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ABSTRACT

THE RELATIONSHIP OF SUPERVISION VARIABLES TO COUNSELING
SELF-EFFICACY AND OUTCOME EXPECTATIONS AMONG PRACTICING
PSYCHOLOGISTS

by

Gunther L. Schwartz

Chair: Ronald Coffen, Ph.D.

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: THE RELATIONSHIP OF SUPERVISION VARIABLES TO COUNSELING
SELF-EFFICACY AND OUTCOME EXPECTATIONS AMONG PRACTICING
PSYCHOLOGISTS

Name of researcher: Gunther L. Schwartz

Name and degree of faculty chair: Ronald Coffen, Ph.D.

Date completed: June 2016

Purpose of the Study

The primary purpose of this study was to examine whether Psychologists who receive supervision have greater Counseling Self-efficacy and greater Counseling Outcome Expectancy than Psychologists who do not receive supervision. The secondary purpose was to assess the demographic and personal variables that are associated with Counseling Self-efficacy and Counseling Outcome Expectancy, as well as the supervisor factors associated with Counseling Self-efficacy and Counseling Outcome Expectancy.

Method

The Counselor Self-Estimate Inventory (COSE), Counseling Outcome Expectancies Scale (COES) and the Supervision Descriptive Questionnaire (SDQ) were

administered to 341 Michigan psychologists who either received supervision ($n = 254$) or who did not receive supervision ($n = 87$). Data were analyzed using ANOVA, multiple linear regression, and factor analysis. Differences and relationships were considered to be statistically significant at the $p < .05$ threshold.

Results

Psychologists who received supervision were significantly different from psychologists who did not receive supervision in their levels of Counseling Self-efficacy but not in levels of Counseling Outcome Expectancy. Counseling Outcome Expectancy varied significantly based on years with supervisor, with the highest Counseling Outcome Expectancy associated with 4-10 years with supervisor. Age, gender, highest degree, license type, work setting, primary theoretical orientation, professional roles, and mandatory supervision were not significantly associated with Counseling Self-efficacy or Counseling Outcome Expectancy. Hours spent providing individual counseling was positively associated with Counseling Outcome Expectancy and approached significance with Counseling Self-efficacy, while ethnicity and hours spent providing couples/family counseling was associated with higher Counseling Self-efficacy but not Counseling Outcome Expectancy. Factor analysis revealed a 4-factor solution for the Supervision Factors Scale: Encouraging and Facilitative Behaviors, Content and Structural Focus, Focus on Personal/Professional Growth, and Administrative Procedures, with only Content and Structural Focus significantly predictive of Counseling Self-efficacy and Counseling Outcome Expectancy.

Conclusion

These findings indicate that supervision is significantly associated with Counseling Self-efficacy and Counseling Outcome Expectancy. Psychologists receiving supervision had significantly higher Counseling Self-efficacy and those having the same supervisor for 4-10 years had significantly higher Counseling Outcome Expectancy. Psychologists with greater experience in individual sessions had significantly higher Counseling Outcome Expectancy and psychologists with greater experience in couples/family sessions had significantly higher Counseling Self-efficacy. Counseling Self-efficacy and Counseling Outcome Expectancy are significantly associated with Content and Structural Focus. Overall, these findings highlight the role of supervision and of Content and Structural Focus on the efficacy and expectancy of psychologists in Michigan.

Andrews University

School of Education

THE RELATIONSHIP OF SUPERVISION VARIABLES TO COUNSELING SELF-
EFFICACY AND OUTCOME EXPECTATIONS AMONG PRACTICING
PSYCHOLOGISTS

A Dissertation

Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by

Gunther L. Schwartz

June 2016

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LIST OF ABBREVIATIONS

<i>ANOVA</i>	Analysis of Variance
<i>APA</i>	American Psychological Association
<i>CSE</i>	Counseling Self-efficacy
<i>COE</i>	Counseling Outcome Expectancy
<i>COES</i>	Counseling Outcome Expectancies Scale
<i>COSE</i>	Counselor Self-Estimate Inventory
<i>SD</i>	Standard Deviation
<i>LLP</i>	Limited License Psychologist
<i>LP</i>	Fully Licensed Psychologist
<i>M</i>	Mean
<i>OE</i>	Outcome Expectancy
<i>OLS</i>	Ordinary Least Squares regression
<i>SDQ</i>	Supervision Descriptive Questionnaire
<i>SCT</i>	Social Cognitive Theory

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CHAPTER 1

INTRODUCTION

Background of the Study

Clinical supervision is a frequent and intensely studied topic. In an exhaustive review of the literature, Robiner and Schofield (1990) found nearly 700 articles about clinical supervision as it applied to psychotherapy. Since 1990, supervision research has continued to expand in both scope and depth. Research on the supervision of counselors in training has investigated extensively the nature and process of supervision, including theoretical models of counselor growth. Multiple studies lend support to the necessity of regular supervision for psychotherapists to develop and hone successful therapeutic skills. Clinical supervision establishes a framework for didactic, or group interaction, which can provide the clinician the necessary support, encouragement, and realistic feedback that are important to the development of their clinical identity, which is an ever-changing process that must be maintained and continually developed throughout a psychotherapist's career (Bernard & Goodyear, 1998). Clinicians in clinical practice should seek experiences, including supervision, which help them effectively provide clinical services. Professional growth and the need for supervision continue even after a therapist completes his or her degree (Borders & Usher, 1992; Cashwell & Dooley, 2001; McCarthy, Kulakowski, & Kenfield, 1994). In fact, clinical supervision is viewed by the profession as an important and highly valued activity (Bernard & Goodyear, 1998;

Fitzgerald & Osipow, 1986), and rightfully deserves the research attention it has already received. Further research is needed, however, to investigate the supervision of practicing psychotherapists.

The state of Michigan licenses psychologists at two-degree levels. Master's degreed professionals receive a limited psychology license and must be supervised throughout their professional career. Doctoral degreed professionals are fully licensed after the completion of no less than 2000 hours of post-doctoral supervised work. After they receive this license, they no longer have a supervision requirement. However, it is probable that many continue to receive supervision of some frequency throughout their career (Borders & Usher, 1992; McCarthy et al., 1994). Michigan's Limited Licensed Psychologists are never released from an ongoing supervision requirement, yet, it is unclear why Michigan's licensing board set this requirement and what they anticipate the value of ongoing supervision will be for Limited License Psychologists (LLP). State psychology boards, while far from reaching a consensus, seem to commonly hold that supervision as a licensing requirement, adds to the credibility and ability of licensed professionals by assuring that they have received appropriate experience and have jumped through the necessary hoops to earn them the title of psychologist.

The value of ongoing supervision for licensed psychotherapists has not yet been the focus of any study to date. This lack of research may be partly due to the challenges inherent in the direct collection of data related to counseling client change, as well as the apparent lack of interest shown towards the supervision experience of practicing psychotherapists. Only three published studies were found that address aspects of supervision for the experienced clinician (Borders & Usher, 1992; Cashwell & Dooley,

2001; McCarthy et al., 1994). Directly studying the effects of supervision on a client by observing client symptom change, might offer a way to measure and identify the value of supervision. Studies of this kind, however, have not been conducted (Bickman, 1999). Complex ethical dilemmas, such as withholding treatments in a controlled study or gaining access to confidential counseling sessions make this type of research unfeasible and beyond the scope of this dissertation.

The American Psychological Association (APA) cites supervision for practicing psychologists as an important part of maintaining competency for continuing practice (APA, 2003). Psychologists are encouraged to receive supervision when dealing with difficult cases, when ethical dilemmas are involved (Corey, Corey, & Callahan, 1998), and in order to aid in the identification and understanding of countertransference issues. Interaction with a supervisor provides necessary support and feedback, which may be more important to practicing psychologists than it is to students in training programs who have many opportunities for growth-promoting activities and multiple avenues for constructive feedback. “The process of continual professional reflection demands an ongoing flow of professional interaction” (Skovholt & Ronnestad, 1992, p. 402). Although this type of interaction can take place between clinical peers, the defined structure of the supervisory relationship promotes an environment where support and feedback can most easily be integrated into professional growth experiences. To avoid stagnation and a decline in professional ability, therapists should seek a regular source of feedback that is different from the feedback received from clients (Bandura, 1997; Skovholt & Ronnestad, 1992). Professional growth, which includes continuing education, is enhanced greatly through a regular supervision relationship (Borders &

Ushers, 1992). Without efforts to facilitate professional growth, a therapist's effective use of counseling skills may deteriorate after graduating from his or her training program (Spooner & Stone, 1977). Michigan's Board of Psychology, as well as those in many other states, set supervision requirements for practicing psychologists, yet empirical data is non-existent to effectively inform the decision making process of these licensure boards. The value of clinical supervision for practicing clinicians has yet to be established in formal research (Freitas, 2002). Furthermore, the factors within the supervision process (such as, the content of the supervisory discussion, the types of supervisory comments and actions taken by the supervisor to promote the supervisee's growth, etc.) that may or may not make it useful and effective need to be identified so that individual clinicians and supervisors can make informed decisions about the supervision they might choose to participate in. Currently, little is known about how practicing psychologists use supervision or if they benefit from it (Borders & Usher, 1992; Cashwell & Dooley, 2001; McCarthy et al., 1994).

In review of the many studies done regarding supervision variables for this dissertation study, it was found that only a few focused on post-degree practicing therapists. All articles including experienced psychotherapists will be discussed in detail in the literature review of Chapter 2. Students at all levels of graduate training have been the primary population investigated over the years by supervision researchers, who have used multiple variables and study designs to investigate the supervision process. Although significant emphasis has been placed on the study of developmental models, supervision approaches, and theoretical orientation, additional focus placed on client outcomes would help in determining the value of supervision to ultimately influence the

client change sought through counseling intervention. The study variable Counseling Self-efficacy has been found to have an influence on counselor performance (Ianelli, 2000) in that participants reporting higher Counseling Self-efficacy were rated as being better at performing the counseling tasks than those with lower Counseling Self-efficacy, other studies have shown that Counseling Self-efficacy levels can be increased when a counselor engages in supervision (Larson & Daniels, 1998). According to Social Cognitive Theory (SCT) and the Counseling Self-efficacy Theory that developed out of it, a practicing counselor's self-efficacy relates to formed beliefs and expectations about how well they might do conducting a session with a particular upcoming client (Bandura, 1986). Of the major areas of supervision research, few studies have included practicing psychotherapists in their study sample. Most research has been "restricted to a truncated range of therapist experience" (Holloway & Hosford, 1983, p. 75). Experienced clinicians have been largely left out of this area of study, even though most developmental models encompass the entire life span of the clinician. Further application of these variables, with practicing psychotherapists, would add useful input to the otherwise well-studied areas of counselor supervision.

Theoretical Framework

Counseling Self-efficacy

Adapted from Social Cognitive Theory (Bandura, 1977, 1982, 1984), the construct of Counseling Self-efficacy has recently gained research focus. The use of Counseling Self-efficacy as a study variable allows researchers a way to bridge the gap between the concrete aspects of supervision practice and the abstract theoretical construct

of the larger social cognitive theory. Learning, motivation, and performance are all aspects of a counselor that might be enhanced by effective supervision, and Counseling Self-efficacy offers researchers a way to measure these counselor characteristics. When Counseling Self-efficacy was evaluated prior to upcoming sessions counselors were to conduct, it predicted how well the counselor performed during the sessions (Larson & Daniels, 1998). Self-efficacy is defined as the belief of an individual that he or she can adequately perform the required tasks to achieve an anticipated outcome (Bandura, 1977). Counseling Self-efficacy has been shown to be an important construct in the development and training of psychotherapists and is related to supervision, level of experience, and amount of training or level of degree (Larson & Daniels, 1998; Melchert, Hays, Wiljanen, & Kolocek, 1996).

Counseling Outcome Expectancy

Social Cognitive Theory holds that self-efficacy beliefs and outcome expectancy are different but related internalized processes (Bandura, 1989). Counseling Outcome Expectancy (COE) is a person's beliefs about whether their successful performance of counseling skills will lead to positive changes for their clients (Bandura, 1977).

Although not directly a measure of client outcome, Counseling Outcome Expectancy is believed to play an important role in the successful performance of psychotherapy treatment. To this point, few studies have made attempts to operationalize Counseling Self-efficacy and Counseling Outcome Expectancies as separate variables. Self-efficacy theory applied to the supervision relationship, offers a way to measure the effects of supervision on the counseling session because Counseling Self-efficacy and Counseling Outcome Expectancy have been demonstrated to account for most of the performance

variance measured when participants attempt complex and difficult tasks such as conducting a counseling session (Bandura, 1989). Studies of counselors-in-training have demonstrated that Counseling Self-efficacy is predictive of counselor performance on upcoming counseling sessions (Larson & Daniels, 1998) and of the performance of counseling skills in general (Larson et al., 1992; Reese, 1993; Watson & Kelly, 1992). This present study measured the constructs of Counseling Self-efficacy and Counseling Outcome Expectancy and looked at each in relation to the factors and variables of supervision and interaction with them.

Statement of Problem

Individual clinicians and state licensing boards are currently making decisions about their supervision needs without the necessary empirical research data.

“Psychology, as a profession claiming a research orientation, might well spearhead a movement to establish a research basis for each requirement for licensure to complement the present basis, namely judgments of thoughtful people” (Cohen, 1985, p. 287). The current review of the literature shows that little progress has been made towards the establishment of such a research basis.

Competent, satisfied, and able psychologists are those expected to have high levels of Counseling Self-efficacy (Larson & Daniels, 1998). Counseling Self-efficacy as a theoretical construct is widely used as a dependent variable in studies looking at counselors in training. Only one published study has been found that measured this variable with experienced, post-licensure clinicians (Cashwell & Dooley, 2001). As a theoretical construct, a counselor’s outcome expectancies have yet to be effectively and meaningfully measured as it relates to supervision. Studies that include the dependent

variables Counseling Self-efficacy and Counseling Outcome Expectancy would help to identify the value of ongoing supervision for practicing psychologists by delineating specific aspects of supervision that influence Counseling Self-efficacy and Counseling Outcome Expectancy. No published studies have been found looking at licensed psychologists and the influence of supervision variables upon Counseling Self-efficacy and Counseling Outcome Expectancy. Studies of this kind need to be conducted to add to the extensive body of research about supervision issues with training-level clinicians to bridge the gap in the supervision literature between pre-licensed and post-licensed psychologists. This study has attempted to add useful investigation into an area of psychologists' clinical work, lacking in information due to the unstudied aspects of the supervision received by practicing psychologists.

Purpose of Study

This study examined the relationship of Counseling Self-efficacy and Counseling Outcome Expectancy to multiple aspects of ongoing clinical supervision for post-licensed experienced psychologists. This study sought to demonstrate whether supervision has an impact on Counseling Self-efficacy and Counseling Outcome Expectancy and whether there are particular supervision factors that can affect Counseling Self-efficacy and Counseling Outcome Expectancy. This study intends to inform practicing psychologists and state licensure boards about the value of supervision and the supervision factors that influence Counseling Self-efficacy and Counseling Outcome Expectancy. These two variables have been well supported by theory and practice to have predictive value in relation to conducting psychotherapy by advanced training level counselors. As an attempt to answer the need to broaden the application and validation of Counseling Self-

efficacy theory, this study will further the investigation of Counseling Self-efficacy and Counseling Outcome Expectancy along the developmental continuum into that of practicing, experienced psychologists, thus further informing the Counseling Self-efficacy theory as it relates to a developmental or life-span construct.

Research Questions

When the independent variables of frequency and duration of supervision, demographics of supervisors and supervisees, and supervision factors were considered in relation to the dependent variables of Counseling Self-efficacy and Counseling Outcome Expectancy, the following questions were of significant interest.

Research Question 1: Will psychologists who receive supervision, engage in supervision at different frequencies, and have different durations of the supervision relationship, have varying levels of Counseling Self-efficacy and/or Counseling Outcome Expectancy?

Research Question 2: Are there supervisee and supervisor demographic and personal variables for psychologists that relate to Counseling Self-efficacy and/or Counseling Outcome Expectancy?

Research Question 3: Do supervision factors relate to Counseling Self-efficacy or Counseling Outcome Expectancy for practicing psychologists?

Research Hypotheses

It was hypothesized that:

1. Psychologists who do not receive supervision will have significantly lower mean Counseling Self-efficacy than will psychologists who receive supervision.

2. Psychologists who do not receive supervision will have significantly lower mean Counseling Outcome Expectancy than will psychologists who receive supervision.
3. Psychologists who more frequently receive supervision will have significantly higher mean Counseling Self-efficacy than those who less frequently receive supervision.
4. Psychologists who more frequently receive supervision will have significantly higher mean Counseling Outcome Expectancy than those who less frequently receive supervision.
5. Psychologists whose supervision relationship exceeds a duration of one year will have a significantly higher mean Counseling Self-efficacy than those whose relationship duration is less than one year.
6. Psychologists whose supervision relationship exceeds a duration of one year will have a significantly higher mean Counseling Outcome Expectancy than those whose relationship duration is less than one year.
7. There are supervisee demographic or personal variables that will be associated with Counseling Self-efficacy for practicing psychologists.
8. There are supervisee demographic or personal variables that will be associated with Counseling Outcome Expectancy for practicing psychologists.
9. There are supervisor demographic or personal variables that will be associated with Counseling Self-efficacy for practicing psychologists.
10. There are supervisor demographic or personal variables that will be associated with Counseling Outcome Expectancy for practicing psychologists.

11. There will be specific supervision factors that will be associated with Counseling Self-efficacy for practicing psychologists.
12. There will be specific supervision factors that will be associated with Counseling Outcome Expectancy for practicing psychologists.

Significance of Study

In the field of psychology, it is expected that psychologists will not only maintain but also continue to develop skills and proficiencies. Supervision is often viewed as a necessary and regular intervention used by practicing psychologists to help them maintain healthy and efficacious clinical practice. This study offers psychologists needed information about the effects of supervision on them and their ability to successfully perform psychotherapy. The data this study generated, when used to inform debate among state licensing boards about policies and requirements related to the continuing supervision needs of practicing psychologists, should prove to be informative and helpful to this process. Psychologists who have no requirement to receive ongoing supervision might view the findings of this study to be a helpful tool as they make decisions about the usefulness and need for supervision. Finally, the application of the dependent variables Counseling Self-efficacy and Counseling Outcome Expectancy to the population in this study will further lend support for theoretical constructs around Counseling Self-efficacy and its relationship to developmental models.

Delimitations of Study

This study of practicing psychotherapists was delimited to licensed psychologists in the state of Michigan. Since Michigan has masters and doctoral level licensure for

psychologists, something that few other states have, this population is somewhat unique to the state of Michigan (Association of State and Provincial Psychology Boards, 2008).

Limitations of Study

A weakness of this study is that it is self-report, survey instruments were used to collect data from the study participants. Many factors played a role as to whether participants completed and returned the survey or discarded it. Because it was not possible to send a survey to all of the psychologists in the state of Michigan, a much smaller stratified random sampling was used to select participants. Of the 1600 questionnaires sent out, only 466 participated in the study by returning the completed instruments in the mail. This was after two follow-up reminder mailings went out, resulting in a 29% response rate. Of these respondents, some were eliminated when there was too much missing data or if the subject did not meet the requirements to participate in the study. The data from 342 participants was used for analysis in this study. Only 21% of the 1600 participants initially sampled were included in the final data analysis of this study.

All participants received the Supervision Descriptive Questionnaire (SDQ). This instrument is divided into three sections. The first section has 15 questions relating to the participants' demographic information and their use of supervision. The second section was completed only by those who marked that they do receive supervision, and was included as a means of collecting information about the subject's supervisor and the nature of the supervision received. The final section included a single item measure of Counseling Self-efficacy and the 3 items of the Counseling Outcome Expectancies Scale (COES). The Counseling Self-Estimate Inventory (COSE) was also included in this

mailing. Completion times were expected to be about 30 minutes, and did discourage some participants. Multiple emails were received from participants apologizing for not participating stating that they could not take the time necessary to complete the instrument.

While being informative about the relationship of and between variables, this study was a non-experimental design and therefore does not offer the researcher the ability to make direct cause-and-effect statements regarding the statistical findings.

Assumptions

It was assumed that the psychologists who answered the questions on the survey instruments gave accurate and truthful information about themselves, their supervisor, and their clinical practice.

Definition of Terms

Clinical Supervision: Is an ongoing activity engaged in to promote professional growth, provide for evaluation and feedback and assure the maintenance of psychotherapy skills.

Clinical Supervisor: Is a clinician with a more advanced degree/licensure and more experience than the supervisee, or is a designated colleague who has a similar degree/licensure but the supervision relationship must be clearly defined.

Counseling Outcome Expectancy (COE): A therapist's beliefs about whether his or her successful performance of counseling skills will lead to positive changes for his or her clients (Bandura, 1977). This variable is measured by the Counseling Outcome Expectancies Scale (COES), a three-item scale developed for use in this study.

Counseling Outcome Expectancies Scale (COES): A three-item scale used to measure Counseling Outcome Expectancies.

Counseling Self-efficacy (CSE): A therapist's beliefs or judgments about his or her capabilities to effectively counsel a client in the near future (Larson & Daniels, 1998). The Counselor Self-Estimate Inventory (COSE) (Larson et al., 1992) will measure this variable.

Counselor Self-Estimate Inventory (COSE): This is a 37-item instrument. All the questions have a six-point Likert Scale and are designed to be a measure of a counselor's beliefs about his or her capacity to successfully perform specific counseling behaviors (Larson, et al., 1992).

"Fully" Licensed Psychologist (LP): In Michigan, a fully licensed psychologist is one who possesses a doctoral degree in a psychology-related field, has additionally completed no less than 2000 hours of supervised clinical work, and has successfully passed the Michigan state licensing exams.

Limited License Psychologist (LLP): A person who has obtained at least a master's degree in a psychology related field, has additionally completed 2000 hours of supervised clinical experience, passed state licensing exams, and will continue to receive regular supervision throughout his or her practicing career. The state of Michigan allows doctoral level psychologists to receive the LLP while they are working on the completion of their post-doctoral clinical work.

Self-efficacy: The belief of an individual that he or she can adequately perform the required tasks to achieve an anticipated outcome (Bandura, 1977).

Supervision Factors: The behaviors and procedures used during supervision as well as the focus of the supervision sessions.

Supervision Factors Scale: A scale of three items, each with a collection of factors relating to supervision behaviors, procedures, and focus.

Organization of Study

This dissertation is divided into five chapters. Chapter 1 includes the introduction, theoretical framework, statement of problem, purpose of study, research questions, research hypotheses, significance of study, delimitations and limitations of study, assumptions, and definition of terms. Chapter 2 presents a review of the literature. The included studies give a background understanding of current research on supervision issues related to Counseling Self-efficacy, supervision factors, and outcome expectancies. Chapter 3 describes the study methodology, including the population, random sampling, instrumentation, procedures, and a list of the Null Hypotheses and the analysis methods. Chapter 4 is a presentation of the results of the data after it was collected and analyzed. Each hypothesis was tested for rejection or acceptance. Chapter 5 provides a discussion of the implications of the results to the field of psychology.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

While extensive research inquiry has been focused on beginning or training stages of psychotherapists' development, relatively few studies have included clinicians at post-degree developmental ranges, and fewer still have used post-degree practicing clinicians as their primary population of research interest. To examine self-efficacy and supervision variables in this study, the participants selected to participate were all post-degree, experienced clinicians. Although many of these variables, including Counseling Self-efficacy, Counseling Outcome Expectancy, and factors related to the supervision relationship, have been studied in depth using clinicians in early stages of clinical development, few studies were found that investigated Counseling Self-efficacy variables on the population of interest to this study. No studies were found that used the variables Counseling Self-efficacy, Counseling Outcome Expectancy, and supervision factors with practicing psychotherapists.

For the purpose of this literature review, it was necessary to include an overview of studies using the same or similar self-efficacy variables that were used in this study but conducted on clinicians at early stages of professional development prior to licensure and professional practice. All studies found which include post-degree or practicing clinicians were also included in this review. Relevant studies were reviewed within two

identified subdivisions. First, the theoretical base of Bandura's Social Cognitive Theory is overviewed, with the primary focus being placed on Self-Efficacy Theory as it has initially been applied to counselor training. Lastly, literature was reviewed that addressed the three main variables that form the focus of this study: Counseling Self-efficacy, Counseling Outcome Expectancies, and Supervision Factors.

Overview of Self-efficacy Theory

Self-efficacy Theory, from which the developing theoretical structure for Counseling Self-efficacy is emerging, is itself based in a larger more generalized theoretical framework of Social Cognitive Theory (Bandura, 1977). This larger, more generalized theory was developed through Albert Bandura's clinical observations and research work on human phobias. Bandura postulated that human behavior, especially behavioral change, functioned in a reciprocal cycle where performance was mediated by consequences, thus initiating changes in cognitions, which according to his theory, directly affect future performance. This reciprocal cycle, once initiated, could continue indefinitely, yet Bandura believed that a person's cognitive attributions or perceptions of their behavior was the most important mediating factor in this entire cycle, or "reciprocal loop" (Bandura, 1977). He termed these cognitive mediations self-efficacy, the belief of an individual that he or she can adequately perform the required tasks to achieve an anticipated outcome. Bandura, (1977, 1982, 1984) found that an individual's efficacy expectations are predictive of a person's behaviors toward the anticipated behavior. Because self-efficacy beliefs function as a mediator between what people do and what they believe they know how to do, self-efficacy beliefs are an important predictor of a person's performance and perseverance. As applied to this dissertation study, it would

mean that a person with high efficacy expectations about their counseling abilities with clients, would be more willing to counsel difficult or challenging clients, would apply more preparation and/or effort, and would persist in this behavior longer than an individual with lower efficacy expectations (Bandura, 1982).

Self-efficacy may often be generalized beyond the specific circumstances where it was initially created. Having successfully worked with a challenging depressed client, a clinician experiences enactive mastery, and according to Bandura, may form strong self-efficacy beliefs not only about their abilities to work with depressed clients, but with difficult clients as a whole. The strength of self-efficacy beliefs is an important predictor of a person's perseverance when things are not going well; weak efficacy expectations are quite easily lowered when failure occurs. Strong efficacy expectations persist even after multiple failures and with strong efficacy expectations some types of challenges or failures may actually increase an individual's motivation or effort toward the initiation of the behavior. People with high efficacy expectations believe that if they persist long enough or try hard enough, they have what it takes to succeed at what they are undertaking, no matter the unpredictable challenges that arise.

According to Bandura (1977, 1982, 1984), there are four domains of influence on a person's level of self-efficacy. "These include performance attainments; vicarious experiences of observing the performances of others; verbal persuasion and allied types of social influences that one possesses certain capabilities; and physiological states from which people partly judge their capability, strength, and vulnerability" (Bandura, 1982, p. 126). Performance attainment or mastery experiences provide the strongest source of a person's cognitive appraisal of self-efficacy, while the other domains or sources are listed

in descending order as to their influence on a person's self-efficacy expectations. By successfully performing the desired behavior, a person's self-efficacy appraisals will increase. This may be difficult for practicing psychologists because the determination as to whether their therapeutic behaviors were performed successfully must be made through a subjective appraisal of the success of this behavior. At times, at the end of a well-conducted session, one with good therapeutic potential, the client might not feel happy. Further, a session with little therapeutic value might end with the client feeling good, able to vent ad nauseam, yet never challenged toward empowered action producing change.

However, mastery is not the "sole source of information about their capabilities" (Bandura, 1982, p. 126). Vicarious experience, often called modeling, has been demonstrated to be a significant source of efficacy information. Unless practicing psychotherapists work in large groups or agency practices, it is unlikely that they will have any significant opportunity to engage in direct observation of a peer (model) successfully performing counseling behaviors. However, through participation in supervision, modeling occurs through verbal descriptions by a supervisor describing their successful work, the work of others, and the use of role-play.

Verbal persuasion, although a weaker source of efficacy information, can have significant implications concerning practicing psychotherapists. Using verbal persuasion, supervisors provide sources of encouragement and empowerment hoping to encourage supervisees to engage in challenging clinical tasks by helping them identify and believe that they do have the ability to succeed. Verbal persuasion is described by Bandura as efforts made to help people identify the capabilities they need to do a particular task, yet

is a weak source of self-efficacy support. Self-efficacy gained in this way can be quickly extinguished by failed attempts at the tasks involved. In supervision, the goal would be to use verbal persuasion to help the supervisee engage in counseling tasks that are significantly challenging to promote growth but yet unlikely to lead to failure. “Mastery of challenging tasks conveys salient evidence of enhanced competency” (Bandura, 1977, p. 201).

Although people rely on input from their physiological state (anxiety), this final source of self-efficacy information has differing influence depending on the strength of input from the previously described sources. People may “read their visceral arousal in stressful and taxing situations as an ominous sign of vulnerability to dysfunction because high arousal usually debilitates performance” (Bandura, 1982, p. 127). Typically, there is a curvilinear relation between high levels of anxiety and motivation toward a task, although anticipatory anxiety, when at low levels, can motivate a person toward a behavior and intensify their performance. When anxiety levels continue to elevate, a threshold is reached where the experienced anxiety will now reduce the person’s motivation and performance potential. People who have a heightened sense of arousal may learn to translate this physiological sensation as negative information in regards to their ability to perform the expected task.

Of the four sources of influence, none are necessarily helpful in raising Counseling Self-efficacy in experienced counselors. For Counseling Self-efficacy to be positively influenced, the counselor must engage in cognitive appraisals of the event. Counselors form attributions from the efficacy information to form Counseling Self-efficacy. Supervision might be helpful in the process. Frequently, efficacy information

is vague or conflictual, such as sessions when the client left upset even though the session was therapeutically positive. By providing positive directive feedback, the supervisor can use verbal persuasion to help the counselor develop self-efficacy improving attributes.

Outcome expectancy (OE) is what the person believes an outcome will be if the task is performed well. Though directly related to self-efficacy, and at times “partly governed by self-beliefs of efficacy” (Bandura, 1989, p. 8), OE must be viewed as a separate and significant source of variance. “The degree to which outcome expectations contribute to performance motivation, independently of self-efficacy beliefs, is partially determined by the structural relationship between actions and outcomes in a particular domain of function” (Bandura, 1989, p. 8). In situations where simple linear tasks have guaranteed outcomes if the successful performance of the task is completed, outcome expectancies may not offer any predictive value having been interconnected to the performance of the task as it relates to a person’s self-efficacy. Where outcome expectancies contribute the most to the outcome, independent of the self-efficacy beliefs, is in situations where a successful performance of the task does not or cannot completely account for the achieved outcome. When other variables beyond just the counselor also influence counseling outcomes (e.g. client motivation, Axis II diagnoses, or lifestyle addictions pertaining to the client), OE is expected to influence motivation and performance above and beyond the variance accounted for by Counseling Self-efficacy alone.

Successfully conducting a counseling session requires the mastery of complex behaviors and skills. Much of what goes on in a counseling session is abstract and

dynamic and changes between individual clients and from moment to moment. Bandura (1977) recommends the investigation of outcome expectancies as an additional mediating variable when the tasks required are ambiguous, abstract, or changing. A particular psychotherapist may have high Counseling Self-efficacy, thus, a strong belief that he or she is able to successfully conduct a counseling session using the appropriate intervention skills. Yet, if this counselor has low outcome expectancies, does not fully believe that the successful completion of the counseling session will produce positive therapeutic change in his or her client, it is still unlikely that this psychotherapist will engage in the counseling task in a successful or satisfying way or persist if difficulties arise.

Application of Self-efficacy Theory encourages the inclusion of Counseling Outcome Expectancy as a mediating variable where Counseling Self-efficacy is a primary study variable. Using both dependent variables, Counseling Self-efficacy and Counseling Outcome Expectancy can account for more of the variance than Counseling Self-efficacy alone when looking at the relationship of supervision and a counselor's abilities or performance.

Counseling Self-efficacy

Over the past two decades, studies have become increasingly prevalent that examine self-efficacy as a stand-alone construct pertaining to counselors (Friedlander, Keller, Peca-Baker, & Olk, 1986; Larson, et al., 1992; Sharpley & Ridgway, 1993). Counseling Self-efficacy has now become a primary research variable with its roots firmly planted in foundational Social Cognitive Theory.

Friedlander and Snyder (1983) began early investigations into connecting self-efficacy with counseling variables. Building on Stoltenberg's (1981) four-stage model of

supervisory behaviors, which maintains that supervisor's behaviors are expected to change over time as trainees increase in experience level. Friedlander and Snyder (1983) believed that counselor trainees at different levels would exhibit differing degrees of self-efficacy. "The strength of a trainee's self-efficacy would be a function of counseling experience, but might also represent an important cognitive mediator of his or her own expectations for the supervisory process" (Friedlander & Snyder, 1983, p. 243).

Friedlander and Snyder (1983) developed the Self-efficacy Inventory (S-EI) to use in their study. Participants ($n = 82$) represented three levels of counseling experience, Level 1 (beginning practicum, $n = 29$), Level 2 (advanced practicum, $n = 31$), and Level 3 (interns, $n = 22$). The participants rated 21 activities on a 0- to 9-point scale, ranging from not confident to completely confident. The S-EI showed high internal consistency ($\alpha = 0.93$). Results indicated that greater experience was significantly associated with greater self-efficacy and that more self-efficacious participants had higher expectations of their supervisors, expecting their supervisors to be expert and evaluative.

In a second study, Friedlander, Keller, Peca-Baker, and Olk (1986) investigated supervisee role conflict using self-efficacy as a covariate, where the supervisor opposed work the trainee was performing with a client. Four study conditions were arranged that consisted of (a) Conflict: the supervisor recommends action contrary to that which the supervisee desires; (b) No conflict: the supervisor acts supportively of the supervisee's intentions; (c) Neutral: the supervisor expresses an opposing option but equally validates the supervisee's position; and (d) Control: the supervisor gives no input.

Friedlander et al. (1986) anticipated that trainees would make significantly more negative statements, report higher anxiety, and demonstrate poorer performance when in

the role conflict group than those who were in the no conflict group. The researchers hypothesized that supervisees with higher self-efficacy would experience more intense role conflict following a supervisor's directive advice than would supervisees with lower levels of self-efficacy. Although significant role conflict was found for participants in the conflict condition, the conflict did not have a significant effect on anxiety or performance. However, a significant inverse relationship was found between performance and anxiety and between anxiety and Counseling Self-efficacy. The authors suggested that the lack of significance found for adverse effects for role conflict might be, in part, due to their participants having little professional experience, since they were trainees in clinical programs. Another implication from this study was that a supervisee's level of self-efficacy might in fact correlate with the ability to successfully perform as a counselor.

Sipps, Sugden, and Faiver (1988) conducted a study that examined the relationship between the year of graduate training and a student's self-efficacy in applying basic counseling skills. Participants ($n = 78$) were first through fourth year graduate counselor trainees. It was hypothesized that a J-shaped curvilinear relationship would exist between level of graduate training and efficacy expectations. First year students were expected to overestimate their ability and underestimate the difficulty of conducting therapy. Second year students were expected to have the lowest levels of self-efficacy and the fourth year students were expected to have the highest due to having more mastery experiences. Sipps et al. (1988) additionally investigated outcome expectations and anticipated a significant positive linear relationship between the students' year of training and their outcome expectations. A final hypothesis was that

first year students would have the least self-efficacy for performing difficult counseling responses and fourth year students would have high self-efficacy for both easier and harder responses alike. This study found a significant positive relationship between the year of graduate training experience and self-efficacy. Outcome expectations were reported as correlating significantly in a positive direction with counselor experience year in a similar relationship as did efficacy expectations, but did not reach statistical significance. This study supported self-efficacy theory, with its notion that efficacy is attributed to specific behaviors.

Johnson, Baker, Kopola, Kiselica, and Thompson (1989) studied the changes in self-efficacy of master's degree students ($n = 50$) who were taking a pre-practicum class. They felt that this would allow them to measure changes in self-efficacy in a "real-life" context. Four study groups were formed based on pre-test results for self-efficacy scores. High efficacy and low efficacy were divided into two groups. Matched pairs from within each group were assigned to no counseling or counseling. Johnson et al. (1989) felt that by spending time as a client, the students would observe the therapist as a model. All four groups participated in the classroom instruction. The study was administered for eight weeks. Counseling Self-efficacy was tested the first day and again at the middle and the end of eight weeks. Using the Counseling Self-efficacy Scale, developed for use in this study, participants rated the presence (coded as "1") or absence (coded as "0") for each of 26 counseling skills presented. The scores were then summed across all 26 skills to create a "level" (p. 211) variable reflecting the number of counseling skills the participants believed they were able to perform, scaled from 0 to 26. Additionally, participants rated the "strength" (p. 211) of each skill on a scale from 0 (no confidence)

to 100 (complete confidence), which were summed and divided by 26 to create an average strength score. Johnson et al. found that self-efficacy increased for students in all four groups over eight weeks of training. No support was found for the hypothesis that students who participated in their own counseling would have increases in self-efficacy. Additionally, no relationship was found between self-efficacy and performance of counseling skills. It is important to note that counselors in this study were not actually in contact with clients (participants interviewed graduate students who played the role of a client), thus had no opportunity for mastery experience. The measure used appears to have limitations due to a “psychological ceiling” reported. High efficacy students reached upper limits easily in the study, in part, due to a lack of questions measuring complex counseling skills.

Potenza (1990) conducted a study to examine the relationship between Counseling Self-efficacy, years of experience, level of education and previous amount of supervision. Her participants were students in counseling programs and also included a small sample of master’s and doctoral level practicing counselors. Potenza found a significant relationship between experience and Counseling Self-efficacy. The least experienced participants had the lowest Counseling Self-efficacy. However, she was unable to find any significant differences between the two groups of practicing counselors with master’s degrees ($n = 52$) or doctoral degrees ($n = 58$), which may have been due to generally high scores for both groups and therefore a ceiling effect on the instrument used, implying that assessing more complex counseling skills is necessary.

In a study done with 42 master’s level counselor trainees, Ridgway and Sharpley (1990) used a two-item measure of self-efficacy in an attempt to predict counselor

effectiveness. Mock counseling sessions were completed by the counselor trainees, after which the client, who was a trainer, rated the counselor's performance. Like the earlier study by Johnson et al. (1989), the results of this study failed to demonstrate that self-efficacy was a significant predictor of counselor ability. This study has some significant weaknesses that must be considered before accepting these findings as valid. The two-item measure of self-efficacy was given five weeks before counselor performance was rated and the questions asked were about the counselor's expected grade, not content specific micro-skills. Self-efficacy theory identifies the necessity of assessing self-efficacy for current or near future events. In addition, microanalysis of counseling skills is important to differentiate self-efficacy from outcome expectancies (e.g. what grade you think you will get). Lastly, the sample used only included 42 students, which limited statistical power and generalizability to professional counselors.

Sharpley and Ridgway (1993) conducted a second study to assess the predictive value of self-efficacy and counseling skill performance. As in their previous study (Ridgway & Sharpley, 1990), student counselors engaged in a pre-practicum class and had their self-efficacy assessed at three distinct points during an eight-week period. Students participated in a three-hour, one time per week training program that was presented as video vignettes. Trained evaluators rated the students on written and verbal responses to specific video segments. Sharpley and Ridgway (1993) found that no significant relationship existed between counseling self-efficacy and skills performance and concluded that "The fact that there was no significant predictor value in any of the three estimates of future performance and in two of the levels of confidence values challenges the predictive value of self-efficacy in regard to counseling training" (p. 80).

Sharpley and Ridgway (1993) was limited by the measure of self-efficacy, which was only a two-item scale, where students estimated the grade they would achieve and how confident they were at receiving this grade. No attempt at microanalysis of specific counseling skills was made. According to Self-efficacy Theory, when behaviors are difficult or complex in nature as conducting counseling treatment is, it is important to assess self-efficacy in relation to particular aspects of one's belief in their ability to perform these skills. Participants in this study were trainees rated on the basis of mock counseling sessions and by estimating "the grade that you will receive for the counselling skills exam in this course" rather than their future ability to be effective in counseling, so this study did not estimate the students' true expectations of future counseling behavior. Further, this study had no control group, only included trainees, and the null results of this study may be, at least in part, attributable to the low statistical power associated with the small sample size ($N = 31$), further limiting confidence in the conclusions of Sharpley and Ridgway (1993) towards understanding the relationship between self-efficacy and counseling skill performance in professional counselors.

Larson et al. (1992) conducted a series of five studies to "develop a reliable and valid measure of counselors' self-estimates of their counseling activities (i.e., behaviors, affect, and cognitions) that occur during a counseling session" (pp. 116-117). Larson et al. (1992) developed the Counseling Self-Estimate Inventory (COSE) using the theoretical underpinnings of self-efficacy theory to inform and structure the content of their questions. In the first study, Larson et al. (1992) began with 67 items, but after testing 312 masters level counseling students, found that 14 items showed little variance (all scores were at a 5 or 6 on the 6-point Likert-type scale) and were therefore

eliminated. Larson et al. (1992) then conducted factor analysis using principal factor extraction and Varimax rotation and found that the a 5-factor solution was optimal, but based on the criterion of factor loading of .40 or above, 16 items did not load on any factor and were eliminated. The final result was a COSE that consisted of 37 items that assess a counselor's perception of his or her ability to perform specific counseling skills and behaviors, including the factors of micro-skills, process, difficult client behaviors, cultural competence, and awareness of values, with an overall internal consistency estimate of $\alpha = .93$. COSE items are rated on a 6-point Likert response interface and summed (after reverse scoring of some items) so that COSE scores range from 37 to 222. Higher scores indicate greater confidence in abilities to successfully perform counseling related skills.

This 37-item COSE showed good discriminant validity in that the COSE “correlated minimally” (Larson et al., 1992, p. 112) with the State-Trait Anxiety Inventory (STAI) of Spielberger et al. (1983) and the Self-Criticism subscale of the Tennessee Self-Concept Scale of Fitts (1965), indicating that the COSE scores are not a function anxiety or self-criticism. Further, COSE scores were not significantly correlated with Graduate Record Exam (GRE) scores, Grade Point Average (GPA), or Myers-Briggs Type Indicator (Briggs-Myers & Briggs, 1985) scores, demonstrating that COSE scores are not driven by academic ability or personality type.

In the second study, Larson et al. (1992) demonstrated the test-retest reliability of the COSE on 30 pre-practitioner counseling trainees, finding $r = .87$ overall, and acceptable test-retest reliabilities for each subscale (micro-skills $r = .68$, process $r = .74$, difficult client behaviors $r = .80$, cultural competence $r = .71$, and awareness of values $r =$

.83). In the third study, Larson et al. (1992) sought to determine whether training and experience were related to COSE scores by contrasting levels of education and contrasting professional experience. Counselors with a Bachelor's degree had significantly lower COSE scores than counselors with Master's or PhD degrees and also that COSE scores were associated with a greater number of years of experience. Further, when duration of supervision was assessed as discrete categories (no supervision, 1-3 semesters of supervision, 4-6 semesters of supervision, and 7-17 semesters of supervision), ANOVA revealed a significant main effect of supervision, such that counselors who had more semesters of supervision had higher COSE scores ($p < .001$). However, this study was limited in that the majority of the participants were trainees who had no counseling experience and Larson et al. (1992) did not indicate the interaction between experience and supervision and did not separately statistically analyze the effect of supervision for professional counselors, so the effect of supervision on practicing counselors remains unclear. The fourth study by Larson et al. (1992) showed that COSE scores in 10 Master's practicum students rose by 1.3 standard deviations on average from before to after the practicum. Overall, across the practicum, COSE scores increased in nine of 10 students.

Lastly, in study five, Larson et al. (1992) demonstrated the criterion validity of the COSE by demonstrating that higher COSE scores were significantly correlated with scores on a mock interview in 26 pre-practicum graduate students. Mock interview scores were significantly correlated with overall COSE and each COSE sub-scale (each $p < .01$) except for cultural competence. Further, COSE was significantly negatively

correlated with STAI state anxiety and STAI trait anxiety, and positively correlated with mock interview outcome expectation (each $p < .0001$).

Because the COSE demonstrated good test-retest reliability, good discriminant validity, and good criterion validity, the COSE was an ideal measuring instrument to be included in the present study on the effect of mandatory supervision on the Counseling Self-efficacy and Counseling Outcome Expectancy in practicing counselors. However, the works of Larson et al. (1992) were limited by the study samples, which were predominantly students and only 25% were male rather than a sample of professional counselors with a better gender balance. Further, Larson et al. (1992) suggested that future studies include a separate measure of outcome expectancy. Therefore, what is needed is a study of the effect of supervision on the Counseling Self-efficacy and Counseling Outcome Expectancy in practicing counselors using a sample that is gender-balanced and includes the COSE and a separate measure of outcome expectancy. The present study was specifically designed to fill this gap in the literature.

Melchert, Hays, Wiljanen, and Kolocek (1996) designed a study to investigate the changes in Counseling Self-efficacy across Stoltenberg and Delworth's (1987) four stages of counselor development starting with beginning trainees to experienced psychologists (as cited in Melchert et al., 1996). Their sample of 138 participants consisted mostly of students at various levels of graduate year training and five percent of their sample were practicing psychologists. The response rate was a phenomenal 92%, which may in part be because all participants either worked-for or were enrolled in the same university. The Counseling Self-efficacy Scale (CSES) was developed for use in this study. The instrument consists of 20 items and uses a five-point Likert Scale. Half

of the items are reverse-scored and are inverted when tallied so that higher numbers correspond with higher self-efficacy. The development of individual items focused on micro-skills based on the literature related to Self-efficacy Theory. Content validity was addressed through the use of expert judges. Internal consistency was reported to be a strong $\alpha = .91$ and the test-retest reliability coefficient over two separate administrations was 0.85.

Melchert et al. (1996) found statistically significant differences in Counseling Self-efficacy across all four levels of counselor development. First-year master's students, second-year master's students, doctoral students, and professional psychologists all had significantly different self-efficacy scores. Melchert et al. (1996) found that level of training accounted for more of the variance in Counseling Self-efficacy than did years of clinical experience. A surprising finding reported by Melchert et al., was that full-time clinical experience did not explain more of the variance in Counseling Self-efficacy than did less than full-time experience. However, the conclusions of Melchert et al. (1996) were limited by the small sample ($n = 7$) in the practicing psychologist cohort and Melchert et al. (1996) did not separately analyze the effect of counseling experience on self-efficacy in the practicing psychologist cohort, limiting inference regarding the impact of experience on self-efficacy in practicing psychologists.

Leach and Stoltenberg (1997) tested components of Stoltenberg and Delworth's (1987) Integrated Developmental Model (IDM), which sees trainees as progressing through three primary developmental levels. Their study looked at two of the levels within the IDM by using the COSE (Larson et al., 1992) as a measure of Counseling Self-efficacy. The researchers expected to discriminate between inexperienced trainees and

those who were at a higher level of training year and experience. They hypothesized that Level 2 trainees “would exhibit significantly greater perceptions of efficacy for micro-skills, process, difficult client behaviors, cultural competence, and awareness of values areas than Level 1 trainees would” (Leach & Stoltenberg, 1997, p. 116). They also anticipated that counselors at this level would be more aware and capable when dealing with these factors. A second hypothesis was that trainees who had experience working in a real life context with clients who presented with the same issues as those in the study, (sexual abuse and depression) would have higher levels of self-efficacy toward dealing with this type of client than would counselors who had little or no experience. Master’s level and doctoral level counseling students ($N = 142$) completed the Supervision Level Questionnaire-Revised (SLQ-R) (McNeill, Stoltenberg, & Romans, 1992) to identify the counselor’s IDM level, then read a case description of either a sexually abused person or that of a depressed person, then completed the COSE (Larson et al., 1992) as a measure of counseling self-efficacy. Participants were divided into inexperienced (“Level 1”; $n = 70$) and experienced (“Level 2”; $n = 72$) trainee categories based on training years and number of client experiences. It was hypothesized that Level 2 trainees “would exhibit significantly greater perceptions of efficacy for micro-skills, process, difficult client behaviors, cultural competence, and awareness of values areas than Level 1 trainees would” (Leach & Stoltenberg, 1997, p. 116). It was further hypothesized that trainees who had personal experience working in a real-life situation with sexually abused and depressed clients would have higher levels of self-efficacy toward dealing with this type of client than would counselors with little or no experience.

Results showed that COSE scores were significantly ($p < .05$) higher for Level 2 participants than Level 1 participants in each COSE category, including Microskills (Level 2: $M = 57$, $SD = 5$; Level 1 $M = 50$, $SD = 6$), Process (Level 2: $M = 48$, $SD = 5$; Level 1 $M = 41$, $SD = 5$), Difficult Client Behaviors (Level 2: $M = 32$, $SD = 4$; Level 1 $M = 27$, $SD = 4$), Cultural Competence (Level 2: $M = 19$, $SD = 3$; Level 1 $M = 17$, $SD = 3$), and Awareness of Value (Level 2: $M = 20$, $SD = 3$; Level 1 $M = 17$, $SD = 3$). Further, trainees with greater experience working with sexually abused clients scored significantly higher ($M = 32$, $SD = 4$; $p < .01$) on the Difficult Client Behavior factor of the COSE compared to trainees with less experience with this population ($M = 27$, $SD = 5$). However, regarding reactive depression, no significant difference was found on the Difficult Client Behavior factor of the COSE based on trainee experience with reactive depression ($p > .05$).

It is important to note that Leach and Stoltenberg (1997) did not include the actual difficult client scenarios, did not operationally define experience with these difficult clients, and they indicated that the reliance on fictitious written case examples may not have been as realistic as a live or videotaped session. Regardless, Leach and Stoltenberg (1997) demonstrated that the COSE scores are sensitive to differences in trainee experience, with higher COSE scores associated with greater experience in trainees. However, Leach and Stoltenberg (1997) did not investigate the effect of supervision on professional practicing counselors, indicating a gap in the literature and presenting an important area for future research that was at least in part filled by the present study.

Larson and Daniels (1998) reviewed the Counseling Self-efficacy literature and found 32 studies from 1983 to 1998 that were identified as relating to Counseling Self-

efficacy. Forty-seven percent were published studies, the remainder being unpublished theses, dissertations, or presentations. Larson and Daniels (1998) first presented a brief overview of Social Cognitive Theory (SCT). Although they found that most studies reviewed did not attempt to make connections between Counseling Self-efficacy and the larger SCT, Larson and Daniels (1998) were able to demonstrate that these studies were functionally using Counseling Self-efficacy in the larger context of SCT.

The authors of this review reported that when it comes to Counseling Self-efficacy measurement, the COSE of Larson et al. (1992) stands out as having been the most used with the strongest statistical support, though it should be noted that Larson was an author of both the COSE and the review by Larson and Daniels (1998). The measurement of Counseling Outcome Expectancy was attempted in less than 15% of the studies reviewed in part due to the limited number of Counseling Outcome Expectancy scales to successfully identify these factors. Larson and Daniels recommend continued effort developing instrumentation for Counseling Outcome Expectancy, as there is yet to be a scale that effectively operationalizes this construct. The Counseling Outcome Expectancy scale was developed for the present study to measure Counseling Outcome Expectancy to include this variable in this study.

The review by Larson and Daniels (1998) indicated that Counseling Self-efficacy appears to be stronger in counselors with more counseling experience than it is for those with little or no experience, but the relationship between the level of training and Counseling Self-efficacy remains unclear because studies used differing measures of Counseling Self-efficacy. Gender, age, theoretical orientation, work environment, and other stable counselor demographic variables explain very little of the variance in

Counseling Self-efficacy studies reviewed by Larson and Daniels (1998). Personal agency variables pertaining to cognitive, affective, and motivational processes playing on the counselor have been shown to correlate with Counseling Self-efficacy. For example, Larson and Daniels (1998) identified that counselors with lower levels of anxiety had higher Counseling Self-efficacy. Larson and Daniels (1998) found only three studies that investigated the relationship between Counseling Self-efficacy and Counseling Outcome Expectancy and concluded that, “CSE seems to relate strongly to outcome expectancies” (p. 194).

Larson and Daniels (1998) found five studies that measured some aspect of the supervision environment, but only DeGraff (1996) connected their findings to SCT in any operational way. From review of these five studies, they concluded that there is a negative relationship between Counseling Self-efficacy and task orientation of the supervisor. The more the supervisor focuses on the details and tasks with less focus on the relationship, the lower the Counseling Self-efficacy will be for supervisee. Additionally, counselors with little or no supervision had lower Counseling Self-efficacy than those with more experience or supervision. Supervision factors to increase Counseling Self-efficacy were related to the reduction of anxiety; the use of role-play and modeling; positive feedback; a supervisory environment that is positive, supportive, and encouraging; and a strong supervisory alliance. Larson and Daniels concluded that further study needed to be done connecting supervision variables with Counseling Self-efficacy among all levels of counselor development.

The review by Larson and Daniels (1998) found that the most research attention to that point had been on stable counselor characteristics (44% of studies) and the least

attention had been on connecting the supervision environment with Counseling Self-efficacy (16% of studies). Only three of the studies reviewed by Larson and Daniels (1998) included practicing counselors and even then, they made up a very small portion of the total sample. Larson and Daniels (1998) stated, “Given the scarcity of research conducted in Counseling Self-efficacy, much more research is needed” (p. 210). Larson and Daniels (1998) concluded that there is a need to identify supervision variables that correlate with Counseling Outcome Expectancy, particularly in practicing psychotherapists, an unstudied group, stating that “Future research needs to continue to capture counselor action that is occurring at more advanced levels” (Larson & Daniels, 1998, p. 211). The reviewers propose that an alternative definition of Counseling Self-efficacy might need to be developed for more experienced counselors that could better describe the complex and abstract nature of counseling at the advanced level.

Iannelli (2000) made a significant attempt to link Self-efficacy Theory to the developing theory of Counseling Self-efficacy in a dissertation at the University of Missouri – Kansas City. Iannelli (2000) was the first to include Outcome Expectations (OE) as a separate variable mediating the relationship between Counseling Self-efficacy and Counselor Performance. Expanding on Bandura’s (1997) model, Iannelli asserted “that counseling is one type of behavioral situation in which outcome expectations are very important and, thus, will mediate the relationship between counseling self-efficacy and counselor performance” (p. 3) and that “in order to apply self-efficacy theory to counseling a clear understanding of the nature of the relationship between CSE and counselor performance is needed” (p. 3). The participants of Iannelli’s study were counselors in training with experience ranging from first year master’s students to post-

doctoral residents. From training programs and counseling centers throughout North America, data from 184 counselor trainees and 72 matching trainee-supervisor respondents were analyzed for the study. The trainees averaged three years of clinical experience. Other than identifying that six post-doctoral residents responded to the survey, Iannelli made no attempt to investigate factors pertaining to this early practicing psychologist group. Iannelli (2000) used both the Counselor Self-Estimate Inventory (COSE) (Larson et al., 1992) and the Counseling Self-Efficacy Scale (CSES) (Melchert et al., 1996). For Counseling Outcome Expectancy, Iannelli (2000) developed scales for the study, including a general Counseling Outcome Expectancy scale and three domain scales, which assessed skills, knowledge, and interpersonal relationships. Participants responded to 15 items for each domain scale and one general Counseling Outcome Expectancy item. Factor analysis was conducted to identify items that explained the most variance for each scale. Nine items were identified for the factors “knowledge” and “interpersonal relationship” while ten items were identified for the “skills” factor. Since only one item was used for the general Counseling Outcome Expectancy scale, a factor analysis was not possible. The Counselor Evaluation Rating Scale (CERS) (Myrick & Kelly, 1971) was used to measure counselor performance, including an overall value and scales for counseling and supervision. The test-retest reliability coefficients were high (0.94) across the three scales in the Iannelli (2000) study. Counseling Performance was rated by the supervisor using a scale developed for the study, which included Counseling Performance Skills, Counseling Performance Knowledge, and Counseling Performance Interpersonal. Factor analysis was conducted after the completion of the data collection and confirmed a three-factor model.

Iannelli (2000) showed a significant positive correlation between counselor ratings of personal performance and the supervisor ratings of that performance. Counseling Self-efficacy significantly predicted the counselor's performance rating. The results of Iannelli (2000) demonstrated a link between Counseling Self-efficacy and the broader Self-efficacy Theory. Counseling Outcome Expectancy and Counseling Self-efficacy were significantly ($p < 0.05$) correlated with each other and Counseling Self-efficacy was significantly ($p < 0.05$) correlated with Counseling Performance, but the expected link between Counseling Outcome Expectancy and Counseling Performance was non-significant ($p > 0.05$). This non-significant finding may have been because the Counseling Outcome Expectancy was based on items that were selected from two scales (COSE, CSES that were designed to rate Counseling Self-efficacy) and may not have been an effective measure of Counseling Outcome Expectancy. However, in defense of Iannelli (2000), there has yet to be developed an OE scale that adequately measures OE objectively and in general terms in regards to counseling techniques, abilities, and anticipated outcome specific to a particular client or client subset (i.e. depressed client). A scale developed with these characteristics would more accurately identify OE beliefs without a confusing overlap between Counseling Outcome Expectancy and the Counseling Self-efficacy constructs, which has proven to be difficult since Counseling Outcome Expectancy is expected to be a mediating variable acting on Counseling Self-efficacy.

Daniels and Larson (2001) investigated the effects of performance feedback on Counseling Self-efficacy and counselor anxiety. Prior to this study, few studies directly used feedback given to counselor trainees by their supervisor as a primary variable. Two

hypotheses were tested: first, that trainees who gained positive feedback from their supervisor would have a significant increase while those who received negative feedback would have a significant decrease between pre-test and post-test self-efficacy scores. The second hypothesis was that receiving positive feedback would decrease state anxiety and negative feedback would increase state anxiety from pre-test to post-test.

Forty-five students with less than one semester of supervised practicum experience (on average) completed a demographic form, a pre-test COSE (Larson et al., 1992), and the State-Trait Anxiety Inventory (STAI-S; Spielberger, 1983), a 20-item measure of subjective anxiety. Participants engaged in a 10-minute interactive mock counseling session with a trained actress presenting with vague depressive symptoms, then participants rated their own counseling performance. Sessions were observed by Daniels, who then would act as a supervisor, and based on random assignment, provide positive or negative verbal feedback on a 100-point scale, with a score of 85 given with the positive feedback and a score of 15 given with the negative feedback. Participants then completed the post-test COSE and STAI-S.

The findings of Daniels and Larson (2001) supported the study hypotheses. Positive feedback significantly increased Counseling Self-efficacy while negative feedback significantly decreased Counseling Self-efficacy. Anxiety significantly increased with negative feedback and significantly decreased with positive feedback.

The findings of Daniels and Larson (2001) also supported important tenets of the SCT of Bandura (1977) and the Social Cognitive Model of Counselor Training (SCMCT) of Larson (1998) by demonstrating the key role of feedback in the Counseling Self-efficacy and anxiety of counseling trainees, but should be applied to the actual

supervisor-trainee relationship only with caution. The nature and premise of supervisory contact is based on relationship, but the participants in this study did not have a relationship with the “supervisor” and the previous interactions with the supervisor were not reported by Daniels and Larson (2001). Regardless, the findings of this study are important, offering support to Self-efficacy Theory and verbal persuasion as a source of self-efficacy. Further, the strength of the study was that Daniels and Larson (2001) used an experimental model in a laboratory setting, including pretest-posttest measures and random assignment to groups. Daniels and Larson (2001) recommended future studies of real-world supervision relationships to further identify the factors of supervisory feedback and the supervision relationship.

Consistent with the recommendations of Daniels and Larson (2001), Cashwell and Dooley (2001) studied the effect of clinical supervision on Counseling Self-efficacy in professional counselors. Building on Borders and Ushers’ (1992) survey of Nationally Certified Counselors (as cited in Cashwell & Dooley, 2001), which found that counselors receive little supervision after receiving their degree yet the majority of counselors desired supervision at some level, Cashwell and Dooley surveyed 29 counselors and 4 counselor education doctoral internship students ($n = 33$) working at a large community agency. Of the 33 participants, 22 were receiving clinical supervision and 11 were not receiving clinical supervision.

Cashwell and Dooley (2001) found that the clinical supervision group ($M = 186$) scored significantly higher on the COSE (Larson et al., 1992) than the non-supervision group ($M = 167$) ($p < .03$), indicating support for the hypothesis that “counselors receiving clinical supervision would have higher levels of counseling self-efficacy than

those counselors not receiving clinical supervision” (Cashwell & Dooley, 2001, p. 42). According to Cashwell and Dooley (2001), this result was consistent with the self-efficacy theory of Bandura (1977). Citing that the “lack of clinical supervision has a detrimental effect on the performance of professional counselors” (p. 45), Cashwell and Dooley (2001) concluded that “Providing clinical supervision to the field-based counselor might promote professional growth for the therapist and ensure better care for the client” (p. 45) and that “Now, more than ever, clinical supervision is vital...for all practicing professional counselors” (p. 46).

However, the findings of Cashwell and Dooley (2001) should be interpreted with caution. The sample size was small ($N = 33$) and those receiving clinical supervision had clinical experience ranging from 5 months to 15 years while none of the non-supervision group had more than 7 years of clinical experience. Further, the non-supervision group ($n = 11$) only included two men (18%) while the supervision group ($n = 22$) included six men (27%). The supervision group and the non-supervision group differed in level of education, the duration of supervision ranged from two months to 12 years, and the mean ages of groups was not reported, but Cashwell and Dooley (2001) chose to use *t*-tests to analyze their data without accounting for potentially important demographic and experience differences between groups instead of using, for example, analysis of covariance (ANOVA) to determine differences between groups in COSE while controlling for demographic and experience differences between groups. Furthermore, Cashwell and Dooley (2001) did not report the primary theoretical orientation of study participants nor the hours spent conducting counseling sessions.

Summary of Reviewed Literature

This chapter provided a review of the literature regarding Self-efficacy Theory and Counseling Self-efficacy. However, the studies reviewed here were largely limited by small sample sizes, failing to include important demographic and experience variables, the focus on trainees instead of professional counselors, or by not distinguishing between Counseling Self-efficacy and Counseling Outcome Expectancy. Therefore, what was needed was a study specifically designed to explore the relationship between supervision and both counselor efficacy and outcome expectancy in professional counselors. The present study was designed to fill this gap in the literature. The study methodology is detailed in the following chapter.

CHAPTER 3

METHODOLOGY

Research Design

The design for this study was observational, utilizing a cross-sectional survey method of data collection. The study variables, Counseling Self-efficacy and Counseling Outcome Expectancy were correlated with demographic and personal variables of both the supervisor and supervisee, type and amount of supervision, supervisory roles and three supervision factors (behavior, procedures, and focus).

Population and Sample Selection

Psychologists, licensed in the state of Michigan, were the participants of focus for this study. Michigan offers psychology licensure at the master's degree level and at the doctoral degree level. This population was selected because it includes experienced psychotherapists from both master's and doctoral degree licensure levels, which include a range of supervision requirements. Master's level psychologists have a continuing requirement to receive supervision and clinical oversight throughout their clinical practice years. Doctoral level psychologists, upon the completion of their degrees, are issued the same level of limited licensure as are master's level practitioners, but once doctoral-level psychologists complete 2000 hours of post-doctoral supervised experience they can be awarded full licensure. Once becoming licensed in Michigan, as in all other

states, fully Licensed Psychologists (LP) are not required to receive a specified amount of clinical supervision, but it has been thought that many continue to receive some level of clinical supervision throughout their career (Borders & Usher, 1992). Of the fully licensed psychologists whose data was used in this dissertation study, nearly 30% indicated that they receive clinical supervision at some level in an ongoing way.

Questionnaires were mailed to a stratified random sampling of the more than 6000 Michigan licensed psychologists. Because in social science research a common conception that the rate of return for surveys done by mail is frequently below 50%, twice as many participants were selected to participate in this study than were expected to be necessary for statistical analysis. Sample size estimates were made using G*Power (Buchner, Faul, & Erdfelder, 2008). A database of names, license type, and mailing addresses of all Michigan psychologists was purchased from the state of Michigan, Department of Community Health. The list was divided into two stratifications by license type. LLP and LP were listed alphabetically in a spreadsheet format. Using the random number generator function in Microsoft Excel, both groups were randomly scrambled and then renumbered. From these two lists, the first 800 individuals were selected to become part of the sample for each license type for a total of 1600 psychologists selected to receive an invitation to participate in the study.

Procedures

Internal Review Board (IRB) approval was obtained from Andrews University prior to collecting study data (Appendix A). A cover letter was included that provided an introduction of the study's author and the topic of study, encouragement for each individual to respond, a description of the participant selection process for this study, the

voluntary nature of the participation, a statement of no consequences for refusal to participate, assurance of confidentiality, and information regarding follow-up mailings and data compilation. Included in the same form with the cover letter was the SDQ and the Supervision Factors Scale (SFS), described in detail in the Instrumentation section below. The Counseling Self-Estimate Inventory (COSE), also described in detail in the Instrumentation section below was printed on a separate page, and was included along with a half page consent form that listed the researchers' names and contact information, which was retained by those who participated in the study. A tracking number was included on the upper right-hand corner of the instrument that helped identify the participant with the mailing list only. When a completed survey was received, the tracking number was removed from the survey along with any identifying information, and that subject's name and address were expunged from the mailing list and no record of their identity was kept.

The instruments were mailed out in January 2008 to the 1600 randomly selected participants and were mailed in a standard business envelope containing a self-addressed stamped envelope that respondents were to use to return the completed surveys. Only 299 responses were received back by mail within four weeks from the original mailing date.

A follow-up mailing was sent out four weeks after the initial mailing. When the follow-up mailing was made, it included only participants who had not yet responded to the initial mailing. The follow-up mailing was a reminder card asking participants to complete the questionnaire materials and return them. This card also included an email address where they could request a replacement survey packet. Thirty-six replacement

packets were requested and mailed. Ninety-five more participants returned the questionnaire after the first follow-up mailing. Because the response rate was still low compared to what was anticipated, a second and final follow-up mailing was made seven weeks after the initial mailing. This resulted in another 72 survey instruments completed and returned for a total of 466 returned surveys. Of the 466 total responses returned (for a 29% response rate), 341 met the criteria for inclusion in the analysis for this study. Participants were excluded when they failed to completed the COSE instrument, indicated that they were not working as a psychotherapist, or did not complete substantial portions of the SDQ Part A information or left blank both questions 4 and 5 regarding training level and degree or both questions 6 and 7 regarding clinical work experience.

Instrumentation

The Supervision Descriptive Questionnaire

The SDQ (Appendix B) was developed for use in this study. Printed in booklet form, it was four pages in length, including a one-page introduction cover letter. The questionnaire is divided into three sections. Section A contains demographic and personal questions, including a psychotherapist's clinical orientation, work setting, and degree. Section A also asked about the frequency that the respondent receives supervision and gives the operational definitions for the two types of supervision. *Clinical supervision* is an on-going activity that is engaged in to promote professional growth, provide for evaluation of feedback, and assure the maintenance of psychotherapy skills. *Administrative supervision* is an activity that is used to promote programs, services, and systems, focuses on productivity and strategy issues involved in client care,

e.g. paperwork, procedures, and legal issues. The questions asking about the two types of supervision are as follows: (A-11) “I receive individual clinical supervision;” (A-12) “I receive group clinical supervision;” (A-13) “I receive group administrative supervision;” (A-14) “I receive individual administrative supervision.” All four report on a check box scale with 5 options of frequency: never, infrequently, one time per month, two times per month, and weekly. A final question (A-15) “Do you receive individual or group clinical supervision?” was to be answered with yes or no check boxes for the purpose of directing the participant to the next section to complete depending on their answer to the yes or no questions. Section B asks questions relating to the participant’s supervision and their clinical supervisor’s clinical orientation, supervisor’s training, supervisory roles, and the length of the supervision relationship, as well as how long the participant has received supervision from this supervisor. Section B also includes SFS.

The SFS was developed for this study; items borrowed from the Clinical Supervision Questionnaire (CSQ) were selectively included in the new scale (McCathy et al, 1994). A panel of psychologists, who were experienced in providing supervision and in training therapists to be supervisors, selected the items and grouped them into the 3 scales as they were administered in this study. Once the data was collected, a factor analysis was run on this measure to identify the items that belonged to different factor categories. A four-factor model was identified: Factor 1, Encouraging and Facilitative Behaviors; Factor 2, Content and Structure Focus; Factor 3, Focus on Personal/Professional Growth; and Factor 4, Administrative Procedures. These factors were then used for the analysis run in this study to explore the contribution of the four-factor model to Counseling Self-efficacy and Counseling Outcome Expectancy.

Participants who indicated on Question 15 that they did not receive supervision were not required to complete Section B.

The Counseling Outcome Expectancies Scale (COES)

Section C of the SDQ included the Counseling Outcome Expectancies Scales (COES). This three-item scale measured the dependent variable Counseling Outcome Expectancies. Participants were asked to rate themselves on a Likert Scale ranging from 1 to 6 for each of the following questions: (C-16): “On average, how satisfied will this client be with the treatment she receives from you?;” (C-17): “At the completion of treatment with you, this client’s symptoms will be?;” and (C-18): “At the completion of treatment with you, this client’s level of functioning will be?” The scale was rated with anchors of not satisfied to very satisfied, unchanged to completely resolved, and unchanged to very improved, respectively. Section C also contained a one-item Counseling Self-efficacy scale (C-15) that read, “How do you rate your competency as a psychotherapist working with this client?” this scale was included to validate The Counselor Self-Estimate Inventory (COSE), the primary measure used to identify Counseling Self-efficacy.

Counselor Self-Estimate Inventory (COSE)

The COSE (at the authors’ request, Appendix C shows only a sample of the COSE items) was developed by Larson et al. (1992) and is used as an assessment of a counselor’s subjective view of their ability to successfully perform counseling skills during an upcoming counseling session. Thirty-seven items make up the COSE inventory. Items are on a 6-point Likert Scale, ranging from strongly agree to strongly disagree. Multiple items are reverse-scored. The participants score from 37 to 222.

Higher scores are associated with participants being more confident in their abilities to successfully perform counseling related skills. The COSE was factor analyzed by Larson et al. (1992), to identify its underlying dimensions (Larson et al., 1992). Five consolidated factors emerged: micro-skills, process, difficult client behaviors, cultural competence, and awareness of values. Larson et al. (1992) published total score internal consistency for the COSE as high ($\alpha = .93$) for the instrument. Test-retest correlation coefficients for COSE total score was $r = .87$ on a three-week test-retest interval (Larson et al., 1992). Larson recommended the use of the total score for this measure. This recommendation to use the total score has already been accepted and used in previous studies using this instrument. The present study used the mean average score for their ease of interpretation, since they are mathematically equivalent to the total score.

Through its use in multiple studies, the COSE has been demonstrated to be a valid measure of Counseling Self-efficacy. Reviews by Larson and Daniels demonstrated that (a) the COSE and anxiety significantly predicted counselor performance, (b) trainees' COSE scores increased about one standard deviation over practicum, (c) counselors and psychologists reported higher Counseling Self-efficacy scores than pre-practicum trainees, (d) people with at least one semester of supervision or more reported higher COSE scores than people with no supervision, (e) the COSE was positively related to self-esteem and outcome expectancies, (f) the COSE was negatively related to anxiety and (g) the COSE minimally correlated with defensiveness, aptitude, achievement, age, personality type, and time spent as a client and did not appear to differ across sex or theoretical orientation (Alvarez, 1995; Larson et al., 1992 as cited by Larson & Daniels, 1998). The COSE was used in this dissertation study as a measure of Counseling Self-

efficacy incorporating the recommendations of Larson et al. (1992), which were to have more experienced respondents complete the COSE questionnaire regarding a difficult client vignette as a way to prevent a possible ceiling effect. The following clinical description was presented to participants prior to their completion of the items on the COSE: *Your new client, Lynne, a married 41-year-old female, vaguely reports her depressive symptoms, yet has strong, frequent suicidal ideations. Lynne feels that she has been recurrently depressed since her late teen years and these episodes seem to correspond with periods of escalating relational conflict. In the last 10 years, Lynne has been hospitalized on two occasions after making suicidal threats/attempts. Lynne has seen multiple counselors in the past but has often discontinued treatment early, stating “they weren’t helping me.” Psychiatric medications have been inconsistently administered and minimally successful.*

The use of this difficult client vignette was expected to reduce the risk of reaching a ceiling effect when using this instrument with the experienced counselor population sampled for this study.

Null Hypotheses and Method of Analysis

1. There will not be a significant difference in mean Counseling Self-efficacy for psychologists who receive supervision and those who do not receive supervision. (two-tailed t -test)
2. There will not be a significant difference in mean Counseling Outcome Expectancy for psychologists who receive supervision and those who do not receive supervision. (two-tailed t -test)

3. There will not be a significant difference in mean Counseling Self-efficacy between psychologists who receive supervision more frequently and those who receive supervision less frequently. (ANOVA)
4. There will not be a significant difference in mean Counseling Outcome Expectancy between psychologists who receive supervision more frequently and those who receive supervision less frequently. (ANOVA)
5. There will not be a significant difference in mean Counseling Self-efficacy scores for psychologists who have longer duration of supervision relationships than for those who have shorter duration relationships with their supervisor. (ANOVA)
6. There will not be a significant difference in mean Counseling Outcome Expectancy scores for psychologists who have longer duration of supervision relationships than for those who have shorter duration relationships with their supervisor. (ANOVA)
7. There are no specific supervisee demographic or personal variables that are associated with Counseling Self-efficacy for practicing psychologists. (two-tailed *t*-test, ANOVA and step-wise, ordinary least squares [OLS] regression)
8. There are no specific supervisee demographic or personal variables that are associated with Counseling Outcome Expectancy for practicing psychologists. (two-tailed *t*-test, ANOVA and step-wise OLS regression)
9. There are no specific supervisor demographic or personal variables that are associated with Counseling Self-efficacy for practicing psychologists. (two-tailed *t*-test, ANOVA and step-wise OLS regression)

10. There are no specific supervisor demographic or personal variables that are associated with Counseling Outcome Expectancy for practicing psychologists. (two-tailed t -test, ANOVA and step-wise OLS regression)
11. There will not be specific supervision factors that are associated with Counseling Self-efficacy for practicing psychologists. (factor analysis and step-wise OLS regression)
12. There will not be specific supervision factors that will are associated with Counseling Outcome Expectancy for practicing psychologists. (factor analysis and step-wise OLS regression)

Differences and relationship were considered to be statistically significant at the $p < .05$ threshold. Effect sizes were expressed as Cohen's d (Cohen, 1988) or as partial eta squared (η^2). Effect sizes were categorized as small ($d = .20$; $\eta^2 = .01$) medium ($d = .50$; $\eta^2 = .06$), or large ($d = .80$; $\eta^2 = .14$) (Cohen, 1988). All statistical results details are provided in Chapter 4 and Appendix D.

Compliance with Ethical Guidelines

This study complied with the ethical guidelines of the APA and Andrews University. Internal Review Board approval was obtained prior to collecting the data (Appendix A). Participant rights to anonymity, privacy, and confidentiality were observed. Participant's names were not collected or associated with the data.

CHAPTER 4

ANALYSIS OF DATA

The purpose of this study was to examine Counseling Self-efficacy and Counseling Outcome Expectancy for Michigan psychologists, to determine if there was a significant difference in these variables between those who received and those who did not receive supervision and at the frequencies they received it. Additional investigation was conducted to determine whether the supervisee's and the supervisor's demographic variables or particular supervision factors played a role in any of the differences observed between levels for Counseling Self-efficacy and Counseling Outcome Expectancy. This chapter presents the data that was collected using the procedures identified in Chapter 3. A description of how the data was readied for analysis will be included with the discussion regarding the sample. Research Questions will be addressed with the results for each and whether the Null Hypothesis for that question has been retained.

Descriptive Statistics and Data Cleaning

The sample was a stratified random sample taken from the more than 6000 licensed psychologists in the state of Michigan. Of the surveys returned, 341 met the requirements for inclusion in the data analysis. Participants were excluded when they failed to complete the COSE instrument, indicated that they were not working as a psychotherapist, did not complete substantial portions of the SDQ Part A, left blank both

questions 4 and 5 regarding training level and degree, or both questions 6 and 7 regarding clinical work experience.

The procedures used for data cleaning, dealing with missing data, as well as violations of assumptions will be outlined below along with the presentation of descriptive statistics that are relevant to this study. Missing case analysis for items A1 to A10 is provided in Appendix D, Table D1.

Counseling Self-Estimate Inventory (COSE)

According to the author of the COSE instrument (Larson et al., 1992), 19 items are worded negatively. When the data was coded, these items were coded and named inversely with the inversely named items then used in the data analysis. After completing and reviewing the data for the COSE, it was observed that some items had missing values: 10 items (Q1, Q3, Q6, Q8, Q11, Q15, invQ19, invQ23, Q30, Q34) showed one missing case and three items (Q20, invQ22, invQ27) showed two missing cases. Items were considered to have missing cases when at least one subject failed to answer it. A total of 13 participants had one missing value, with one participant (ID = 93) having three missing values. Since the number of cases with missing values was small (14) and the vast majority of those having missed only one question, subject mean replacement was chosen as the best method of dealing with the missing cases (see Table 1 for description). There was no significant difference between the means before and after replacement $t(340) = -.159, p = .874$.

Once the issue with missing data was resolved, visual inspection of the distribution of the summed total scores for Counseling Self-efficacy did not reveal any severe skewness. Normality tests (with alpha of .01), the Kolmogorov-Smirnov test ($p =$

.031), and the Shapiro-Wilk test ($p = .200$) showed no violation of normality assumption. Skewness and kurtosis were also within an acceptable range (± 1).

Table 1

Descriptive Statistics on Summed Total for COSE Before and After Missing Item Replacement

	<i>N</i>	Mean	<i>SD</i>
Before Replacement	341	184.16	16.82
After Replacement	341	184.37	16.84

In order to make the total scores more interpretable, average Counseling Self-efficacy scores were computed for each subject. The 37 questions of the COSE are rated on a 6-point Likert Scale with 1 being strongly disagree and 6 being strongly agree. As can be seen in Table 2, on average, participants largely agreed with the items ($M = 4.983$, $SD = .455$). One subject strongly agreed with every item (chose 6 in every item on a 6-point Likert Scale). The participant with the lowest scores showed an average score of 3.76 (slightly agreed on most items). Even though a 6-point Likert-scale was used, most participants selected only the top three choices, on average agreeing at the same level with all items. Even though the total Counseling Self-efficacy scores were normally distributed, the high average scores demonstrate that participants' scores were fairly narrowly clustered at the high end of the range, thus, their answers do not show a lot of variation on Counseling Self-efficacy with this instrument. While this is not a classic

ceiling effect, the impact on the interpretation of the data is much the same. The diminished variance made it difficult to detect differences between the groups. Counseling Self-efficacy in this sample is thus rather high, as was anticipated for this experienced counselor population.

Table 2

Average Counseling Self-efficacy Scores

	<i>N</i>	Mean	<i>SD</i>	Minimum	Maximum
Average Counseling Self-efficacy Scores	341	4.983	0.455	3.76	6.00

Supervision Descriptive Questionnaire (SDQ)

For this study, descriptive information about the participant, their supervisor and supervision were collected using the Supervision Descriptive Questionnaire (SDQ) (Appendix B). The 33 items of this survey are divided into three sections: Section A: Demographic Information (15 questions) and Section B: Clinical Supervision Information (14 questions) and Section C: Counseling Self-efficacy and Counseling Outcome Expectancy Scales (4 questions).

Demographic and Personal Statistics

Participants were asked to identify their age in one of four categories (Table D2 and Figure D1 of Appendix D). Participants most frequently selected the 51-65 year old age group, with this group making up over fifty percent of the respondents. As shown in

Table D3 of Appendix D and Figure D2, the sample consisted of more women ($n = 168$; 49%) than men ($n = 132$; 39%) with a substantial number not reporting gender ($n = 41$; 12%).

Most participants (93%) in this sample were White ($n = 315$, Table D4 of Appendix D, Figure A3), followed by Black ($n = 10$), Asian/Pacific-Islander ($n = 5$), Biracial ($n = 2$), Hispanic ($n = 2$) and Native American ($n = 1$). Four respondents specified another race not listed and two participants left this part blank. The largest percentage of participants had Ph.D. degrees (48%, Table D5 of Appendix D, Figure D4) followed by participants with M.A./M.S. degrees (38%), with a small percentage of participants having Psy.D. degrees (7%), and Ed.D. degrees (6%). Three participants did not indicate their highest degree (1%). About 60% of the counselors in the sample were fully licensed psychologists ($n = 204$, Table D6 of Appendix D, Figure D5) with the rest being limited licensed psychologists ($n = 137$). The same number of surveys were mailed to individuals at both levels of licensure. The percentage of limited licensed psychologists who responded to the survey was notably lower than the percentage of fully licensed psychologists who responded

On average, counselors spent 16.6 hours ($SD = 10.8$, Table D7 and Figure D6 of Appendix D) conducting weekly individual face-to-face sessions. Participants indicated spending 3.16 hours ($SD = 4.49$) on average conducting couples, or family sessions (Figure D7 of Appendix D) and they spent 1.13 hours on average ($SD=3.0$) facilitating group sessions (Figure D8). Total weekly hours spent in face-to-face sessions ranged from zero to 73 hours with a mean of 20.4 ($SD = 12.47$, Figure D9 of Appendix D).

The data showed that participants most frequently reported having 16 to 25 years of clinical experience (Table D8 and Figure D10 of Appendix D). Private practice was the most frequently endorsed work setting (54%, Table D9 and Figure D11 of Appendix D) followed by settings of community/mental health centers (13%) and hospital/residential (12%), correctional facility (6%), and college counseling centers (2%). About 7% indicated working in a setting not listed and 17 participants (5%) submitted more than one answer. There were six participants with missing data (2%). When asked about their primary theoretical orientation, 38% of the sample favored a cognitive behavioral approach (Table D10 and Figure D12 of Appendix D), followed by eclectic (29%), psychodynamic (16%), humanistic or existential (6%), client-centered (5%), solution focused (3%), and systems (2%). Four participants gave multiple answers (1%).

Descriptive Statistics on Supervision

Participants were asked about their supervision during the past year. About 38% indicated that they never received ongoing individual clinical supervision in the past year (IS; Appendix D, Table D11, Figure D13), 64% never received any group clinical supervision (GS; Appendix D, Table D12, Figure D14), 65% never received any group administrative supervision (GAS; Appendix D, Table D13, Figure D15), and 60% never received any individual administrative supervision (IAS; Appendix D, Table D14, Figure D16). Infrequent supervision was reported by 23% for IS, 13% for GS, 16% for GAS, and 28% for IAS. The remaining participants indicated receiving supervision one time per month or more: 39% for IS, 23% for GS, 19% for GAS, and 11% for IAS (see Tables D11 to D14 and Figures D13 to D16 of Appendix D for more information). When asked

if they received any clinical supervision at all, 51% of the participants indicated “no” (Appendix D, Table D15) and 48% indicated “yes” with four participants having left the question unanswered. To check the reliability of question A15, “do you receive clinical supervision,” the answer was compared to the answers on items A11 and A12 (frequency of clinical supervision, group or individual). On item A15 (whether receiving any clinical supervision at all), 64% of participants ($n = 113$) answered “no,” indicating they did not receive clinical supervision. Their answers to questions A11 and A12 (Table D16 of Appendix D) show that they answered item A15 congruently. However, 27% ($n = 47$) marked “no” indicating “I do not receive clinical supervision” on item A15. Yet, they marked item A11 and A12 indicating receiving clinical supervision at least infrequently, and 9% ($n = 15$) indicated that they received supervision at least once a month. When a participant answered “no” to item A15, 36% of the time they also indicated that they did in fact receive clinical supervision at some level in item A11 and A12. Item A15 appears to have been confusing to participants (Appendix D, Table D17; Figure D18). Another explanation for their incongruent answers between A15 and the more specific answers on A11 and A12 is that the instrument tells them that if they mark “no”, they can skip much of the rest of the questionnaire. Many of the participants who did mark “no” here seemingly incorrectly also wrote comments on the margins of the instruments expressing suspicion of the reasons this data was being collected (this is further discussed in chapter 5).

Item A15 was included in the survey to serve as a way for respondents to clarify their need to complete section B. If they selected “yes,” then they were expected to have selected at least one option other than “never” for question A11 and A12. A new

variable, including the participants who received supervision, was calculated but data was missed on portion B of the survey, since participants (36%) who should have completed this section did not. Thus, the responses in section B might be biased since the reasons the participants skipped or answered this section were not fully known. To explore potential differences in the composition of the group that received supervision and indicated it correctly (Congruents) compared to the group that received supervision but indicated it incorrectly (Incongruents), multiple χ^2 tests explored differences in demographic variables between the two groups. Indeed, participants were not distributed evenly across the two groups based on relevant background information. There were significant differences between the two groups in gender $\chi^2(1) = 9.898, p < .002$ (Appendix D, Tables D18, D19), highest degree earned $\chi^2(3) = 37.851, p < .001$ (Appendix D, Table D20, D21), license type $\chi^2(1) = 34.317, p < .001$ (Appendix D, Table D22, D23), and years of experience $\chi^2(1) = 11.591, p = .001$ (Appendix D, Table D24, D25). The group, Incongruents, who answered question A15 incorrectly, had more males, more Ph.D. participants, and fewer M.A./M.S. participants. Incongruents had more fully licensed and fewer limited licensed psychologists, and more psychotherapists with more than 15 years of experience and fewer less experienced psychotherapists than the Congruents did, who answered question A15 correctly. In sum, females and less experienced practitioners were more likely to answer the question correctly.

Three new composite variables were created: Clinical_Supv measured total clinical supervision received in both individual and group settings (Appendix D, Table D15; Figure D17). Clinical_Supv was coded “yes” if a participant received any type of clinical supervision regardless of whether it was individual or group supervision and was

coded “no” if the participant did not receive either individual or group clinical supervision.

Admin_Supv measured total administrative supervision received in either an individual or a group setting. Admin_Supv was coded “yes” if a participant received any administrative supervision whether it was individual or group and coded “no” if the participant received neither type.

Total_Supv measured the total supervision received in individual or group, for both clinical and administrative supervision. Total_Supv was coded “yes” if participants received any individual or group supervision regardless of whether it was clinical or administrative in focus and was coded “no” if they did not receive supervision of any kind.

Lastly, a new dichotomous variable, A15_NEW, was created from the Total_Supv variable. A15_NEW indicates if a participant received any supervision at any level (infrequent to weekly supervision in either clinical or administrative supervision) or received no supervision at all. After this recoding, 25.5% ($n = 87$) of the sample had no supervision at all, and 74.5% ($n = 254$) had some type of supervision as measured by A15_NEW.

Descriptive Statistics on Supervisors and Obtained Supervision

Section B, items 1-14 of The Supervision Descriptive Questionnaire (SDQ) was to be completed only by the participants who reported that they received clinical supervision. This section was aimed at collecting information about the participant’s clinical supervision and supervisor. Of the 221 participants who marked that they

received clinical supervision, only 164 completed all of Section B, as instructed, resulting in missing Section B data for 57 participants.

Most supervisors (92.7%; Appendix D, Table D26) provided individual clinical supervision. The other types of supervision were provided by a smaller portion: group clinical supervision was provided by 36%, individual administrative supervision by 25.6%, and group administrative supervision by 12.2%.

Supervision was mandatory for about 54% (Appendix D, Table D27) of those participants who received supervision. The majority of supervisors (59.8%; Appendix D, Table D28) were males, White (92.1%; Appendix D, Table D29), between 51 and 60 years old (56.1%; Appendix D, Table D30), and had a Ph.D. (70.7%; Appendix D, Table D31). Regarding the supervisor's theoretical orientation, eclectic (27.4%), cognitive-behavioral (26.2%) and psychodynamic (26.2%) were the most frequently reported (Appendix D, Table D32, Figure D19). The supervisor's role was approximately equally distributed among administrator, evaluator, teacher, counselor, and consultant (Appendix D, Table D33). The latter two roles were of slightly higher frequency.

The majority (65.2%; Appendix D, Table D34) of supervisees themselves had not received supervision training and when asked if their supervisor had supervision training, 54% did not know (Appendix D, Table D35). For those who did know, almost 90% of their supervisors had received supervision training. Regarding the length of time the supervisee had been receiving supervision from their current supervisor, 45.7% of supervisees (Appendix D, Table D36) reported that they had received supervision for less than 4 years, 41.5% percent had been in supervision between four and ten years, and 13% had 11 or more years of supervision with the same supervisor.

Self-Reported Competency Belief

Question B15 was included in the survey as a single item scale, to offer a Counseling Self-efficacy scale independent of the COSE score regarding the counselor's beliefs about their competency working with the identified difficult client. The question read, "How do you rate your competency as a psychotherapist working with this client?" Answers were marked on a 6-point Likert Scale with 1 being not competent to 6 being fully competent.

Scores showed that participants had an average competency of 4.8 ($SD = 1.1$) on the 6-point Likert scale. As they did on the COSE, participants reported strong beliefs that they had the ability to competently perform counseling interventions with the difficult client. Indeed, the item significantly correlated with the summed total Counseling Self-efficacy score from the COSE instrument ($r = .426, p < .001$).

Counseling Outcome Expectancy Scale (COES)

The counseling outcome expectancies were measured with three items (B16, B17, and B18), that taken together, make up the Counseling Outcome Expectancy (COES). The items are on a 6-point Likert scale, where lower scores indicated a more negative outcome and higher scores a more positive one. Participants marked the outcome they would expect from the therapy they would provide the difficult client. The scores of the three items were summed into the Counseling Outcome Expectancy (COES) score.

Figure 1. Means for Counseling Outcome Expectancy.

Scores for this scale were normally distributed as can be seen in Figure 1.

Counselors were somewhat confident that their clients were satisfied and that their symptoms and functioning were improved, $M = 3.9$, $SD = 1.03$ (Table 3). However, some counselors (6) felt that a difficult client would not be satisfied and be unchanged (average mean score of 1), whereas others (10) felt very confident that their clients ended treatment very happy, symptom free with very improved functioning (average score of 6). Even though this scale consisted of only three items, the reliability was very high ($\alpha = .897$).

Table 3

Average Counseling Outcome Expectancies

	Mean	SD	Minimum	Maximum
Counseling Outcome Expectancy	3.89	1.03	1	6
<i>N</i> = 331, 4 Missing Cases; Cronbach α = .897, 3 items				

The Research Questions

Research Question 1

Research Question 1: Will psychologists who receive supervision, engage in supervision at different frequencies, and have different durations of the supervision relationship have varying levels of Counseling Self-efficacy and/or Counseling Outcome Expectancy?

Initially, the differences between groups of counselors receiving or not receiving supervision is presented followed by the analyses on the frequency and duration at which the supervision was received.

No Supervision vs. Supervision Received

Null Hypothesis 1: There will not be a significant difference in mean Counseling Self-efficacy for psychologists who receive supervision and those who do not receive supervision.

Null Hypothesis 2: There will not be a significant difference in mean Counseling Outcome Expectancy for psychologists who receive supervision and those who do not receive supervision.

In order to determine if there were differences between counselors who received supervision and those who did not, a *t*-test was run with A15, the original question where respondents marked “yes” or “no” regarding whether they received supervision. This item, A15, was used as the independent variable and Counseling Self-efficacy as the dependent variable. Results revealed that the difference between the two groups was not significant for self-efficacy, $t(335) = .286, p = .77$ (Table 4). The *t*-test was then run with A15 as an independent variable and Counseling Outcome Expectancy as the dependent variable. Again, results showed no significant difference between the two groups, $t(324) = .125, p = .90$ (Table 4).

Table 4

Counseling Outcome Expectancy and Counseling Self-Efficacy Differences Between Groups of Supervision (A15)

	Supervision (A15)	<i>N</i>	Mean	<i>SD</i>	<i>t (df)</i>	Sig.
CSE	No Supervision	173	184.38	16.57	.286(335)	0.77
	Received Supervision	164	183.86	16.98		
COE	No Supervision	164	11.66	3.12	.125(324)	0.90
	Received Supervision	162	11.62	3.04		

Note. CSE = Counseling Self-efficacy; COE = Counseling Outcome Expectancy.

Creation of New Supervision Measure

As previously discussed, there are potential problems with item A15 and the self-reported measure of receiving supervision. Some participants marked that they did not receive supervision on A15 but at the same time, marked that they received supervision at a frequency of at least “infrequently” for one or more of the four types of supervision. A new variable A15_NEW, was generated from the four questions about supervision frequency as previously described above. Using this new variable, the analysis was run again, the differences, though larger, were still not significant, $t(339) = -.946, p = .345$ (Table 5). Similarly, using A15_NEW as the independent variable Counseling Outcome Expectancy as the dependent variable, means between counselors receiving and not receiving supervision were not significantly different $t(338) = -.231, p = .817$ (Table 5).

Creation of a Condensed COSE Scale

Counseling Self-efficacy scores were high across the entire sample, which limited the variance between the participants. The narrow clustering of scores, similar to a ceiling effect, likely led to the non-significant tests. Indeed, upon closer inspection, many COSE items were highly negatively skewed. In some instances, 95% of participants moderately or highly agreed with the item. To minimize the impact of a possible ceiling effect, a new Self-efficacy score was generated by excluding items with high agreement (i.e., average means were 5 or above). On average, excluded items had 86.5% of participants moderately or highly agreeing on the item. The new scale consisted of 13 items (invQ2, Q3, Q5, invQ9, Q12, invQ21, invQ22, invQ26, invQ27, invQ28, Q29, invQ35, invQ36) and had a reliability of .710. After the deletion of four outliers ($z\text{-score} > 2.5$), 337

participants had a mean self-efficacy of 4.5 ($SD = .55$) and scores ranged from 3.08 to 5.77 (Table 6). The data was normally distributed (normality tests $p > .05$).

Table 5

Counseling Outcome Expectancy and Counseling Self-efficacy Differences Between Groups of Supervision (A15_NEW)

	Supervision (A15_NEW)	<i>N</i>	Mean	<i>SD</i>	<i>t</i> (<i>df</i>)	Sig.
CSE	No Supervision	87	182.89	17.84	-.946(339)	0.345
	Received Supervision	254	184.88	16.49		
COE	No Supervision	82	11.60	3.41	-.231(338)	0.817
	Received Supervision	248	11.69	2.96		

Note. CSE = Counseling Self-efficacy; COE = Counseling Outcome Expectancy.

Table 6

Descriptive Statistics on New (13-item) Counseling Self-efficacy Item Scores

	<i>N</i>	Mean	<i>SD</i>	Minimum	Maximum
New Counseling Self-efficacy	337	4.499	0.552	3.080	5.770

With this new Counseling Self-efficacy measure, the *t*-tests were re-run with the original question A15, where participants reported whether they received supervision. There was still non-significance (two-tailed *t*-test) with the self-reported supervision variable $t(332) = .094, p > .925$. However, using A15_NEW as the independent variable, there were significant differences between the two groups $t(335) = -2.15, p = .03$ (Table 7). The effect size was small ($d = .27$) by the criteria of Cohen (1988). Counselors who received supervision had higher self-efficacy ($M = 58.97, SD = 6.99$) than counselors who did not receive supervision ($M = 57.04, SD = 7.54$).

Table 7

New (13-item) Counseling Self-efficacy Scores Between Groups of Counselors (A15_NEW)

	Mean	SD	<i>t</i> (<i>df</i>)	Sig.	<i>d</i>
No Supervision	57.039	7.544	-2.15 (335)	0.03	0.27
Received Supervision	58.971	6.991			

There were significant differences in mean Counseling Self-efficacy between counselors who did receive supervision and those who did not. The null hypothesis for Counseling Self-efficacy was rejected since psychologists who did receive supervision had significantly higher levels than those who did not receive supervision. Table 5 (above) shows that Counseling Outcome Expectancy means were not significantly

different for counselors who did versus did not receive supervision, so the null hypothesis was retained for Counseling Outcome Expectancy.

Frequency of Supervision

Null Hypothesis 3: There will not be a significant difference in mean Counseling Self-efficacy between psychologists who receive supervision more frequently and those who receive supervision less frequently.

Null Hypothesis 4: There will not be a significant difference in mean Counseling Outcome Expectancy between psychologists who receive supervision more frequently and those who receive supervision less frequently.

In order to determine if the frequency of supervision had any effects on Counseling Self-efficacy or Counseling Outcome Expectancy, univariate ANOVAs were run with Counseling Self-efficacy and Counseling Outcome Expectancy respectively as dependent variables. The frequency and type of supervision received, which was collected in items A11 through A14, were used as independent variables. Participants answered the questions with a ranked, 5-item scale that ranged from never to weekly. None of the test results were significant ($p > .05$; Appendix D, Tables D37, D39). Trends were observed with more supervision relating to higher Counseling Self-efficacy and Counseling Outcome Expectancy, yet frequency of supervision measured with the composite variables for clinical supervision (Clinical_Supv), administrative supervision (Admin_Supv), and total supervision (Total_Supv) did not reveal any significant relationships with Counseling Self-efficacy or Counseling Outcome Expectancy ($p > .05$; Appendix D, Table D38, D39). Null hypotheses 3 and 4 were both retained.

Duration of Supervision Relationship

Null Hypothesis 5: There will not be a significant difference in mean Counseling Self-efficacy scores for psychologists who have longer duration of supervision relationships than for those who have shorter duration relationships with their supervisor.

Null Hypothesis 6: There will not be a significant difference in mean Counseling Outcome Expectancy scores for psychologists who have longer duration of supervision relationships than for those who have shorter duration relationships with their supervisor.

As previously discussed, there was a discrepancy in how counselors responded to supervision questions. The item asking for the duration of supervision (B11) was in the second part of the questionnaire that was only taken by participants who answered “yes” to receiving supervision in item A15. There was some indication of bias in those participants omitting section B, since many participants who were meant to complete the full Section B did not.

A univariate ANOVA was run with Counseling Outcome Expectancy as a dependent variable and duration of supervision relationship (B11) as the independent variable. The question B11 read “how long have you been receiving supervision from this supervisor?” Participants had four options for answering the question: less than one year ($n = 24$), 1-3 years ($n = 5$), 4-10 years ($n = 68$), and 11+ years ($n = 21$). The ANOVA run on the four groups revealed significant differences in Counseling Outcome Expectancy related to the duration of the supervision relationship $F(3, 158) = 5.108, p = .002$, partial $\eta^2 = .088$ (Appendix D, Tables D40, D41), explaining about 9% of the variance. The participants with 1-3 years of supervision relationship had higher Counseling Outcome Expectancies than participants with less than one year of

supervision relationship. Participants with 4-10 years of supervision relationship had the highest mean Counseling Outcome Expectancy. Scores for this variable appear to go up with longer supervision relationships. However, this was not true for participants who had received supervision from the same supervisor for 11 years or more. This group had the lowest scores (Figure 2). Planned repeated contrasts approached significance between participants with less than one year of supervision relationship and those with 1-3 years of supervision relationship ($p = .093$; Appendix D, Table D42). Significant differences were observed between participants with less than one year of supervision relationship and those with 4-10 years of supervision relationship ($p = .013$). No significant difference was present between participants with less than one year of experience and those with 11 years or more of experience (each $p > .05$) (Appendix D, Table D43, Table D44; Figure D20).

Figure 2. Means for Counseling Outcome Expectancy by Duration of Supervision Relationship.

Counseling Self-efficacy scores were not significantly different for counselors who had differing lengths of supervision relationships. Participants with longer duration of supervision relationships had higher levels of Counseling Outcome Expectancy, with the exception of those who had 11 or more years of supervision with the same supervisor. Therefore, the null hypothesis was retained for Counseling Self-efficacy. Scores for Outcome Expectancy did significantly relate to the length of time participants spent in the supervision relationship with the same supervisor. The null hypothesis was rejected for Counseling Outcome Expectancy since longer supervision relationships seemed to relate to higher levels of this variable.

Research Question 2

Research Question 2: Are there supervisee and supervisor demographic and personal variables for psychologists that relate to Counseling Self-efficacy and/or Counseling Outcome Expectancy?

Supervisee Demographic and Personal Variables

Null Hypothesis 7: There are no specific supervisee demographic or personal variables that are associated with Counseling Self-efficacy for practicing psychologists.

Null Hypothesis 8: There are no specific supervisee demographic or personal variables that are associated with Counseling Outcome Expectancy for practicing psychologists.

ANOVA with post hoc tests were run with all independent variables that had ordinal and nominal items. For these tests, the dependent variable was either Counseling Self-efficacy or Counseling Outcome Expectancy and the demographic variables served as independent variables. The following demographic supervisee variables revealed no

significant ($p > .05$) relationship to either Counseling Self-efficacy or Counseling Outcome Expectancy (Table 8): Age (item A1), gender (A2), highest degree (A4), license type (A5), work setting (A8), primary theoretical orientation (A9), professional roles (A10), and mandatory supervision (B2). Ethnicity (A3), significantly related to Counseling Self-efficacy but not to Counseling Outcome Expectancy with non-whites having higher c than whites ($p = .029$).

Table 8

Supervisee Demographic and Personal Variables

	<i>df</i>	CSE		COE	
		<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Age	3	1.08	0.359	1.33	0.262
Gender	1	1.10	0.294	0.01	0.941
Ethnicity	1	4.84	0.029	2.38	0.124
Highest Degree	3	0.13	0.944	0.07	0.977
License type	1	0.39	0.533	0.01	0.966
Work Setting	3	0.69	0.562	1.76	0.156
Theoretical Orientation	3	0.56	0.647	0.88	0.454
Primary Role	2	0.55	0.647	1.60	0.159
Secondary Role	2	0.73	0.482	2.02	0.077
Mandatory Supervision	3	1.10	0.353	0.29	0.833

Note. CSE = Counseling Self-efficacy; COE = Counseling Outcome Expectancy; $N = 341$ for CSE, $N = 331$ for COE.

In order to determine if clinical hours working as a counselor had an effect on Counseling Self-efficacy or Counseling Outcome Expectancy, two step-wise regressions were run with hours in couples/family sessions, hours in group sessions and hours conducting individual sessions as independent variables (*hierarchical entry*) and Counseling Self-efficacy and Counseling Outcome Expectancy, respectively, as dependent variables. Three cases with extreme values were excluded from the analysis: two participants indicated having 43 hours per week ($z = 8.98$) and 30 hours per week ($z = 8.88$) in couples/family sessions.

These values were very extreme compared to a mean of 2.96 hours ($SD = 3.64$) for the rest of the sample. Similarly, one subject indicated having 30 hours in group sessions ($z = 9.6$) compared to a mean of 1.05 hours ($SD = 2.56$) for the rest of the sample. Since regression analysis is sensitive to extreme values, the three values were not included in the analysis because they are far outside the values of the rest of the sample and on their face seem improbable. Table 9 presents the results for Counseling Self-efficacy.

Table 9

Stepwise Regression (hierarchical entry), Hours Spent in Clinical Sessions Predicting Counseling Self-efficacy

	<i>B</i>	Std. Error	β	Sig.	<i>R</i>	R^2
Coup/Fm - CSE	7.380	2.760	0.149	0.008	0.194	0.038

Hours spent in couples/family sessions were a significant contributor ($p = .008$). Hours spent in and group sessions did not reveal any significant relationship to Counseling Self-efficacy ($p > .05$).

Table 10, presents the results for Counseling Outcome Expectancy. Only hours in individual sessions was a significant contributor to Counseling Outcome Expectancy ($p = .008$). Couples/family sessions as well as group sessions were non-significant ($p > .05$).

Table 10

Stepwise Regression (hierarchical entry), Hours Spent in Clinical Sessions Predicting Counseling Outcome Expectancy

	<i>B</i>	Std. Error	β	Sig.	<i>R</i>	<i>R</i> ²
Indiv - CSE	0.169	0.063	0.153	0.008	0.161	0.026

A new composite variable was created summing the total hours a counselor spent in clinical sessions (individual, couples/family, and group sessions). Total hours spent in clinical sessions revealed a significant correlation of .135 ($p = .013$) with Counseling Self-efficacy as well as a significant correlation of .151 ($p = .006$) with Counseling Outcome Expectancies.

For Counseling Self-efficacy, the null hypothesis was retained for age, gender, highest degree, license type, work setting, primary theoretical orientation, professional roles, type of supervision, work setting, and clinical hours worked in a group therapy

setting. The null was rejected for ethnicity and clinical hours working with couples/families.

For Counseling Outcome Expectancies, the null was retained for age, gender, ethnicity, highest degree, license type, work setting, primary theoretical orientation, professional roles, mandatory supervision, and clinical hours worked providing group and couple/family therapy sessions. The null was rejected for clinical hours working as a counselor in an individual setting.

Supervisor Demographic and Personal Variables

Null Hypothesis 9: There are no specific supervisor demographic or personal variables that are associated with Counseling Self-efficacy for practicing psychologists.

Null Hypothesis 10: There are no specific supervisor demographic or personal variables that are associated with Counseling Outcome Expectancy for practicing psychologists.

ANOVA with post hoc tests were run with all independent variables that had ordinal and nominal items. The following demographic supervisor independent variables revealed non-significant relationships with the dependent variable Counseling Self-efficacy or Counseling Outcome Expectancy ($p > .05$): Gender (B3), age group (B4), ethnicity (B5), degree (B6), and primary theoretical orientation (B7) (Table 11).

No significant differences were found for supervisory roles and Counseling Self-efficacy (SDQ question B9). Counseling Outcome Expectancies were significantly related to the supervisors role as evaluator $F(3, 142) = 3.733, p = .013$, partial $\eta^2 = .073$ (Appendix D, Table D45). Tukey Honest Significant Difference (HSD) post-hoc tests revealed marginally higher Counseling Outcome Expectancies for supervisors working

primarily (80%-100%) as evaluators compared to supervisors acting 20% or less in that role, thus spending more time in the roles of administrator, consultant, counselor and/or teacher (Figure 5; Appendix D, Table D46).

Table 11

Supervisor Demographic and Personal Variables

	<i>df</i>	CSE		COE	
		<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Gender	1	0.15	0.704	0.16	0.686
Age	5	1.56	0.173	0.32	0.900
Ethnicity	1	0.79	0.376	0.25	0.616
Degree	4	0.12	0.975	0.39	0.814
Primary theoretical orientation	3	0.74	0.529	2.62	0.053

Note. CSE = Counseling Self-efficacy; COE = Counseling Outcome Expectancy; *N* = 341 for CSE; *N* = 331 for COE.

Relating to Counseling Self-efficacy, the null was retained for gender, age, ethnicity, degree, primary theoretical orientation, and supervisory roles. Relating to Counseling Outcome Expectancy, the null was retained for gender, age, ethnicity, degree, and primary theoretical orientation and was rejected for supervisory roles with Counseling Outcome Expectancy being higher for supervisees who had supervisors who

functioned 80% or more as evaluators as compared to supervisors who worked less than 20% of the time as evaluators.

Figure 3. Counseling Outcome Expectancy by Percent of Time Supervisor Spent as Evaluator.

The SDQ provided a question (B9) that inquired about supervision training. This question had two parts and asked the participants to identify whether they themselves had received supervision training and then whether their supervisors had received supervision training. Both parts of this question will be presented together.

To examine the differences in Counseling Outcome Expectancy between participants who received supervision training and those who did not, *t*-tests were run. There were no significant differences in Counseling Outcome Expectancies between participants who had received training in providing clinical supervision and those who had not $t(159) = .829$, $p = .408$ (Table 12), however, significant differences between

those two groups were found on Counseling Self-efficacy $t(161) = 2.424, p = .016$. The effect size ($d = .39$) was small-to-medium using the criteria of Cohen (1988). Counselors who had received training had higher Counseling Self-efficacy ($M = 60.54, SD = 7.77$) than those who had not ($M = 57.67, SD = 6.87$).

Table 12

Counseling Outcome Expectancy and Counseling Self-efficacy Differences Between Groups of Counselors Who Received Training in Providing Clinical Supervision

	Received Training in Providing Clinical Supervision	<i>N</i>	Mean	<i>SD</i>	<i>t</i>	Sig.	<i>d</i>
COE	Yes	55	11.92	3.02	0.829	0.408	0.14
	No	106	11.50	3.04			
CSE	Yes	56	60.50	7.77	2.424	0.016	0.39
	No	107	57.66	6.87			

Note. CSE = Counseling Self-efficacy; COE = Counseling Outcome Expectancy.

For the second part of question B10, regarding whether the supervisor received training in supervision or not, there were no differences in the means for Counseling Outcome Expectancy or Counseling Self-efficacy. Supervisors receiving supervision training did not significantly correlate with Counseling Self-efficacy ($p = .530$) or Counseling Outcome Expectancy ($p = .546$).

Research Question 3

Research Question 3: Do supervision factors influence Counseling Self-efficacy or Counseling Outcome Expectancy for practicing psychologists?

Null Hypothesis 11: There will not be specific supervision factors that are associated with Counseling Self-efficacy for practicing psychologists.

Null Hypothesis 12: There will not be specific supervision factors that are associated with Counseling Outcome Expectancy for practicing psychologists.

Counselors answering section B (see the section earlier in the chapter under the heading Descriptive Statistics on Supervisors and Obtained Supervision, regarding issues with bias for some participants that effected answers on Section B) rated their supervision on a three-factor scale, the Supervision Factors Scale. The three factors are behaviors, procedures, and the focus of supervision. The three scales have 36 items addressing the supervision relationship. An exploratory factor analysis using principal component extraction method and Varimax rotation was conducted on these 36 questions. The Kaiser-Meyer-Olkin measure of sampling adequacy was .784, and Bartlett's test of sphericity was significant ($p < .001$), both results indicating the data was suitable for factor analysis. An initial solution showed nine factors above the Kaiser-Guttman retention criterion of eigenvalues greater than 1.0 accounting for 63.4% of the variance. Five items (B12i, B13e, B14g, B14h, B14l) fell below loadings of .40 on all factors and were excluded from the analysis, leaving 31 items. Taking into consideration conceptual clarity and ease of interpretability, the four-factor model was then found to be the best solution, accounting for 46.9% of the variance (Table 13).

Table D48 of Appendix D presents the factor loadings for each item (see Table D47 of Appendix D for descriptive statistics on all items). Three items (B12d, B13a, B14k) showed cross-factor loadings (loading on more than one factor). The items were assigned to the factor with the highest loading, except for item B14k, which was assigned to Factor 3 due to better consistency with the factor's definition. The following presents each factor in more detail.

Table 13

Eigenvalues and Explained Variance for Rotated Four Factor Solution on the Supervision Factors Scale

Factor	Eigenvalue	% of Variance	Cumulative %	Coefficient Alpha	Number of Items
1	4.506	14.537	14.537	0.869	9
2	3.902	12.587	27.124	0.772	7
3	3.470	11.193	38.317	0.791	8
4	2.661	8.585	46.902	0.655	7

Extraction Method: Principal Component Analysis, Rotation: Varimax

Factor 1: *Encouraging and Facilitative Behaviors* (eigenvalue = 4.5) accounted for 14.5% of the total variance, included nine items, and had a Cronbach's alpha of .869. Factor loadings ranged from .531 to .803, with the highest loadings for the following items: making affirmative statements (.803), making warm expressions (.768), and validating your feelings (.737).

Factor 2: *Content and Structural Focus* (eigenvalue = 3.9) accounted for 12.6% of the total variance, included seven items, and had a Cronbach's alpha of .772. Factor loadings ranged from .442 to .712, with the highest loadings for the following items: Case conceptualizations (.712), formal case presentations by you (.645), and role-playing (.618).

Factor 3: *Focus on Personal/Professional Growth* (eigenvalue = 3.5) accounted for 11.2% of the total variance, included eight items, and had a Cronbach's alpha of .791. Factor loadings ranged from .417 to .776, with the highest loadings for the following items: your personal issues (.776), prevention of burnout (.725), and relationship between you and supervisor (.629).

Factor 4: *Administrative Procedures* (eigenvalue = 2.7) accounted for 8.6% of the total variance, included seven items, and had a Cronbach's alpha of .655. Factor loadings ranged from .455 to .612, with the highest loadings for the following items: administrative issues (.612), formal evaluation (.612), and giving information and advice (.566).

The four factor scores were computed with the SPSS Factor Procedure. The scores represent the sum-product of a participant's standardized score multiplied by the corresponding factor loading, summed across all items. Two OLS stepwise regressions were run, with these four factors as independent variables and Counseling Self-efficacy and Counseling Outcome Expectancy as dependent variables. Factor 1 (Encouraging and Facilitating Behaviors), Factor 3 (Focus on Personal/Professional Growth), and Factor 4 (Administrative Procedures) revealed no significant relationship to Counseling Self-efficacy or to Counseling Outcome Expectancy and did not enter the regression ($p > .05$).

However, as can be seen in Table 14, Factor 2 (Content and Structural Focus) did contribute significantly to the prediction of both Counseling Self-efficacy ($r = .182, p = .027$) and Counseling Outcome Expectancy ($r = .164, p = .049$).

Four distinct aspects of supervision were revealed in a factor analysis on questions pertaining to counselor's supervision. The four factors were encouraging and facilitative behaviors, content and structural focus, focus on personal and professional growth, and administrative procedures.

Table 14

Stepwise Regressions Analysis Factor 2 Predicting Counseling Self-efficacy and Counseling Outcome Expectancy

	<i>B</i>	Std. Error	β	Sig.	<i>R</i>	<i>R</i> ²
Factor 2 - CSE	1.340	0.600	0.182	0.027	0.182	0.033
Factor 2 - COE	0.506	0.254	0.164	0.049	0.164	0.027

Note. CSE = Counseling Self-efficacy; COE = Counseling Outcome Expectancy.

Out of the four factors, only content and structural focus (Factor 2) showed a significant positive relationship to Counseling Self-efficacy and Counseling Outcome Expectancies. Null hypothesis 11 and 12 were both rejected due to content and structural focus (Factor 2) contributing significantly to Counseling Self-efficacy and Counseling Outcome Expectancy. However, the relationships only explained less than 4% of the variance for each.

Summary of Major Findings

Psychologists who received supervision were significantly different from psychologists who did not receive supervision in their levels of Counseling Self-efficacy but not in levels of Counseling Outcome Expectancy. Ethnicity was significantly related to Counseling Self-efficacy with non-whites having higher levels than whites. Counseling Outcome Expectancy varied significantly based on years of supervision, with the highest Counseling Outcome Expectancy associated with 4-10 years of supervision. Age, gender, ethnicity, highest degree, license type, work setting, primary theoretical orientation, professional roles, and mandatory supervision were not significantly associated with Counseling Self-efficacy or Counseling Outcome Expectancy. Hours spent providing individual counseling was positively associated with Counseling Outcome Expectancy and approached significance with Counseling Self-efficacy, while hours spent providing couples/family counseling was associated with higher Counseling Self-efficacy but not Counseling Outcome Expectancy. Factor analysis revealed a 4-factor solution for the Supervision Factors Scale: Encouraging and Facilitative Behaviors, Content and Structural Focus, Focus on Personal/Professional Growth, and Administrative Procedures, with only Content and Structural Focus significantly predictive of Counseling Self-efficacy and Counseling Outcome Expectancy. These findings are discussed in the following chapter.

CHAPTER 5

SUMMARY, DISCUSSION, & RECOMMENDATIONS

Problem and Purpose

While extensive research inquiry has been focused on beginning, or training stages of psychotherapists' development, relatively few studies have included clinicians at post-degree developmental ranges, and fewer still have used post-degree practicing clinicians as their primary population of research interest. To examine self-efficacy and supervision variables in this study, the participants were all post-degree, experienced clinicians. Although the relationship between supervision and factors such as Counseling Self-efficacy and to a lesser extent Counseling Outcome Expectancy have been studied in depth with clinicians in early stages of clinical development (Larson & Daniels, 1998; Larson et al., 1992), few studies have investigated Counseling Self-efficacy and Counseling Outcome Expectancy variables on experienced clinicians. This lack of research may be partly due to the challenges inherent in the direct collection of data related to counseling client change, as well as the apparent lack of interest shown towards the supervision experience of practicing psychotherapists. Yet, the APA (2003) cites supervision for practicing psychologists as an important part of maintaining competency for continuing practice. Psychologists are encouraged to receive supervision when they are dealing with difficult cases, where ethical dilemmas have emerged (Corey, Corey, & Callahan, 1998), and to aid in the identification and understanding of counter transference

issues. Therefore, to address this gap in the current literature, this study sought to advance the knowledge in the field by examining Counseling Self-efficacy and Counseling Outcome Expectancy and the effects of ongoing supervision for licensed psychologists.

The state of Michigan licenses psychologists at two different degree levels. Master's degreed professionals receive a limited psychology license and must be supervised throughout their professional career. Doctoral degreed professionals are licensed after the completion of no less than 2000 hours of post-doctoral supervised work experience and successfully passing the psychology licensing board exam. State psychology boards, while far from reaching a consensus, seem to commonly hold that supervision as a licensing requirement, adds to the credibility and ability of licensed professionals by assuring that they have received appropriate training experiences to warrant the title of psychologist. Michigan's LLP are never released from an ongoing supervision requirement, yet, it is unclear why Michigan's licensing board set this requirement and what they anticipate the value of ongoing supervision will be for LLP.

The purpose of this study was to examine the influence of supervision on Counseling Self-efficacy and Counseling Outcome Expectancy for experienced psychologists. Counseling Self-efficacy has been linked to the successful performance of counseling sessions and might be predictive of a counselor's ability to perform counseling-related behaviors in upcoming sessions (Friedlander et al., 1986; Iannelli, 2000). Social Cognitive Theory, from which Counseling Self-efficacy is borrowed, has identified that people with higher levels of self-efficacy perform abstract and complicated tasks better and persist in the face of failures without readily giving up, both of which are

relevant behaviors for the professional counselor. This study intended to inform practicing psychologists and state licensing boards about the effects of supervision and the factors within it that influence Counseling Self-efficacy and Counseling Outcome Expectancy. Since these two variables have been well supported by theory and practice to have predictive value in relation to conducting psychotherapy by advanced training-level counselors, there remains the need to broaden the application and validation of Counseling Self-efficacy theory. This study has furthered the investigation of Counseling Self-efficacy and Counseling Outcome Expectancy along the developmental continuum into that of practicing, experienced psychologists, thus informing the Counseling Self-efficacy theory as it relates to the developmental life-span continuum.

Methodology

The sample for this study was selected from psychologists licensed in the state of Michigan. Michigan offers two psychology licensures: the Master's degree level, which is a LLP, and the Doctoral degree level as a LP. This population was selected because it includes experienced psychotherapists from both Master's and Doctoral degreed license levels, and therefore takes in a wide range of supervision requirements.

Questionnaires were mailed to a stratified random sample taken from the more than 6000 licensed psychologists in Michigan. Participants were sampled by mail and were asked to complete the Supervision Descriptive Questionnaire (SDQ); which included the Counseling Outcome Expectancy Scale (COES) and the Counselor Self-Estimate Inventory (COSE). The SDQ was used to collect information about the participants' demographics and supervision. The COSE scale printed at the end of the SDQ form was used to assess the participants' view on how counseling they

hypothetically conducted with a difficult client (client vignette included in the SDQ) would impact that client. The COSE was used as an assessment of participants' views of how able they felt they were to conduct counseling with the difficult client.

The average participant who responded to the survey was 51-65 years old, female, white, held a doctoral degree, and was a fully LP. The participants, on average, conducted 20.4 hours of counseling sessions per week, had 16-25 years of clinical experience, worked in a private practice, and preferred cognitive behavioral therapy as their primary clinical orientation. Nearly 75% of the participants responding to the survey reported that they received some kind of supervision in the last year.

Discussion of Findings

First will be a discussion of the treatment of the two dependent variables used in this study: Counseling Self-efficacy, which was collected using the Counseling Self-Estimate Inventory (COSE) and Counseling Outcome Expectancy, which was measured with the Counseling Outcome Expectancy Scale (COES). Then the findings of this study will be discussed by examining the results of hypotheses 1 through 6 which were all related to Research Question 1, followed by an examination of hypotheses 7 through 10 which were all related to Research Question 2, and finally hypotheses 11 and 12 which were related to Research Question 3.

In responding to the COSE, most participants selected only the top 3 choices of the 6-point Likert Scale. That is, participants almost always agreed and rarely disagreed with any positive statements about their counseling skills. Since the participants in this study were experienced counselors, there was concern that they might obtain a ceiling effect on the COSE, and they did. A method was identified to reduce the impact of the

ceiling effect and the analysis described in the results chapter was conducted with this new score, which consisted of 13 items instead of the initial 37 items. Most of the items left out of this new scale related to beginning counselor skills. The 13 items retained in the new scale were related to more advanced skills and ongoing therapeutic dilemmas. This new scale had good reliability and the respondents had a good range of scores that were normally distributed. The use of a difficult client vignette did not appear to be substantially helpful in reducing the risks of reaching a ceiling effect. Even after the ceiling effect was corrected with the new scale, the participants, on average, scored high levels of Counseling Self-efficacy.

Counseling Outcome Expectancy was measured with a 3-item scale included in Section B of the Supervision Descriptive Questionnaire (SDQ). For Counseling Outcome Expectancies, the difficult vignette was meant to increase variability in Counseling Outcome Expectancy scores. In development of this scale, a panel of experienced psychologists were concerned the client presented in the vignette may have been unusually difficult. Even then, the participants in the study reported better than average expectations that the client would complete treatment somewhat satisfied, with symptoms somewhat resolved, and functioning having been moderately improved.

Research Question 1: Will psychologists who receive supervision, engage in supervision at different frequencies, and have different durations of supervision relationship have varying levels of Counseling Self-efficacy and/or Counseling Outcome Expectancy?

Null Hypothesis 1: *There will not be a significant difference in mean Counseling Self-efficacy for psychologists who receive supervision and those who do not receive supervision.*

The results showed that there was a significant difference in levels of Counseling Self-efficacy between counselors who received no supervision and counselors who did receive supervision. The effect size was small, but according to Cohen (1988), most of the effect sizes found in the field of social science will be small. This study found that counselors who received supervision had significantly higher levels of Counseling Self-efficacy than counselors who did not receive supervision. The amount of supervision received by master's level LLP was much less frequent than what had been expected given state licensure requirements. This suggests that even small or infrequent amounts of supervision might still have a significant impact on a therapist's level of Counseling Self-efficacy. A larger effect size might have been expected had there been broader variability in the amount of supervision received. The majority of counselors who received supervision did so at a frequency of one time per month or less. Only a very small percentage of those receiving supervision received it weekly. In general, this sample reported that they received supervision at a lower frequency than was expected. Half of the population sampled held master's level LLP credentials where there is a continual supervision requirement of minimally one, but usually two supervision sessions per month. Also sampled, were fully licensed doctoral level psychologists who do not have a defined supervision requirement. Previous studies have found that even without a specific supervision requirement, this group continues to receive some level of supervision (McCarthy et al., 1994; Cashwell & Dooley, 2001).

It is unclear how accurately the sample used for this study reflects the population as a whole. Master's level participants, who completed the questionnaires, rated themselves as receiving supervision much less frequently than would be expected or required by licensing laws, with 23% reporting they received supervision less than one time a month. Regarding Doctoral level respondents, 53% of them received supervision at least infrequently (in spite of no requirement to receive supervision at all) and a surprising 29% reported receiving supervision one time a month or more, which is more frequent supervision than what masters-level participants reported. It is suspected that there is a bias in the participants who chose to answer the questionnaire. During the same time frame that the mailing for this study was conducted, there seemed to be a feeling of anxiety in the population that was sampled. Master's level psychologists collectively felt concerned that the state might drop the unique classification that allows master's level clinicians to be licensed, under limits, as a psychologist. This study's author, a limited licensed psychologist, received a mailing from a group of LLP trying to collect signatures to petition the State of Michigan to retain the limited psychology license. There was anecdotal evidence that master's degree clinicians were suspicious of this research project from the start. More than three dozen uncompleted packets were mailed back and most were accompanied by letters of explanation, some quite lengthy, as to why the clinician would not participate. A common theme was that they all felt this study was intrusive in some way. Some stated they saw it as an attempt to prove that master's level clinicians were not as skilled or effective as fully licensed psychologists when it comes to successfully conducting psychotherapy sessions. Many participants, even those who completed the survey instruments, questioned whether the licensing board was in some

way behind the collection of this data, even though the cover letter they received with the survey packet clearly stated that it was a doctoral dissertation project done through Andrews University and not funded through any other organization. It's suspected that many people declined to participate because of concerns about how this data might be used to make changes in the way the state licenses psychologists. Regarding the doctoral level licensed psychologists, the sample was consistent with previous studies that reported that even without any ongoing supervision requirement; many clinicians at the doctoral level of licensure continue to receive some ongoing supervision. The fact that 23% of these respondents received clinical supervision at least one time a month was a higher than expected finding.

In summary, participants who received supervision had significantly higher Counseling Self-efficacy than those who did not receive supervision. Even with the above-mentioned potential for a bias in the scores (participants holding a Master's degree reported that they received lower frequencies of supervision than what was expected or required), this significant finding should still be viewed as important. However, future studies conducted in a less politicized environment are needed to confirm this finding.

Null Hypothesis 2: *There will not be a significant difference in mean Counseling Outcome Expectancy for psychologists who receive supervision and those who do not receive supervision.*

Counseling Outcome Expectancy was not significantly different for counselors who received supervision versus those who did not receive supervision. The participants in this sample scored moderately on the Counseling Outcome Expectancy measure, but still marked the instrument with low variability in scores. It is possible that the

instrument used was not sensitive enough to identify differences in this post-doctoral population. Another issue is that among the respondents who received supervision, the highest percentage marked that they received supervision infrequently. It could be that there is very little difference between no supervision and infrequent supervision when it relates to Counseling Outcome Expectancy levels. That is, it may be that relatively frequent supervision is required before supervision impacts Counseling Outcome Expectancy. The fact that most reported that they received infrequent supervision lends evidence to the possibility of a bias in the way that respondents completed the instrument. Master's level clinicians had a licensure requirement to receive supervision on a twice-monthly basis, yet many participants reported receiving supervision much less frequently, with some even reporting that they received no supervision at all. Thus, they may have reported better outcome expectancies in spite of low supervision in order to justify not following the supervision requirements or to support their personal belief that they did not need supervision. A bias is additionally evidenced in the fact that overall, participants reported better than expected outcome expectancy scores for their anticipated work with the difficult client vignette. In light of the fact that this was a very difficult client case, it is highly probable that the participants responded to this scale with some level of exaggeration towards better than expected outcomes. The data collected with this measure should therefore be interpreted cautiously.

In summary, a significant relationship between Counseling Outcome Expectancy and receiving supervision was not found. It is likely that this effect was underestimated in this population given their sensitivity regarding the nature of this study. Many participants wrote on the margin of their survey instruments about the belief that the

finding of this study was somehow associated with the state licensing board and could somehow negatively affect their ability to practice with the license they held. Future research should explore the relationship of Counseling Outcome Expectancy and supervision further, while sampling the population during a time when participants are not insecure about their licensing status.

Null Hypothesis 3: *There will not be a significant difference in mean Counseling Self-efficacy between psychologists who receive supervision more frequently and those who receive supervision less frequently.*

Null Hypothesis 4: *There will not be a significant difference in mean Counseling Outcome Expectancy between psychologists who receive supervision more frequently and those who receive supervision less frequently.*

The findings for null hypotheses 3 and 4 will be reviewed and discussed together. The four different types of supervision that participants received were categorized into five levels of frequency. The four types of supervision were: individual clinical supervision, group clinical supervision, group administrative supervision, and individual administrative supervision. Frequency was categorized as: never, infrequently, one time/month, two times/month, and weekly. Of the types, individual clinical supervision showed an increasing trend where participants who received individual clinical supervision more frequently also had higher Counseling Self-efficacy and Counseling Outcome Expectancy scores. This same trend was observed for participants who received more group or more individual administrative supervision. Participants who received supervision two times a month or more had the highest Counseling Self-efficacy and Counseling Outcome Expectancy scores for all supervision types except group

clinical supervision which showed a decreasing trend. Participants who received more group clinical supervision had lower Counseling Self-efficacy and Counseling Outcome Expectancy scores. Although none of the trends were statistically significant, they are worth comment.

Higher Counseling Self-efficacy and Counseling Outcome Expectancy scores were anticipated for those with increased frequency or amount of individual supervision and the trend found is consistent with the findings in Counseling Self-efficacy literature. But, the decreasing trend found for group clinical supervision has not been described elsewhere, although supervisees often verbalize preference for individual over group supervision in counselor training programs. The rising trends observed for group and individual administrative supervision were surprising. Administrative supervision has been linked to lower satisfaction with supervision (Kenfield, 1993). When types of supervision were studied with training-level clinicians, administrative supervision did not increase Counseling Self-efficacy (Larson & Daniels, 1998). Since the tasks and skills needed for beginning level counselors are distinctly different (basic lower order skills required to successfully interact with a client vs. higher order skills such as case conceptualization, dealing with countertransference, prevention of burnout, etc.) than those needed and continually acquired by experienced counselors, there is an expectation that Counseling Self-efficacy at later stages of the developmental continuum will be influenced differently than at earlier stages of development. The trends found suggest that counselors at later stages of the developmental continuum will have Counseling Self-efficacy and Counseling Outcome Expectancy influenced differently than those at earlier developmental stages. Training-level counselors, who are in need of nurturing and

support in their supervision, are different than experienced professional counselors who might benefit more from well-structured administrative supervision. Administrative supervision would be directive and informative, empowering supervisees to then focus their attention on the clinical work they conduct.

In summary, while there were no statistically significant differences in Counseling Self-efficacy or Counseling Outcome Expectancy based on supervision frequency, the results did trend in the expected direction for individual supervision types and might have reached significance had the sample been less guarded or more variable in their self-reported expectations. Of particular interest were the findings for group clinical supervision (that Counseling Self-efficacy trended downward with more group clinical supervision is a new finding suggesting an area for further study). For example, it could be that for experienced clinicians, the general skills addressed in group clinical supervision are not helpful. Finally, and unexpectedly, administrative supervision trended toward improving Counseling Self-efficacy, it may be that supportive types of supervision (clinical) are less helpful than more directive types of supervision (administrative) for experienced clinicians. Future research would do well to explore in more detail the types of and approaches to supervision that are more helpful after one has graduated.

Null Hypothesis 5: *There will not be a significant difference in mean Counseling Self-efficacy scores for psychologists who have longer duration of supervision relationships than for those who have shorter duration relationships with their supervisor.*

The findings were non-significant, but scores of Counseling Self-efficacy trended higher for participants with longer supervision relationships. Since the supervision relationship has been identified as a growth promoting activity, it was expected that participants with longer supervision relationships with their supervisors would have increased Counseling Self-efficacy as a benefit from the facilitative factors present there. Lambert (1992) reported that as much as 30% of a client's growth in a therapeutic relationship can be attributed to facilitative factors and these same factors of empathy, unconditional positive regard, and warmth are thought to be enhanced as a relationship grows and develops. Much like a counseling relationship, supervision is based on the relationship between the supervisee and the supervisor. Were these factors not present the supervisee might seek supervision from another person. Even though the majority of participants marked that their supervision was mandatory, in most settings, the supervisees are able to choose the supervisor he or she wished to work with. If a wider spread of scores could be recorded on the Counseling Self-efficacy, so that more variance could be found among supervisees, it is possible that what is now only a non-significant trend might in fact be significant. A follow-up study conducted at a time when there is less anxiety about state licensing requirements might find participants more willing to respond without bias. Additionally, the instrument used to collect Counseling Self-efficacy was created on and primarily used with training-level therapists. A new instrument that focuses on the higher-order skills engaged in most frequently by experienced therapists could better identify differences in this group.

Null Hypothesis 6: *There will not be a significant difference in mean Counseling Outcome Expectancy scores for psychologists who have longer duration of supervision*

relationships than for those who have shorter duration relationships with their supervisor.

A significant relationship was found between Counseling Outcome Expectancy and years spent in supervision with the same supervisor. The study found that the longer-term supervision relationships had higher levels of Counseling Outcome Expectancy. This was not true for those with a relationship of 11 or more years. Surprisingly, those participants had lower Counseling Outcome Expectancy scores.

The significance found with Counseling Outcome Expectancy that was not found with Counseling Self-efficacy in relation to the years spent in a supervision relationship, was unexpected. The self-efficacy theory postulates that self-expectancies (i.e. Counseling Outcome Expectancy) are related to the construct of self-efficacy (i.e. Counseling Self-efficacy). The finding that Counseling Self-efficacy was not significantly improved by a variable (duration of supervision relationship) that did significantly improve Counseling Outcome Expectancy is difficult to explain. High Counseling Outcome Expectancy scores are expected to occur with high Counseling Self-efficacy scores. Counselors who hold the belief that they are able to successfully conduct a counseling session (high Counseling Self-efficacy) would be expected to also have high expectations of a positive client outcome (high Counseling Outcome Expectancy). This study found that longer supervision relationships do not significantly increase Counseling Self-efficacy but these longer duration relationships do increase Counseling Outcome Expectancy. One explanation for this finding might be that a lack of significance was found for Counseling Self-efficacy due to measurement and sample limitations rather than an accurate statistical finding. The fact that a strong trend was found for Counseling

Self-efficacy that was in the same direction as the significant Counseling Outcome Expectancy finding might suggest this. Another explanation is that the participants in this study all had high Counseling Self-efficacy scores, meaning that as measured, Counseling Self-efficacy for the sample population was already at a high level. It is difficult to identify variables that increase scores that are already at the highest levels of measurement.

Research Question 2: Are there supervisee and supervisor demographic and personal variables for psychologists that relate to Counseling Self-efficacy and/or Counseling Outcome Expectancy?

Null Hypothesis 7: *There are no specific supervisee demographic or personal variables that are associated with Counseling Self-efficacy for practicing psychologists.*

Null Hypothesis 8: *There are no specific supervisee demographic or personal variables that are associated with Counseling Outcome Expectancy for practicing psychologists.*

The findings for null hypotheses 7 and 8 will be reviewed and discussed together. As to the participants' demographic and personal variables, most had no significant relationship to either Counseling Self-efficacy or Counseling Outcome Expectancy. The non-significant variables were: age, gender, highest degree obtained, licensure level, work setting, primary theoretical orientation, professional roles, and mandatory supervision. Participants' ethnicity did significantly relate to Counseling Self-efficacy. Non-whites had significantly higher scores than did whites in the sample. For the most part, the findings are consistent with the Counseling Self-efficacy research conducted on training-level counselors (Larson & Daniels, 1998). However, the difference in

Counseling Self-efficacy scores related to ethnicity, has not elsewhere been observed and should be looked at carefully in follow-up studies.

The amount of face-to-face clinical client contact per week had a significant correlation to both Counseling Self-efficacy and Counseling Outcome Expectancy. Participants who spent more time in direct clinical work had higher scores for Counseling Self-efficacy and Counseling Outcome Expectancy. There is likely a reciprocal relationship here, with participants scoring higher Counseling Self-efficacy being more willing and able to take on increased clinical work load, knowing they have the skills to do it well. As a result, more time in clinical work creates more opportunities for feedback from clients, supervisors, and other staff.

When answering the question about the amount of face-to-face clinical hours a week, respondents divided their total hours between three different counseling types: individual, couples/families, and groups. Analysis of the relationships of these counseling types to Counseling Self-efficacy found that hours spent in couples/family settings significantly related to Counseling Self-efficacy. Group sessions showed no significant relationship to Counseling Self-efficacy or Counseling Outcome Expectancy. What is unable to be determined regarding the relationship between either type of counseling session and Counseling Self-efficacy, is how these relationships interact upon each other. Clinicians recognize that couples/family therapy is often more complex and clinically difficult than other forms of therapy. Self-efficacy theory postulates that people with higher self-efficacy are frequently willing to undertake tasks of higher orders of difficulty than those with lower levels of self-efficacy. Thus, we could expect that counselors with higher levels of self-efficacy conduct more couple/family sessions. This

is predicted by self-efficacy theory and validated by the data collected in this study. If there is something inherent in the process of conducting couples/family sessions, that in itself provides for increased self-efficacy, this study is unable to identify it. It could be that counselors who by choice or by job requirement conduct more couples/family sessions, as a result, gain higher self-efficacy. The theory might explain this in that self-efficacy is both obtained and maintained through multiple sources of information received while engaged in the behavior, observing a model, and through mastery experience. For continued maintenance and increase in Counseling Self-efficacy, more challenging behaviors must be sought and engaged in. There exists the potential that there is a feedback loop where counselors with high self-efficacy are more likely to engage in tasks that are more difficult and challenging but also counselors who are challenged by difficult clinical application will have increased opportunity for self-efficacy improvement. So the data can be summarized as counselors with high self-efficacy conduct more couples/family sessions and counselors who conduct more couples/family sessions have higher self-efficacy. Further research with a study designed to isolate variables and determine causality is needed to further understand this complex relationship.

What is not understood in the data is why group, as a modality of therapy that is often considered to be a higher order intervention skill, did not show a significant relationship to Counseling Self-efficacy. Participants in this sample, on average, conducted one group session per week. This may not be a frequency of occurrence large enough for a statistical relationship to be identified when the average participant in this group conducted 20.4 hours of counseling intervention each week. This study did not

discriminate or identify types of groups conducted. We do not know if participants conducting groups are conducting manualized psycho-educational groups or psychotherapy groups. Future study might wish to identify whether the type of groups conducted plays a role in the relationship and also seeks to sample a population that conducts group therapy at a higher frequency. The low frequency (1.3 hours per week) that this population reported that they conducted group sessions is noteworthy, given that group therapy is considered “best practice” for the treatment of many disorders and has been encouraged for years by third party payers.

When investigating the relationship of Counseling Outcome Expectancies to weekly time spent conducting face-to-face counseling sessions, only hours in individual counseling sessions were found to have a significant relationship to Counseling Outcome Expectancy. The relationship here is potentially reciprocal with hours spent in individual counseling sessions and Counseling Outcome Expectancy influencing each other as discussed above in regard to Counseling Self-efficacy. If the three types of counseling sessions were placed in order of difficulty, individual counseling would be on the lower level for many clinicians. For clinicians who conduct higher frequencies of individual counseling, to score higher Counseling Outcome Expectancy may partially be explained by the fact that they have more confidence in the outcome when conducting a less difficult type of counseling session. Counseling Outcome Expectancy scores were collected from participants who answered the questions as they related to the difficult client case. The vignette, as presented, did not state that the client needed to be seen individually, but it is likely that most participants would have thought of individual counseling as they answered the questions on the scale. This is a potential problem with

this study that future studies would do well to avoid. It might be that if case vignettes are used that three vignettes should be included, one of each type of counseling activity.

The non-significant results might be explained by the fact that participants were thinking of individual counseling when answering these questions. Additionally, the average participant conducted substantially more individual hours per week (mean = 16.6) than they did conducting group (mean = 1.3) and couples/family (mean = 3.16) sessions. The fact that participants seemed to have over-positively presented their abilities on the counselor expectancy scale could certainly have affected the relationships found in this analysis.

Null Hypothesis 9: *There are no specific supervisor demographic or personal variables that are associated with Counseling Self-efficacy for practicing psychologists.*

Null Hypothesis 10: *There are no specific supervisor demographic or personal variables that are associated with Counseling Outcome Expectancy for practicing psychologists.*

The findings for null hypotheses 9 and 10 will be reviewed and discussed together. The supervisor demographic and personal variables that produced non-significant relationships to both Counseling Self-efficacy and Counseling Outcome Expectancy are as follows: gender, age, ethnicity, degree, and primary theoretical orientation. Non-significance was found for the relationship between supervisory roles and Counseling Self-efficacy. Counseling Outcome Expectancy scores were significantly related to the role of supervisor as evaluator with minimally higher Counseling Outcome Expectancy scored by participants who had supervisors who took an evaluative role in the supervision relationship 80-100% of the time compared to those with supervisors who

used this role less than 45% of the time. Regarding the supervisor receiving specific training in how to be a supervisor, there were no differences in Counseling Self-efficacy or Counseling Outcome Expectancy between participants whether the supervisor had training or not. It should be mentioned that most participants didn't know (53%) if their supervisor had training or not.

In studies conducted with training-level counselors, supervisors who take an evaluative role with a frequency that diminishes the use of other roles, have been associated with supervisees' elevated anxiety, lower Counseling Self-efficacy, and lower satisfaction with supervision. No studies other than the present have looked at supervisor roles in relation to Counseling Outcome Expectancy. Because Counseling Outcome Expectancy is an integrated construct of Counseling Self-efficacy, future studies need to include both variables. Experienced counselors are at a different place on the developmental continuum than are training-level counselors who have been the participants of most of the Counseling Self-efficacy research to this point. It is probable that with experienced counselors with high Counseling Self-efficacy, a supervisor who is evaluative might give the feedback needed to encourage therapeutic risk and help supervisees gain more awareness into how their counseling interventions affect outcomes.

Research Question 3: Do supervision factors influence Counseling Self-efficacy or Counseling Outcome Expectancy for practicing psychologists?

Null Hypothesis 11: *There will not be specific supervision factors that are associated with Counseling Self-efficacy for practicing psychologists.*

Null Hypothesis 12: *There will not be specific supervision factors that are associated with Counseling Outcome Expectancy for practicing psychologists.*

The findings for null hypotheses 11 and 12 will be reviewed and discussed together. The data collected for research question three used a 36-item scale of supervision factors, which was developed for this study. Instead of looking at each item independently, a factor analysis was run that grouped items into four factors. Three of the four factors did not correlate significantly with either Counseling Self-efficacy or Counseling Outcome Expectancy. The non-significant factors were factor 1: encouraging and facilitative behaviors; factor 3: focus on personal/professional growth and factor 4: administrative procedures. The four factors and the items that load within them are listed in Table 15.

This study found that factor 2: content and structural focus, significantly correlated with both Counseling Self-efficacy and Counseling Outcome Expectancy. Looking at the items that make up factor 2, it is evident that of the 31 items included in the four factors, these items are more specifically of a clinical focus, relating to more complex therapeutic skills and would have a pragmatic application to every client seen. Notably, the type of items that are not in this factor and which did not significantly correlate with Counseling Self-efficacy or Counseling Outcome Expectancy, are items regarding the facilitative process of supervision and others which include administrative and early level skills. Research on the early development of counselors has demonstrated that these facilitative items were important to the development of Counseling Self-efficacy (Larson & Daniels, 1998).

Table 15

The Behaviors and Actions of Supervision

<u>Factor 1</u> Encouraging and Facilitative Behaviors	<u>Factor 2</u> Content and Structural Focus	<u>Factor 3</u> Focus on Personal/Professional Growth	<u>Factor 4</u> Administrative Procedures
Making affirmative statements	Case conceptualization	Your personal issues	Administrative issues
Making warm expressions	Formal case presentations by you	Prevention of burnout	Formal evaluation
Validating your feelings	Treatment planning	Relationship: you and supervisor	Giving information/adv ice
Active Listening	Use of interventions	Supervisor's personal issues	Making directive statements
Collaborating	Discussion of clients and treatment	Ethical/Legal issues	Review of your case notes
Encouraging appropriate risk- taking	Making interpretations	Promoting professional growth	Use of close- ended questions
Self-disclosure	Diagnosis	Transference/Counter transference	Structuring supervision
Use of constructive feedback		Role playing	
Use of open ended questions			

Note. Items are listed in order of factor loading from highest to lowest.

Thus, this finding deviates from the findings of previous studies where the participants were counselors in training programs or very recently in the field. For the psychologists sampled for the present study, who were highly experienced (averaging 16-25 years in the field), the factors that made supervision effective to them as it related to Counseling Self-efficacy and Counseling Outcome Expectancy are different than those in early stages of counselor development.

These participants apparently did not need a supportive, nurturing, warmth-exuding supervisor, but rather a supervisor who could help them deal directly with what may be some of the most challenging elements in the counseling process. Because of the uniqueness of every client's presentation, even a highly experienced counselor will remain challenged by the highly cognitive and analytical skills needed to make interpretations, conceptualize the case, diagnose, and develop an effective treatment plan. As reported earlier, counselors who had more years spent with the same supervisor in supervision had higher Counseling Outcome Expectancy. Due to this finding, it seems unlikely that people would remain with the same supervisor and have a positive impact on Counseling Outcome Expectancy if some of the facilitative characteristics are not present. It may be that although these facilitative aspects of supervision do not seem to play a role in the relationship of Counseling Self-efficacy and Counseling Outcome Expectancy, they may still play an important role in the supervision relationship. That is, if the supervision relationship was grossly lacking warmth, empathy, and positive regard, etc., it is unlikely that a supervisee would tolerate it for any length of time. Future research will need to clarify what role facilitative behaviors play, or if indeed, they are necessary for this level of clinician.

Limitations

This section lists the limitations of the current study. Discussed will be limitations related to sample, measures, design, and inference.

Limitations of the Sample

Michigan and only a few other states are unique in having two levels of psychology licensure. Generalizing these findings to states with different licensing structure must be done with caution. Additionally, counseling services are provided by other types of licensed professionals (Masters of Social Work, Marriage and family, etc.). None of these were included in the sample for this study, therefore generalization of the results of this study to these populations should be done with caution. The return rate (29%) for completed instruments was lower than anticipated even after two follow-up mailings. Even though an equal number of mailings went to master's degree and PhD-level professionals, only 38% of the participants were of the master's degree group. Participants in this group held a limited license and were required by the state to receive frequent supervision. It was anticipated that this group would have had a higher frequency of response since supervision is expected to be participated in by all members of this group. This population was 93% white and nearing retirement age. These percentages are more exaggerated in the sample than are found among Michigan psychologists. There were external factors affecting the population and there is reason to believe that a bias exists with this sample on both measures. Participants who completed the survey and those who did not might be substantially different as to how they would score on these measures. Comments made on letters attached to survey packets, both completed and non-completed, contained content that expressed suspicion about the

intent of this project and doubts over what good it would do for the field of counseling psychology. The fact that participants frequently made comments that expressed a belief that the state might make changes regarding the two types of psychology licensure and type of supervision needed affected this study both in who chose to participate and in how they participated. This researcher, who was licensed as a LLP, received two different postcard mailings from activism groups who were concerned the state would discontinue the use of the LLP. It is unknown why participants in this study chose to participate when others didn't, but it might be that the responders felt confident in their counseling abilities, having high Counseling Self-efficacy and were unconcerned about the outcome of this study. Looking at the scores on the Counseling Outcome Expectancies scale (COES), it is evident that even with high Counseling Self-efficacy, participant's answers on this scale were more positive than predicted. When the difficult case vignette and the average mean score were reviewed by psychologists teaching in a counselor training program, as well as those in clinical practice, the consensus was that the participants as a whole answered in a way as to look good.

Limitations of the Measures

The instruments were administered as part of a survey sample. Survey sampling tends to be a less robust way to collect the type of data used in this study. Since there is no way to know why respondents chose to participate or not, their self-reporting on the instruments and variables that affect the instruments cannot be controlled for and often remain unknown. The instrument used for the dependent variable Counseling Self-efficacy was developed and used extensively on training-level counselors (Larson et al., 1992; Leach & Stoltenberg, 1997). Several studies (Cashwell & Dooley, 2001; Iannelli,

2000; Larson et al., 1992) used this instrument when including experienced counselors but when used in the present study, counselors reported very high scores, thus making the instrument less able to discriminate levels of Counseling Self-efficacy for this population. Participants in the present study were expected to have higher self-efficacy than training-level counselors in general, therefore, an instrument designed more specifically for experienced counselors could potentially identify more variability within this higher self-efficacy group. The COSE instrument could be a good starting point, using only the higher order items where a broader range of scores was identified. From there, future researchers should look at counseling activities and constructs that are challenging even for the most experienced counselor and develop scale items that investigate this level of behavior. The Counseling Outcome Expectancy Scale (COES), which was developed for this study, was only three items long. It also used a case vignette of a difficult client. The use of the case vignette proved to add unknown variability and it is unable to be determined whether it helped assess Counseling Outcome Expectancy with these participants since participants rated their counseling outcomes as moderately high. The Supervision Descriptive Questionnaire (SDQ) was the instrument that the other scales were contained within. This instrument collected demographic data as well as information about the supervision received. Some of the categorical scales were less sensitive than might have been helpful because of the use of ranges. Participants did not seem to understand the questions regarding supervision received. Because of this confusion, many respondents who should have completed the entire form completed only part of the form. This introduced bias as well as lost data.

Limitations of the Design

This study, being non-experimental and collected by survey, has some inherent design flaws. With survey data collection, data is collected at only one point in time. The data collected was self-reported, thus being very subjective, meaning it is affected by personal and external factors in the participants' lives at the time they were participating in the study. This study erred where many others have, in attempting to collect too much data from respondents. This was an easy mistake to make, since if the data was not collected at the time the participants completed the survey, it could not be collected later. Having a significant amount of data to collect means the instrument was longer and possibly looked overwhelming to the busy people sampled for this study. Anecdotally, multiple participants wrote on the border of the instrument that it took them longer to fill out than the approximated 15 minutes that was listed on the introduction letter to the survey.

Self-report regarding supervision received was not the most accurate way to collect this type of data since supervision sessions function in a "process" domain, not purely "content." It is less likely that respondents clearly understand, let alone could report on all that is going on regarding those sessions. Martin, Goodyear, and Newton (1987) had participants rate their supervisors regarding supportiveness; supportiveness was also rated independently. Participants failed to accurately rate the supportiveness of their supervisor. Future studies may need to have both supervisees and supervisors answer questions regarding the supervision.

Difficulty Inferring Client Change

Another limitation is that both dependent variables in Counseling Self-efficacy and Counseling Outcome Expectancy help make inferences about the actual product of counseling: client change. However, client change in this study is estimated by the therapist and not directly observed. Neither Counseling Self-efficacy nor Counseling Outcome Expectancy would be useful variables of study if they didn't directly relate to or have an impact on actual client change. The theory assumes that therapists who have higher levels of Counseling Self-efficacy and Counseling Outcome Expectancy will engage in conducting more therapy with more difficult clients and will most importantly have better client outcomes than a therapist who rated lower on both of these variables. Future research is needed to identify the relationship between these constructs and actual client change. Since this study did not have a control group or long-term follow up, only inferences can be made about the data collected. The data collected is correlational and not causal.

Areas of Future Research

Counseling Self-efficacy theory would be enhanced in regards to the application of this theory to experienced counselors if this study were to be replicated on any or all counselor types in a given community. I would recommend that further research use a broader sample to increase sample size by including all licensed practitioners from any domain who conduct counseling. If possible, if survey instrumentation is still employed, both the supervisee and the supervisor should answer questions about the supervision. Furthermore, there should be an update to the two instruments used to collect data regarding the dependent variables of this study. First, the COES was developed for this

study and was used to identify Counseling Outcome Expectancies. Being only a three item scale may have made this instrument less able to nuance questions about Counseling Outcome Expectancy, so that participants are not as likely to self-score in an overly positive direction. If used in its existing form further research is needed to identify the validity and reliability of the COES. The second instrument, the COSE, was used to collect Counseling Self-efficacy scores. As administered this instrument contained 37 items that scored participants in all areas of counseling behavior including micro-skills and early developmental skills such as building rapport with clients. The experienced population sampled for this study scored at the highest level for most of these type of items, so, removing those items could shorten the time needed to complete the survey without losing relevant information.

A difficult client vignette was used as an attempt to increase variability for both Counseling Self-efficacy and Counseling Outcome Expectancy. This vignette alone was not able to increase the variability of Counseling Self-efficacy as much as would be desired. It will be necessary to identify the items on the scale that are higher-level skills, and additionally add items regarding behaviors and skills that experienced therapists are most challenged by.

Implications

This study investigated Counseling Self-efficacy and outcome expectancy as it related to supervision practices for LP in Michigan. This study demonstrates that fully licensed psychologists who have no supervision requirements do in fact obtain a substantial amount of supervision. Additionally, some LLP, who are required by state licensure to receive supervision, might not be receiving supervision at the required level

or at all. Even though the State of Michigan has a clearly defined supervision requirement, monitoring and enforcement appear to be severely lacking at best. It would be prudent for State licensing boards to use evidence-based decision-making, including the data presented in this current study, when making decisions regarding supervision requirements for practitioners. The participants in this study expressed suspicion of the State of Michigan, the requirements, and the process used by the State to determine those requirements. If supervision requirements had more basis in empirical evidence showing the practical and pragmatic benefits that clinicians and their clients could receive from supervision, clinician's attitudes towards supervision and their requirement to receive it might improve. Current supervision requirements could have the appearance of being arbitrary and unproductive.

This study demonstrates the link between Counseling Self-efficacy and counselor performance with the ability of supervision to impact these. When looking at the supervision relationship, experienced clinicians would benefit from a supervision relationship that is of a longer duration. When more years were spent with the same supervisor, higher levels of Counseling Self-efficacy were experienced. Counseling Self-efficacy and Counseling Outcome Expectancy correlated most strongly with supervision that focused on specific clinical content and was structured around what was occurring with the client rather than the supervisee. Counselors seeking supervision armed with this information can choose supervisors more capable of providing supervision in this manner. Additionally, counselors and their supervisors are encouraged to have early dialogue about the beneficial elements of supervision and how they wish to engage in this together.

Most supervisors in this study were doctoral level clinicians. Thus, it is likely that they received some level of training in how to provide supervision. The participants in this study who received supervision, frequently did not know if their supervisor had received supervision training. It may be beneficial for supervisors to have a discussion with their supervisees about the training they have received, as well as a discussion regarding the findings of studies like the present one. Discussion of this nature could lead to a supervision experience more specifically tailored for the experienced counselor. This may enhance the beneficial impact on Counseling Self-efficacy, Counseling Outcome Expectancy, and potentially client outcome.

Counselor educational programs are encouraged to further expand on training and supervision. Current psychology doctoral degree programs do require training for supervisors but many other degree and licensure type programs often do not. Coursework regarding supervision would benefit from studies such as the present one that looks at experienced clinicians and the supervision that benefits them. Additionally, those being trained for counseling related fields would benefit from training and understanding regarding the developmental aspects of the supervision process. All counselors are encouraged to advocate for themselves regarding the supervision they receive, and training in supervision might enhance their ability to do so.

Conclusion

Overall, the results of this study indicate that the psychologists who receive supervision do experience higher levels of Counseling Self-efficacy than their counterparts who do not receive supervision. Counseling Outcome Expectancies were not significantly different between those who were and those who were not receiving

supervision. In regard to the frequency that the supervision is received, there were surprisingly no significant differences with frequency of supervision, showing no relationship to either Counseling Self-efficacy or Counseling Outcome Expectancy. The number of years' psychologists spent in the supervision relationship with a particular supervisor significantly affected Counseling Outcome Expectancy, with longer relationships being associated with higher Counseling Outcome Expectancy level until they reported spending over 11 years with the same supervisor. Of interest, the participants who spent over 11 years in supervision reported the lowest Counseling Outcome Expectancy levels. Counseling Self-efficacy scores were not significantly different for counselors who had differing lengths of supervision relationships. Additionally, psychologists who spent more time conducting couples/family sessions had significantly higher levels of Counseling Self-efficacy than those who spent less time providing couples/family therapy. Although it did not reach statistical significance, an important finding was that time spent in individual counseling did appear to relate to higher Counseling Self-efficacy. Significance was found for Counseling Outcome Expectancy, with counselors who spent more time conducting individual sessions having the highest level of Counseling Outcome Expectancy. Finally, there are factors within supervision that impact both Counseling Self-efficacy and Counseling Outcome Expectancy. Supervision that is more directly focused on interpretation of client related material and direct clinical application about client outcome correlates significantly and positively with Counseling Self-efficacy and Counseling Outcome Expectancy.

APPENDIX A

Andrews University IRB Approval

Andrews University IRB Approval

January 15, 2008

Gunther L Schwartz
13874-A
21 Mile Road
Tustin, MI 49688

Dear Gunther,

RE: APPLICATION FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS
IRB Protocol #: 08-004 **Application Type:** Original **Dept:** Counseling & Ed. Psychology
Review Category: Exempt **Action Taken:** Approved **Advisor:** Fred Kosinski
Protocol Title: The Influence of Supervision Variables upon Counselor Self-Efficacy and Outcome Expectations Among Practicing Psychologists

This letter is to advise you that the Institutional Review Board (IRB) has reviewed and approved your proposal for research. You have been given clearance to proceed with your research plans.

All changes made to the study design and/or consent form, after initiation of the project, require prior approval from the IRB before such changes can be implemented. Feel free to contact our office if you have any questions.

The duration of the present approval is for one year. If your research is going to take more than one year, you must apply for an extension of your approval in order to be authorized to continue with this project.

Some proposal and research design designs may be of such a nature that participation in the project may involve certain risks to human subjects. If your project is one of this nature and in the implementation of your project an incidence occurs which results in a research-related adverse reaction and/or physical injury, such an occurrence must be reported immediately in writing to the Institutional Review Board. Any project-related physical injury must also be reported immediately to University Medical Specialties, by calling (269) 473-2222.

We wish you success as you implement the research project as outlined in the approved protocol.

Sincerely,

Michael D Pearson
Administrative Associate
Institutional Review Board
Cc: Fred Kosinski

Institutional Review Board
(269) 471-6360 Fax: (269) 471-6246 E-mail: irb@andrews.edu
Andrews University, Berrien Springs, MI 49104-0555

APPENDIX B

Supervision Descriptive Questionnaire (SDQ)

Supervision Descriptive Questionnaire (SDQ)

A.) DEMOGRAPHIC INFORMATION:	1. Age: ☐ 21-35 yrs ☐ 36-50 yrs ☐ 51-65 yrs ☐ 66+ yrs 2. Gender: ☐ Female ☐ Male	3. Ethnicity: ☐ Asian/Pacific Islander ☐ Biracial ☐ Black ☐ Hispanic ☐ Native-America ☐ White ☐ Other _____	4. What is the highest degree you have received? ☐ M.A. ☐ Ed.D. ☐ Psy.D. ☐ Ph.D.
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5. What psychology license do you have? (mark selection with (T) for Temporary License) ☐ Limited Licensed, M.A. ☐ Limited Licensed, Post-Doc. ☐ Fully Licensed	6. How many face-to-face clinical hours do you conduct each week? ☐ Individuals ☐ Couples/Families ☐ Groups	7. How many years of clinical experience do you have? ☐ 1-5 yrs ☐ 6-15 yrs ☐ 16-25 yrs ☐ 26+ yrs
--	--	---

8. Select the item below that best describes your current primary work setting: ☐ College Counseling Center ☐ Community Mental Health ☐ Correctional Facility ☐ Hospital/Residential ☐ Private Practice	9. What is your primary theoretical orientation? ☐ Client-Centered ☐ Cognitive-Behavioral ☐ Eclectic ☐ Humanistic/Exist'l ☐ Psychodynamic ☐ Solution Focused ☐ Systems	10. What professional roles do you function in? Some only have 1 role (1)=primary (2)=secondary ☐ Teacher ☐ Psychotherapist ☐ Administrator ☐ Clinical Supervisor ☐ Neuropsychologist ☐ Other _____
--	---	--

Directions: Using the definitions below, answer the following questions about the supervision you have received during the past year.

Clinical Supervision: Is an ongoing activity engaged in to: promote professional growth, provide for evaluation and feedback and assure the maintenance of psychotherapy skills.

Clinical Supervisor: Is a clinician with a more advanced degree/licensure and more experience than the supervisee, or is a designated colleague who has a similar degree/licensure but is at a higher level of experience than the supervisee.

Administrative Supervision: Is an activity used to promote programs, services, and systems. Focus is on productivity and strategy issues involved in client care (paperwork format, procedures, legal issues, financial concerns).

11. I receive Individual Clinical Supervision: ☐ Never ☐ Infrequently ☐ One time/month ☐ Two times/month ☐ Weekly	12. I receive Group Clinical Supervision: ☐ Never ☐ Infrequently ☐ One time/month ☐ Two times/month ☐ Weekly
--	---

13. I receive Group Administrative Supervision ☐ Never ☐ Infrequently ☐ One time/month ☐ Two times/month ☐ Weekly	14. I receive Individual Administrative Supervision ☐ Never ☐ Infrequently ☐ One time/month ☐ Two times/month ☐ Weekly
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15. Do you receive Individual or Group Supervision?

☐ **No, I do not receive Supervision**

*Please skip to question number 16 and answer the last 4 items of Part B (look for the *). Then complete the *Counseling Self-Estimate Inventory*.

☐ **Yes, I do receive Supervision**

*Please fully complete the remainder of this form before proceeding to the *Counseling Self-Estimate Inventory*.

B.) CLINICAL SUPERVISION INFORMATION:

Please answer the following questions with your primary clinical supervisor in mind. If you receive both group and individual supervision, it is preferred that you answer the questions as they relate to your individual supervision.

1. The supervisor I selected offers me the following types of supervision: (check all that apply) ☐ Individual Clinical ☐ Group Clinical ☐ Individual Administration ☐ Group Administrative	2. This supervision is: ☐ Mandatory ☐ Elective 3. What is your supervisor's gender? ☐ Female ☐ Male	4. Select your supervisor's age group: ☐ 21-35 yrs ☐ 36-50 yrs ☐ 51-65 yrs ☐ 66+ yrs
5. What is your supervisor's ethnicity? ☐ Asian/Pacific Islander ☐ Biracial ☐ Black ☐ Hispanic ☐ Native American ☐ White ☐ Other _____	6. What professional degree does your supervisor hold? ☐ M.A. ☐ Ed.D. ☐ Psy. D. ☐ Ph.D. ☐ Other _____	7. What is your supervisor's primary theoretical orientation? ☐ Client-Centered ☐ Cognitive-Behavioral ☐ Eclectic ☐ Humanistic/Exist'l. ☐ Psychodynamic ☐ Solution Focused ☐ Systems
8. Does your supervisor conduct ongoing counseling/psychotherapy? ☐ Yes ☐ No ☐ Unknown	9. Supervisors fluctuate between different supervisory roles. As a percentage of your total supervision experience, please give the amount of time your supervisor spends in each of the following roles. ☐ % Administrator ☐ % Consultant ☐ % Counselor ☐ % Evaluator ☐ % Teacher ☐ 100 % = Total	

10. Have you or your supervisor received specific training in providing clinical supervision?

Myself:

____ Yes ____ No

Supervisor:

____ Yes ____ No ____ Unknown

11. How long have you been receiving supervision from this supervisor?

____ less than 1 yr

____ 1 – 3 yrs

____ 4 – 10 yrs

____ 11+ yrs

Use this scale to complete the following questions.

1	2	3	4	5
Never	Rarely	Sometimes	Often	Usually

12. How often does your supervisor use each of the following behaviors during your clinical supervision?

Active Listening	1	2	3	4	5	Making warm expressions	1	2	3	4	5
Collaborating	1	2	3	4	5	Confrontation	1	2	3	4	5
Giving information/advice	1	2	3	4	5	Making directive statements	1	2	3	4	5
Use of open ended questions	1	2	3	4	5	Self-disclosure	1	2	3	4	5
Making affirmative statements	1	2	3	4	5	Encouraging appropriate risk-taking	1	2	3	4	5
Use of close-ended questions	1	2	3	4	5	Making interpretations	1	2	3	4	5
Structuring supervision	1	2	3	4	5	Validating your feelings	1	2	3	4	5

13. How often are each of the following procedures used during your supervision?

Use of constructive feedback	1	2	3	4	5	Use of audio/video tapes of sessions	1	2	3	4	5
Review of your case notes	1	2	3	4	5	Discussion of clients and treatment	1	2	3	4	5
Role playing	1	2	3	4	5	Formal case presentations by you	1	2	3	4	5
Formal evaluation	1	2	3	4	5						

14. How often is the focus of supervision on each of the following?

Prevention of burnout	1	2	3	4	5	Diagnosis	1	2	3	4	5
Use of interventions	1	2	3	4	5	Case conceptualization	1	2	3	4	5
Treatment planning	1	2	3	4	5	Transference/Countertransference	1	2	3	4	5
Ethical/Legal issues	1	2	3	4	5	Interpretation of testing	1	2	3	4	5
Your personal issues	1	2	3	4	5	Relationship: you and supervisor	1	2	3	4	5
Supervisor's personal issues	1	2	3	4	5	Administrative issues	1	2	3	4	5
Community resources/referral	1	2	3	4	5	Promoting professional growth	1	2	3	4	5
Non-related issues	1	2	3	4	5						

Your new client, Lynne, a married 41 year old female, vaguely reports her depressive symptoms, yet has strong, frequent suicidal ideations. Lynne feels she has been recurrently depressed since her late teen years and these episodes seem to correspond with periods of escalating relationship conflict. In the last 10 years, Lynne has been hospitalized on two occasions after making suicidal threats/attempts. Lynne has seen multiple counselors in the past but has often discontinued treatment early, stating, "they weren't helping me." Psychiatric medications have been inconsistently administered and minimally successful.

*****Now please complete the Counseling Self-Estimate Inventory.**

APPENDIX C

COSE

COSE

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

For the following list of 37 statements, please read each statement, and then indicate the extent to which you agree or disagree with that statement, using the following alternatives.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

<div style="border-bottom: 1px solid black; padding-bottom: 5px;">1_____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">2_____ I am likely to impose my values on the client during the interview.</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">3_____ When I initiate the end of a session I am positive it will be in a manner that is not abrupt or brusque and that I will end the session on time.</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">4_____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">5_____ I am certain that my interpretation and confrontation responses will be concise and to the point.</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">6_____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">7_____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">8_____</div>	<div style="border-bottom: 1px solid black; padding-bottom: 5px;">9_____ I am worried that the type of response I use at a particular time, i.e., reflection of feeling, interpretation, etc., may not be the appropriate response.</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">10_____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">11_____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">12_____ I am confident that my interpretation and confrontation responses will be effective in that they will be validated by the client's immediate response.</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">13_____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">14_____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">15_____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">16_____</div>
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Turn to Next Page

COSE (continued)

17_____		28_____	I am unsure as to how to deal with clients who appear noncommittal and indecisive.
18_____		29_____	When working with ethnic minorities clients I am confident that I will be able to bridge cultural differences in the counseling process.
19_____		30_____	
20_____		31_____	
21_____	My assessments of client problems may not be as accurate as I would like them to be.	32_____	
22_____	I am uncertain as to whether I will be able to appropriately confront and challenge my client in therapy.	33_____	
23_____		34_____	
24_____		35_____	I feel I may give advice.
25_____		36_____	In working with culturally different clients I may have a difficult time viewing situations from their perspective.
26_____	I am uncomfortable about dealing with clients who appear unmotivated to work towards mutually determined goals.	37_____	
27_____	I may have difficulty dealing with clients who do not verbalize their thoughts during the counseling session.		

APPENDIX D

Tables and Figures

Tables and Figures

Table D1

Missing Case Analysis on Item A1 to A10

	Valid		Missing		Total	
	<i>N</i>	Percent	<i>N</i>	Percent	<i>N</i>	Percent
Age Group	339	99.4%	2	0.6%	341	100.0%
Gender	300	88.0%	41	12.0%	341	100.0%
Ethnic Affiliation	339	99.4%	2	0.6%	341	100.0%
Highest Educational Degree Received	338	99.1%	3	0.9%	341	100.0%
Psychological License Type	341	100.0%	0	0.0%	341	100.0%
Number of Individual Face-to-Face Clinical Hours Conducted Weekly	325	95.3%	16	4.7%	341	100.0%
Number of Couples/Families Face-to-Face Clinical Hours Conducted Weekly	325	95.3%	16	4.7%	341	100.0%
Number of Group Face-to-Face Clinical Hours Conducted Weekly	322	94.4%	19	5.6%	341	100.0%
Years of Clinical Experience	336	98.5%	5	1.5%	341	100.0%
Current Primary Work Setting	335	98.2%	6	1.8%	341	100.0%
Primary Theoretical Orientation	337	98.8%	4	1.2%	341	100.0%

Table D2

Age Group

	Frequency	Percent	Valid Percent
21-35	29	8.5%	8.6%
36-50	99	29.0%	29.2%
51-65	178	52.2%	52.5%
66+	33	9.7%	9.7%
No Answer Given	2	0.6%	
Total	341	100.0%	

Median = 51-65 years

Figure D1

Age Group Bar Graph

Table D3

Gender

	Frequency	Percent	Valid Percent
Female	168	49.3%	56.0%
Male	132	38.7%	44.0%
No Answer Given	41	12.0%	
Total	341	100.0%	

Figure D2

Gender Bar Graph

Table D4

Ethnic Affiliation

	Frequency	Percent	Valid Percent
Asian/Pacific Islander	5	1.5%	1.5%
Biracial	2	0.6%	0.6%
Black	10	2.9%	2.9%
Hispanic	2	0.6%	0.6%
Native-American	1	0.3%	0.3%
White	315	92.4%	92.9%
Other	4	1.2%	1.2%
Subtotal	339	99.4%	100.0%
No Answer Given	2	0.6%	
Total	341	100.0%	

Figure D3

Ethnic Affiliation Bar Graph

Table D5

Highest Educational Degree Received

	Frequency	Percent	Valid Percent
M.A./M.S	130	38.1%	38.0%
Ed.D.	20	5.9%	5.9%
Psy.D.	25	7.3%	7.4%
Ph.D.	163	47.8%	48.2%
Subtotal	338	99.1%	100.0%
No Answer Given	3	0.9%	
Total	341	100.0%	

Figure D4

Highest Educational Degree Received Bar Graph

Table D6

Psychological License Type

	Frequency	Percent	Valid Percent
Limited Licensed, M.A./M.S	133	39.0%	39.0%
Limited Licensed, Post-Doc.	4	1.2%	1.2%
Fully Licensed	204	59.8%	59.8%
Total	341	100.0%	100.0%

Figure D5

Psychological License Type Bar Graph

Table D7

Face-to-Face Clinical Hours Conducted Weekly

	<i>N</i>	Missing	Minimum	Maximum	Mean	Std. Deviation
Individual	333	9	0	50	16.60	10.81
Couples/Family	333	9	0	43	3.16	4.49
Group	333	9	0	30	1.13	3.00
Total	341	1	0	73	20.40	12.47

Figure D6

Number of Individual Face-to-Face Clinical Hours Conducted Weekly Histogram

Figure D7

Number of Couples/Families Face-to-Face Clinical Hours Conducted Weekly Histogram

Figure D8

Number of Group Face-to-Face Clinical Hours Conducted Weekly Bar Graph

Figure D9

Total Face-to-Face Clinical Hours per Week Bar Graph

Table D8

Years of Clinical Experience

	Frequency	Percent	Valid Percent
1-5 Years	26	7.6%	7.7%
6-15 Years	92	27.0%	27.4%
16-25 Years	111	32.6%	33.0%
26+ Years	107	31.4%	31.8%
Subtotal	336	98.5%	100.0%
No Answer Given	5	1.5%	
Total	341	100.0%	

Median = 16-25 Years

Figure D10

Years of Clinical Experience Bar Graph

Table D9

Current Primary Work Setting

	Frequency	Percent	Valid Percent
College Counseling Center	7	2.1%	2.1%
Community Mental Health	45	13.2%	13.4%
Correctional Facility	19	5.6%	5.7%
Hospital/Residential	41	12.0%	12.2%
Private Practice	183	53.7%	54.6%
Other	23	6.7%	6.9%
More Than One answer	17	5.0%	5.1%
Subtotal	335	98.2%	100.0%
Not Answered	6	1.8%	
Total	341	100.0%	

Figure D11

Current Primary Work Setting Bar Graph

Table D10

Primary Theoretical Orientation

	Frequency	Percent	Valid Percent
Client-Centered	17	5.0%	5.0%
Cognitive-Behavioral	131	38.4%	38.9%
Eclectic	98	28.7%	29.1%
Humanistic/Exist'l	21	6.2%	6.2%
Psychodynamic	53	15.5%	15.7%
Solution Focused	9	2.6%	2.7%
Systems	8	2.3%	2.4%
Subtotal	337	98.8%	100.0%
More than one answer.	4	1.2%	
Total	341	100.0%	

Figure D12

Primary Theoretical Orientation Bar Graph

Table D11

Receive Individual Clinical Supervision

	Frequency	Percent	Valid Percent
Never	128	37.5%	38.0%
Infrequently	79	23.2%	23.4%
One time/Month	65	19.1%	19.3%
Two times/Month	41	12.0%	12.2%
Weekly	24	7.0%	7.1%
Subtotal	337	98.8%	100.0%
No Answer Given	4	1.2%	
Total	341	100.0%	

Figure D13

Receive Individual Clinical Supervision Bar Graph

Table D12

Receive Group Clinical Supervision

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	214	62.8%	63.7%	63.7%
Infrequently	44	12.9%	13.1%	76.8%
One Time/Month	39	11.4%	11.6%	88.4%
Two Times/Month	20	5.9%	6.0%	94.3%
Weekly	19	5.6%	5.7%	100.0%
Subtotal	336	98.5%	100.0%	
No Answer Given	5	1.5%		
Total	341	100.0%		

Figure D14

Receive Group Clinical Supervision Bar Graph

Table D13

Receive Group Administrative Supervision

	Frequency	Percent	Valid Percent
Never	216	63.3%	64.9%
Infrequently	53	15.5%	15.9%
One Time/Month	38	11.1%	11.4%
Two Times/Month	14	4.1%	4.2%
Weekly	12	3.5%	3.6%
Subtotal	333	97.7%	100.0%
No Answer Given	8	2.3%	
Total	341	100.0%	

Figure D15

Receive Group Administrative Supervision Bar Graph

Table D14

Receive Individual Administrative Supervision

	Frequency	Percent	Valid Percent
Never	200	58.7%	60.4%
Infrequently	94	27.6%	28.4%
One Time/Month	16	4.7%	4.8%
Two Times/Month	6	1.8%	1.8%
Weekly	15	4.4%	4.5%
Subtotal	331	97.1%	100.0%
No Answer Given	10	2.9%	
Total	341	100.0%	

Figure D16

Receive Individual Administrative Supervision Bar Graph

Table D15

Receive Either Individual or Group Clinical Supervision

	Frequency	Percent	Valid Percent
No	173	50.7%	51.3%
Yes	164	48.1%	48.7%
Subtotal	337	98.8%	100.0%
No Answer Given	4	1.2%	
Total	341	100.0%	

Figure D17

Receive Either Individual or Group Clinical Supervision Bar Graph

Table D16

Responses on A11 and A12 Conditional on Negative Answer on A15

	Frequency	Percent	Valid Percent
Never (Indiv. or Group)	113	63.8%	64.6%
At least 1 infrequent supervision	47	6.6%	26.9%
At least 1 supervision per month (Indiv. or Group)	15	8.5%	8.6%
Subtotal	175	98.9%	100.0%
No Answer	2	1.1%	
Total	177	100.0%	

Table D17

Responses on A11 to A14 Conditional on Negative Answer on A15

	Frequency	Percent	Valid Percent
Never	83	48.0%	49.1%
A least one infrequent supervision	53	30.6%	31.4%
A least one supervision once per month	15	8.7%	8.9%
A least one supervision twice per month	10	5.8%	5.9%
A least one weekly supervision	8	4.6%	4.7%
Subtotal	169	97.7%	100.0%
No Answer	4	2.3%	
Total	173	100.0%	

Figure D18

Responses on A11 to A14 Conditional on Negative Answer on A15 Bar Graph

Table D18

Chi Square Test on Gender and Two Groups of Supervision

			Supervision Groups		
			1	2	Total
Gender	Female	Count	36.0	97.0	133.0
		Expected Count	46.9	86.1	133.0
	Male	Count	42.0	46.0	88.0
		Expected Count	31.1	56.9	88.0
	Total	Count	78.0	143.0	221.0

Table D19

Chi Square Significance Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.898 ^a	1	.002
N of Valid Cases	221		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 31.06.

Table D20

Chi Square Test on Highest Education Degree and Two Groups of Supervision

			Supervision Groups		
			1	2	Total
Highest Educational Degree Received	M.A./M.S	Count	19.0	102.0	121.0
		Expected Count	42.0	79.0	121.0
	Ed.D.	Count	6.0	4.0	10.0
		Expected Count	3.5	6.5	10.0
	Psy.D.	Count	9.0	9.0	18.0
		Expected Count	6.2	11.8	18.0
	Ph.D.	Count	52.0	47.0	99.0
		Expected Count	34.3	64.7	99.0
	Total	Count	86.0	162.0	248.0
		Expected Count			

Table D21

Chi Square Significance Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	37.851 ^a	3	.000
N of Valid Cases	248		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.47.

Table D22

Chi Square Test on License Type and Two Groups of Supervision

		Supervision Groups		
		1	2	Total
Limited License	Count	21.0	104.0	125.0
	Expected Count	43.0	82.0	125.0
Fully licensed	Count	65.0	60.0	125.0
	Expected Count	43.0	82.0	125.0
Total	Count	86.0	164.0	250.0

Table D23

Chi Square Significance Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.317 ^a	1	0.000
N of Valid Cases	250		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 43.00.

Table D24

Chi Square Test on Years of Experience and Two Groups of Supervision

			Supervision Groups		
			1	2	Total
Years of Experience	< 15 years	Count	21.0	75.0	96.0
		Expected Count	33.4	62.6	96.0
	> 15 years	Count	65.0	86.0	151.0
		Expected Count	52.6	98.4	151.0
	Total	Count	86.0	161.0	247.0

Table D25

Chi Square Significance Test

	Value	df	<i>p</i>
Pearson Chi-Square	11.591 ^a	1	0.0002
N of Valid Cases	247		

Table D26

Type of Supervision Offered by Supervisor

	Individual Clinical		Group Clinical		Individual Administrative		Group Administrative	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
No	12	7.3	105	64.0	122	74.4	144	87.8
Yes	152	92.7	59	36.0	42	25.6	20	12.2
Total	164	100.0	164	100.0	164	100.0	164	100.0

Table D27

Supervision Requirement

	Frequency	Percent	Valid Percent
Mandatory	89	54.3%	54.9%
Elective	73	44.5%	45.1%
Subtotal	162	98.8%	100.0%
No Answer Given	2	1.2%	
Total	164	100.0%	

Table D28

Supervisor Gender

	Frequency	Percent	Valid Percent
Female	63	38.4%	39.1%
Male	98	59.8%	60.9%
Subtotal	161	98.2%	100.0%
No Answer Given	3	1.8%	
Total	164	100.0%	

Table D29

Supervisor Ethnicity

	Frequency	Percent	Valid Percent
Asian/Pacific Islander	4	2.4%	2.4%
Black	6	3.7%	3.7%
Hispanic	1	0.6%	0.6%
White	151	92.1%	92.1%
Other	2	1.2%	1.2%
Total	164	100.0%	100.0%

Table D30

Supervisor Age

	Frequency	Percent	Valid Percent
21 - 35 Years	5	3.0%	3.1%
36 - 50 Years	42	25.6%	25.9%
51 - 65 Years	92	56.1%	56.8%
66+ Years	23	14.0%	13.6%
Subtotal	162	98.8%	100.0%
No Answer Given	2	1.2%	
Total	164	100.0%	

Table D31

Supervisor Degree

	Frequency	Percent	Valid Percent
M.A./M.S.	15	9.1%	9.1%
Ed.D.	10	6.1%	6.1%
Psy.D.	14	8.5%	8.5%
Ph.D.	116	70.7%	70.7%
Other	9	5.5%	5.5%
Total	164	100.0%	100.0%

Table D32

Supervisor Theoretical Orientation

	Frequency	Percent	Valid Percent
Client-Centered	17	10.4%	10.6%
Cognitive-Behavioral	43	26.2%	26.7%
Eclectic	45	27.4%	28.0%
Humanistic/Exist'l	9	5.5%	5.6%
Psychodynamic	43	26.2%	26.7%
Solution Focused	2	1.2%	1.2%
Systems	2	1.2%	1.2%
Subtotal	161	98.2%	100.0%
No Answer Given	3	1.8%	
Total	164	100.0%	

Figure D19

Supervisor Theoretical Orientation Bar Graph

Table D33

Supervision Roles

	Administrator		Consultant		Counselor		Evaluator		Teacher	
	Fw	%	Fw	%	Fw	%	Fw	%	Fw	%
< 20%	101.0	61.6	70.0	42.7	69.0	42.1	114.0	69.5	110.0	67.1
20%-44%	21.0	12.8	42.0	25.6	27.0	16.5	25.0	15.2	25.0	15.2
45%-64%	15.0	9.1	12.0	7.3	20.0	12.2	4.0	2.4	9.0	5.5
65%-79%	5.0	3.0	5.0	3.0	5.0	3.0	0.0	0.0	0.0	0.0
80%-100%	5.0	3.0	20.0	12.2	28.0	17.1	4.0	2.4	4.0	2.4
No Answer	17.0	10.4	15.0	9.1	15.0	9.1	17.0	10.4	16.0	9.8
Total	164.0	100.0	164.0	100.0	164.0	100.0	164.0	100.0	164.0	100.0

Table D34

Supervisee's Training

Have you received supervision training?	Frequency	Percent	Valid Percent
Yes	55	33.5%	34.0%
No	107	65.2%	66.0%
Subtotal	162	98.8%	100.0%
No Answer Given	2	1.2%	
Total	164	100.0%	

Table D35

Supervisor's Training

Has your supervisor received supervision training?	Frequency	Percent
Yes	68	41.5%
No	8	4.9%
Unknown	88	53.7%
Total	164	100.0%

Table D36

Supervision Length

	Frequency	Percent
Less than 1 year	24	14.6%
1 - 3 Years	51	31.1%
4 - 10 Years	68	41.5%
11+ Years	21	12.8%
Total	164	100.0%

Table D37

Mean Counseling Self-Efficacy Scores for Items A11 to A14

	Statistic	A11	A12	A13	A14
Never	<i>M</i>	58.44	58.81	58.36	58.23
	<i>SD</i>	7.76	7.51	7.18	7.17
	<i>N</i>	128	214	216	200
Infrequently	<i>M</i>	58.98	59.34	57.92	58.38
	<i>SD</i>	7.03	7.48	8.04	7.48
	<i>N</i>	79	44	53	94
One time/Month	<i>M</i>	57.77	58.33	58.45	59.25
	<i>SD</i>	7.32	7.27	6.98	8.77
	<i>N</i>	65	39	38	16
Two times/Month	<i>M</i>	59.64	58.05	62.14	59.83
	<i>SD</i>	7.17	7.37	7.62	5.12
	<i>N</i>	41	20	14	6
Weekly	<i>M</i>	60.15	57.11	60.41	61.22
	<i>SD</i>	7.45	6.00	5.68	5.29
	<i>N</i>	24	19	12	15
	<i>F</i>	0.72	0.38	1.19	0.70
	Sig.	0.58	0.83	0.32	0.59

Table D38

Mean Counseling Outcome Expectancy Scores for Items A11 to A14

	Statistic	A11	A12	A13	A14
Never	<i>M</i>	184.58	184.85	184.31	183.79
	<i>SD</i>	17.12	17.18	16.47	16.52
	<i>N</i>	128	214	216	200
Infrequently	<i>M</i>	184.93	186	182.07	182.63
	<i>SD</i>	16.54	15.33	17.57	17.39
	<i>N</i>	79	44	53	94
One time/Month	<i>M</i>	181.73	183.12	182.42	187.66
	<i>SD</i>	16.51	18.15	16.5	18.31
	<i>N</i>	65	39	38	16
Two times/Month	<i>M</i>	186.34	182.05	190.93	183
	<i>SD</i>	16.84	15.25	17.06	14.79
	<i>N</i>	41	20	14	6
Weekly	<i>M</i>	186.08	178.42	185.91	188.82
	<i>SD</i>	17.5	14.92	14.53	11.32
	<i>N</i>	24	19	12	15
	<i>F</i>	1.04	0.41	1.09	0.97
	Sig.	0.39	0.80	0.36	0.42

Table D39

ANOVA Results for Frequency of Supervision

DV	IV	<i>F(df)</i>	Sig.
CSE	Clinical_Supv	1.021 (8, 325)	.420
	Admin_Supv	.863 (8, 319)	.548
	Total_Supv	1.669 (15, 311)	.156
COE	Clinical_Supv	.857 (8, 314)	.553
	Admin_Supv	1.246 (8, 308)	.272
	Total_Supv	.908 (15, 300)	.555

Note. CSE = Counseling Self-efficacy; COE = Counseling Outcome Expectancy.

Table D40

Counseling Outcome Expectancy and Duration of Supervision Descriptives

Supervision Duration	Mean	<i>SD</i>	<i>N</i>
Less than 1 year	10.58	3.26	24
1 - 3 Years	11.81	2.73	50
4 - 10 Years	12.33	2.74	67
11+ Years	9.80	3.50	21
Total	11.58	3.03	162

Table D41

Between Participants Effects on Outcome Expectancy and Duration of Supervision (B11)

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Intercept	15973.020	1	15973.020	1869.29	.000	
B11	130.955	3	43.652	5.10	.002	.088
Error	1350.104	158	8.545			
Total	23234.562	162				
Corrected Total	1481.059	161				

Note. *R* Squared = .088 (Adjusted *R* Squared = .071)

Table D42

Planned Repeated Contrasts

	Contrast Estimate	Sig.
Level 2 vs. Level 1	1.227	.093
Level 3 vs. Level 1	1.756	.013
Level 4 vs. Level 1	-0.774	.377

Table D43

Self-Efficacy and Duration of Supervision Descriptives

Duration of Supervision	Mean	<i>SD</i>	<i>N</i>
Less than 1 year	56.68	8.36	25
1 - 3 Years	57.86	7.50	50
4 - 10 Years	58.72	6.52	68
11+ Years	61.11	6.61	21
Total	58.45	7.18	164

Table D44

Between Participants Effects on Self-Efficacy and Duration of Supervision

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Intercept	449095.05	1	449095.05	8801.44	.000	
B11	248.95	3	82.98	1.62	.185	.030
Error	8164.02	160	51.02			
Total	568814.75	164				
Corrected Total	8412.98	163				

Note. *R* Squared = .030 (Adjusted *R* Squared = .011)

Figure D20

Means for Duration of Supervision and Self-Efficacy

Table D45

Between Participants Effects on Outcome Expectancy and Supervisor as Evaluator

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Intercept	570.962	1	570.962	576.192	.000	
B9d	11.098	3	3.699	3.733	.013	.073
Error	140.711	142	.991			
Total	2359.618	146				
Corrected Total	151.809	145				

Note. *R* Squared = .073 (Adjusted *R* Squared = .054)

Table D46

Tukey HSD Test Outcome Expectancy and Supervisor as Evaluator

Supervisor as Evaluator		Mean Diff	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
No Answer Given	<20%	0.249	0.364	.960	-0.7500	1.2493
	20% - 44%	-0.003	0.649	1.000	-1.7862	1.7795
	45% - 64%	-2.570	1.541	.454	-6.8006	1.6538
	80% - 100%	-4.070	1.541	.065	-8.3006	0.1538
<20%	No Answer Given	-0.249	0.364	.960	-1.2493	0.7500
	20% - 44%	-0.253	0.673	.996	-2.1016	1.5956
	45% - 64%	-2.820	1.551	.364	-7.0784	1.4324
	80% - 100%	-4.320*	1.551	.044	-8.5784	-0.0676
20%-44%	No Answer Given	0.003	0.649	1.000	-1.7795	1.7862
	<20%	0.253	0.673	.996	-1.5956	2.1016
	45% - 64%	-2.570	1.641	.521	-7.0741	1.9341
	80% - 100%	-4.070	1.641	.098	-8.5741	0.4341
45%-64%	No Answer Given	2.573	1.541	.454	-1.6538	6.8006
	<20%	2.823	1.551	.364	-1.4324	7.0784
	20% - 44%	2.570	1.641	.521	-1.9341	7.0741
	80% - 100%	-1.500	2.156	.957	-7.4142	4.4142
80%-100%	No Answer Given	4.073	1.541	.065	-0.1538	8.3006
	<20%	4.320*	1.551	.044	0.0676	8.5784
	20% - 44%	4.070	1.641	.098	-0.4341	8.5741
	45% - 64%	1.500	2.156	.957	-4.4142	7.4142

Table D47

Descriptive Statistics on Items B12a to B14o (N = 147)

	Mean	Std. Deviation
B12a	4.4252	0.83452
B12b	4.0442	0.98608
B12c	3.9252	0.97985
B12d	3.6395	1.03332
B12e	3.8673	0.99197
B12f	2.7551	0.94790
B12g	2.4422	1.10497
B12h	3.7585	1.06847
B12i	2.2789	1.00534
B12j	2.8367	1.02730
B12k	3.0204	1.02349
B12l	3.3265	0.97337
B12m	3.5510	1.09909
B12n	3.8401	1.00850
B13a	4.0748	0.92964
B13b	2.3469	1.28027
B13c	1.5374	0.71455
B13d	1.8980	1.05164
B13e	1.1701	0.50170
B13f	4.3707	0.97237
B13g	2.7891	1.28868
B14a	2.2449	1.05721
B14b	3.6020	1.00672
B14c	3.2143	1.12109
B14d	3.0340	0.93204
B14e	2.4558	1.07418
B14f	1.6122	0.80622
B14g	2.4762	0.96040
B14h	1.8741	0.93604
B14i	3.2245	1.00544
B14j	3.6667	1.00228
B14k	2.8299	1.27341
B14l	2.2789	1.25394
B14m	2.0680	0.99767
B14n	2.4218	1.09122
B14o	3.2721	1.23620

Table D48

Rotated Component Matrix

	Factor			
	1	2	3	4
B12e	.803	.088	.104	.152
B12h	.768	.007	.191	.031
B12n	.737	.183	.226	-.100
B12a	.687	.197	.028	-.057
B12b	.638	.139	-.014	.233
B12l	.570	.307	.245	.120
B12k	.553	-.118	.324	-.027
B13a	.533	.431	.131	.066
B12d	.531	.443	.132	.059
B14j	.200	.712	.231	-.129
B13g	-.131	.645	-.002	.271
B14c	.059	.618	.240	.266
B14b	.153	.599	.093	.139
B13f	.271	.585	-.005	-.028
B1m	.295	.554	-.011	.206
B14k	.183	.501	.442	-.368
B14i	.148	.498	.257	.306
B14e	.156	.087	.776	-.071
B14a	.193	.073	.725	.063
B1m	.138	.117	.629	.101
B14f	.061	-.092	.614	.130
B14d	.025	.282	.547	.267
B14o	.264	.269	.545	-.014
B13c	.033	.078	.417	.059
B14n	-.057	-.187	.132	.612
B13d	.019	.094	.113	.612
B12c	.396	.154	-.097	.566
B12j	-.038	.100	.264	.490
B13b	-.012	.294	.025	.488
B12f	.160	.108	-.045	.479
B12g	.100	.365	.082	.455

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

REFERENCE LIST

Reference List

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LICENSE and CERTIFICATION

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EMPLOYMENT

2015 – Present	Director, Advanced Christian Counseling Center Traverse City, MI
2002 – 2015	Lead Therapist/Various Program Management Pine Rest Christian Mental Health Services Traverse City, MI
1998 – 2003	Clinical Coordinator Andrews Community Counseling Center Berrien Springs, MI
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