nonpublished research, an artificially inflated effect size might have occurred, as the research that had lower effect size might not have been chosen for publication.

#### Searching for and Locating Relevant Studies

Both electronic and manual searches were used for this meta-analysis. The electronic search included the use of the following databases: PsychInfo, Infotrac, and Dissertation Abstracts. Keywords used included "clinical supervision, anxiety, and self-efficacy". Manual searches included reviewing the reference lists of articles either found electronically or in seminal works and systematically searching periodicals publishing supervision literature (i.e.,

*The Clinical Supervisor, Counselor Education and Supervision, Journal of Counseling Psychology, Social Work, and Journal of Marital and Family Therapy*). Every volume published during the set time frame of the above journals was manually searched for relevant articles. The abstracts of each article found either manually or electronically were reviewed for appropriate content (i.e., empirical studies investigating clinical supervision and supervisees' anxiety and/or self-efficacy). Each article deemed relevant was retrieved if possible and reviewed for inclusion in the study. To be included each article had to meet the above specified inclusion criteria.

### Coding the Studies

After the identification and retrieval of the studies to be included in the meta-analysis occurred, each study was reviewed and coded on specific study characteristics. A coding sheet was used to record the following information regarding each study: published or non-published, year of study, type of supervision or technique, type of research design, sample size, instrumentation used to measure dependent variable(s), the appropriate statistics to calculate the effect size (i.e., the means of groups, the standard deviation, the correlation coefficient, and /or other statistical tests), and the qualitative methodological review. The coding sheet developed for this study is located in Appendix A.

### Independence versus Nonindependence of Studies

According to Arthur et al. (2001), the preferred practice in meta-analysis is to summarize independent data points (effect sizes or correlations). The data points are nonindependent if they are computed from data collected on the same group of research participants for the same construct. For example, if a study uses two measures of anxiety (i.e., the State-Trait Anxiety Inventory and the Clinical Anxiety Scale with the same group of subjects, the data points are nonindependent). Nonindependence can reduce the observed variability of the effect sizes or correlations, artificially inflate sample sizes, and over-weight the contribution of the studies contributing the nonindependent data points (Arthur et al., 2001). In this meta-analysis, if a study had nonindependent data points, the effect sizes or correlations were aggregated by calculating the average effect size or correlation.

### Outliers

An outlier, in meta-analysis, is an extreme effect size that is notably discrepant from the others found in the research and hence unrepresentative of the results. Since the purpose of the meta-analysis is to arrive at a reasonable summary of the quantitative findings of a body of literature, the inclusion of outliers is not recommended (Lipsey & Wilson, 2001). Therefore, the distribution of effect sizes needs to be analyzed and adjusted to prevent distortion of the findings. There are several methods to accomplish this. The extreme effect sizes can be eliminated and the trimmed distribution can be analyzed and compared to the untrimmed distribution.

If the researcher does not want to lose the data, another approach can be utilized. The procedure is referred to as Windsorizing and involves recoding the extreme effect sizes that are more than 2 or 3 standard deviations from the mean effect size to an effect size that is within 2 or 3 effect sizes of the mean effect size. This process allows the researcher to include the relatively large values while keeping them from being so extreme as to affect the analysis (Lipsey & Wilson, 2001). For this meta-analysis, the researcher used the Windsorizing procedure to address outliers and therefore extreme effect sizes were recoded to within 3 standard deviations of the mean effect size.

### Calculating the Effect Size

The effect size for each study was hand calculated using the appropriate mathematical equation that is dependent on the type of data presented and the type of research design. According to Lipsey and Wilson (2001) the following formulas should be used:

Direct calculation formula for ES (p. 198):

$$ES_{sm} = \frac{\overline{X}_1 - \overline{X}_2}{S_{pooled}}$$

To calculate this, the journal article authors must have presented the means, standard deviations ( $s$ ), and sample sizes ( $n$ ) for each group.

The individual effect sizes were calculated for this study by hand and then by using the Excel Effect Size Calculator. The individual formulas used to hand calculate the effect size are listed in Table B10 (p.198) of Lipsey and Wilson (2001). When using the Effect Size Calculator, the information required for each effect size was the means, standard deviations, number in each group and the pooled standard deviation. If an F score was given instead of means and standard deviation, the F score and number in each group was used.

Two studies that were included in the meta-analysis used a correlation coefficient instead of group comparison. According to Lipsey and Wilson (2001), “the correlation coefficient is already a standardized index and therefore is useable as meta-analytic effect size statistic in its raw form even if the variables being correlated are differently operationalized (p. 63). Therefore, when calculating the mean effect size for these two studies, the correlation coefficient ( $r$ ) was used.

### Synthesizing the Effect Sizes

To calculate the mean effect size for the group comparison studies and the correlation studies, the statistical software program Comprehensive Meta-Analysis was used. This program also calculates the confidence intervals. Confidence intervals indicate the range within which the population is likely to be, given the observed data. For example, a 95% confidence interval of 0.05 to 0.49 around a mean effect size indicates a 95% probability that the population mean effect size is between these two values. It is important to include confidence intervals because they indicate the degree of precision of the estimate of the mean effect size.

### Analysis of the Results

The interpretation of the mean effect size resulting from the meta-analysis was based on Lipsey and Wilson’s (2001) method. They generated a distribution of mean effect sizes for over 300 meta-analyses of psychological, behavioral, and educational interventions. After dividing the results into quartiles, they found the following benchmarks:

Bottom quartile  $ES \leq .30$ ,

Median  $ES = .50$ , and

Top quartile  $ES \geq .67$ .

Using these benchmarks for comparison is more appropriate than Cohen’s established method as they are based on prior meta-analyses in the same discipline as this study.

Because the studies were grouped according to the type of clinical supervision, the analysis also included a discussion of the comparison of the group’s mean effect sizes. This analysis was designed to shed light on which type of clinical supervision had the most significant effect on supervisees’ anxiety and self-efficacy.

### Qualitative Analysis of Methodology of Studies

As noted earlier, a qualitative analysis was also conducted on the body of literature retrieved for the meta-analysis. Each study was critiqued for methodological quality using Russell, Crimmings, and Lent's (1984) 12 methodological threats to validity. Russell et al.'s methodological threats include lack of adequate control group, no pretreatment assessment, inadequate sample size, variations or confounds in length of training across conditions, nonrandom assignment to conditions, widely discrepant cell sizes, restricted range of dependent variables, nonrepresentative supervisee or supervisor population, lack of follow-up assessment, use of role play or audio-taped client to assess supervised change, exclusive reliance on self-report data, and overly brief training period. The coding of each of studies for the above methodological threats was added to the code sheet developed for the meta-analysis. Each study was examined by the researcher and then each threat was coded as either "not a threat", "definitely a threat" or "insufficient information" based on the information presented in the study.

This analysis of possible methodological threats allowed for exploration of the aspects of the research design of each study that may have affected the results of the study. This addition to the quantitative analysis of the meta-analysis provided a more complete picture when interpreting the effects of clinical supervision on supervisees' anxiety and self-efficacy.

### Further Research

#### *Rationale for further research*

Forty six (46) studies met the preliminary criteria for the meta-analysis. Upon more critical review, only ten studies met the inclusion criteria set by the researcher. Of the ten studies: eight were group comparison studies and two were correlation studies. The analysis was further limited because some of the studies only examined one construct, anxiety or self-efficacy, and all but one study examined the effects of individual supervision. Due to the small numbers of appropriate studies, the results of the meta-analysis yielded limited findings regarding the effect of individual supervision on supervisees' anxiety and self-efficacy.

Therefore, a qualitative analysis of information was added to the quantitative and qualitative meta-analysis to attempt to validate the findings for individual supervision. In a study conducted by Gersten and Baker (2000), the multivocal synthesis process was used to explore the knowledge base regarding the effectiveness of specific instructional practices for English-language learners. Because of a small number of experimental studies that were available to include in their meta-analysis, they supplemented the results with a qualitative synthesis of data gathered from focus groups. This method of research was coined "multivocal synthesis" by Ogawa and Malen (1991). The method was first used in analyzing literature to gather a more complete picture than was afforded by strictly a quantitative analysis. Clay (2002) used a multivocal or polyvocal approach to study the phenomenology of anorexia nervosa. She combined in-depth interviews with a quantitative measure on the Bem Sex Role Inventory (BSRI). Additionally, Condit, Bates, Galloway, Givens, Haynie, Stables, et al. (2002) used a polyvocal method including audience studies and focus groups to develop a theory of how metaphors develop particular patterns of social usage. This researcher used in-depth interviews with supervisees and supervisors to provide additional voices to confirm or refute the findings of the meta-analysis.

### *Methods*

The interviews for this part of the study were face-to-face and semi-structured in format. The goal of the interviews was to obtain the essence of the experience of supervisee anxiety and self-efficacy during clinical supervision. According to Denzin and Lincoln (2003), interviews “produce situated understandings grounded in specific interactional episodes” (p. 48). Also, according to Merriam (1998), the essences of shared experiences of different people are analyzed to gain meaning from the common experiences. To gain multiple perspectives in this research, both supervisees and supervisors were interviewed. This researcher hoped to gain further insight into the findings of the meta-analysis from the perspective of the supervisees and supervisors. The meta-analysis of the studies found that clinical supervision had a large effect on supervisees’ self-efficacy and a medium effect on supervisees’ anxiety. The meta-analysis could not answer the research question regarding the effect of different types of supervision on supervisees’ anxiety and self-efficacy. Therefore, it was anticipated that the interviews would also shed light on effect of different types of supervision.

A semi-structured interview format consists of some predetermined questions but has more flexibility than a structured format. According to Denzin and Lincoln (2003), structured interviews use the same set of predetermined questions for all participants. Semi-structured interviews use a mix of more open-ended questions and less structure (Merriam, 2001). This type of interview structure was used because it is appropriate when the researcher wants to compare information among people and understand each person’s experience simultaneously (Tutty, Rothery, & Grinnell, 1996). In this study, the perspectives of supervisees were compared across cases. Next, supervisors’ responses were compared across cases. Finally, supervisees and supervisors responses were compared to each other and then both were compared to the results of the meta-analysis.

According to Tutty, Rothery, and Grinnell (1996), there are three significant issues surrounding qualitative research interviewing. These are 1) the nature, or equality of the research relationship, 2) dealing with strong emotions during the interview, and 3) the difference between qualitative research interviews and therapeutic interviews (Tutty, Rothery, & Grinnell, 1996).

The relationship between the interviewer and the interviewee can range from totally neutral to joining in a partnership with the interviewer. The later stance allows the researcher to be on a more equal basis with the interviewee. This researcher tried to maintain an equal balance between joining with the interviewee to learn as much as possible about their experience and remaining objective.

Asking interviewees to share experiences in their lives can produce strong emotions. If this occurred during the interviews of this study, the researcher was planning to pause to give the interviewee time to regain composure, ask if it is okay to proceed, and maintain respect for their feelings. Also, the interviewer would have been given the choice of continuing the interview or ending it. If they had become extremely upset, the interviewer would have ended the interview and followed up with him or her later to assure they were not traumatized. However, during the interviews no participants became upset.

Although there are similarities and differences between research interviews and therapeutic interviews, it is important not to switch to the role of therapist during research interviews (Tutty, Rothery, & Grinnell, 1996). Some of the similarities include encouraging the interviewee to express private thoughts, recall and reflect about their memories, elicit underlying emotions, and listen carefully (Tutty, Rothery, & Grinnell, 1996). Denzin and Lincoln (2003)

describe the interview as “a conversation, the art of asking questions and listening” (p. 48). This could obviously be a broad definition of a counseling interview. A major difference is the purpose of the interview. Research interviews are used in gathering data to answer research questions and counseling interviews produce change in the interviewee’s functioning. Another difference is the relationship between the interviewee and the interviewer, and the length of the relationship (Tutty, Rothery, & Grinnell, 1996). A research interview relationship is also usually more short-term than a therapeutic relationship.

#### *Researcher’s role*

The process of qualitative research has inherent biases in that the researcher is the tool or instrument gathering the data and the analysis is more subjective than in quantitative research. Therefore, qualitative researchers usually acknowledge their biases and values that could influence their findings (Salahu-Din, 2003). This researcher has been both the recipient of clinical supervision and has provided clinical supervision as a doctoral student in the Counselor Education program at Virginia Tech. Both of these experiences have influenced the researcher’s personal and professional views regarding supervisees’ anxiety and self-efficacy during clinical supervision. During the researcher’s experiences of providing supervision, she experienced several supervisees exhibiting anxiety during clinical supervision and observed the effect on their self-efficacy. Therefore, the researcher could have been expecting certain answers to the interview questions and this could have possibly influenced the additional questions the researcher asked and the actual interviewees’ answers.

Also, being a doctoral student in the same program as the subjects might have influenced their responses. The supervisees being interviewed were in the Masters program and could have viewed the researcher as a possible threat to their education. For example, if he or she had strong negative beliefs or feelings about their experiences in clinical supervision, he or she might have been reluctant to share them because the researcher was a doctoral student in the same program with the same faculty. Having an awareness of these potential biases allowed the researcher to attempt to maintain objectivity and openness during the interviewing and data analysis processes.

#### *Research participants*

A purposive sample was used for this study. This type of sampling is also called judgment sampling (Berg, 2004). Subjects are specifically chosen based on their knowledge or expertise relevant to the topic being studied. The subjects chosen for the interviews in this study were doctorate and masters students in the Counselor Education program at Virginia Tech. The doctoral students chosen have provided clinical supervision to the masters students during their practicum. Therefore, the doctoral students were the supervisors and the masters students were the supervisees.

Dr. Hildy Getz, faculty member in the Counselor Education Program, provided the researcher with a list of students that met the above criteria. The lists of names included six supervisors and fifteen supervisees. All six of the supervisors were asked to participate. Ten supervisees were randomly chosen from the list of fifteen using systematic random sampling. However, after one week the researcher had only received four responses from the randomly picked ten supervisees indicating he or she was interested in participating. Therefore, the additional five supervisees on the original list were also asked to participate. A total of nine of the fifteen supervisees responded indicating he or she was interested in participating and all nine

were interviewed. Five supervisors responded that he or she was interested in being interviewed and all five were interviewed.

The participants were contacted by email. A brief explanation of the research was presented and they were asked if he or she was willing to participate in the study. The participants were informed that it would involve participating in an audio taped interview that would last approximately thirty minutes to one hour. Written informed consent was obtained from each participant prior to the interview (see Appendix B for consent form). The participants were informed that member checks would be conducted via e-mail after the interviews were transcribed. Holstein and Gubrium (2003), described member checks as allowing the respondents to review the transcript for accuracy and possible interpretation of their story. This gives the respondent an opportunity to assure accuracy in what he or she intended to say. The researcher emailed each transcript to each participant for his or her review for accuracy.

### *Interview questions*

An interview protocol for both supervisees and supervisors was developed (see Appendix C). The questions were developed by the researcher based on the research questions for this study, the literature review, and the findings of the meta-analysis. The interviewer used these questions and prompts during the interviews. Since the structure of the questioning was semi-structured, the interviewer had the flexibility to explore issues presented by the interviewees during the interviews (Seidman, 1998).

### *Data analysis*

The audiotaped interviews were transcribed verbatim for each subject. According to Tutty, Rothery, and Grinnell (1996), the transcript should include not only the spoken words of the subject but also the sounds that reflect nonverbal communication, like pauses, laughing, or crying. The transcription of the interviews for this study included these nonverbal cues also. Holstein and Gubrium (2003) noted several considerations regarding transcription of interviews. These included assuring the quality of the tape is good, training the transcriber, reviewing the tapes, using member checks, and using field notes.

The first several interviews were audiotaped using one micro-cassette recorder. When the researcher realized sometimes the quality was not good, a second recorder was used during the interviews. The transcriber was a trained, professional medical transcriber. Since she had no experience in transcribing for social science research, the researcher familiarized her with the subject being studied and provided her with books regarding transcription of these types of interviews including notation systems commonly used. The researcher reviewed the first transcript to check for accuracy and transcription quality. The field notes taken during the interview process were analyzed in light of each transcript.

An analysis appropriate for a phenomenological study was utilized. A researcher conducting a phenomenological study seeks to describe the “essence or structure of an experience (phenomenon)” (Merriam, 1998, p. 15). The phenomenon this researcher sought to describe was the experience of supervisees’ anxiety and self-efficacy during clinical supervision from the perspectives of supervisees, supervisors and a meta-analysis.

A specific data analysis method developed by Colaizzi (1978) was used. The method is comprised of the following steps:

1. All the subjects’ descriptions are read in order to acquire a feeling for them.

2. Significant statements are extracted from each description, phrases and sentences that directly pertain to the phenomenon. Statements are eliminated that contain the same or nearly the same statements.
3. Meanings are formulated by spelling out the meaning of each significant statement. “These meanings are arrived at by reading, rereading, and reflecting on the significant statements in the original transcriptions to get the meaning of the client’s statement in the original context” (Creswell, 1998, p. 281).
4. Clusters of themes are organized from the aggregate formulated meanings. This allows for the development of themes that are common to most of the subject’s descriptions. The themes are compared to the original description for validation.
5. An exhaustive description of the phenomenon is compiled based on the above results (Creswell, 1998, p. 280).

The study illustrating this method in Creswell (1998) examined female and male perceptions of caring and noncaring nurse-client interactions. The above steps were followed in this study, first to analyze the supervisees’ perceptions of anxiety and self-efficacy and then to analyze the supervisors’ perceptions of anxiety and self-efficacy. Tables were used to illustrate the supervisees’ and supervisors’ significant statements, the formulated meanings of significant statements for supervisees and supervisors, and clusters of common themes for supervisees and supervisors (a total of five tables). The end result was a narrative description with verbatim accounts of supervisees’ perceptions of anxiety and self-efficacy and a narrative with verbatim accounts of supervisors’ perceptions of anxiety and self-efficacy.

The final analysis involved comparing and contrasting the findings from the interviews with the findings from the meta-analysis. Each was compared with the others noting similarities and differences. A final narrative described these findings.

As noted by Anfara, Brown, and Mangione (2002), researchers need to clearly document how data is related to the research questions and how themes are developed. In an effort to clearly disseminate this information, they developed a coding map and matrix of sources. The coding map was used in this study. It illustrated the themes that emerged from the data obtained in the interviews. The matrix identifying the major findings and sources was used in this study. The possible sources were the supervisees’ interviews, the supervisors’ interviews, and the meta-analysis. The following tables are examples to illustrate how the coding map and the matrix of sources could be used in this study.

Example of Code Mapping Table:

<i>Code Mapping</i>	
RQ # 1 Effect anxiety and self- efficacy	RQ #2 Types and Techniques
<b>Application to Data Set</b>	
Large effect on anxiety and self-efficacy	
Videotapes produce anxiety	
Feedback increases self-efficacy	
<b>Pattern Variables</b>	
1A. Increases anxiety	2A. Hate watching self
1B. Increases self-efficacy	2B. Not sure how to answer
<b>Initial Codes/Surface Content Analysis</b>	
1A. nervous	2A. self-conscious
1A. tense	2A. videotapes
1B. felt more confident	2B. feel better
1B. thought could counsel	2B. confident

Example of Matrix Source Table:

*Matrix of Findings and Sources*

Major finding	Source of Data		
	EE	OR	M
Videotapes increase anxiety	X	X	
Supervision increases anxiety	X	X	X
Supervision increases self-efficacy	X	X	X

Denzin and Lincoln (2003) discussed the difference between using a *realist* approach and a *narrative* approach when analyzing transcripts of interviews. The *realist* approach follows the scientific approach where the researcher is searching for measures of reality, i.e. how many times supervisees state they have high anxiety during supervision. The *narrative* approach, on the other hand, views the transcript data as a story of how the interviewee sees his or her world in regard to the construct being studied (Denzin & Lincoln, 2003). In this present study, the researcher sought to find a balance between these two approaches. Text was coded into themes but also descriptions of the supervisees' perspectives of experiencing anxiety and self-efficacy were used to gain insight into his or her view of the experience.

### Summary

The methodological procedures that were used in conducting the meta-analysis for this study have been presented. The discussion included the following methodological issues: study criteria used for inclusion, the search and retrieval of studies, the coding of studies, the statistical analyses used, and the analysis and interpretation of the results. Group comparison and correlational studies were identified for inclusion in the meta-analysis. The effect sizes for each study were hand calculated according to the appropriate mathematical equation and also calculated using the Excel Effect Size Calculator. The effect sizes were synthesized using the Comprehensive Meta-Analysis software program.

In addition, the rationale for further research was presented and the methodology for the interviews was explained. To corroborate or refute the limited findings of the meta-analysis and to provide multiple “voices” to the study, individual face-to-face, semi-structured interviews were conducted. The interviews were audio taped and transcribed. They were analyzed across cases for both supervisees and supervisors. The results of the interviews were also analyzed in relation to the meta-analysis.

## CHAPTER 4

### RESULTS

This chapter presents the results of the meta-analysis of the effect of clinical supervision on supervisees' anxiety and self-efficacy. A description of the results of the search for studies is given. The characteristics of the studies included in the meta-analysis are discussed. Also, the statistical findings relevant to the research questions are presented. Tables are included to illustrate the characteristics of the study, the effect size and confidence intervals for each study, and the mean effect sizes and confidence intervals answering the research questions. The results of the qualitative methodological review of the studies are also presented in tables and discussed. The results of the interviews are presented using tables and narrative descriptions. A final narrative is presented discussing the results of the interviews in relation to the meta-analysis.

#### The Search

After searching Infotrac and PsychLit databases electronically using the keywords "supervision and anxiety" and "supervision and self-efficacy", a search of specific journals was completed. The journal search was conducted using the same keywords. All abstracts were read and possible quantitative research articles were requested for review. The following journals were searched: *The Clinical Supervisor*, *Journal of Counseling Psychology*, *Journal of Marital & Family Therapy*, *Social Work*, and *Counselor Education and Supervision*.

In addition, Dissertation Abstracts Online was searched. The above keywords resulted in 168 dissertation abstracts that were reviewed for relevancy to the study. Relevant dissertations were requested for further review. Two dissertations that possibly could have been used in the study were not available from inter library loan. A study by D. Ellington on The Effects of Self-Monitored and Individual Supervision Modules on Beginning Counselors-In-Training Anxiety, Self-Efficacy, and Basic Skill competency completed in 1993 for Wayne State University was not available. The other was a study by P. Brala (1983) on the Effects of Therapist Fear of Negative Evaluation in Supervision and Supervisory Focus on Therapist and Client Anxiety and on a Measure of Therapy Effectiveness conducted for Florida State University.

Of the 46 studies reviewed, there were several reasons some did not meet the criteria to be included in the meta-analysis. Four studies did not meet the criteria of the subjects being counselors in training in masters or doctoral programs in Counselor Education, Counseling Psychology, Clinical Psychology, Social Work, or Marital & Family Therapy (Dunnwald, 1982; Tyron, 1996; Hale & Stoltenberg, 1988, Margolies, Wachtel, & Schmelkin, 1986). Nine studies measured other aspects of the supervisees' experience, such as competency or skills, although sometimes anxiety and self-efficacy were covariates in the studies (Birk & Mahalik, 1996; Borders, 1989; Dollinger, Greening & Lloyd, 1987; Fenell, Hovestadt & Harvey, 1986; Freidlander & Snyder, 1983; Gallant, Thyer & Bailey, 1991; Jumper, 1986; Ray & Altekruise, 2000; Uhlemann, Lee & Hiebert, 1988). Fourteen studies were eliminated because they used a different independent variable, such as teaching or developmental level, rather than supervision (Golub, 1997; Hiebert, Uhlemann, Marshall & Lee, 1998; Johnson, Baker, Kopala, Kiselica, & Thompson, 1989; Kelly, Hall, & Miller, 1989; Kurpius, Benjamin, & Morran, 1985; Leach, Stoltenberg, McNeill, & Eichenfield, 1997; Meierm 1999; Melchart, Hays, Wiljanen, & Kolocek, 1996; Morran, 1986; Poidevant, Loesch, & Wittmer, 1991; Ridgway & Sharpley, 1990; Sharpley & Ridgway, 1993; Sipps, Snugden, & Faiver, 1988; Urbani, 2001). Two studies met all the criteria but were not included because they did not include sufficient data to calculate an

effect size (Cashwell & Dooley, 2001; Freidlander et al., 1986). Seven studies were not used because they utilized multiple regression statistical analyses. These studies are discussed in a separate section.

The search yielded ten studies that met the criteria for the meta-analysis. Of these ten studies, eight used group designs and two were correlational studies. The specific characteristics of the studies are detailed in the following section.

#### Characteristics of Studies

Table 1 gives a summary of most of the encoded study characteristics used in the meta-analysis. Eight, or 80%, of the studies examined the effect of supervision on anxiety, with seven of these using the State-Trait Anxiety Inventory-State Form (STAI-S). Six of the studies explored self-efficacy in relation to supervision, with three studies using the Counselor Self-Estimate Inventory (COSE) and two studies used the Self-Efficacy Scale (SES). Johnson's (1989) study used Likert scales to measure both anxiety and self-efficacy.

The majority of studies (90%) used masters-level students as research participants. Ellis et al., 2002, had both masters and doctoral students as subjects. The mean sample number for all ten studies was 41.9, with a range of 74. Three studies did not report the mean age of subjects; however, the mean of mean ages for the remaining seven studies was 31.5. The mental health fields of study varied with 50% of studies in Counselor Education, 30% in Counseling Psychology, and 20% of the studies used subjects from a combination of mental health fields.

Sixty percent of the studies were dissertations while 40% were published journal articles. The median year of the studies was 1997. Individual supervision techniques were by far the most commonly researched with 80% of studies examining some aspect of individual supervision. The other two studies used a combination of supervision types. One study examined both individual and group supervision and the other study used individual and live supervision. This preponderance of studies examining individual supervision limited the ability to assess the effect of other types of supervision on anxiety and self-efficacy. This is discussed further in the section regarding the research questions.

Table 1

*Characteristics of Studies in Meta-Analysis*

Study	Year	Presentation	Supervisees	Total Sample Size	Mean Age	Field of Study	Type of Supervision	Instrumentation	Study Design
Daniels & Larson	2001	Published Journal Article	Masters	45	30	Combination	Individual	STAI-S COSE	Comparison Groups
Ellis et al.	2002 (Study 1)	Published Journal Article	Both	71	27.7	Counseling Psychology	Individual	STAI-S	Comparison Groups
Ellis et al.	2002 (Study 2)	Published Journal Article	Both	81	27.73	Combination	Individual	STAI-S	Comparison Groups
Johnson	1989	Published Journal Article	Masters	17	27	Counseling Psychology	Individual	Likert-Scale	Comparison Groups
Krengel	1990	Dissertation	Masters	81	27.7	Combination	Individual	STAI-S	Comparison Groups
Mauzey	1997	Dissertation	Masters	65	Not Reported	Counselor Education	Live	STAI-S	Comparison Groups
Pich	2000	Dissertation	Masters	14	34.7	Counselor Education	Individual	STAI-S SES	Comparison Groups
Singo	1998	Dissertation	Masters	19	35.5	Counselor Education	Peer Group	STAI-S SES	Comparison Groups
Williams	1997	Published Journal Article	Masters	7	32.6	Counseling Psychology	Individual	STAI-S COSE	Pre-Post Test
Beverage	1989	Dissertation	Masters	31	Not Reported	Counseling Psychology	Individual	COSE	Correlation
Strauss	1994	Dissertation	Masters	69	33	Counselor Education	Individual	COSE	Correlation

### Analysis of the Effect Size

An effect size and 95% confidence intervals was calculated for each study. The results are illustrated in Table 2.

Table 2

#### *Effect Size of Studies in Meta-Analysis*

##### **Singo Study**

Singo W. The Effects of Peer Group supervision and Individual Supervision on The Anxiety, Self-Efficacy, and Basic Skill Competency of Counselor Trainees in Practicum. Dissertation Abstracts. 1998; Volume: Pages.

Effect size and 95% Confidence Interval

<b>Name</b>	<b>Index</b>	<b>N-Cases</b>	<b>Effect</b>	<b>Lower</b>	<b>Upper</b>	<b>P-Value</b>
Anxiety	Means	19	0.517	-0.468	1.502	0.276
Self-Efficacy	Means	19	0.063	-0.907	1.033	0.893

##### **Williams et al. Study**

Williams E.N. Judge A.B. Hill C.E. & Hoffman M.A. Experiences of Novice Therapist in Prepracticum: Trainees-, Clients-, and Supervisors- Perceptions of Therapists- Personal Reactions and Management Strategies. Journal of Counseling Psychology. 1997; 44: 390-399.

Effect size and 95% Confidence Interval

<b>Name</b>	<b>Index</b>	<b>N-Cases</b>	<b>Effect</b>	<b>Lower</b>	<b>Upper</b>	<b>P-Value</b>
Anxiety	Means	14	0.430	-0.748	1.608	0.437
Self-Efficacy	Means	14	0.360	-0.814	1.534	0.513

##### **Johnson Study**

Johnson M. E. Effects of self-Observation and Self-As-A-Model on Counselor Trainees- Anxiety and Self-Evaluations. The Clinical Supervisor. 1989; 7: 59-70.

Effect size and 95% Confidence Interval

<b>Name</b>	<b>Index</b>	<b>N-Cases</b>	<b>Effect</b>	<b>Lower</b>	<b>Upper</b>	<b>P-Value</b>
Anxiety	Means	17	0.958	-0.135	2.051	0.067
Self-Efficacy	Means	17	0.960	-0.134	2.054	0.067

##### **Pich Study**

Pich P. The Effects of Immediate Individual Supervision Compared to Delayed Individual Supervision on Anxiety, Self-Efficacy and Basic Skill Competency. Dissertation Abstracts. 2000; Volume: Pages.

Effect size and 95% Confidence Interval

<b>Name</b>	<b>Index</b>	<b>N-Cases</b>	<b>Effect</b>	<b>Lower</b>	<b>Upper</b>	<b>P-Value</b>
Anxiety	Means	14	0.610	-0.593	1.813	0.281
Self-Efficacy	Means	14	0.314	-0.870	1.498	0.572

**Daniels & Larson Study**

Daniels J. & Larson L. The Impact of Performance Feedback on Counseling Self-Efficacy and Counselor Anxiety. *Counselor Education and Supervision*. 2001; 41: 120-131.

Effect size and 95% Confidence Interval

Name	Index	N-Cases	Effect	Lower	Upper	P-Value
Anxiety	Means	45	0.990	0.353	1.627	0.002
Self-Efficacy	Means	45	1.050	0.409	1.691	0.001

**Mauzey Study**

Mauzey E. Live Supervision With Novice Counselor-In-Training: The Effect of Delayed, Phone-In, and Bug-In-The-Ear supervision Interventions on Trainee Anxiety, Anger, and Speech Behavior. *Dissertation Abstracts*. 1997; Volume: Pages.

Effect size and 95% Confidence Interval

Name	Index	N-Cases	Effect	Lower	Upper	P-Value
Anxiety	Means	43	0.290	-0.329	0.909	0.347

**Krengel Study**

Krengel M. Explaining Supervisee Anxiety and Performance in Counseling Sessions: A Self-Awareness Perspective. *Dissertation Abstracts*. 1990; Volume: Pages.

Effect size and 95% Confidence Interval

Name	Index	N-Cases	Effect	Lower	Upper	P-Value
Anxiety	Means	54	0.285	-0.264	0.834	0.300

**Ellis et al. Study**

Ellis M. Krengel M. & Beck M. Testing Self-Focused Attention Theory in Clinical Supervision: Effects on Supervisee Anxiety and Performance. *Journal of Counseling Psychology*. 2002; 49: 101-116.

Effect size and 95% Confidence Interval

Name	Index	N-Cases	Effect	Lower	Upper	P-Value
Anxiety	Means	47	0.220	-0.369	0.809	0.455
Anxiety Study	Means	54	0.196	-0.351	0.743	0.475

**Beverage Study**

Beverage P. The Relationship of Evaluation in Counseling Supervision and Counselor Self-Efficacy. *Dissertation Abstracts*. 1989; Volume: Pages.

Effect size and 95% Confidence Interval

Name	Index	N-Cases	Effect	Lower	Upper	P-Value
Self-Efficacy	Correlation	31	0.226	-0.140	0.537	0.207

**Strauss Study**

Strauss D. The Relationship Between Supervisory Factors and Counseling Self-Efficacy Factors. Dissertation Abstracts. 1994; Volume: Pages.

Effect size and 95% Confidence Interval

Name	Index	N-Cases	Effect	Lower	Upper	P-Value
Self-Efficacy	Correlation	33	0.540	0.241	0.745	0.001

### Meta-Analysis

When the studies were analyzed for the meta-analysis, or mean effect size, they were calculated according to construct being measured and study design, i.e. anxiety and group designs, or self-efficacy and correlational design. Analysis 1 consisted of four studies (Daniels & Larson, 2001; Johnson, 1989; Pich, 2000; Singo, 1998) that measured self-efficacy using a comparison group design. The mean effect size for these studies was .655 with a 95% confidence interval of .230 to 1.080. Using Lipsey's (2001) recommended levels to interpret effect size, this is considered a large effect. This analysis is illustrated in Table 3.

Table 3

#### *Analysis 1: Group Comparison Studies for Self-Efficacy*

Citation	Effect	StdErr	Lower	Upper	N1	N2	NTotal	pValue
Daniels & Larson (2001)	1.050	.318	.409	1.691	22	23	45	.001
Johnson (1989)	.960	.513	-.134	2.054	9	8	17	.067
Pich (2000)	.314	.543	-.870	1.498	6	8	14	.572
Singo (1998)	.063	.460	-.907	1.033	10	9	19	.893
Fixed	.729	.206	.321	1.138	47	48	95	.001
Combined (4)								

Analysis 2 consisted of eight studies measuring anxiety and utilizing comparison groups (Daniels & Larson, 2001; Ellis et al., 2002 (Study 1 and Study 2); Johnson, 1989; Krengel, 1990; Mauzey, 1997; Pich, 2000; and Singo, 1998). The mean effect size for these studies was .454 with a 95% confidence interval of .194 to .715. This is interpreted as a medium effect on anxiety. Table 4 illustrates this mean effect size and confidence intervals.

Table 4

*Analysis 2: Group Comparison Studies for Anxiety*

Citation	Effect	StdErr	Lower	Upper	N1	N2	NTotal	pValue
Daniels & Larson (2001)	.990	.316	.353	1.627	22	23	45	.002
Ellis et al. study 1 (2002)	.196	.273	-.351	.743	27	27	54	.475
Ellis et al. study 2 (2002)	.220	.293	-.369	.809	23	24	47	.455
Johnson (1989)	.958	.513	-.135	2.051	9	8	17	.067
Krengel (1990)	.258	.274	-.264	.834	27	27	54	.300
Mauzey (1997)	.290	.307	-.329	.909	22	21	43	.347
Pich (2000)	.610	.552	-.593	1.813	6	8	14	.281
Singo (1998)	.517	.467	-.468	1.502	10	9	19	.276
Fixed combined (8)	.436	.117	.206	.667	146	147	293	.000

## Effect Size Of Type of Supervision

To analyze the effect of different types of supervision on anxiety and self-efficacy, these analyses were figured according to supervision type. Analysis 3 includes the six group comparison studies using Individual Supervision methods to measure anxiety (Daniels & Larson, 2001; Ellis et al.[Study 1 and 2], 2002; Johnson, 1989; Krengel, 1990; Pich, 2000). The mean effect size for Individual Supervision on supervisee anxiety was .5271 with a 95% confidence interval of .2301 to .8241. This is a medium effect and is illustrated in Table 5.

Table 5

*Analysis 3: Individual Supervision and Anxiety*

Citation	Effect	StdErr	Lower	Upper	N1	N2	NTotal	pValue
Daniels & Larson (2001)	.990	.316	.353	1.627	22	23	45	.002
Ellis et al. study 1 (2002)	.196	.273	-.351	.743	27	27	54	.475
Ellis et al. study 2 (2002)	.220	.293	-.369	.809	23	24	47	.455
Johnson (1989)	.958	.513	-.135	2.051	9	8	17	.067
Krengel (1990)	.285	.274	-.264	.834	27	27	54	.300
Pich (2000)	.610	.552	-.593	1.813	6	8	14	.281
Fixed Combined (6)	.457	.132	.198	.717	114	117	231	.001

One study, Singo (1998), used peer group supervision to examine the effect on supervisee anxiety. Analysis 4 produced an effect size of .468 with a 95% confidence interval of -.494 to 1.482. This large confidence interval combined with only having one study using this type of supervision limits the interpretation of the mean effect of peer group supervision. Table 6 illustrates these results.

Table 6

*Analysis 4: Peer Group Supervision and Anxiety*

Citation	Effect	StdErr	Lower	Upper	N1	N2	NTotal	pValue
Singo (1998)	.517	.467	-.468	1.502	10	9	19	.276
Fixed Combined (1)	.517	.459	-.452	1.486	10	9	19	.276

To examine type of supervision and effect on self-efficacy, Analysis 5 combined the individual supervision group comparison studies of Larson and Daniels (2001), Johnson (1989), and Pich (2000). The mean effect size was .243 with a 95% confidence interval of .373 to 1.342. According to the benchmarks used by Lipsey (2001), this is interpreted as individual supervision having a small effect on self-efficacy. The results of Analysis 5 are found in Table 7.

Table 7

*Analysis 5: Individual Supervision and Self-Efficacy*

Citation	Effect	StdErr	Lower	Upper	N1	N2	Ntotal	pValue
Daniels & Larson (2001)	1.050	.318	.409	1.691	22	23	45	.001
Johnson (1989)	.960	.513	-.134	2.054	9	8	17	.067
Pich (2000)	.314	.543	-.870	1.498	6	8	14	.572
Fixed combined (3)	.896	.230	.438	1.366	37	39	76	.000

Analysis 6 consisted of one study, Williams et al., (1997), that used a pre-post test design. According to Lipsey (2001), the unstandardized mean gain effect size statistic is used. Unstandardized is used when all the studies in the meta-analysis use the same instrument. Since this analysis had only one study of this type, the effect size was calculated as the mean at Time 2 minus the mean of Time 1. The effect size for self-efficacy was -.360 with a 95% confidence interval of -.814 to 1.534. Once again, the extremely large confidence interval limits the interpretation of this effect size.

The same procedure was used to obtain the effect size for anxiety in the Williams et al. (1997) study. Analysis 7 produced a mean effect size was .430 with a 95% confidence interval of -.748 to 1.608. Although this is considered a medium effect of individual supervision on anxiety, having only one study of this type with a large confidence interval limits the interpretation.

The final analysis, Analysis 8, was of two studies, Beverage (1989) and Strauss (1994), that used correlations to analyze the effect of individual supervision on self-efficacy. The mean effect size for these studies was .400 with a 95% confidence interval of .165 to .592. This is interpreted as a medium effect. Table 8 illustrates Analysis 8.

Table 8

*Analysis 8: Correlation Studies of Individual Supervision and Self-Efficacy*

Citation	Effect	StdErr	Lower	Upper	N1	N2	Ntotal	pValue
Beverage (1989)	.226	.189	-.140	.537	31		31	.000
Strauss (1994)	.540	.183	.241	.745	33		33	.000
Fixed Combined (3)	.400	.131	.165	.592	64		64	.001

## Analysis of Research Questions

The first research question the meta-analysis research attempted to answer was “To what extent does clinical supervision affect supervisee anxiety and self-efficacy?” Based on the empirical evidence of Analysis 1 and 2, clinical supervision has a medium to large effect on supervisee anxiety and self-efficacy. Analysis 1 resulted in a medium to large effect, ES = .655, for self-efficacy and Analysis 2 resulted in a medium effect, ES = .454, for anxiety indicating that clinical supervision has a medium effect on anxiety during supervision and a large effect on counseling self-efficacy during supervision.

This study additionally sought to determine if various types of clinical supervision affect supervisee anxiety and self-efficacy differently. Analyses 3 through 8 attempted to answer this question. Analysis 3 and 7 indicated that individual supervision had a medium effect on supervisee anxiety,  $ES = .5271$  and  $ES = .43$  respectively. Analysis 4 indicated that peer group supervision also had a medium effect on supervisee anxiety,  $ES = .468$ . However, this analysis consisted of only one study and therefore limits the ability to answer this question. Additionally, there were no studies found for analysis that examined the effects of live and group supervision on anxiety separately. Mauzey (1997) is the only study that examined the effect of live supervision on anxiety. The effect was low,  $ES = .29$ .

Analysis 5, 6, and 8 examined the effect of individual supervision on self-efficacy. They had a mean effect size of .243, .360, and .43 respectively. Therefore, individual supervision had a low to medium effect on supervisee self-efficacy. Only one study, Singo (1998) examined the effect of group supervision on self-efficacy. The effect size for self-efficacy for this study was .063, which is extremely low. No studies were found that examined the effect of peer group supervision on self-efficacy. Therefore, no conclusion can be reached in this meta-analysis as to the different types of supervision's effect on self-efficacy other than individual supervision.

#### Qualitative Methodological Analysis

In addition to the above quantitative meta-analysis, a qualitative content analysis of research methodology was conducted on the ten studies used in the meta-analysis. Each study was examined in regard to the following possible methodological threats as proposed by Russell et al., (1984):

##### Internal Validity

- a. Lack of adequate control group,
- b. No pretreatment assessment,
- c. Inadequate sample size,
- d. Variations or confounds in length of training across conditions,
- e. Widely discrepant cell sizes.

##### External Validity

- f. Restricted range of dependent variables,
- g. Nonrepresentative supervisee or supervisor population,
- h. Lack of follow-up assessment,
- i. Use of role play or audiotaped client statements to assess supervised change,
- j. Exclusive reliance on self-report data,
- k. Overly brief training period. (Russell et al., p. 644)

Each of these threats were coded as either "not a threat", "definitely a threat", or "insufficient information". Table 9 lists each study with coded threats that were present in the study.

Additionally, Table 10 summarizes the threats present in the studies used in the meta-analysis.

Table 9  
*Methodological Threats By Study*

STUDY	Threats Present	Insufficient Information
Ellis et al. Study 1	a, i	
Ellis et al. Study 2	a, i	
Krengel Study	a, i	c
Mauzey Study	a	c, i
Daniels & Larson Study		c, i
Pich Study	h, i	c
Singo Study	a, h, i	c, k
Johnson Study	a, b, h, i	c
Williams Study	a, e, h	c
Beverage Study	a, h, i	c
Strauss Study	a, b, h, i	c

Note. a = lack of adequate control group, b = no pretreatment assessment, c = inadequate sample size, d = variations or confounds in length of training across conditions, e = widely discrepant cell sizes, f = restricted range of dependent variables, g = nonrepresentative supervisee or supervisor population, h = lack of follow-up assessment, i = use of role play or audio taped client statements to assess supervised change, j = exclusive reliance on self-report data, and k = overly brief training period.

Table 10

*Summarization of Methodological Threats*

Threat	Number of Studies	% of Studies
a. lack of adequate control group	8	73%
b. no pretreatment assessment	2	18%
c. inadequate sample size	9	82%
d. variations or confounds in length of training across conditions	0	0%
e. nonrandom assignment to groups	1	9%
f. widely discrepant cell sizes	0	0%
g. restricted range of DV's	0	0%
h. nonrepresentative supervisee or supervisor population	6	55%
i. lack of follow-up assessment	8	73%
j. Use of role play to assess change	0	0%
k. Exclusive reliance on self-report data	0	0%
l. Overly brief training period	0	0%

Note. The inadequate sample size of 82% was due to insufficient information presented in the studies.

Almost twenty years ago, Russell, Crimmings, and Lent (1984) examined the research methodology of counselor training and supervision. They identified four primary obstacles that resulted in serious methodological and conceptual deficits that limit the interpretation of the significance of findings. These were

“1) the failure of theory in most cases to offer clear-cut directions for supervisory research, 2) the small sample sizes of counselors and supervisors available at most training sites, 3) the difficulty, in both pragmatic and ethical terms, of manipulating independent variables in real-life training settings, and 4) the “criterion problem”, which includes such issues as how best to measure change, from whose perspective, and on what dimensions” (Russell et al., p. 663).

The majority of experimental design flaws found in the current research were the lack of adequate control group (73%), possibly inadequate sample sizes (82%), nonrepresentative supervisee or supervisor population (55%), and lack of follow-up assessment (73%). The sufficiency of sample size could not be determined from examining the research studies because only one study, Ellis et al. (2002), reported power. The failure to use appropriate control conditions illustrates Russell et al.'s (1984) concern of manipulating an independent variable. This continues to be a methodological concern because ethically it is impossible to have a group

of supervisees who do not receive supervision. Therefore, the majority of studies employ comparison groups in which a technique of supervision or characteristic of the subjects is manipulated.

The lack of follow-up assessment was noted in 73% of the studies. This issue addresses the continued change, or lack of it, after the treatment. For example, if peer group supervision is found to decrease supervisee anxiety, does anxiety continue to decrease when the supervisee is no longer receiving peer supervision? This is an important issue because empirical evidence is necessary to determine the long-term effect of an intervention.

#### Multiple Regression Studies

During the search for literature, seven studies were found that met all the criteria except they utilized a multiple regression methodology. Because these were not included in the meta-analysis and there were a significant number of them, the following section presents these studies. All of the researchers investigated the effect of supervision on supervisees' anxiety and/or self-efficacy.

Ladnay (1992) explored the effect of the supervisory working alliance on supervisee self-efficacy over time. He found that changes in predictor variables (time and scores on the Working Alliance Inventory) were not significantly related to changes in the supervisees' self-efficacy. In a study examining the effect of multicultural supervision, Constantine (2001), found that after accounting for social desirability attitudes and previous multicultural training, multicultural supervision significantly predicted supervisees' self-efficacy. Coykendall (1993) found that supervisees' developmental level was a significant predictor of self-efficacy. Dauss (1995) found that case presentations in class did not significantly impact supervisee self-efficacy and supervisees in group supervision had a significantly stronger rate of growth than students in prepracticum. In a study examining the relationship between the supervisory relations and self-efficacy, Golub (1997), found that level of supervisee experience predicted supervisee self-efficacy. Two additional studies, Freidlander and Snyder (1983) and Litchenberg and Goodyear (2000), used supervisee anxiety or self-efficacy as predictor variables. Freidlander and Snyder (1983) found supervisee anxiety to significantly predict structure of the supervisee-supervisor interactions. Litchenberg and Goodyear (2000) found supervisee self-efficacy to be a significant predictor of the role of the supervisor.

These researchers contributed to the knowledge base regarding the effect of supervision on supervisees' anxiety and self-efficacy. However, because they utilized multiple regression designs, it is not possible to determine the degree of effect these various aspects of supervision have on supervisee anxiety and self-efficacy.

#### Results of Interviews

The individual, face-to-face interviews were conducted with counseling supervisees and the supervisors between June 28, 2004 and July 14, 2004. A total of fourteen interviews were conducted, nine with supervisees and five with supervisors. Nine interviews were held in a faculty office at the Higher Education building in Roanoke. This setting was private, comfortable, and there were no interruptions except during one interview the telephone rang twice. Two interviews were held in a meeting room at E. Eggleston Hall at Virginia Tech. Again, the atmosphere was quiet, private, and uninterrupted. Two interviews were held in the interviewees' offices where they worked. These were both quiet, private settings. One interview

was held in the interviewee's home. We were alone in the home, so it provided a quiet, private, uninterrupted environment.

Dr. Hildy Getz, Associate Professor in the Counselor Education Program at Virginia Tech, provided the researcher with the names and email addresses of six supervisors and fifteen supervisees as potential participants in the research. All participants were notified by email of the research and asked if they would consider participating. All six potential supervisor participants were notified. Initially, ten of the fifteen potential supervisee participants were randomly chosen using a systematic random sampling technique and asked to participate. Because the researcher did not receive an adequate number of responses from the ten supervisees, the other five supervisees were notified and asked to participate. Five of the six supervisors responded positively and nine of the fifteen supervisees. All supervisors and supervisees who responded were interviewed.

The supervisees interviewed were Master level students in the Counselor Education Program at Virginia Tech. They all completed their first practicum during the spring semester of 2004 and received clinical supervision during this practicum. Their counseling experience during practicum consisted of counseling students in a school setting and counseling adults in the Counseling Center of Virginia Tech's Counselor Education Program in Roanoke. They all received triadic supervision weekly for one hour. This triad consisted of a supervisor who was a doctoral student in the Counselor Education Program and two supervisees in practicum. They also received peer group supervision once a week in a class with a professor. They received live supervision sometimes when counseling adult clients in the Counseling Center. Additionally, all but one supervisee indicated they received in-the-room supervision. Although, all of supervisees reported they received individual supervision, it did not occur on a regular basis. Of the nine supervisees interviewed, three were male and six were female. All of the supervisees were Caucasian. Their ages ranged from 23 years to 53 years, with a mean age of 35 years.

Five supervisors were interviewed. The supervisors were all doctoral students in the Counselor Education Program at Virginia Tech. Three of the five supervisors were female and two were male. Four supervisors were Caucasian and one was African American. Their ages ranged from 30 years to 49 years with a mean age of 40 years. All of the supervisors had provided individual supervision, triadic supervision, and live supervision. One supervisor did not have experience providing in-the-room supervision and three did not have experience with peer group supervision. The doctoral students observed the personal growth groups but were not involved in the seminar peer group class. Their amount of experience ranged from providing supervision for two semesters (one semester to a Master level student in his or her internship and one semester to two practicum students) to five years. All of the supervisors provided weekly triadic supervision involving two practicum students. All provided live supervision to various practicum students as he or she saw clients at the Center.

Interviews were arranged and conducted at the interviewees' convenience during the period of June 28, 2004 through July 14, 2004. Prior to beginning each interview, the participant read the informed consent and signed it. The interviews were audiotaped and transcribed verbatim by a transcriber. The researcher trained the transcriber and the first transcription was checked by the researcher for form and accuracy prior to continuing with the remaining transcripts. Member checks were completed by electronically sending each participant a copy of their transcript to check for accuracy. There were no major changes to the transcripts.

The interviews were separated into categories of supervisees and supervisors for analysis. Each transcript was read initially to acquire an overall feeling for the interview. Next each

transcript was highlighted for significant statements regarding supervisees' anxiety and self-efficacy. Field notes taken during interviews were used to clarify and or interpret transcripts. Table 11 presents significant supervisees' statements and Table 12 presents significant supervisors' statements regarding supervisees' anxiety and self-efficacy during clinical supervision (Refer to Appendix D and Appendix E).

From these significant statements, meanings or initial codes were developed. Cresswell (1998) described this stage as formulating meanings from the significant statements in their context while Anfara et al. (2002) described this process as initial coding or surface content analysis. From these initial codes, patterns or common themes were developed. These themes were then applied in an effort to answer the research questions. These steps are illustrated in Table 13 and are discussed below.

Table 13

*Code Mapping of Supervisees' Anxiety and Self-Efficacy*

<b>Research Questions</b>	
RQ#1: Supervision effect on anxiety and self-efficacy?	RQ#2: Type of supervision?
<b>Application to Data Set</b>	
Supervision increases anxiety and self-efficacy No consistent pattern of type of supervision All types increase anxiety and self-efficacy	
<b>Pattern Variables</b>	
1A. anxiety increases 1B. self-efficacy increases	2A. No clear pattern of type of supervision
<b>Initial Codes/Themes</b>	
1A. initial anxiety 1A. tapes increase anxiety 1A. anxiety lessened 1B. affirmation 1B. positive feedback 1B. self-efficacy increases 1B. relationship	2A. various methods and techniques increase anxiety and self-efficacy 2A. all effective to increase self-efficacy 2A. IPR increases self-efficacy

The first research question entails the extent to which clinical supervision affects supervisees' anxiety and self-efficacy. The interviews with the supervisees yielded several common themes. All expressed experiencing anxiety, especially in the beginning of the process, and most expressed increases in self-efficacy. Of the nine supervisees, two were illustrative of

the extreme positions. One supervisee, Katherine, had difficulties during practicum and experienced a great deal of anxiety and little increase in self-efficacy. She noted "...all I was doing was making myself more and more anxious and feeling more and more negative about my capabilities..." (Katherine, p. 3). She also said she had a "very high level (of anxiety), it was intense" (Katherine, p. 4). On the other extreme, another supervisee, John, noted he "didn't feel a lot of anxiety" (John, p. 3). However, the other supervisees all described supervision as creating anxiety for them. Some described it as "your anxiety is that 'oh they're gonna think that the whole session is on that' (Robert, p. 3) or I was always a little nervous or anxious just because it was new" (Ellen, p. 2). Most described their anxiety as dissipating as the semester progressed. Several supervisees expressed anxiety in relation to the use of videotapes during supervision. One noted "There is anxiety that accompanied the work as well as the anxiety that accompanies watching yourself on tape" (Susan, p. 3). Another stated, "I was always anxious when it was my turn to present a tape to the class..." (Ellen, p. 2).

In terms of the effect of supervision on supervisees' self-efficacy, all but one supervisee thought that it increased their self-efficacy. Numerous statements such as, "it helped my self-efficacy to get feedback from my peer group" (Bonnie, p. 7), "I think it increased it (self-efficacy) definitely" (Ellen, p. 4), "This really boosted my self-efficacy" (Traci, p. 4), and "I think all of them (supervision methods) were pretty effective in increasing self-efficacy" (Bonnie, p. 6) illustrated this finding. The one supervisee who experienced difficulties described her experience as such, "Practicum is a little bit like being thrown out there sink or swim by golley and you're ya know alright now stroke oh no we want you to do the crawl and no now we want you to do the back stroke and it is a little bit like that and in the meantime, your head is going under water and all you're doing is doggie paddling sometimes just to get through" (Katherine, p. 8). However, the other supervisees did not express this viewpoint.

The interviews with the supervisors yielded very similar results. Most identified anxiety in supervisees, especially at the beginning of supervision. They also identified "more anxiety when it is time to present their taped session" (Rebecca, p.1). They also all noticed an increase in self-efficacy of supervisees. One supervisor noted, "I always saw the confidence increase" (Jasmine, p. 4). Others explained they could see increases in their self-efficacy during the later part of the semester. A theme that emerged from the supervisors' interviews was the importance of the relationship between the supervisor and the supervisee in terms of reducing anxiety and increasing self-efficacy. This was described as a "facilitative condition" (Paul, p. 6), giving "positive feedback" (Nancy, p. 3), "affirmation (of their abilities)" (George, p. 4), and "listening to him" (Paul, p. 4). All supervisors noted an increase in self-efficacy of supervisees during clinical supervision.

The second research question was 'Do different types of supervision, i.e. individual, group, and live, have varying effects on supervisees' anxiety and self-efficacy'? The interviews with the supervisors and the supervisees did not shed light on the answer to this question because many varied methods and techniques were noted as increasing anxiety and self-efficacy. A strong pattern of one type of supervision producing more or less anxiety or self-efficacy did not emerge. However, both the supervisees and the supervisors noted the use of videotapes as producing anxiety. Other statements regarding methods of supervision include the following:

"Presenting in front of the peer group, you get pretty anxious with that I think because they are your peer and you're kind of under the microscope" (Robert, p. 3).

"I like (IPR) being done with me but it is anxiety producing" (Robert, p. 5).

"All supervision helped my self-efficacy" (Bonnie, p. 6).

“...with a larger group it was more anxiety” (Bonnie, p. 4).

“triadic was the most comfortable...” (Traci, p. 2).

“I think (self report and IPR) were definitely tools that helped me to decrease anxiety” (Danette, p. 4).

“Person-centered...approach really helps their self-efficacy...it is affirming” (George, p. 4).

“I think in the room supervision is probably the anxious thing for the supervisee” (George, p. 6).

“I think live supervision always is very anxiety provoking...just knowing someone could be watching them was very anxiety provoking” (Jasmine, p.2).

To develop validity for the research, the findings from the data from the meta- analysis, the supervisees’ interviews, and the supervisors’ interviews was triangulated. This method of establishing validity is demonstrated in Anfara et al. (2002). The results of this are illustrated below in Table 14.

Table 14

*Matrix of Findings and Sources of Data Triangulation*

Major Finding	Meta-analysis	Supervisee Interviews	Supervisor Interviews
Supervision increases supervisees anxiety and self-efficacy	X	X	X
No consistent pattern of type of supervision	X	X	X
All types of supervision increase supervisees’ anxiety and self-efficacy		X	X

Triadic supervision was not included in the meta-analysis; however, it was one of the major types of supervision used with these supervisees. The data from the interviews with both supervisees and supervisors indicated that possibly anxiety was decreased and self-efficacy was increased with this type of supervision. However, some participants indicated a possible increase in anxiety in this type of supervision. The issue of the dynamics of the relationship in triadic supervision was apparent in their responses.

Several supervisees described triadic supervision as being less anxiety provoking for them. They seemed to think that the relationship developed with their peer and their supervisor helped to reduce anxiety. An example of this belief is Danette’s comment that “I think our triad was less anxiety provoking when we got into triadic because the classmates that we were use to and the doc student we were use to after a while and once we got use to each other, we just kind of had a slow and a natural rhythm together” (p. 2).

Other supervisees expressed similar thoughts such as, “I would say triadic was the most comfortable because we are in there every week and there were just the three of us and we got to know each other well and that wasn’t as scary as I think presenting to the entire class” (Traci, p. 2); “I would say that I would have probably for the most part had less anxiety in triad cause it was two people” (Bonnie, p. 4); “I think there was more anxiety in peer (group) than it was with the triad ... you kind of build more of that relationship with your (supervisor), in the triad. I think the triadic has to affect it (self-efficacy) more because it is more personal. And again it is a closer relationship that you form with the triad than you do with a large peer group” (Robert, p. 3); and “Well, in the triads, I thought it was helpful to have a triad where it was not just a one-on-one...another member in my cohort there so that she could comment on what I was doing as well. Because I think that it is good ... it is almost like you have someone who is where you’re at the same time listening to your tape. It is almost like having sort of an ally and that you’re in it together...I think that one-on-one with the doc student, you could be intimidated initially. But if you have someone else there who your use to, I think that it evens out the power”(Bill, p. 6).

Supervisors seemed to have mixed thoughts regarding triadic supervision. Some expressed thoughts that were similar to the supervisees, indicating that triadic supervision was a powerful method that increased self-efficacy. This is reflected in the following comments, “...the triadic I think, having that feedback with another person there probably is the best for self-efficacy, another person providing that support and maybe getting a window into their own processes by watching the I’m working with most intensely.” (George, p. 4) and “I think triadics (is) the way to go. I think (it is) the wave of the future. It is one of the most powerful supervision techniques when you have the two work together, provide feedback to each other, they were on a different level then I was, they were real pragmatic about things, I almost forgot about how it was to be a brand new counselor.” (George, p. 5).

However, other supervisors believed triadic supervision could result in higher levels of anxiety, as indicated by the following comments: “I think being in triadic and seeing another person’s event and what might be pointed out for that other supervisee and witnessing their level of anxiety may contribute to the other person’s event of being anxious” (Rebecca, p. 1); and “They might feel intimidated by a third party and I think if they are already having issues with confidence and meeting with the supervisor, having a third person can be a little more anxiety provoking” (Jasmine, p. 2).

The results of the interviews corroborate the findings of the meta-analysis in terms of clinical supervision increasing self-efficacy and anxiety. The affect of various types and techniques of supervision on supervisees’ anxiety and self-efficacy is ambiguous. While some supervisees and supervisors would indicate higher anxiety and self-efficacy during one type of supervision, others would indicate different types of supervision. No clear pattern could be distinguished.

### Summary

The results of the meta-analysis, qualitative methodological review, and contributions of multiple regression studies have been discussed in detail. From the above reported meta-analysis findings and the results of the interviews, it can be concluded that clinical supervision significantly increases supervisees’ anxiety and increases self-efficacy. The methodological review yielded significant deficiencies in the following areas: lack of control group, reporting power to calculate adequate sample size, subjects representative of population, and lack of follow-up assessment.

The results of the interviews with supervisees and supervisors corroborate the findings of the meta-analysis, that is, that clinical supervision increases supervisees' anxiety and self-efficacy. The results of the interviews were unable to establish a pattern in terms of what type of supervision or techniques increase or decrease anxiety and self-efficacy to the greatest extent. Different participants in the interviews described different supervision methods that increased supervisees' anxiety and self-efficacy.

## CHAPTER 5

### DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

This final chapter presents a discussion of the findings in relation to the research questions and the prior literature. The possible limitations of the study, the nature and scope of the limitations, how they affected the findings and any efforts to minimize the limitations is also discussed. Finally, a discussion of the implications of the findings for future research, education, and practice is presented.

#### Discussion of Findings and Research Questions

The first research question this researcher sought to answer was, “To what extent does clinical supervision affect supervisees’ anxiety and self-efficacy?” The second research question was focused on determining if different types of supervision or different techniques used during supervision have varying effects on supervisees’ anxiety and self-efficacy. These questions are discussed below simultaneously.

The results of the meta-analysis found mean effect sizes for anxiety of group comparison studies and a pre-posttest study of .454 and .430, respectively. Interpretation of effect sizes was based on Lipsey’s (2001) method, which uses the following benchmarks:  $\leq .30$  bottom quartile (small effect), .50 median (medium effect), and  $\geq .67$  top quartile (large effect). Based on this guideline, clinical supervision has a medium effect on supervisees’ anxiety. In other words, clinical supervision increases supervisees’ anxiety.

The second part of this question involves the effect of clinical supervision on supervisees’ self-efficacy. The mean effect of the group comparison studies for the effect of clinical supervision on supervisees’ self-efficacy was .655. The mean effect of the correlation studies regarding self-efficacy was .400. Finally, the mean effect of the pre-post test study on supervision and self-efficacy was .360. These effect sizes cannot be combined in a meta-analysis because the studies utilized different statistical procedures. However, comparing them provides a picture of the effect of clinical supervision on supervisees’ self-efficacy. The latter two are considered low to medium effect sizes whereas the group comparison studies generated a high effect size. The group comparison studies are possibly a more accurate prediction of the true effect because it is composed of four studies with a total of 95 subjects whereas the other two effect sizes have limited validity due to small sample number and large confidence intervals. Therefore, from the meta-analysis findings, clinical supervision has a large effect on increasing supervisees’ self-efficacy.

The results of the interviews corroborated the meta-analysis findings that clinical supervision has a medium to large affect on supervisees’ anxiety and self-efficacy by increasing both. Participants described their feelings of anxiety and increased self-efficacy during different experiences in supervision. Several noted anxiety being higher in the beginning mainly due to the unknown factor and a new experience. They also described self-efficacy increasing towards the end of the semester.

The second research questions involved determining what types of supervision were related to changes in supervisees’ anxiety and self-efficacy. For the meta-analysis, the studies were analyzed according to the type of supervision, specifically individual, live or peer group. For individual supervision and self-efficacy, three effect sizes were calculated (the group comparison studies of Daniels and Larson, Johnson, and Pich; the pre-post test study of Williams; and the correlation studies of Beverage and Strauss). The effect sizes were .896, .360,

and .592, respectively. The Williams study has limited validity in interpreting the mean effect of individual supervision on self-efficacy because it had 14 subjects, was the only study of that particular research design, and had an extremely large confidence interval (-0.814 to 1.534). Based on the other two mean effect sizes, .896 and .592, individual supervision had a medium to large effect on increasing supervisees' self-efficacy.

To examine individual supervision and supervisees' anxiety, six group comparison studies were used (Daniels & Larson, Ellis et al. Study 1 and Study 2, Johnson, Kregel and Pich) and the Williams pre-post test study. The mean effect sizes were .457 and .430. Once again, the Williams study has limited validity in determining this effect for the same reasons as stated above. Based on the comparison group studies with a mean effect of .457, individual supervision has a small to medium effect on increasing supervisees' anxiety.

Only two studies, one using live supervision (Mauzey, 1997) and one using peer group supervision (Singo, 1998), were found. Therefore, the second research question, comparing types of supervision and affect on supervisees' anxiety and self-efficacy, could not be answered from the available data of the meta-analysis. It would not be appropriate to determine the affect of live and peer group supervision on supervisees' anxiety and self-efficacy based on the findings of one study.

The interviews were completed to corroborate or refute the findings of the meta-analysis in answering the first research question and to explore answers to the second research question. The results of the interviews revealed no distinct pattern in terms of which type of supervision has the most affect on supervisees' anxiety and self-efficacy. Some participants thought triadic produced more anxiety while others thought live or peer group supervision produced more anxiety.

### Conclusions

Several themes were determined that denote discussion. The descriptions describing the effectiveness of supervision and the increase in self-efficacy were numerous. This finding corroborated the findings of Larson and Daniels (1998) that noted self-efficacy was important in the success of supervisees. The descriptions of the current study's participants discussed factors such as feeling affirmed, receiving positive feedback, and developing a trusting relationship. Bernard and Goodyear (1998) described the supervisee's anxiety as a dominant factor in the supervision process. Likewise, all supervisees and supervisors in this research noted that they experienced anxiety, especially in the beginning of the supervision process. Some described it as lessening as the semester progressed.

Another theme that emerged was that the use of videotapes in triadic and peer group supervision increased the supervisees' anxiety. This finding was contrary to the research of Ellis, Kregel and Beck (2002), which found videotaping to have no significant effect on supervisees' anxiety. In the present study, both supervisees and supervisors noted an increase in anxiety due to the use of videotapes. Also, several participants expressed having feelings of anxiety when IPR was used but at the same time described it as increasing self-efficacy.

### Limitations of the Study

A limitation of the meta-analysis was the relatively small number of existing studies meeting the criteria for inclusion. This limits the interpretation of the findings in terms of answering the research questions. Caution needs to be used because there were only eight group comparison studies and one pre-posttest design study used for the meta-analysis of the effect of

supervision on supervisees' anxiety. In terms of its affect on supervisees' self-efficacy, there were only four group comparison studies, one pre-posttest design study and two correlational studies. Because different types of research designs cannot be combined when calculating a mean effect size, the different types of study designs were calculated separately and compared in terms of the mean effect sizes.

Another limitation regarding the type of studies found was a lack of studies using supervision techniques other than individual supervision. As stated earlier, only one study was found using live supervision and one study using peer group supervision. This made it impossible to analyze the data to answer the second research question. In other words, the meta-analytic research was unable to determine if different types of supervision have varying effects on supervisees' anxiety and self-efficacy and to what degree.

To analyze the effects of an intervention, the research needs to be grounded in specific theoretical concepts and systematically analyzed. For example, if it is theorized that the evaluation process of supervision produces anxiety in supervisees based on social facilitation theory and this anxiety will interfere with learning during supervision, then research must systematically test supervisees' level of anxiety and amount of learning while receiving specific types of supervision. This process would systematically rule out specific factors of supervision that lead to supervisees' anxiety. However, clinical supervision is a very complex process and there are a multitude of techniques used in the various types of supervision. Therefore, the research is a collection of studies on the various aspects of supervision's effect on anxiety and they do not result in an empirically tested, theoretically based understanding of the concept.

The above limitation affected the ability to generalize the findings regarding the effect of supervision on supervisees' anxiety and self-efficacy. Although, there were eight group comparison studies found examining the effect of individual supervision on supervisees' anxiety and self-efficacy, the studies examined many different aspects of individual supervision, e.g. positive vs. negative feedback, immediate and delayed response, self-awareness of supervisee, self-focus of supervisee, observation of self on videotapes. This resulted in a meta-analysis assessing only the effect of individual supervision, as a single construct, on supervisees' anxiety and self-efficacy. The effect of various attributes of individual supervision has not been systematically researched to produce results for meta-analysis.

The qualitative review of the methodology of the studies produced several methodological threats that in turn limit the findings of this study. Only one study reported the power of their findings, limiting the knowledge of whether the other research had adequate sample size and power. This limits the present research because its findings are based on the findings of the other studies. Therefore, this meta-analysis can only safely conclude that individual supervision increases supervisees' anxiety and increases their self-efficacy to the degree that the other studies had adequate power.

Because research on clinical supervision is usually conducted in graduate school settings with the subjects being graduate students receiving supervision, the majority of the studies (55%) had nonrepresentative supervisee populations and a lack of adequate control groups (73%). Both of these threats limit the interpretation of each study's findings, which in turn again limits the findings of this meta-analysis.

Several limitations were also present in the interview portion of the research. The participants were from a purposive sample, which limits the ability to generalize any findings. Also, all of participants were in the same Counselor Education Program. Possible external factors that could result from this include the type of training the supervisors received, the

structure of the program and dual relationships. During the interview process, one supervisee and one supervisor expressed concern regarding confidentiality. The issue concerned a co-chair being a faculty member in the same program and having access to the original transcripts. The faculty member evaluates the progress of the participants academically. These dual relationships could have restricted the information the participants were willing to share.

Another interrelated limitation is that the researcher is also a doctoral student in the same program. The researcher provided clinical supervision to prior students in this same program. Additionally, the researcher has a vested interest in the success of the program, as she is part of it. These factors, coupled with the dual relationships, mentioned above, could have influenced not only the questions that were asked, but also, the interpretation of the information provided in the interviews. The researcher also had a prior collegial relationship with two of the five supervisors interviewed and this may have affected the interview process and the results. However, an advantage that is associated with this limitation, is that because the researcher did have a professional relationship with some of the supervisors and knowledge of the program, she was able to utilize these factors to gather in-depth information during the interviews. The researcher felt very comfortable in her role as interviewer due to the above factors.

One final limitation is a possibility that the participants who chose to volunteer had specific characteristics that affected the information gathered. Nine of the fifteen supervisees volunteered and all nine were interviewed. Five of the six supervisors volunteered and all were interviewed. However, the supervisees and supervisor who did not volunteer may have had different experiences. Also, a characteristic of the people who volunteered, such as a personality characteristic, may have influenced them to not only volunteer but also their experiences regarding anxiety and self-efficacy during supervision.

### Recommendations

The findings of the meta-analysis resulted in several implications and recommendations for future research, education, and practice in the field of clinical supervision. The first area addressed is future research.

Based on the limitation of the number of studies included in the meta-analysis and the subsequent limitations to the findings of the meta-analysis and the interviews, more systematic, theoretically based research needs to be conducted to understand the effect of clinical supervision on supervisees' anxiety and self-efficacy. Only ten studies were found that met the meta-analysis criteria and these studies had major methodological flaws that limits our knowledge. This limited number of studies indicates that more research is needed in this area. The research also needs to systematically examine the possible attributes of each type of supervision to give a clearer understanding of their effect on supervisees' anxiety and self-efficacy. For example, if factors such as videotaping, feedback, and peer support are identified as affecting supervisees' anxiety and self-efficacy during triadic supervision, then each of these constructs needs to be studied (while controlling the effects of the other constructs) to determine their effect in this type of supervision.

Future research in clinical supervision can be designed to address these limitations. The issue of having adequate sample sizes could be addressed by using subjects from various sites. This also would ensure a more representative sample of supervisees and supervisors. If the sample is not representative of the population, it limits the ability to generalize the findings.

The issue of control groups in the research design is challenging. A control group provides assuredness that the intervention produced the change in the supervisees' anxiety and

self-efficacy, not an extraneous variable that was uncontrolled. Ethically, it is not possible to have counselors-in-training in a control group where they are not receiving supervision. Therefore, factorial studies could be designed that assess the interactions between supervisee characteristics, such as anxiety and self-efficacy, supervision methods, and supervisor characteristics. Using multiple supervisors and supervision conditions could control for external variables that might contribute to the change in supervisees' anxiety and self-efficacy. If studies are not designed as such, the researcher may inappropriately attribute the changes in anxiety and self-efficacy to the affect of the supervision when it may be due to a particular characteristic of the supervisor.

A systematic research process would increase generalizability of research findings across studies and lead to a greater understanding of the constructs. This is the issue Russell et al. (1984) referred to as "programmatically" research. Research should be conducted in a series of studies that form progressive layers of knowledge. The process involves eliminating or revising methods that are found to be ineffective resulting in a systematic investigation of a construct and testing of a theory. For example, several studies could be designed that use the same populations, methods, and measures to examine the effect of a specific aspect of supervision on supervisees' anxiety and self-efficacy. This would allow for a more accurate meta-analysis of the research.

In terms of education of counselors and supervisors, this research produced several possible recommendations. First, educators should consider the findings that individual supervision has a medium effect on supervisees' anxiety and medium to large effect on their self-efficacy. Supervisors need to be trained to recognize high-levels of anxiety and/or low self-efficacy of supervisees and learn effective methods to address these concerns. Additionally, supervisees need to increase their ability to recognize these attributes within themselves. They should also learn effective ways to address them within the supervision process. Secondly, educators need to understand the constraints of the present research on supervision. This needs to be integrated into their education not only as it pertains to supervision techniques but also in terms of future research. Lastly, educators are usually the leaders in our profession in research. Therefore, they need to conduct future research in ways that take into consideration the above recommendations.

Finally, recommendations for practice are similar to those for educators. Clinical supervisors should be aware of and address supervisees' anxiety and self-efficacy. They need to be aware of current knowledge and research in the area of clinical supervision that impacts their practice as supervisors. They also have an ethical obligation to practice with this knowledge and to continue research that may lead to improved supervision and more effective counseling.

### Summary

This chapter addressed the issues that evolved from the findings of the meta-analysis and the interviews. Limited research meeting the meta-analysis criteria severely limited the interpretation of the findings. Also, major methodological flaws in existing studies and their potential limitations were discussed. Some of these methodology concerns include lack of control groups, inadequate sample size, representative supervisee and supervisor populations.

The findings from the interviews corroborated the finding that supervision has a medium to large affect on supervisees' anxiety and self-efficacy. A consistent pattern of types of supervision's effect on anxiety and self-efficacy was not detected. All of the types of supervision, i.e. individual, peer group, live, triadic, and in-the-room were noted by supervisees and supervisors as producing anxiety and increasing self-efficacy.

Finally, recommendations for future research, education and practice were discussed. A systematic, theoretically based research process is needed to validate the effect of clinical supervision on supervisees' anxiety and self-efficacy. Also, when searching for literature, studies were not found researching the effect of triadic supervision on supervisees' anxiety and self-efficacy. This seems to be a relatively new approach in clinical supervision and research in the future needs to explore not only these aspects of triadic supervision but also the effectiveness of this type of supervision.

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**APPENDIX A**

## Coding Sheet

Reference Information:

Complete reference:  

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Study code: \_\_\_\_\_

Presentation of study: Published journal article \_\_\_\_\_

Dissertation \_\_\_\_\_

Sample Characteristics:

Level of supervisee: Masters \_\_\_\_\_

Doctoral \_\_\_\_\_

Number in sample: \_\_\_\_\_

Mean age of sample (if given): \_\_\_\_\_

If groups, # in treatment group: \_\_\_\_\_

# in comparison group: \_\_\_\_\_

Type of mental health field: Counselor Education \_\_\_\_\_

Counseling Psychology \_\_\_\_\_

Clinical Psychology \_\_\_\_\_

Social Work \_\_\_\_\_

Marital and Family Therapy \_\_\_\_\_

Type of Supervision: Individual \_\_\_\_\_

Live \_\_\_\_\_

Group \_\_\_\_\_

Techniques used in supervision: \_\_\_\_\_

Research Design: \_\_\_\_\_

Instrumentation for Anxiety: \_\_\_\_\_

Instrumentation for Self-efficacy: \_\_\_\_\_

Effect Size Information:

List the type and specific summary statistics from which the effect size is determined:

\_\_\_\_\_

Calculated Effect size: \_\_\_\_\_

Methodological Threats:

	Not a Threat	Definitely a Threat	Insufficient Information
Lack of adequate control group	_____	_____	_____
No pretreatment assessment	_____	_____	_____
Inadequate sample size	_____	_____	_____
Variations or confounds in length of training across conditions	_____	_____	_____
Nonrandom assignment to groups	_____	_____	_____
Widely discrepant cell sizes	_____	_____	_____
Restricted range of DVs	_____	_____	_____
Nonrepresentative supervisee or supervisor population	_____	_____	_____
Lack of follow-up assessment	_____	_____	_____

Use of role play or audio-taped client to assess supervised change	_____	_____	_____
Exclusive reliance on self-report data	_____	_____	_____
Overly brief training period	_____	_____	_____

## APPENDIX B

### Informed Consent for Participation in Interviews

Title of Project: A Multi-Vocal Synthesis of Supervisees' Anxiety and Self-Efficacy During Clinical Supervision: A Meta-Analysis and Interviews

Investigator: Sarah Whittaker

#### I. The Purpose of This Research

A quantitative analysis was conducted by the researcher in the form of a meta-analysis of existing literature on supervisees' anxiety and self-efficacy during clinical supervision. The findings were limited due to a limited number of studies. Individual face-to-face interviews are being conducted with supervisors and supervisees to corroborate or refute the findings of the meta-analysis and to synthesize multiple voices in answering the research questions. The questions will elicit information regarding their experiences during clinical supervision that affected the supervisees' level of anxiety or self-efficacy. The questions will also focus on the different types of clinical supervision provided or received and the effect on the supervisees' level of anxiety and self-efficacy.

#### II. Procedures

The researcher will conduct a face-to-face, semi-structured, individual interview. The interview will last approximately one hour and will be audio taped. A verbatim transcript will be made for the purposes of analyzing the information provided during the interview. A copy of the transcript will be sent to you to check for accuracy and meanings of statements. If you would like to change or add information at this time, you may do so.

#### III. Risks and Benefits

Participation in the interview has minimal risks. You will not be evaluated in any way in terms of your performance as a supervisee or supervisor. The only benefit of participating in the research is to the field of counselor education in terms of information gleaned from the study.

#### IV. Confidentiality

Only the investigator will know the identity of the individual's responses to the questions asked during the interview. The investigator will make every attempt to keep all information confidential. Summarized analysis of the information will be reported along with confidential individual quotes. An individual interviewee's given name will not be identified in the document. Pseudo-names will be used when describing the verbatim accounts of interviewees. The only persons having access to the names of interviewees will be the researcher and the co-chairs of the committee. The audiotapes, transcripts, and any other possible identifying information will be kept in a locked cabinet in my home. The tapes and transcripts will be destroyed after all dissemination of written and oral presentations of the research has been completed.

#### V. Compensation/Freedom to Withdraw

Participation in the interview is voluntary and you will not be compensated in any way. You may withdraw from participating in the research at any time that you wish.

## VI. Approval of Research

The Institutional Review Board at Virginia Tech has approved this research.

## VII. Subjects Responsibilities and Permission

I voluntarily agree to participate in the interview for this study. I have read and understand the above informed consent. I understand that I may withdraw at any time without any penalty.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name (Please Print)

\_\_\_\_\_  
Contact Number

\_\_\_\_\_  
E-mail address

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**APPENDIX C**

## Protocol for Interview with Supervisees

**Demographic Information:****Age:****Gender:**

**Types of Supervision Received:**    \_\_\_ **Individual**  
  \_\_\_ **Live**  
  \_\_\_ **Peer Group**  
  \_\_\_ **Triadic**  
  \_\_\_ **In-the-room**

## Questions

**1. During clinical supervision, how have you experienced anxiety?**

**Prompts:**

Describe experiences during clinical supervision when you felt anxious?  
To what degree did you feel anxious?

**2. Were there particular events that happened during clinical supervision that made you feel more or less anxious?**

**Prompts:**

Describe experiences when you think your level of anxiety changed.

**3. Did different techniques used by your supervisor increase or decrease your anxiety?**

**Prompts:**

Did different types of clinical supervision, for example individual supervision, in-the room supervision, group supervision or live supervision influence you level of anxiety?

If you experienced in-the-room supervision, did it affect your level of anxiety?

During individual supervision various techniques are normally used such as self-report, videotape, Interpersonal Process Recall and observation. Interpersonal Process Recall is the method of the supervisor and supervisee viewing part of a tape of a counseling session together, either stopping the tape when desired to discuss an interaction, and discussing the internal reactions of the supervisee during the segment of the tape. Did any of these techniques increase or decrease your anxiety?

**4. Self-efficacy is defined as your judgment or belief about your capability to effectively counsel a client. During clinical supervision, have you had experiences that you think affected your self-efficacy as a counselor?**

**Prompts:**

Can you describe a particular experience during clinical supervision that enhanced your belief that you could effectively counsel?

Can you describe a particular experience during clinical supervision that resulted in you questioning your ability to provide counseling?

**5. Did different techniques used by your supervisor increase or decrease your self-efficacy?**

**Prompts:**

Did you feel more or less capable of providing counseling depending on the method of supervision used by your supervisor?

Which methods or techniques of supervision helped you to feel more effective as a counselor?

**6. Is there any other information about your experiences during clinical supervision that you would like to add?**

## Protocol for Interviews with Supervisors

### Demographic Information:

**Age:**

**Gender:**

**Types of supervision used:**     **Individual**  
     **Live**  
     **Peer Group**  
     **Triadic**  
     **In-the-room**

### Questions

- 1. While providing clinical supervision, when have you noticed supervisees experiencing anxiety?**

**Prompts:**

Describe specific experiences when you believed your supervisees were anxious?

Describe specific experiences when you believed your supervisees were calm and relaxed?

- 2. Were there particular events that happened during clinical supervision that you think contributed to the level of your supervisee's anxiety?**

**Prompts:**

What was happening during clinical supervision when you noticed a change in the level of your supervisee's anxiety?

- 3. Do different techniques or types of supervision you utilize seem to affect the level of the supervisee's anxiety?**

**Prompts:**

Do you notice a difference in the level of the supervisee's anxiety when you use various types of supervision, e.g. individual supervision, in-the-room supervision, group supervision, or live supervision?

Do you notice a difference in the level of the supervisee's anxiety when you use various techniques during individual supervision, e.g. self-report, videotape, IPR, and observation? Which of these techniques seemed to increase or decrease anxiety?

- 4. Self-efficacy is defined as the supervisee's judgment or belief about their capability to effectively counsel a client. While providing clinical supervision, have you noticed changes in your supervisee's self-efficacy?**

**Prompts:**

Describe a particular experience when you thought there was a change in the supervisee's self-efficacy. How did you know this change occurred?

Describe any experiences when you thought supervisees were questioning their ability.

**5. While providing clinical supervision, did different types of supervision or techniques you used affect the supervisee's self-efficacy?**

**Prompts:**

If you noticed a change in the supervisee's self-efficacy, what type of supervision or technique of supervision were you using at the time?

Have supervisees expressed to you what has helped them during supervision to feel more effective as a counselor?

**6. Is there any other information about your experiences during clinical supervision that you would like to add?**

## APPENDIX D

Table 11

### *Supervisees' Significant Statements*

#### **Supervisees Significant Statements**

I think I did (experience anxiety) initially because I did not know what to expect. The first couple of times that I showed my tapes (I felt anxious). (Katherine, p. 2)

I felt like I didn't know what it was that I wasn't understanding and it to be just more and more anxious for me. (Katherine, p. 2)

.... all I was doing was making myself more and more anxious and feeling more and more negative about my capabilities were and liabilities were. (Katherine, p. 3)

Very high level (of anxiety), yeah, it was intense. (Katherine, p. 4)

I thought "man this stuff is really well received and these people are cooperative and they perceive me as someone that they can relate to and I felt really great about it after about two or three weeks. (Bill, p. 4)

I felt very affirmed and accepted. (Bill, p. 5)

It (clinical supervision) was all very positive. I can't reveal anything negative. I think that it (asking for your input first) increases your self-efficacy and increases your anxiety. (Bill, p.5)

It (self-efficacy) was decreased because of the focus about getting to feelings and I felt my approach was different .... what I thought I felt confident about was incorrect. ... sometimes we felt like the rules changed in mid stream. (Katherine, p.5)

I was always a little nervous or anxious just because it was new. (Robert, p. 2)

Presenting in front of the peer group, you get pretty anxious with that I think because they are you peers and you're kind of under the microscope ... (Robert, p. 3)

... your anxiety is that 'oh they're gonna think that the whole session is on that'. (Robert, p. 3)

We didn't always end on a positive and that kind of bothered me a little bit. (Robert, p. 4)

I like that (IPR) being done with me but it is anxiety producing. I think that's the most anxiety provoking out of all of them. (Robert, p. 5)

It (supervision) did make me feel better about myself and my abilities.

.... Taping is certainly anxiety provoking for some but it didn't bother me. (Robert, p. 6)

I think I experienced more anxiety (in triadic supervision) ... what was happening with communication styles being different. (Susan, p.3)

There is anxiety that accompanied the work as well as the anxiety that accompanies watching yourself on tape. (Susan, p.3)

Positive feedback with my classmates would, usually after showing a tape, definitely contributed to being more relaxed and less anxious about my learning curve... (Susan, p. 4)

... the supervisors also kind of naturally contributed to the reduction in anxiety. So the positive feedback might be key with that (reducing anxiety). (Susan, p. 4)

...it was the quality of the supervision and the kind of climate ... that I think made a pretty significant contribution to how I felt in terms of my ability to counsel effectively. (Susan, p. 7)

The anxiety dissipated pretty quickly. (Bonnie, p. 2)

... the highest the anxiety was ... at the beginning and it decreased significantly over the course of the term. (Bonnie, p. 3)

Sometimes the anxiety was about the client, working with the client but it was never having someone watch me work with a client. (Bonnie, p. 3)

There was a level of trust that I had in the people I was working with they have my best interest at heart and when I feel that, I don't feel like I can be harmed.... (Bonnie, p. 4)

... it ended up being a positive experience even if it created a little bit of uncomfortability. (Bonnie, p. 4)

... with a larger group it was more anxiety. (Bonnie, p. 4)

... things that we said to each other really increased how I felt about myself because I wasn't just getting feedback from one source ... and the feedback was pretty consistent and it was consistently positive. (Bonnie, p. 5)

.... All supervision helped increase my self-efficacy. (Bonnie, p. 6)

The most striking things that I remember in terms of increasing my self-efficacy was the live stuff ... (Bonnie, p. 6)

... helped my self-efficacy a lot to get feedback from my peer group. (Bonnie, p. 7)

(I felt anxious) in the counseling center ... knowing that you're being watched live. That made me feel anxious. (Ellen, p. 1)

... the anxiety reduced once I got used to it (live supervision) and got more confident in what I was doing. (Ellen, p. 2)

I was always anxious when it was my turn to present a tape to the class compared to individual supervision, because individually I was comfortable (with) a partner and with a supervisor... (Ellen, p. 2)

(less anxious) when the tape would be stopped...you were able to explain so people could get like a better picture... (Ellen, p. 3)

... showing the video in class ... even though it increased anxiety. (Ellen, p. 3)

I think it (supervision) increased it (self-efficacy) definitely. (Ellen, p. 4)

My self-efficacy was a lot lower starting supervision and it is a lot higher now and going into internship, I (feel) pretty confident. (Ellen, p. 4)

I think I did feel some anxiety when in the room and that was more because I was afraid of the anxiety that the students (client). (John, p. 2)

Possibly the peer group (felt more anxious)... all eyes were on me kind of thing. (John, p. 2)

I didn't feel any real anxiety for any particular or certain technique. (John, p. 3)

I had a really positive experience ... it (feedback) kind of affirmed to me that this was the technique that I did the best... so it was a positive one (experience). (John, p. 3)

I think they (types of supervision) were all helpful because even when I learned something that I could improve on, it made me feel better about my skills. (John, p. 4)

There was a lot more anxiety I guess centered around it just because of all the stress that we had with the rest of our workload on top of it. (John, p. 4)

I think in the beginning more (anxious) ... the anticipation of it. (Traci, p. 2)

... I would be really nervous about peoples' reaction to it (showing video) ... to be criticized... but I think ... it was more of a relief to have the help...it was more of a relief once I actually got into it. (Traci, p. 2)

...everyone else is going through it and because we are in a cohort, it was a lot easier ... (Traci, p. 2)

... triadic was the most comfortable because we are in there every week and there were just the three of us and we got to know each other well and that wasn't as scary as I think presenting to the entire class. (Traci, p. 2)

... the peer group and in-the-room was the most anxiety. (Traci, p. 3)

...when she would stop the tape ...those were the times that I felt most anxious... (Traci, p. 3)

I was feeling pretty incompetent going into it ... it increased my self-efficacy. (Traci, p. 3)

I don't remember a time where I felt negative. (Traci, p. 3)

This (feedback from live supervision) really boosted my self-efficacy. (Traci, p. 4)

She (supervisor) would stop my tape and point out something repeatedly that I did well... (Traci, p. 4)

...going into it I was filled with anxiety ... and she (supervisor) intimidated me and then once you got to know her, I think that it was the best and wonderful experience because she had such a different viewpoint... (Traci, p. 5)

At first it was a little nerve racking .... My anxiety ... wasn't really high... showing my tape for the first time was kind of a little scary or apprehensive about that... (Danette, p. 2)

I think the more (anxiety) would probably be where ... having her (supervisor) in the room, in our peer group and in triadic. Live supervision really wasn't. (Danette, p. 2)

... I definitely (think triadic is) the least out of all of them (to produce anxiety). (Danette, p. 3)

...when we 'd stop the tape and we would talk about what was going on ...that was definitely helpful. (Danette, p. 3)

...I think they (self report and IPR) were definitely tools that helped me to decrease anxiety. (Danette, p. 4)

But, one thing that kinda raised it (self-efficacy) was when they would give us feedback about .... They would always start with a positive...the positive definitely raised it and the negatives don't necessarily completely diminish it. (Danette, p. 4)

...that's what caused those feelings (lower self-efficacy) cause we weren't just really expecting that (lower scores than self-rated evaluation). (Danette, p. 6)

I think all of them (supervision methods) were pretty effective in increasing (self-efficacy). (Danette, p. 6)

... overall it was a very positive experience in helping definitely increase my self-efficacy as a counselor. (Danette, p. 7)

## APPENDIX E

Table 12

*Supervisors' Significant Statements*

By giving feedback ... there would be some anxiety perhaps implied by the defensiveness of a person. (Paul, p. 1)

...reduction of anxiety... listening to, really trying to be attentive to them and their strengths...that was a helpful thing for them and they would be less anxious...or with triadic, having the two of them work together...all of those things I think helped to reduce anxiety and enhance their feelings of confidence. (Paul, p. 2)

I think self report had the least anxiety associated with it... (Paul, p. 3)

...we'd do the IPR, I think that tended to reduce the anxiety. (Paul, p. 3)

I think if the fit sometimes would be better between the supervisor and the supervisees ... that would help them ... to feel more relaxed, confident, trusting things like that. (Paul, p. 4)

I think listening to him... helped him to feel a greater sense of self-efficacy. (Paul, p. 4)

Decreasing it (self-efficacy)... I would say the individual one had the greatest possibility of doing that more than live supervision and more than the other ones. (Paul, p. 5)

I think self report probably lends itself to the greater feeling of self-efficacy but it doesn't necessarily lend itself as well to growth. (Paul, p. 5)

...they look the most nervous about showing those tapes. (Paul, p. 6)

The similarities I think are really important in terms of the issues of anxiety and self-efficacy because I think that it may be most likely to reduce anxiety and increase self-efficacy...those facilitative condition that we talk about with counseling. (Paul, p. 6)

More (anxiety) when it is time to present their taped session. (Rebecca, p. 1)

... it seems they are more calm at that time knowing that you have given the feedback in a supportive manner. (Rebecca, p. 1)

...being in triadic and seeing another person's event... and witnessing their level of anxiety may contribute to the other person's event of being anxious. (Rebecca, p. 1)

...have noticed a decrease in anxiety in stopping the tape. (Rebecca, p. 2)

I think role playing are extremely effective...in increasing their self-efficacy. (Rebecca, p. 3)

...and that (triadic) just has to anxiety provoking for the supervisor as well as the supervisee...you are giving feedback that may not be what they want to hear ...that's anxiety producing things. (Rebecca, p. 3)

...at the beginning ...there seems to be the heightened anxiety ... and with clients with difficulties...and anxiety around grading... (George, p. 1)

...role playing, definitely role plays, open ended choices ... they became much more anxious... (George, p. 2)

I think the evaluation, the anticipation of it creates anxiety. (George, p. 3)

I used IPR fairly frequently ... that created some anxiety...just the general use of the videotape. (George, p. 3)

...that (changes in self-efficacy) would occur toward the last 1/3 of the semester. (George, p. 3)

Person-centered I think approach really helps their self-efficacy...it is affirming. (George, p. 4)

...a good match of supervisees (in triadic)... would help with the anxiety and boredom factor. (George, p. 4)

...if they (faculty) could help lessen our (supervisors) anxieties that would (help) the supervisee as well. (George, p. 5)

I think in the room supervision is probably the anxious thing for the supervisee. I don't think live supervision did (increase anxiety). (George, p. 6)

When I interrupted (in live supervision)...I think that created quite a bit of anxiety for the supervisee. (George, p. 6)

I think that it's (anxiety) definitely increased in the very beginning when we first start. I think live supervision always is very anxiety provoking...just knowing someone could be watching them was very anxiety provoking. (Jasmine, p. 2)

I don't think there is any one (method) that was more anxiety provoking. (Jasmine, p.3)

...the middle of supervision that they increased their self-efficacy. (Jasmine, p. 3)

I always saw the confidence increase. (Jasmine, p. 4)

I can't think of any (techniques) that would decrease (self-efficacy)...they all have a potential for increasing self-efficacy. (Jasmine, p. 5)

...coming into the supervision process, there's always going to be anxiety and a lower self-efficacy. (Jasmine, p. 5)

Generally, (anxiety increases) when they are producing their videotapes or when they're having them critiqued by myself or maybe in the triadic situation by the other supervisee. (Nancy, p. 1)

...definitely when it's being critiqued and when providing feedback (anxiety increases). (Nancy, p. 1)

I've noticed a lot of anxiety with a supervisee when we're talking about things that might be more personal than just performance. (Nancy, p. 2)

She would just get real anxious about it. Like I'm not measuring up or something. (Nancy, p. 2)

I would say peer (is least anxiety producing). (Nancy, p. 2)

...providing that encouragement...your approval...I almost see like an increase in confidence the next time. (Nancy, p. 3)

They wished that after that (live supervision) ...they could get more feedback about the different things that they have done, more suggestions, more ideas about different things that they could do. (Nancy, p. 6)

**VITA**

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 Social Work Research Methods (SOWK 305)  
 Health and Human Resources Administration (SOWK 318)  
 Working With Children and Adolescents (SOWK 320)  
 School Social Services (SOWK 322)  
 Social Work Issues Seminar (SOWK 451)  
 Field Instruction (SOWK 420)  
 Introduction to Library Research (SOSC 2851)  
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