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Understanding the Relationships among Counseling Self-Efficacy, Anxiety, Developmental Level, Coursework, Experience, and Counselor Performance

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UNDERSTANDING THE RELATIONSHIPS AMONG COUNSELING SELF-EFFICACY, ANXIETY, DEVELOPMENTAL LEVEL, COURSEWORK, EXPERIENCE, AND COUNSELOR PERFORMANCE

by

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UNDEARTING THE RELATIONSHIPS AMONG COUNSELING SELF-EFFICACY, ANXIETY, DEVELOPMENTAL LEVEL, COURSEWORK, EXPERIENCE, AND COUNSELOR PERFORMANCE

Catherine E. Kocarek, Ph.D.

Western Michigan University, 2001

Bandura's (1977, 1982) Self-Efficacy Theory and later Social Cognitive Theory (1986) provided the theoretical framework for understanding counselor self-efficacy (CSE). Bandura's theory has been utilized in many different areas; however, in this study the focus was counselor self-efficacy (CSE) and its importance to counselor training. Variables within the CSE literature such as anxiety, trainee developmental level, amount of training, counseling experience, and counselor performance were identified. The first purpose of this study was to use the first five variables to predict their influences on counselor performance. The second purpose was to examine two variables, CSE and developmental level, at three levels of training. Finally, developmental level was explored as a possible moderator variable between training level and CSE.

Data were collected from 117 master's student counselors at three levels of training, pre-practicum, counseling practicum, and field practicum. The student counselors completed the Counseling Self-Estimate Inventory (COSE), State Trait
Anxiety Inventory (STAI), and Supervisee Levels Questionnaire – Revised (SLQ-R) and their 82 supervisors completed the Counselor Evaluation Rating Scale (CERS).

CSE, anxiety, developmental level, number of courses, and amount of counseling experience together significantly predicted ($R^2 = .21$) counselor performance. Both CSE and developmental level were significantly different at the three levels of training and developmental level was not found to be a moderator variable.

These findings have implications for supervisors and instructors of counselors in training. Training appears to be effective in improving trainees' performance. All variables, CSE, anxiety, developmental level, number of courses, and amount of counseling experience together were significant predictors of counselor performance. Instructors and supervisors should develop these constructs to improve performance. CSE was higher at advanced levels of training; therefore, it appears to be enhanced with training. CSE was an important variable in the prediction of counselor performance, predicting variability above and beyond the other variables. Finally, developmental level of the counselor had a strongly positive and significant ($r = .82$) correlation with CSE indicating a possible measurement issue. The findings for developmental level as a moderator variable were not significant contradicting previous research; thus, developmental level should be further investigated.
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CHAPTER I

INTRODUCTION

Effectiveness of Psychotherapy

In 1952, Eysenck shocked the counseling profession with his article about the lack of effectiveness of psychotherapy. He found that neurotics who had been treated with psychoanalytic and eclectic psychotherapy were no better off than those who did not receive therapy treatment. This startling finding ignited debate and extensive examination of the effectiveness of psychotherapy as a treatment for psychological problems.

Contrary to Eysenck's findings, researchers have found therapy to be effective. Lambert and Bergin (1994) concluded "Research and reviews...have confirmed our original conclusion - psychotherapies, in general, have positive effects - but have also added considerable information and raised numerous other issues" (p. 143). To summarize, the last 30 years of research have shown that therapy is more effective than no treatment but the question remains, what influences effectiveness? Explorations of effectiveness have included: therapist characteristics, client characteristics, treatment modalities, nature of the pathology, nature of the improvement (temporary or permanent), therapeutic alliance, type of therapist
(professional or paraprofessional), and length of treatment (Beutler, Machado, & Neufeldt, 1994; Garfield, 1994; Lambert & Bergin, 1994). Although some of these variables have been thoroughly studied and conclusions have been reached, variables, such as counselor characteristics, continue to be explored.

Beutler, Machado, and Neufeldt (1994) summarized research on the major counselor characteristics along two dimensions: (1) objective vs. subjective characteristics and (2) cross-situational traits vs. therapy specific states. Objective characteristics were defined as those that could be observed by another individual e.g., age and professional background, whereas subjective characteristics were described as those that could be assessed through self-report e.g., personality and therapeutic relationships. Cross-situational traits were defined as qualities of the therapist that endure beyond the therapy situation e.g., sex and emotional well being. In contrast, the therapy specific states were described as arising from training to enhance therapy outcomes e.g., therapeutic styles and social influence attributes (Beutler et al., 1994).

A summary of the findings indicated that objective, cross-situational traits e.g., age, sex, and ethnicity of the therapist did not have a significant impact on therapy outcome. Conversely, variables in the objective, therapy-specific states e.g., professional background, experience, and therapist interventions had the largest effect on outcome, although within this category there was a considerable amount of
variability in outcome effect. Finally, in the therapist subjective area, it was found that therapeutic relationships that are "warm" and "supportive" result in the most therapeutic success.

The framework provided by Beutler et al. (1994) is helpful in understanding the past and current research concerning counselor characteristics. An area yet to be fully explored includes whether clear relationships between counselor characteristics beyond age, gender, ethnicity, and being "warm" and "supportive" and therapeutic effectiveness exist. Failure to fully understand this has led to a recent trend in studies that examine the effects of counselor self-efficacy and other counselor characteristics on counselor performance (Larson, Suzuki, Gillespie, Potenza, Bechtel, & Toulouse, 1992; Ridgway & Sharpley, 1990; Sharpley & Ridgway, 1993; Watson, 1992; White, 1996). However, the relationship between counselor characteristics and counselor performance still remains unclear. Although the research is increasing, this area of research is still the least explored in the literature that examined the relationship of counseling self-efficacy (CSE) and other constructs. In addition, predicting counselor performance with CSE has been "mired by different variables being included in different studies, thus making conclusions quite tentative." (Larson & Daniels, 1998, p. 214).
Review of Selected Literature

The literature related to the areas of self-efficacy, counselor self-efficacy, developmental level, and counselor performance is summarized in this section. First, a review of Self-Efficacy Theory (SET) and the related concepts and definitions is provided because SET is the theoretical, historical, and conceptual backdrop for CSE. Then an overview of the literature concerning CSE is outlined. A review of CSE and level of training studies is summarized. The next section provides a closer examination of CSE and counselor performance, which is a backdrop for the following section, a review of the studies that examined the relationship between CSE and counselor performance. The following section is an examination of the prediction of counselor performance with CSE and then a brief summary of the prediction studies follows. The next section is an area suggested by the CSE literature as a new area for exploration, developmental level of the counselor. Finally, a summary of the literature review provides a brief outline of the chapter.

Self-Efficacy Theory

The following studies evolved from Bandura's Self-Efficacy Theory (Bandura, 1977). Bandura originally examined self-efficacy of clients and its effects on treating phobic disorders. However, his theory has also been applied to a range of other human behaviors such as smoking cessation (Godding & Glasgow, 1985), academic achievement (Lent, Brown, & Larkin, 1984), perception of career options for college
Bandura (1977) presented the relationship between self-efficacy and behavior change and learning through his Self-Efficacy Theory. He formulated his theory “to explain and to predict psychological changes achieved by different modes of treatment” (Bandura, 1977, p. 191). He described efficacy as a complex process: “Efficacy in dealing with one’s environment is not a fixed act or simply a matter of knowing what to do. Rather, it involves a generative capability in which component cognitive, social, and behavioral skills must be organized into integrated courses of action to serve innumerable purposes” (Bandura, 1982, p. 122).

Later, Bandura (1986) incorporated self-efficacy concepts into a larger theory, Social Cognitive Theory (SCT). Bandura’s SCT described and explained human behaviors, motivation, and thought through his Triadic Reciprocal Causation Model (Bandura, 1997). The three components, (1) B-behavior, (2) P-internal person factors (cognitive, affective, and biological events), and (3) E-external environments, share interdependent and causal relationships. Self-efficacy has a major role in SCT by influencing and being influenced by the three components of the Triadic Reciprocal Causation Model. This dissertation focused on the relationships of self-efficacy and internal personal process factors, and behaviors.

Bandura (1977) articulated the differences between efficacy expectation and outcome expectation as an assumption of his theory. He described efficacy expectation
as the belief that one can actually do the behavior, whereas outcome expectation was related to the belief that certain behaviors lead to certain outcomes. The major distinction between efficacy and outcome expectations is whether the person focuses on the performance itself or the outcome of performance. Bandura’s primary interest and focus was in efficacy expectation.

Efficacy expectation was described by Bandura (1977) as having three dimensions: magnitude, generality, and strength. Magnitude refers to the level of efficacy expectation in relation to the difficulty of the task. Generality is the amount of generalizability of the sense of efficacy i.e., whether one believes the efficacy to be related to a specific task or more general functioning. The third component of efficacy expectations is strength i.e., the amount of the efficacy expectation. All of these dimensions come together to describe efficacy expectation and its interaction with experiences.

Bandura (1977, 1995) found the development of self-efficacy to be influenced by four phenomena: mastery experiences (performance enactment), vicarious experiences (vicarious learning), social persuasion (verbal persuasion), and physiological and emotional states (emotional arousal). Mastery experiences were described as actually performing the behavior and they are the most influential phenomena for self-efficacy. Mastery of a behavior increases self-efficacy whereas failure decreases it. The time during which mastery or failure of a behavior occurs also affects the efficacy expectation. For example, failure in the beginning stages of
acquiring a new skill tends to lower efficacy more than failure after several accomplishments. However, in some cases, initial failures can increase self-motivation and efficacy if one persists after failure and eventually succeeds. In addition, once a skill is acquired and self-efficacy established, it might generalize to other situations (Bandura & Adams, 1977).

The second factor that influences the formation of efficacy expectation is vicarious experience, which is described as observing others perform the activity. When one observes successes through vicarious experiences, self-efficacy increases, whereas observed failures tend to decrease self-efficacy. However, vicarious experience is less dependable information than one’s own abilities or accomplishments and, therefore, efficacy expectations based upon vicarious experiences are weaker and easier to change. Additional aspects of vicarious experience that increase efficacy are when the performer’s characteristics are similar to the observer, higher level of difficulty of the skill for the actor, observed success in varied circumstances, and the complexity of the modeled accomplishments (Bandura, 1977, 1995).

Social persuasion, the third piece of efficacy information, is described as someone persuading another that he/she can perform the behavior. Efficacy expectations based on social persuasion tend to be weaker than mastery experiences and can be extinguished easily by negative experiences. However, when social persuasion is used in combination with actual successes, it motivates individuals to increase their attempts at activities. The effectiveness of social persuasion is positively
affected by the characteristics of the persuader, specifically higher levels of perceived credibility, prestige, trustworthiness, expertise, and assuredness (Bandura, 1977, 1995).

The fourth aspect, physiological and emotional states, is described as the emotional reaction to various situations. The higher the arousal e.g., fear and anxiety in a given situation, the lower the self-efficacy. Generally, people anticipate success when they are not highly aroused, as opposed to when they experience aversive arousal in a given situation (Bandura, 1977). Cognitive appraisals of the arousal can influence its effects. Where some labels can be energizing e.g., excitement, others might cause adverse reactions e.g., fear (Weiner, 1972). However, in some situations, the causes of arousal are ambiguous and may be interpreted in different ways. In these cases, the meaning or attribution placed on the arousal affect the informational value of the arousal which is especially the case when focusing on someone’s attribution related to situational factors or personal inadequacy (Mandler, 1975; Schachter & Singer, 1962). A tendency to focus on personal inadequacies can result in a preoccupation with those inadequacies and arousal instead of focusing on the task (Sarason, 1976).

Not only do cognitive appraisals affect interpretation of physiological and emotional states; they also influence efficacy expectations in general. Such appraisals are influenced by social, situational, and timing circumstances. Information gained from accomplishments can be filtered in different ways: discrimination process and self-attributional bias. Discrimination process is when one distinguishes between
different situations e.g., identifying more "difficult" situations. The next filter process is self-attributational bias, "Even under conditions of perceived self-determination of outcomes, the impact of performance attainments on self-efficacy will vary depending on whether accomplishments are ascribed mainly to ability or to effort" (Bandura, 1977, p. 201). Therefore, even under similar conditions, people experience different efficacy attributions depending on whether they attribute the success or failure as being due to their actual ability or their effort for that particular task.

Bandura (1982) described a healthy combination of self-efficacy and doubts as "...a strong sense of self-efficacy to withstand failures coupled with some uncertainty (construed in terms of the challenge of the task, rather than fundamental doubts about one's capabilities)...." (p. 123). Bandura (1982) further articulated that people with low self-efficacy tend to focus on personal inadequacies and anticipate larger than reality problems, whereas people with high self-efficacy tend to concentrate on the situation and invest greater effort when faced with challenges.

People at times experience similar situations, yet have different levels of self-efficacy. Bandura suggested that a person's cognitive processes and self-efficacy might explain this discrepancy. Cognitive processes may mediate between the situation and the interpretation. Another possible explanation is related to the complex development of self-efficacy. People are constantly getting information about their abilities to accomplish tasks throughout life. The history of efficacy information can influence present interpretations, behaviors, and thoughts (Bandura, 1977).
Bandura (1977, 1982) also theorized and studied the influence of self-efficacy on actual performance. He wrote about the influence of self-efficacy on an individual’s behavior, “Of central interest to self-efficacy theory is the dynamic interplay among self-referent thought, action, and affect.” (p. 124). Several specific influences of self-efficacy on performance were outlined by Bandura (1977, 1982) and included effort and length of persistence, preparation and actual effort during performance, and personal standards.

When faced with obstacles, self-efficacy beliefs influence the amount of effort and length of persistence in performance. In addition, people with more persistence tend to demonstrate higher performance levels (Bandura, 1977, 1982). Bandura (1977) explained, “Given appropriate skills and adequate incentives, however, efficacy expectations are a major determinant of people’s choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations.” (p. 194).

Levels of self-efficacy also influence preparation and the actual effort during performance. People with low self-efficacy might have self-hindering thoughts as well as actions, whereas people with higher self-efficacy tend to have more investment in both preparation as well as performance.

Another issue that links self-efficacy beliefs and performance is that of personal standards. People with similar success in performance may feel quite different about their self-efficacy. If one person has extremely high standards, he would feel less
efficacious. However, the other person with lower standards might feel quite efficacious.

Due to many of these influences of self-efficacy on performance, Bandura (1982) found that self-efficacy estimates were more accurate than using previous performances in predicting future performance. An example is a person who feels less confident after the successful completion of a task because she discovered personal limitations during the task.

In summary, Bandura (1977, 1982) provided the foundation for utilizing self-efficacy in explaining both internal processes as well as human behavior, specifically performance. Self-Efficacy Theory was later used by other researchers to understand CSE. By using Self-Efficacy Theory, additional understanding of the process of self-efficacy related to counselor performance was accomplished. In the next section, a review of the literature that explores CSE and counselor performance is provided.

Counselor's Counseling Self-Efficacy

More recently, Bandura’s Self-Efficacy Theory has been applied to counselors and their counseling self-efficacy beliefs (Larson & Daniels, 1998). Counselor’s counseling self-efficacy (CSE) was, and continues to be, explored by many researchers, particularly within the past two decades. A brief description of CSE is a therapist’s belief in his/her abilities to counsel clients (Larson & Daniels, 1998). The exploration of CSE has included an examination of outcome expectancy, counselor
performance, counselor characteristics, personal agency variables, and perceived environment. Some studies have examined the relationship between CSE and counselor performance (Larson et al., 1992; Ridgway & Sharpley, 1990; Sharpley & Ridgway, 1993; Watson, 1992; White, 1996). Most of these studies have found different combinations of CSE, anxiety, amount of training, counseling course-work, type of counselor, self-esteem, self-awareness, counseling experience, empathy, and purpose-in-life to predict counselor performance (Larson & Daniels, 1998).

Larson and Daniels (1998) provided a review of studies from published articles, theses, dissertations, unpublished manuscripts, and presentations at national meetings related to counseling self-efficacy (CSE). Not only did Bandura (1977, 1986) categorize the findings into the four most common variables examined, CSE, outcome expectancies, affective arousal, and counselor performance, they also attempted to organize the results in relation to Social Cognitive Theory (SCT) and provided suggestions for future research. One of the suggestions was continued exploration of CSE, anxiety, perceived supervisory environment, counselor stable characteristics, personal agency variables, and environment variables through a regression analysis. In this section, the research related to CSE is described, followed by research on CSE and counselor performance, ending with studies that predicted counselor performance using CSE.

According to Larson and Daniels (1998), the stable counselor variables including counselor personality, aptitude, achievement, social desirability, counselor
age, and time spent in counseling as a client, have a minimal but positive relationship with CSE. Other stable counselor variables found to have little to no relationship to CSE include sex of the therapist, theoretical orientation, or school counseling position. However, self-reflective variables have a moderate to strong relationship to CSE. These variables include perceptions of fraudulence, self-concept, and private self-consciousness. Although CSE has a positive relationship with counseling experience, its relationship with training is less clear. Several studies found CSE to be higher for students with more years of training (Friedlander & Snyder, 1983; Margolies, Wachtel, & Schmelkin, 1986; Melchert, Hays, Wiljanen, & Kolocek, 1996; O'Brien, Heppner, Flores, & Bilkos, 1997), while other studies have found a nonlinear relationship between training and CSE (Sipps, Sugden, & Faiver, 1988).

Larson and Daniels (1998) offer two possible explanations for these conflicting findings. One suggestion is related to the instruments used because each study used a different measure of CSE. Another possible explanation is that the developmental level of the counselor might help to explain the different findings. Based upon Ossana’s (1991) research, it was suggested that developmental level may be a moderator variable between level of training and CSE. It was hypothesized to be a moderator variable because higher developmental level had a positive relationship with CSE, whereas lower developmental level was negatively related to CSE.

In another study that examined the supervision environment, Wiley and Ray (1986) also had findings that suggested that developmental level was different than
level of training. The researchers examined the frequencies of number of semesters in supervised practicum for each developmental level. Due to the range of experience at each developmental level, the researchers determined that the two variables were not interchangeable. Although two studies examined developmental level and level of training, no studies were found that examined developmental level of the counselor with CSE and counselor performance.

Larson and Daniels (1998) summarized the findings of 32 studies that used the construct of CSE. Generally, they found CSE to be slightly related to stable counselor characteristics, trained raters’ scores of counselor performance and counselors’ perceptions of caseload manageability and support in the supervisory environment. They hypothesized that the developmental level of the counselor might be a moderator variable for the level of training of the counselor. Finally, stronger relationships were found between CSE and self-reflective variables and personal agency variables.

This concludes the general review of the CSE research and how CSE relates to other variables, particularly developmental level of the counselor. In the next section, the nature of the relationship between the two variables, CSE and level of training, is examined.

**CSE and Level of Training**

Eight studies were found that examined CSE at different levels of training. The first study was by Friedlander and Snyder (1983). They focused on Stoltenberg’s
developmental theory (1981) and hypothesized that students at higher levels of training would have higher levels of CSE. Participants were 82 counseling trainees at three levels of training, beginning practicum students (n=29), advanced practicum students (n=31), and interns (n=22). Friedlander and Snyder (1983) used the Self-Efficacy Inventory (S-EI) as a measure of self-efficacy. The means for the three groups were: beginning practicum students (109.7), advanced practicum (124.4), and interns (148.8). Although Larson and Daniels (1998) reported these means to be statistically significant, no reference was made in the published article about the statistical significance of the scores on the self-efficacy instrument at the three levels of training.

Margolies et al. (1986) also examined the relationship between CSE and level of training, however they focused on medical students and their self-efficacy with psychiatry skills. The researchers hypothesized that the students' self-perceptions would improve after an initial experience in psychiatry, from first year to second year student status. Participants were 159 medical students with approximately a 50% return rate. The Self-Efficacy Questionnaire was used to assess self-efficacy. The difference between first and second year students was statistically significant, with the second year students having higher self-efficacy scores. The actual means for the two groups were not provided. The researchers found their hypothesis supported and believed that the lower scores by the first year students were appropriate.
The next study was by Sipps et al. (1988) in which they attempted to explore the relationship between CSE and level of graduate training. Sipps et al. (1988) anticipated a curvilinear relationship such that first year students were expected to have higher levels of confidence than second year students, third year students were expected to have higher levels than first year, and fourth year students were expected to demonstrate the highest levels of confidence. The researchers collected information from 78 trainees at 4 levels of training, 43 first year trainees, 16 second year trainees, 10 third year trainees, and 9 fourth year trainees. Univariate tests were used and a statistically significant effect for level of training was found. The corresponding mean scores were 81.80 for first year, 77.34 for second year, 85.46 for third year, and 86.59 for fourth year students. Their hypothesis was supported; the researchers attributed this curvilinear relationship to a sense of failure of the students’ approach recognized during the second year of training. However, third and fourth year students demonstrated the highest levels of confidence which the researchers felt was the goal of training programs.

The next study was conducted by Potenza (as cited by Larson & Daniels, 1998). However, since it is an unpublished master’s thesis, it could not be obtained for evaluation. Larson and Daniels reported that Potenza found a non-linear relationship between CSE and amount of training, and differences between scores on measures of CSE may be minimal after beginning levels of training.
Larson and Daniels' (1998) article was the only source for the next study as well. This study was by Johnson and Seem (as cited by Larson & Daniels, 1998). The findings were reported in a poster session at an APA annual convention. The findings reported by Larson and Daniels (1998) also indicated that the relationship between CSE and level of training was not linear.

Another study by Larson et al. (1992) examined CSE and level of training using the COSE. The researchers estimated validity by evaluating the instrument’s ability to distinguish psychologists at different levels of training. They examined counselors at three levels of training, counselor trainees, master’s degree counselors, and doctoral level counselors. Larson et al. (1992) believed that the master’s and doctoral counselors would have higher levels CSE than the counselor trainees based on Self-Efficacy Theory (Bandura, 1977, 1982). The researchers collected data from 213 counselor trainees (present author could not find a return rate), 52 master’s counselors (75% return rate), and 56 doctoral counselors (48% return rate). A statistically significant main effect was found for level of training. The means were 121.70 for bachelor’s degree, 141.35 for master’s degree, and 146.40 for doctoral degree. This finding supported their hypothesis.

The next study to explore CSE related to levels of training was conducted by Melchert et al. (1996). This study focused on understanding the relationship between Self-Efficacy Theory and models of counselor development. In order to accomplish this goal, they created an instrument to measure counselor self-efficacy, the Counselor...
Self-Efficacy Scale (CSES). The researchers estimated construct-related validity by using hypotheses generated from self-efficacy theory and developmental models. They anticipated that a positive correlation would exist between self-efficacy and level of training. The researchers had a total of 138 participants, with a return rate of 92%. They measured level of training on four levels, first year master’s students (34%), second year master’s students (22%), third to sixth year doctoral students (38%), and professional psychologists with doctoral degrees (5%). The findings supported their hypothesis with statistical significance. The mean scores on the CSES was 3.36 for first year, 3.82 for second year, 4.26 for doctoral students, and 4.71 for professional psychologists. The researchers found these results to be supportive of construct validity, Self-Efficacy Theory (Bandura, 1977, 1982), and developmental models.

The last study that was found to examine the relationship between CSE and level of training was by O’Brien et al. (1997). They reviewed the four studies that described the development and training applications of their instrument, the Career Counseling Self-Efficacy Scale (CCSES). The scale was developed to measure self-efficacy beliefs related to providing career counseling. In order to evaluate one aspect of the validity of the instrument, they hypothesized that psychology professionals would have higher scores on the CCSES than graduate students. The researchers collected data from 40 graduate students (89% return rate) and 29 (59% return rate) staff psychologists who worked at APA-approved counseling center internship sites. The students were asked by their professors to participate and the psychologists were
mailed the survey with instructions. The researchers used the total scale score to compare the two groups. The results were statistically significant, where the graduate students had an overall mean of 51.40 and the staff psychologists had a mean of 79.03. The researchers used this as support for the validity of their instrument.

In summary, several studies found the relationship between CSE and level of training to be linear (Friedlander & Snyder, 1983; Margolies, et al., 1986; Melchert et al., 1996; O’Brien et al., 1997). Others found the variables to have a nonlinear relationship (Johnson & Seem, as cited by Larson and Daniels, 1998; Potenza, as cited by Larson and Daniels, 1998; Sipps et al., 1988). In this second case, two of the studies were not attainable by the present researcher and therefore the conclusions reached by Larson and Daniels (1998) were used. Possible explanations for the discrepancies include the intent of the study, population of interest, and the instruments used. In most of the studies that examined the relationship between CSE and level of training, this exploration was secondary to other hypotheses, e.g. instrument validation. In addition, two studies focused on students other than counselors in training, one group was career counselors and the other group was medical students using psychiatric skills. Larson and Daniels (1998) also wrote that every study used a different measure of CSE.

This section provided a review of the literature that examined the relationship between CSE and level of training. Another area of interest in the CSE literature is the
relationship between CSE and counselor performance, which is provided in the following section.

**CSE and Counselor Performance**

Larson and Daniels (1998) also summarized the studies that examined the relationship of CSE and counselor performance. The exploration of the relationship between CSE and counselor performance is a relatively new area of study. The relationship between CSE and counselor performance was rated by trained raters and the counselors’ supervisors. There is some support for a positive relationship between trained raters’ scores and CSE. However, the relationship between supervisors’ perceptions of counselor performance and CSE is unclear. Correlations have ranged from -.84 to .65 across several studies.

Again, interpreting the contradictory findings is complicated by the various measures used to assess the same or similar constructs. For example, in the five studies that used CSE to predict counselor performance, there were three or four different measures for CSE (it was not clear if Ridgway and Sharples used the same instrument in their two studies). In addition, all of the studies used different measures of counselor performance and even had varying names for the construct e.g., counselor performance, counselor-trainee success, and counseling effectiveness. Thus, it is not possible to combine findings to understand the complexities of the relationships of the different counselor variables.
One study was found that examined the relationship between CSE and counselor performance, but did not attempt to predict counselor performance. The primary interest of Johnson, Baker, Kopala, Kiselica, and Thompson (1989) was observing changes in self-efficacy during training, correlating CSE and beliefs about future performance, and finally correlating post-training efficacy with post-training performance. Efficacy was measured by the Counselor Self-Efficacy Scale, which was developed for the study. A list of 26 counseling skills was created, however, there was no indication as to how this list was compiled. Participants were instructed to indicate whether they could perform the skill or not using a dichotomous scale. A score of 0-26 was generated from this part of the instrument. The participants were then instructed to indicate their degree of confidence on a scale from 0-100 in performing each of the 26 skills. A mean for the confidence scores was computed to generate a strength score ranging from 0-100. Test-retest correlations provided reliability estimates of .78 (level) and .88 (strength). The internal consistency was computed on the strength scores and was .95 for the first administration and .97 for the second administration. Counselor self-efficacy was measured at three points: (1) pre-training, (2) post-training (beginning), and (3) post-training (middle). Counselor skill was measured by The Responding Proficiency Index and by the Challenging Skills Rating Form which was modified from the Counselor Behavior Evaluation Form (Johnson et al., 1989).

Johnson et al. (1989) selected 50 master's degree students enrolled in a pre-practicum training course to be the participants in the study. They were divided into
low self-efficacy and high self-efficacy groups. Within these groups, participants were assigned to a counseling or no-counseling condition. Those in the counseling condition received counseling from doctoral students. These conditions formed a 2 X 2 factorial design with low vs. high self-efficacy as one factor and counseling or no counseling conditions as the second factor. Interpretation of the results indicated that both the high and low self-efficacy groups improved across the training and the high group maintained a higher self-efficacy score throughout training. However, the high self-efficacy group’s scores stabilized while the low group’s scores continued to increase in self-efficacy. The authors hypothesized that given enough time; the low self-efficacy group would approach the same level as the high self-efficacy group. They also hypothesized about a ceiling effect for their measure of self-efficacy that might have explained the plateau in scores for the high self-efficacy group. Additional findings indicated that the self-efficacy measured after training was not related to performance. Another surprising finding was that those who received counseling did not have statistically significant differences on the self-efficacy measurement than those who did not receive counseling. Johnson et al. (1989) suggested measuring anxiety to control for its effect on efficacy and performance. They also proposed an examination of the nature of post-training efficacy and actual skill level.

In this section, a review of the literature about CSE and counselor performance was provided. The wide range of correlations and difficulty in interpreting the results was also described. This section also reviewed the study that examined the relationship
between CSE and counselor performance, but did not attempt to predict counselor performance. The next section focuses on the studies that attempted to predict counselor performance by using CSE and other variables.

Studies that Used CSE to Predict Counselor Performance

Larson and Daniels (1998) noted that only 20% of the CSE studies attempted to use CSE to predict counselor performance. Several studies have attempted to predict counselor performance with CSE and other variables. In the next section, a summary of these studies, followed by an integration of the findings and discussion of the measurement difficulties, is provided.

Larson et al. (1992) attempted to provide criterion validity estimates of the Counseling Self-Estimate Inventory (COSE) through a multiple regression analysis to determine if CSE and anxiety predict counselor performance with a sample of 26 graduate students. The COSE was used as a measure of CSE, the State-Trait Anxiety Inventory (STAI) as a measure of anxiety, and the Behavioral Rating Form (BRF) as a measure of counselor performance. Due to the high correlations between the STAI subscales of State and Trait, only the Trait subscale scores were used in the study. The participants completed the COSE and the STAI prior to a 15-minute mock interview with a coached client. The client was a counseling psychology doctoral student who followed a loose script. Two graduate students, one masters and one doctoral student, observed the videotaped 15-minute segments of the counselor and client and then
completed the Behavioral Rating Forms. The raters were trained and had established a .85 inter-rater reliability. The 26 participants also completed the two instruments after the mock interview. Their findings indicated that the COSE and the STAI were statistically significant predictors of the BRF (Adjusted $R^2 = .22$).

There are several issues that must be considered when interpreting the results of this study. As stated above, this study was part of the initial development of the COSE and, therefore, the results must be interpreted tentatively because the results are based upon a new instrument. The sample size used in this study was small considering the use of multiple regression with two variables. Although statistical significance was obtained, the magnitude of the effect size may have been affected by the small sample size. In addition, the generalizability of the results is greatly limited. Of the three instruments used in this study, only one had extensive psychometric information, the STAI. The COSE and the BRF were developed for the study and only had preliminary psychometric information. Finally, the participants conducted their counseling skills in an artificial setting, limiting generalizability to other training procedures, but providing a more controlled condition in which to measure the variables.

Watson (1992) also examined the relationship between CSE and counselor performance in his dissertation; however, he was most interested in the effect of type of counselor, clergy vs. counseling students, on performance. Specifically, CSE, amount of training, counseling course-work, and type of counselor were used to predict counselor competence. In Watson’s study, CSE was measured by the
Counselor Self-Efficacy Scale (CSES) and was created by Johnson et al. (1989). The CSES has 26 items representing counseling skills. The 60 participants first indicated whether they believed they could or could not perform each skill. For each of the skills participants checked as being able to perform, they rated it from 0 (No Confidence) to 100 (Complete Confidence) to assess the strength of the self-efficacy belief. In order to provide a level of self-efficacy from 0 to 26, the number of skills that were checked are added together. Then, the strength score was summed across all items, and divided by 26, yielding a possible range of 0 to 100.

Reliability information was collected in a 2-week, test-retest design, which yielded correlations of .78 for level and .88 for strength (Johnson et al., 1989). Measures of internal consistency (alpha coefficients) indicated a high internal consistency with correlations of .95 to .97 for the Strength Scale. Internal consistency was not reported for the Level Scale (Johnson et al., 1989). In the initial development article, no information about the validity of the instrument was provided.

Counselor competence was measured with two instruments, the Challenging Skills Rating Form (CSRF) created by Johnson et al. (1989) and the Responding Proficiency Index (RPI) by Baker, Scofield, Munson & Clayton (1983). A step-wise regression was used and counseling competence was best predicted by type of student and counseling course-work. However, previous counseling experience and counseling self-efficacy were not found to predict counselor competence.
Watson’s study used more participants than the Larson et al. (1992) study; however, he used four predictor variables, which possibly limited the potential for detecting statistically significant effects. This might explain why counseling experience and counseling self-efficacy did not predict counselor performance. In addition, two of the three standardized instruments used in the study had no validity information reported in Watson’s dissertation. Finally, the participants demonstrated their skills during a 20-minute role-play, which limits the generalizability to the population of counselors in training. He did, however, contribute new information to the examination of the influence of CSE on performance, that of clergymen vs. counselors.

In another study that examined CSE and counselor performance, White (1996) attempted to predict counselor-trainee success with measures of self-efficacy, self-esteem, self-awareness, and amount of past counseling experience. The Private Self-Consciousness Subscale, a part of the Self-Consciousness Scale (Fenigstein, Scheier, & Buss, 1975), measured counselors’ self-awareness. The Private Self-Consciousness Subscale is intended to measure how much time a person is self-aware, and is described as the level at which someone is conscious of motives, thoughts, and feelings.

CSE was measured by the Counseling Self-Estimate Inventory (COSE) which has been previously described. Self-esteem was measured with the Coopersmith Self-Esteem Inventory (Coopersmith, 1967). Self-esteem was understood as belief in one’s worthiness and attitudes towards oneself. Finally, counselor-trainee success was
measured by the Counselor Evaluation Rating Scale (CERS), a Peer Rating, and course grade. The CERS has 27 items and measures both counseling and supervision experiences. Classmates completed the Peer Rating Scale and ranked participants on "overall counseling ability" into one of three categories top, middle, and bottom.

White (1996) concluded that self-esteem, self-awareness, self-efficacy, and level of experience were statistically significant predictors of counselor success as measured by the CERS. However, these variables were not statistically significant predictors of variability on other measures of counselor success, grade or peer evaluation. White (1996) wondered if the lack of statistical significance for prediction of success, based upon an estimated course grade, was related to a lack of variability in reported course grade. She thought the lack of statistical significance for peer evaluation might have been due to a lack of confidence in the measurement.

White (1996) also had aspects of her study that may limit the generalizability and usefulness of the results. She had a very small number of participants, N=26. In addition, she used four predictor variables. Using that many predictor variables with such a small sample size greatly reduces the chances of obtaining statistically significant results. She also used an instrument, the Coopersmith Self-esteem Inventory, without reporting validity information. Finally, the small sample size and relatively narrow demographics of the participants also make generalizing to the population of counselors in training questionable. White offered additional information
to the understanding of CSE and counselor performance; she examined self-esteem and self-awareness.

Ridgway and Sharpley (1990) used cognitive, affective, and communicative empathy, purpose-in-life, and self-efficacy measures to predict counseling effectiveness. They explored multiple counselor variables and their relationship to counselor effectiveness. The five-predictor variables were cognitive empathy, affective empathy, communicative empathy, purpose-in-life, and self-efficacy about learning skills. Cognitive empathy was measured by the Hogan Empathy Scale (Hogan, 1969). Affective empathy was measured by The Questionnaire Measure of Emotional Empathy (Mehrabian & Epstein, 1972) and communicative empathy was measured by The Affective Communication Test (Friedman, Prince, Riggio, & DiMatteo; 1980). Purpose in life was measured by the Purpose in Life Test (Crumbaugh, 1968) and self-efficacy was measured by the Self-Efficacy Test (SET) which was created for this study. The SET was constructed by Ridgway and Sharpley (1990) to measure level and strength of self-efficacy and was based upon the work of Lent, Brown, and Larkin (1984). Counselor effectiveness was represented by measures of counseling skill ability, counselor behavior, and client satisfaction. The counseling sessions were comprised of a rotating triad, counselor, client, and observer. While in the role of the counselor, a participant would complete the five predictor variables, empathy scales, self-efficacy, and purpose-in-life scale. The participant’s counselor effectiveness,
counseling skill ability, counselor behavior, and client satisfaction were rated by the client and observer.

A statistically significant relationship between the predictor variables and outcome variables was detected by MANOVA through a canonical correlation analysis. Results indicated that affective empathy statistically and significantly predicted counselor skills only when there were low purpose-in-life scores. However, self-efficacy and the other variables were not statistically significant predictors of counselor ability. An explanation for this lack of significance provided by the authors was the five-week interval between measurement of self-efficacy and counseling skills. Another possible explanation is the self-efficacy measure used in the study. It used only two questions; an estimation of the expected grade for the class and the amount of confidence participants had in the estimation. In addition, no psychometric information was provided about the CSE measure. It is possible that the various studies measured different aspects of CSE, or it might have been a poor measure for estimating counseling self-efficacy. A last explanation is that CSE may not be related to counseling skills. However, in light of other studies, the former explanations seem more likely than the latter.

Ridgway and Sharpley (1990) also had a low number of participants, N=42, especially when considering their statistical use of a MANOVA with five predictor and three dependent variables. This might explain why they did not find a statistically significant effect for self-efficacy and other variables. In this study, they used eight
instruments, Affective Empathy, Purpose in Life, Counseling Skill Ability, and Client Satisfaction, Self-Efficacy Test, and Counseling Skill Ability. Most of the instruments had little to no validity and/or no reliability information reported in the article. Therefore, the results must be interpreted cautiously without individual research into the instruments and relative psychometric information. Like many of the other prediction studies, this study used a counseling simulation using a 40-50 minute interview where the client was portrayed by the role-play clients which makes generalizations to the population of counselor trainees more tentative. The authors also hypothesized that self-efficacy did not predict counseling skill ability because it was measured five weeks prior to measuring counseling skill ability.

Sharpley and Ridgway (1993) also attempted to predict counselor performance with CSE. Information from 31 counseling graduate students was collected. CSE was measured by an unspecified scale, which was developed from Bandura’s work (1977, 1986). Participants indicate their expected grade (high distinction, distinction, credit, pass, or fail) and indicate their confidence in this estimation on a scale from 0-100 (not at all confident to completely confident). Although Sharpley and Ridgway (1993) did not specify that the instrument used in this study was the SET as a measure of CSE, the description of the CSE instruments in the two studies (Ridgway & Sharpley, 1990; Sharpley & Ridgway, 1993) closely resemble each other. Performance was assessed in an analogue-counseling interview that was videotaped. Three people evaluated the tapes: (1) the course instructor, (2) a counseling psychologist who had not met the
counselor, and (3) a doctoral student in counseling psychology. Analyses were conducted using nine predictor variables. Each variable, level of confidence and estimate of grade, was measured at three times during the study. The last three variables were a product of confidence scores by the grade scores. Findings indicated that the only statistically significant predictor was the level of confidence at the second grade estimate; however, the predictor variable and the outcome variable had a negative relationship. This relationship was such that those who were more confident in their grade had lower scores on the counselor performance measure. Based upon these findings, Sharpley and Ridgway (1993) questioned the usefulness of using CSE to predict or understand variability in scores on counselor performance.

Sharpley and Ridgway also used a small sample size of 31 graduate students. The instrument they used for measuring self-efficacy was closely tied to Bandura’s (1977) Self-Efficacy Theory; however, they offered no psychometric information about it. In addition, the measure of counselor performance was comprised of 22 skills that were criteria for the course. Therefore, one could question whether the instrument was measuring general counseling performance, or how well the course was taught, or how well students responded to the teaching. The results were generated through a step-wise regression with nine predictor variables. Like some of the other prediction studies, the sample size relative to the number of prediction variables greatly reduces the chances of obtaining statistically significant results and might also influence the estimate of the level of effect. Obtaining only one statistically significant variable in
this study might have been directly related to the sample size and power as opposed to truly estimating the actual relationships in the samples studied.

This section reviewed the five studies found to use CSE and other variables to predict counselor performance. The next section provides a summary of the prediction studies as well as how the results fit into Bandura's (1977) Self-Efficacy Theory.

Summary of the Prediction Studies

The findings of these studies provide information about the relationships among CSE, counselor performance, and other variables; however, each study has limitations. Statistically significant predictors of counselor performance included anxiety with CSE where 22% of the variance was explained (Larson et al., 1992); nature of one's training explaining 46% of the variance; and counseling course-work explaining 12% of the variance (Watson, 1992). In addition, affective empathy was also found to predict performance when purpose-in-life scores were low (Ridgway & Sharpley, 1990).

Self-Efficacy Theory supports the findings of anxiety and CSE to predict counselor performance. Anxiety would have had both direct and indirect effects on counselor performance as Bandura felt that there was both a "...dynamic interplay among self-referent thought, action, and affect." (Bandura, 1982, p. 124) and that self-efficacy itself was influenced by anxiety, i.e. emotional arousal.
The influence of type of training on performance would also be explained by the four pieces of efficacy information (performance enactment, vicarious learning, verbal persuasion, and emotional arousal). Counselors can be expected to be trained in providing counseling and a few other areas, e.g. testing, consultation, and ethics, whereas clergymen can be expected to be trained in other areas, e.g. theology with only some training in counseling. Thus the clergymen would most likely have less of an opportunity for performance enactment, vicarious learning or verbal persuasion, and, therefore, possibly experience higher emotional arousal during counseling. The results that counselor course-work as a prediction of counselor performance is explained by Self-Efficacy Theory for similar reasons. Although Self-Efficacy Theory suggests that self-efficacy is a better predictor of counselor performance, there is also a link between performance enactment and higher performance.

Finally, affective empathy was found to predict counselor performance. This finding fits within a Self-Efficacy Theory framework in that affective empathy was a measure of emotion within the counselor. Emotional arousal is an influence on self-efficacy and, therefore, performance. However, it does not make sense that it was only when purpose-in-life scores were low that affective empathy was a statistically significant predictor of counselor performance.

The findings of four of the five prediction studies indicated that CSE was predictive of counselor performance; however, in one case, CSE as measured by degree of confidence, was negatively related to performance (Sharpley & Ridgway,
1993). Some of the contradictory findings can be explained by the use of different instruments to measure the constructs. Two of the studies used the COSE as the measure of CSE (Larson et al., 1992; White, 1996), Watson (1992) used the Counselor Self-Efficacy Scale (CSES), and Ridgway and Sharpley (1990) and Sharpley and Ridgway (1993) seemingly used the Self-Efficacy Test (SET). The studies that used the COSE and SET found CSE to be predictive of counselor performance, whereas the study that used the CSES did not.

The COSE has been used more than any other instrument in the CSE studies and has the most psychometric information. The COSE has 37 items and uses Likert type items (1 Strongly Disagree to 6 Strongly Agree) to yield 5 scales; (1) Microskills, (2) Counseling Process, (3) Dealing with Difficult Client Behaviors, (4) Cultural Competence, and (5) Values (Larson et al., 1992). The CSES has 26 items on which participants indicate whether they can or cannot perform each counseling skill. The number of skills the participants check is a measure of their confidence level. Strength of self-efficacy belief is measured by the participants indicating the degree of confidence they have about performing each task (from 0 No Confidence to 100 Complete Confidence). The last instrument, the SET has two items; participants indicate: (1) what grade they think they will receive, and (2) their confidence in the grade assessment.

All three instruments have theoretical roots based in Bandura's (1977, 1982) Self-Efficacy Theory. However, some of the articles that discussed the theoretical base
of the instrument cited work from other authors who were applying Bandura’s work. Therefore, there are some indirect links in the actual literature, but direct links in terminology and application of Bandura’s theory. For example Ridgway and Sharply cited Lent, Brown, and Larkin (1984) as the source for the definition of self-efficacy, however, they were applying a definition that was linked to Bandura’s (1977) work.

Despite the direct and indirect links to Bandura’s work, the instruments have differences in their measurement. The CSES and the SET parallel Bandura’s understanding of self-efficacy in that it is comprised of two aspects, level and strength, but these instruments measure level differently from each other. The SET measures level as the anticipated grade for the course, the CSES assesses level through the number of specific counseling skills (0-26) the individual believes he can perform. Strength is measured similarly between the instruments as the degree of confidence in the individual’s score of either grade or counseling skills. Both developers of the CSES and SET stated that they applied Self-Efficacy Theory through their measurement of level and strength. In contrast, the COSE does not measure level and strength, measuring instead specific skills as well as more complex aspects of counseling to form a total score of CSE. The developers of the COSE indicate that the measurement of level and strength has been reported as redundant. They cited Lent and Hackett who found, “that when complex behaviors that defy hierarchical ordering are being estimated, level and strength measures will be ‘a bit redundant psychometrically’” (as cited by Larson et al., 1992, p. 106). All three of the
instruments used Self-Efficacy Theory as a base for their instrument’s measurement of counseling self-efficacy. However, in light of the theoretical and psychometric support of the COSE, it appears to be in many ways the best measurement of CSE at this time.

In addition to CSE being measured with different instruments, counselor performance was also assessed with different instruments. In some cases, different terminology was used to describe “counselor performance,” although Larson and Daniels (1998) grouped three of these five studies together. Larson et al. (1992) used the BRF and Watson (1992) used the CSRF and the RPI. White (1996) used the CERS, a peer rating, and course grades, and Ridgway and Sharpley (1990) used the Microskills & Systematic Counselling Model Checklist (MSC).

Most of the studies shared some potential problems in their design and analysis. In many cases, the sample size was small or the proportion of the sample relative to the number of prediction variables was small, which might help to explain some of the contradictory findings. In addition, some of the instruments used in these studies were not adequately described in terms of psychometric information. Whether this is an indication of the limited amount of information or merely the lack of reporting is not clear, but it did limit a thorough evaluation of the instruments based upon the article’s summary. Finally, in four of the five studies, the participants were asked to practice their skills in an artificial situation such as an analogue, mock interview, or role-play. Although this can contribute to more rigorous control of the conditions within experiments, it is less reliable when applied to the general
population. These limitations and the small sample sizes make generalizations problematic in many of the reported studies.

The studies that used CSE and other variables to predict counselor performance have several collective limitations. The four of the five studies all had relatively small sample sizes ranging from 26 – 42. In addition, some of the instruments, particularly measures of CSE had little psychometric information. As noted before, the counseling environments in which the constructs were measured were also artificial, counseling role-plays.

A review of the prediction studies and a connection to Bandura’s (1977, 1982) Self-Efficacy Theory was provided. In the next section, the theory and literature related to developmental level of counselors was explored. Developmental level of the counselor is hypothesized to be a moderator variable between counselor training and CSE.

Developmental Level

Beginning in the 1960s, professionals began to explore the theoretical underpinnings of the developmental level of counselors. Hogan (1964) started this line of exploration with his developmental writings. Since then, many developmental models of supervision have been created (Chagnon & Russell, 1995). However, empirical support for these models had been lacking in both the numbers of studies and the methodological rigor in the few studies conducted (Ellis, 1991).
One model, the Integrated Developmental Model (IDM) by Stoltenberg (1981) has been used frequently in the area of supervision. The developmental framework that Stoltenberg used for his model was that there are “different motivations, needs, and potential resistances of counselors at different levels or stages of development. The premise is that there are qualitative differences in addition to, and not accounted for by, mere quantitative differences in skill level and knowledge of theories” (1981, p. 59). Stoltenberg’s original model, the Counselor Complexity Model (Lovell, 1999), was modified to account for different levels of functioning within three structures: (1) self and other awareness, (2) motivation, and (3) dependency-autonomy (Stoltenberg & Delworth, 1987). His work was based upon the work of Hogan (1964) and Hunt (as cited by Stoltenberg, 1981).

IDM advocates suggest that supervisees move through three (1-3) levels of development and have transitional issues between each level. At each of the levels there are eight domains of competence: (1) intervention skill competence, (2) assessment techniques, (3) interpersonal assessment, (4) client conceptualization, (5) individual differences, (6) theoretical orientation, (7) treatment goals and plans, and (8) professional ethics. The development of the supervisee is described at each of the three levels through the eight domains.

According to the IDM, supervisees in level one may experience a great deal of ambivalence and uncertainty. Although they may also have a high degree of motivation, their self-concept as a counselor can vary from perceived expert to
extremely bad. For most beginning therapists, the first contacts in therapy are full of anxiety. Another difficulty for level one therapists is a preoccupation with focusing on themselves, e.g. worry about what to say, which not only makes it more difficult for them during sessions, but also negatively influences the therapy process, e.g. having little awareness of the client to help inform their efforts.

Beginning therapists experience many changes moving from level one to level two. Motivation tends to change from a generally high level to a more ambivalent sense of motivation (Bernard & Goodyear, 1998). Typically, therapists become more aware of the client and the effects client and therapist have on each other. Some difficulties include: problems in making and following treatment plans, stereotyping clients, or at the other extreme, viewing them as solely unique individuals, and over-accommodating the client and her views. Therapists at this level tend to have a set of interventions and tools to apply to various client situations, though they tend not to synthesize these into a unified theoretical orientation.

Bernard & Goodyear (1998) describe level three therapists as having a stable high motivation in therapy. They also have continued self-awareness, but this is combined with empathy and understanding for oneself in their abilities and weaknesses. A greater flexibility in interventions is apparent, as well as an understanding of the client as an individual. A greater ability to understand clients and internal dynamics as well as the interactions is achieved. Another aspect of
development is that therapists are able to understand the complexities of different situations and work with the ethical standards even in difficult cases.

Stoltenberg (1981) developed his model to offer more information about supervision and the development of counselors than other supervisory theories could explain. He understood supervision to be more complex and include more issues than merely focusing on counselors obtaining and using skills, offering psychotherapy in supervision, and incorporating theory in counseling sessions. In a later article, Wiley and Ray (1986) supported this idea and found that there was no direct relationship between counselor training and developmental level. They assessed developmental level and compared that to the number of supervised practica the student had taken. The range of practica experience for students at level one was from one to five practica, and the range at level four was from one practicum to nine plus practica.

An instrument, the Supervisee Levels Questionnaire (SLQ) developed by McNeill, Stoltenberg and Pierce (1985) was developed, based on Stoltenberg’s initial model of counselor developmental level. Later, in response to the modifications of the IDM model, the SLQ was revised. The new instrument, SLQ-R, accounted for the different developmental levels (1-3) of counselors within the same three areas (1) self and other awareness, (2) motivation, and (3) dependency-autonomy (McNeill, Stoltenberg & Romans, 1992).
Relationship of Developmental Level and Training Level

Several studies examined the nature of developmental level. One of the foci was to determine if developmental level varied across training level. McNeill, Stoltenberg, and Pierce (1985) attempted to provide more empirical evidence for developmental models of supervision. The researchers used 91 participants who completed the Supervisee Levels Questionnaire (SLQ). The SLQ has three scales, Self-Awareness, Dependency-Autonomy, and Theory/Skills Acquisition. The researchers operationalized training level by grouping the participants into three clusters, beginning, intermediate, and advanced trainees based on three different categories, counseling experience, supervision experience, and education. Level of experience in the three areas was totaled then it was artificially separated to generate approximately equal groups. The mean scores on all of the scales increased at the higher levels of training. Findings for the three scales on the SLQ generally indicated statistically significant differences between trainee experience levels. However, on the Self-Awareness scale, there was not a statistically significant difference between intermediate and advanced trainees. In addition, on the Theory/Skills Acquisition scale, there was not a statistically significant difference between beginning and intermediate trainees. Although this provides general support for developmental level increasing as experience level increases, the measurement of training level in this study was different than other studies as is described below. Therefore, any comparisons between the studies must be done cautiously.
Wiley and Ray (1986) also examined Stoltenberg’s developmental model to evaluate the validity. Although evaluation of the validity was the main focus, they also described the level of training at the different developmental levels. The researchers collected data from 107 dyads of trainees and supervisors. The supervisor participants completed the Supervision Level Scale (SLS) a measure of counselor development. In this study the researchers operationalized training level by collecting the number of supervised practica. The researchers used frequencies to demonstrate the relationship between number of supervised practica and developmental level. Although generally the higher the number of supervised practicum the higher the developmental level, there was variability within developmental levels. For example, for trainees with one semester of supervised experience, the range of developmental levels was also one to four, whereas for trainees with five semesters of experience, the range of developmental levels was one four. Although the finding of interest for the researchers was that developmental level and training level were not interchangeable variables, the findings also offer a description of the relationship between the two variables. Specifically, while there was a general increase of developmental level for increasing experience, there was substantial variability in the different levels of training.

The next study that examined the developmental level of trainees at various levels of training was by McNeill, Stoltenberg, and Romans (1992). The researchers were attempting to provide validity information about their instrument, the Supervisee Levels Questionnaire-Revised (SLQ-R). The SLQ-R has three scales, Self and Other
Awareness, Dependency-Autonomy, and Motivation. Participants were 105 trainees who completed the SLQ-R. Similar to the first study in this section, the researchers operationalized the level of training by grouping the participants into three levels, beginning, intermediate, and advanced, based upon three areas, counseling experience, supervision experience, and graduate education. Totals were generated and the trainees were separated into the three levels of training. The mean score for the total scale on the SLQ-R increased at the three levels of training. However, on the other scales, there was a great deal of overlap between the ranges for the beginning and intermediate level trainees. The researchers hypothesized that the distinction between the two groups was too small, that the trainees were mostly at the same levels of development.

The last study that examined the developmental level of trainees at different levels of training was by Tryon (1996). However, this was the only study found that did an ipsative examination of trainees across a yearlong practicum course. The researchers’ focus was on the development of the level two trainee from Stoltenberg’s (Stoltenberg, McNeill, & Delworth, 1998, Stoltenberg & Delworth, 1987) model. There were 25 participants in an advanced psychotherapy practicum who completed the SLQ-R at the beginning, middle, and end of the practicum. These three points of time were the measurement of training level for the counselors. There were three patterns of development across the year. Six participants had scores on all of the scales that increased at the three times of measurement and seven had scores that increased
on two of the three scales. The next pattern was a U-shape distribution, where the lowest score was at the second time of measurement and the third time of measurement tended to be higher than the first testing. The last pattern was an inverted U-shape distribution where the highest score was during the second testing. One last participant had descending scores throughout the year practicum, however she decided at the end of the year to leave the program. One explanation of the variability in the patterns of scores was that the students were approximately level two counselors. During this level, ambivalence and uncertainty predominate the experiences of counselors and might manifest itself as variability on a measure of developmental level.

In summary, the studies that examined the relationship between developmental level and level of counselor found similar results. Generally, developmental level increased at higher levels of training. However, the studies also varied greatly, from the intent of the study, to the type of examination (comparative vs. ipsative), the operationalization of level of training, and the instruments used to measure developmental level. In most of the studies, the purpose was to estimate the validity of the instruments used. In one study it was to gather support for the theory of developmental level. The type of evaluation also varied, in most of the studies comparisons between different groups of students at different levels were made. Whereas in one study, the evaluation was ipsative and across time. In addition, the operationalization of level of training varied across studies. In two studies, the three
levels of training were based upon three pieces of information, counseling experience, supervision experience, and graduate education. In another study, level of training was the number of practica the student had taken. In the last study, level of training was related to time, in terms of the time in the semester, beginning, middle, and end. Finally, three different instruments, SLQ, SLS, SLQ-R, were used to estimate developmental level. Despite the vast differences between the studies, a pattern of increasing developmental level as level of training increased was found.

This section provided a description of Stoltenberg’s counselor developmental theory, instrument development of the SLQ-R, and the studies that examined the relationship between developmental level and training level. The importance of developmental level to CSE literature is that developmental level is hypothesized to be a moderator variable for training level. The next section provides a summary of this chapter, the research questions, and definitions of the terms used in this study.

Summary of Literature Review

CSE is a relatively new area being explored in the counseling literature. Self-Efficacy Theory has a longer history starting with Bandura in his attempts to understand various aspects of human behavior. Combining Self-Efficacy Theory with counseling performance and training offers new insights into both of these complex areas. There is some support for CSE being able to predict counselor performance;
however, many other variables also influence this complicated construct, counselor performance.

The major limitation to this area of research is the measurement of CSE. Many instruments were developed to measure CSE to better understand this construct and its relationship to other counselor variables. However, 10 separate instruments were developed with minimal, if any, psychometric information supporting their use. At this point in CSE research, reliability and validity information is as important to explore as the discovery of the connections between self-efficacy and other counselor variables.

Larson and Daniels (1998) reported The Counseling Self-Estimate Inventory (COSE), developed by Larson et al. in 1992, was utilized more than any other instrument in CSE studies and contained the most psychometric information. Larson et al. (1992) conducted five studies to examine the psychometric properties of the COSE. The authors described many limitations of their findings; however, they stressed the importance of their studies in providing a foundation of psychometric information about a counseling self-efficacy measure.

The first group of articles reviewed pertained to the relationship between level of training and CSE. Two patterns emerged from the research; one that there was a linear relationship between the variables, and the other pattern was that the relationship was curvilinear. The samples the studies used might explain the discrepancy. The studies that used professionals or doctoral interns tended to have a
curvilinear pattern. Perhaps the studies that only examined beginning students did not have enough variability to detect differences.

Several studies attempted to predict counselor performance with CSE, anxiety, type and amount of training, course-work, empathy, purpose-in-life, self-esteem, self-awareness, estimates of grades, and confidence in the estimation. The variables that were statistically significant in predicting counselor performance were CSE, anxiety, type of training, course-work and affective empathy. In this study, CSE, anxiety, amount of training, amount of course-work, and developmental level of the counselor were used to predict counselor performance. Type of training was irrelevant because all of the participants were counseling students. Affective empathy was not examined because of the relationship with the purpose-in-life measure, since affective empathy was a statistically significant predictor of counselor performance only when there was a low purpose-in-life score.

Findings also indicated that the CSE predicted counselor performance in most cases. However, the use of different measures for counselor performance in addition to CSE complicated interpretation of the combined results.

The next primary area of interest for this study is the relationship between developmental level and level of training. The review of this body of literature revealed similar findings among the studies despite differences in methodology. The findings indicate a linear relationship between these two variables.
Another area of interest explored is the relationship between counselor performance and CSE and the possible moderating effect of developmental level of counselors. The timely development of the CSE literature and the development of a new instrument to more closely capture the developmental experiences of counselors contributed to the need to more adequately explore the relationships between these constructs.

In this study, the relationships among CSE, anxiety, counselor developmental level, amount of experience, amount of training and counselor performance were explored. Master's level students (117) at three different levels of training were assessed using measures of CSE, anxiety, counselor developmental level, and counselor performance. Information concerning the counselor's previous paraprofessional counseling experience (volunteer or employed work involving counseling techniques) and training was also collected. All data were collected between the 10th and the 15th-week of the semester. The 82 supervisors of the participating master's level counselors completed the counselor performance instrument.

The purpose of this dissertation was to explore the complex relationships between several counselor variables and counselor performance with student counselors at three points in their training. Specifically, the relationships among CSE, anxiety, developmental level of the counselor, amount of counseling experience, amount of training, and counselor performance, were examined. In addition, CSE and
developmental level were analyzed for differences at the various training levels in order to provide further information about these variables.

The effectiveness of psychotherapy is a very important aspect of the clinical application of psychology. Two issues, among others, related to effectiveness, are counselor performance and counselor characteristics. Prediction of counselor performance with these variables offers hope to improve services for clients, improve counselor development and experiences during training, and allow supervisors and instructors to improve their training. Previous studies (Larson, et al., 1992; Ridgway & Sharpley, 1990; Sharpley & Ridgway, 1993; Watson, 1992; White, 1996) have been conducted using variables to predict counselor performance. However, there have been problems in the measurement of CSE and counselor performance and sample sizes. The present study used measures of CSE and counselor performance that have psychometric support of their reliability and validity. In addition, the sample size relative to the number of variables was satisfactory in an a priori test of power on the overall regression analysis.

Previous studies (Ossana, 1991) and articles (Larson & Daniels, 1998) suggested that developmental level might be a moderator variable between level of training and CSE. The present study provides an initial examination to explore this possibility.

Identifying the predictive qualities of CSE and counselor characteristics on counselor performance has implications for helping professionals. If the influences on
counselor performance can be identified, performance could be enhanced which would help counselors and counseling students become more effective. Finally, data from this study also adds to the limited psychometric information about the COSE and SLQ-R.

Research Questions

The research questions guiding the study are listed below.

1. What is the relationship between (a) CSE, (b) anxiety, (c) developmental level of the counselor, (d) amount of paraprofessional counseling experience, (e) amount of training, and (f) counselor performance?
   1.a. Is there a unique contribution of CSE above and beyond the other predictor variables?
   1.b. Is there a unique contribution of developmental level above and beyond the other predictor variables?
   1.c. Is there a unique contribution of anxiety above and beyond the other predictor variables?

2. What are the statistically significant differences between CSE and counselor developmental level at the three levels of training (basic techniques course, first practicum experience, and field practicum experience)?

3. Is developmental level a moderator variable for amount of training on CSE?
Definitions

The following terms were used by Bandura (1977, 1982), Larson and Daniels (1998), and Myrick and Kelly (1971) and are adopted for this study.

Efficacy Expectation

Efficacy expectation is “the conviction that one can successfully execute the behavior required to produce the outcomes” (Bandura, 1977, pg. 193).

Perceived Self-Efficacy

Perceived Self-Efficacy “...is concerned with judgments of how well one can execute courses of action required to deal with prospective situations” (Bandura, 1982, p. 122).

Counselor’s Counseling Self-Efficacy

Counselor’s counseling self-efficacy (CSE) is “…one’s beliefs or judgments about her or his capabilities to effectively counsel a client in the near future…” (Larson & Daniels, 1998, pg. 180).

Counselor Performance

Counselor performance as defined by the Counselor Evaluation Rating Scale (CERS), is comprised of (a) “understanding of a counseling rationale, (b) counseling
practice with clients; and (c) exploration of self and counseling relationships” (Myrick & Kelly, 1971, p. 332).

This dissertation is comprised of three additional chapters. In the next chapter the methodology used in this study is described, and includes the selection and description of the participants, discussion of the design, evaluation and description of the instruments, procedure used in data collection, and a summary of the statistical analyses. The third chapter includes a review of the hypotheses, results, and findings. The fourth and final chapter includes a summary, discussion, and interpretation of the results, implications for future research, and limitations identified while conducting the research.
CHAPTER II

METHOD

In this chapter, a description of the participants, design, instruments, and procedures of this study is provided. Information about the participants includes a description of their general training level and descriptions of their training site, followed by a general description of the research design. The instruments that are used are described in detail and the procedures in the data collection process are identified and explained.

Participants

Participants were 117 master's level counselors and 82 supervisors comprising 82 counselor-supervisor pairs. The counselors were asked to give the surveys to their supervisors; therefore, not all supervisors received surveys or chose to participate which resulted in more counselors than supervisors. The student counselors were from a Council for Accreditation of Counseling and Related Educational Programs (CACREP)-approved counseling program in a large midwestern university. Information was collected from three different groups of counselors: (1) those in their first counseling techniques course (CECP 604), hereafter to be known as pre-practicum; (2) those in their first clinical practicum (CECP 612) hereafter to be known
as counseling practicum; and (3) those in their first field practicum (CECP 613) defined as field practicum. Pre-practicum is a course in which student counselors learn about basic counseling skills in simulated counseling situations. During the counseling practicum students accrue a minimum of 15 hours of direct service and 75 hours of class experience during the course. In the field practicum, students are placed in the field for a minimum of 600 supervised hours.

The supervisors for students in the pre-practicum were graduate doctoral assistants and course instructors. The supervisors for the counseling practicum students were advanced doctoral students, while the supervisors of the field practicum students were licensed or certified masters or doctoral level clinicians.

Design

The design of this study was a correlational field design with inherent strengths and weaknesses. The most significant strength was the ability to generalize the findings to master’s level counselor trainees (external validity). Since the study took place in a field setting, a generalization to therapists with actual clients was made.

However, there were several limitations to the design of this study. The main limitation was the inability to examine causation under these experimental conditions. Another limitation was that response rates for survey mailings tend to be lower than other kinds of data collection. With a lower return rate the sample may not have been as good a representation of the population compared to other data collection methods.
Instruments

Counseling Self-Estimate Inventory (COSE)

The Counseling Self-Estimate Inventory (Larson et al. 1992) is a measure of counselor’s counseling self-efficacy. It is a self-report instrument with 37 items measuring counseling activities rated on a Likert type scale which measures degree of confidence (1 = I am sure; 6 = I doubt I can). Larson et al. (1992) used items assessing both microskills, e.g. reflection of feelings, active listening, clarification, and probing, and more integrated counseling skills, e.g. attending to countertransference, and conceptualizing, as indicative of self-efficacy. Although Bandura (1977) described the use of specific skills in relation to self-efficacy, he also understood it to be comprised of additional complex behaviors, which are inherent in counseling as well.

Of all CSE instruments, the COSE has the most reliability and validity information and it has been used more extensively than any other CSE instrument (Larson & Daniels, 1998). In the initial development of the inventory, five dimensions were identified through factor analysis and were named as subscales: Microskills, Process, Difficult Client Behaviors, Cultural Competence, and Awareness of Values (Larson et al., 1992). A 3-week, test-retest design, was used to estimate reliability with the short form version of the COSE. It was not indicated why the authors used a short form version of the COSE for this analysis. The short form is composed of 30 of the final 37 items on the COSE. Test-retest reliability correlations for the long form were as follows: Total Scale $r = .87$; Microskills, $r = .68$; Process, $r = .74$; Difficult
Client Behaviors, $r = .80$; Cultural Competency, $r = .71$; and Awareness of Values, $r = .83$. Internal consistency estimates for the scales on the long form include: Total Scale $r = .93$; Microskills, $r = .88$; Process, $r = .87$; Difficult Client Behaviors, $r = .80$; Cultural Competency, $r = .78$; and Awareness of Values, $r = .62$.

Larson et al. (1992) also provided initial information about the convergent, discriminant, and criterion validity of the COSE. Convergent validity was measured by correlating the COSE total and subscales with several criterion measures. The convergent validity was supported because it was found that higher counseling self-efficacy was related to (a) more self-esteem, (b) more satisfaction with performance in prepracticum, (c) more positive expectancies of outcome regarding a mock interview, (d) execution of the microskills in a mock counseling session, (e) moderately higher levels of self-concepts, (f) lower anxiety scores, and (g) higher scores on problem solving skills.

Discriminant validity was measured by comparing the COSE scores with measures of defensiveness and faking. The correlations tended to be weak, and in most cases were not statistically significant. In addition, the COSE had low correlations with estimates of aptitude, academic performance, and personality, it is thought that the small sample size and restricted range on the measurement of academic performance might have influenced these scores.

Criterion validity was measured through a multiple regression with the COSE and STAI as predictor variables for the BRF, a measure of performance. Since there
was no rationale for a specific order in the regression equation, the predictors were entered simultaneously. Results indicated that the two variables were statistically significant predictors of counselor performance, explaining 22% of the variance. The results were indicative of the relationships proposed in Self-Efficacy Theory, that both emotional arousal and CSE influence performance. However, despite initial estimates, further reliability and validity information on the COSE is still needed.

**State Trait Anxiety Inventory (STAI)**

The State Trait Anxiety Inventory (STAI) has been used in most of the CSE studies that measured anxiety (Larson & Daniels, 1998). The instrument has 40 items, each scored on a Likert type scale from 1 to 4 with higher scores indicating higher anxiety (Spielberger, 1983). There are two scales, State Anxiety and Trait Anxiety, each with 20 items. The test retest reliability estimates range from .16 to .62 on the State Anxiety Scale and .65 to .75 on the Trait Anxiety Scale. As expected, the low reliability estimates on the State Anxiety Scale reflect the variability in the measurement of a “state” construct.

Construct validity was estimated by comparing neuropsychiatric patients with normal subjects. The scores on the STAI were different for the two groups suggesting construct validity. Concurrent validity was measured by correlated the STAI with other measures of anxiety. The correlates were high, .85 to .73 suggesting that the instruments were measuring the same or very similar constructs. Therefore, the
concurrent validity was supported. In addition, Factor analysis of all 40 items revealed two distinct scales, matching the state and trait subscales.

Extensive reliability and validity information has been collected on this instrument (Spielberger, 1983) and it has been established as a consistent, reliable, and valid estimate of anxiety. Due to the high correlation between the Trait and State Scales, only the Trait scale was used in this dissertation.

Supervisee Levels Questionnaire – Revised (SLQ-R)

The developmental level of the counselor was hypothesized to be a moderator variable between counselor training and CSE. Larson and Daniels (1998) suggest exploring counselor developmental models such as Stoltenberg and Delworth’s for further understanding.

The SLQ-R (McNeill et al.; 1992) measures developmental level of the counselor as described in Stoltenberg’s (1981) Integrated Developmental Model (IDM). The SLQ-R has 30 items all scored on a scale from 1 (Never) to 7 (Always). The SLQ-R has three scales: (1) Self and Other Awareness (12 items), (2) Motivation (8 items), and (3) Dependency – Autonomy (10 items), as well as a Total Scale score. Internal consistency estimates are satisfactory at .83 for the Self and Other Awareness scale, .74 for the Motivation scale, .64 for the Dependency – Autonomy scale, and .88 for the Total Scale. Test-retest results were not reported on this instrument.
Validity was examined through several different methods. Construct validity was explored by correlating the scores for three different groups (beginning, intermediate, and advanced) on the three scales (Dependency-Autonomy and Self and Other Awareness, Self and Other Awareness and Motivation, Motivation and Dependency-Autonomy). Although the correlations were all statistically significant, the authors argued that the moderate correlations indicated the scales were measuring different attributes (McNeill et al. 1992). ANOVA was also used to examine the differences between the three groups (beginning, intermediate, and advanced) for the Total Scale score. In McNeill et al.'s (1992) view, the ANOVA "approached" significance, supporting the SLQ-R's ability to measure differences between levels of trainees. Additional one-way contrasts were conducted on the different groups with t-tests. There were differences between the beginning and advanced groups on all of the scales and the total score. However, there were no detectable differences between the beginning and intermediate groups. Some reasons for this lack of difference were thought to reflect the instrument's lack of refinement, the characteristics of the participants, and the nature of the second level of development. However, it was reported that the Self and Other Awareness scale score and the Total Scale score were most indicative of differences between the groups. Generally, the reliability and validity of the measure has initial support. Interpretations based upon the findings were made cautiously due to the instrument's lack of refinement.
Counselor Evaluation Rating Scale (CERS)

Many different instruments have been used to measure counselor performance in CSE studies. However, the CERS (Myrick & Kelly, 1971) has the most reliability and validity information and has been used the most in the CSE literature (Larson & Daniels, 1998). The CERS, a self-administered instrument, was initially designed for supervisors to evaluate their counselors in training (Myrick & Kelly, 1971). Initial development involved a literature review, followed by an evaluation of the items by faculty and students. Myrick and Kelly (1971) did not specify how they analyzed the original list of items or the number of items from the original list. The CERS was then used to evaluate performance in a 12-week counseling practicum by both counselors and supervisors. The list of items selected from the literature were then analyzed and assessed for face validity, resulting in 27 items. The CERS is comprised of two 13-item scales, Performance in Counseling and Performance in Supervision; and a final item asking whether the student “Can be recommended for a counseling position without reservation.” (Myrick & Kelly, 1971, p. 332). All of the items are scored on a scale from negative 3 (I strongly disagree) to positive 3 (I strongly agree). The 13 items on each scale and the additional item are all combined to yield a single Total Score. Reliability of this score was measured through a split-half measure and a test-retest design. The split-half reliability was assessed at .86 (Myrick & Kelly, 1971). The test-retest measurement resulted in a .94 reliability coefficient. These results indicate that the CERS is a stable and consistent measure.
Validity of the CERS was measured by factor analysis in order to identify the underlying factors of the instrument (Loesch & Rucker, 1977). Six primary factors were found and labeled: (1) General Counseling Performance, (2) Professional Attitude, (3) Counseling Behavior, (4) Counseling Knowledge, (5) Supervision Attitude, and (6) Supervision Behavior. Two second order factors were also discovered which approximated the counseling and supervision scales of the CERS. One of the second-order factors combined general counseling performance, counseling behavior, and counseling knowledge, whereas the other one combined professional attitude, supervision attitude, and supervision behavior. Even though two second-order factors were found which appear to correspond with the two scales, counseling and supervision, the authors cautioned professionals to be cautious in interpreting results when using the two scales due to the high correlation between the two factors. It was suggested that the Total Scale score is the most valid of all the scores on the CERS, which was the score used in the present study.

Demographic Survey

Two forms were created for this study, one for the counselors (Appendix A) and another for their supervisors (Appendix B). Information about the counselors’ age, sex, racial/ethnic identification, sexual orientation, socio-economic status, and education level were collected to describe the sample. In addition to the descriptive information typically collected in a demographic survey, previous paraprofessional
counseling experience and counseling training were assessed. Previous counseling training was measured by having the participants check off the courses they had completed in their program that contained individual counseling elements in the course. Counseling experience hereafter will be called paraprofessional counseling experience. It was measured by length of position as well as approximate hours per week for a total amount of time. Paraprofessional counseling experience included volunteer or employed work and was deemed an appropriate activity based upon the description of typical duties. The researcher determined whether experiences were counseling through an examination of the title of position and typical duties. The activities that could be described under the heading of paraprofessional counseling work were included. The work had to have at least some of the following characteristics: dealing with emotional issues, crisis work, clinical assessments/intake evaluations, biofeedback, case management, group work, or social work. In the case of missing items, mean replacements were employed. In total, two mean replacements were conducted, one for missing hours per week, and another for missing length of work. After the mean replacement provided averages for missing figures, the total number of hours per week was multiplied by the number of weeks in the position to obtain a total hour score for paraprofessional counseling experience.

Also on the counselor’s demographic survey, two additional questions explored the participants’ self-perceptions. The first question asked the participants to rate how well they believe other students in their program counsel. The second
question rated what others have told the participants about their counseling abilities. Both of these questions reflect aspects of Self-Efficacy Theory (vicarious experience and verbal persuasion) that are not assessed by the COSE.

The demographic survey for the supervisors included age, gender, racial/ethnic identification, sexual orientation, educational level, years of experience as a counselor and supervisor. The information gathered from this demographic survey was used to describe the characteristics of the supervisors.

Procedure

First, doctoral committee approval of the research proposal was obtained. Then Human Subjects Institutional Review Board (HSIRB) approval to collect data at Western Michigan University was obtained, March 12, 1999 and an extension was approved, February 24, 2000 (Appendix C). Master's degree students in the pre-practicum, the counseling practicum, and the field practicum experience and their supervisors were asked to participate during the 10th through 12th weeks of a 15-week semester during the Winter, Spring/Summer, and Fall semesters of 1999 and Winter semester of 2000.

The student counselors in the pre-practicum, counseling practicum, and those in the field practicum who received supervision in the department training facility, were asked by doctoral research assistants to participate through use of a research protocol (Appendix D). If the participants had completed the surveys in a previous
semester, they were asked not to participate. Packets were distributed to every student in the room and they returned the complete or incomplete packets to a drop box. In this way, participants had anonymity in the study. The packets for these counselors contained two sections, one for the counselor and one for his/her supervisor. The counselors received a cover letter (Appendix E), a consent form (Appendix F), COSE, STAI, SLQ-R and the demographic form. The supervisor received a cover letter (Appendix G), a consent form (Appendix H), the CERS and a demographic form. These counselors were asked to write their initials in the corner of the envelope containing the supervisors’ CERS instrument. The supervisors were instructed both at the bottom of the instrument, as well as on the outside of the envelope, to tear off the corner before returning the envelope and instrument. The envelopes and surveys were separated immediately and the envelopes discarded.

There were two groups of counselors in the field practicum, those who received group supervision in the department clinic and those who did not. Those who did not receive supervision in the department training facility were mailed the survey for participation. The field practicum counselors were mailed the surveys because they are placed at various sites for the completion of their practicum and do not meet as a class on campus. These packets also had two sections, one for the counselor and one for the supervisor. The counselor received a cover letter (Appendix I), a consent form (Appendix J), COSE, STAI, SLQ-R and the demographic form. The supervisor received a cover letter (Appendix K), a consent form (Appendix L), the CERS and a
demographic form. These counselors were asked to give the supervisor’s envelope to their supervisor. Both the counselors and their supervisors were asked to drop their surveys in the mail in order to participate.

During data collection, the researcher met with the doctoral research assistants to answer questions and monitor data collection. As the doctoral research assistants collected the data, the researcher discussed any questions the potential participants asked as well as any questions or comments from the assistants.

Data Analysis

A priori power analysis was conducted in order to determine the adequate sample size for the present study using effect size information available in the literature. According to Murphy and Myors (1998) a hierarchical regression equation requires an extremely large sample size in order to detect statistically significant variable contributions above and beyond the first variables entered in the equation but it is also dependent upon the number of variables and steps. The power analysis was conducted using G*Power (Buchner, Erdfelder, & Faul, 1997), a software package. The results indicated that a sample size of 62 would be adequate to detect significance if it was truly there, given a moderate effect size, and assuming the standard estimate of power at .80 and using five predictor variables entered simultaneously and an alpha of .05. The effect size was obtained from previous research (Larson et al., 1992)
which indicated that for CSE and anxiety the $R^2$ was 22% to predict counselor competence.

A post hoc power analysis was conducted after the regressions were run and $R^2$ information about the second step was available. The effect size was based upon the $R^2$ of .07, with an alpha of .05, five total variables, and three variables in the second step. The resulting figure for the power estimate was .28. This figure indicates very low power for this analysis. Therefore, for the later steps in the regression equation, even if the effect sizes were truly statistically significant, there was potentially not enough power to detect the significance. Only the second step was analyzed for power because of software limitations, however it was sufficient to indicate that the second step had very low power, and the third step would have had even lower power.

Descriptive statistics were used to summarize the demographic information as well as to provide measures of central tendency and variability on the instruments for the various participant groups. This information was used to describe the sample and prior to a hierarchical regression, correlations of all variables were analyzed, in order to check for multicollinearity of the variables. In addition to multicollinearity, estimates of linearity of the data, heteroscedasticity (unequal variances at the different values of the predictor), normality of the distribution of the data, and an examination for outliers were conducted. The statistical significance level was set at .05 throughout this study.
A hierarchical regression procedure was conducted using COSE, STAI, SLQ-R, amount of paraprofessional counseling experience, and number of counseling courses to predict counselor performance. The order in which the variables were entered in the equation is based upon previous research findings. The variables were entered in the equation in the following order, training and experience, then two of the last three variables (COSE, STAI, or SLQ-R). This resulted in testing three step regression equations in examining the final variable (see Figure 1).

![Diagram of Hierarchical Regression Equations]

Figure 1. Hierarchical Regression Equations.

In all three analyses, this model enters the variables that are found in any training environment, training and experience, and then enters the variables that can be manipulated in the environment, CSE, developmental level, and anxiety. The order was selected to offer the clearest picture of the unique contributions of CSE, developmental level, and anxiety to the prediction of counselor performance. By
grouping the variables in this way, the unique contributions of the last variable in each of the three equations can be estimated.

One-way ANOVAs were conducted examining CSE and counselor developmental level at three levels of training, the pre-practicum, counseling practicum, and field practicum. Post hoc analyses were also conducted to determine which combination of variables was statistically significant. The ANOVAs were conducted to determine if the relationships between CSE and developmental level increased at the three levels of training.

Another hierarchical regression procedure was conducted to test the hypothesis of developmental level as a moderator variable. The two experience variables, number of courses and amount of experience were entered first, then the three counselor variables, COSE, STAI, SLQ-R, were entered. Finally, the product of the SLQ-R and number of courses was entered as the interaction variable.

Limitations

Some limitations of this dissertation include the type of analyses not conducted, general design, and possible biased sampling. In this dissertation the complex relationships were not addressed through path analysis due to the limited number of available participants as well as a need to further explore new variables and more fully understand other variables. The design of the study was such that causal
statements cannot be made. Participants who volunteer might have been different (better performance, higher self-efficacy etc.) than typical master’s level students.

Hypotheses

The research hypotheses for the present study are provided below.

H 1: CSE, anxiety, developmental level of the counselor, amount of paraprofessional counseling experience, and amount of training will significantly predict counselor performance for master’s level practicum counselors.

H 1a: COSE will significantly predict scores on the CERS above and beyond all the other predictor variables.

H 1b: STAI will significantly predict scores on the CERS above and beyond all the other predictor variables.

H 1b: SLQ-R will significantly predict scores on the CERS above and beyond all the other predictor variables.

H 2: CSE will be different at the three levels of training; the first and third levels of training will be significantly higher than the second level.

H 3: Counselor developmental level will be significantly higher at the higher levels of training.

H 4: Developmental level will be a significant intervening variable between amount of training and counselor performance.
Tests of the null form of all research hypotheses are stated in Chapter III. In the final two chapters of this dissertation, a summary of the results and discussion are provided. Which includes a complete description of the statistical analyses and results. Finally, the discussion section provides a review of the findings and implications to the literature and the study of CSE and counselor performance. It also offers suggestions for future research and describes limitations of this study.
CHAPTER III

RESULTS

The results chapter is organized into several sections. The first section describes the return rate, participants, and demographic information. Section one is followed by a description of the scores on the instruments used in the study. The next four sections are organized by research hypotheses, starting with hypothesis one and finishing with the fourth hypothesis.

Participants

Data collection occurred during winter semester of 1999 through winter semester of 2000, a total of 4 semesters. The breakdown of the return rates by semester and by training level is provided in Table 1.

The total number of packets distributed was 257, and the total number of surveys returned by counselors was 117, which resulted in a return rate of 45%. Supervisors returned 82 surveys. Although the overall return rate was low, return rates varied greatly across training levels. It also must be noted that the distribution of surveys for field practicum during the winter semester of 1999 included all counselors of record enrolled in the class. At that time the records did not indicate if the student had already finished the course; therefore, an unknown number of surveys were sent to students who were unable to participate.
Table 1
Data Collection and Return Rate Summary of Counselors and Clinical Supervisors

<table>
<thead>
<tr>
<th>Semester</th>
<th>Pre</th>
<th>Counseling</th>
<th>Field</th>
<th>Pre</th>
<th>Counseling</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter 1999</td>
<td>18</td>
<td>22</td>
<td>65b</td>
<td>4</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Distributeda</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned</td>
<td>4</td>
<td>13</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Return Rate</td>
<td>22%</td>
<td>59%</td>
<td>19%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring/Summer 1999</td>
<td>18</td>
<td>27</td>
<td>30</td>
<td>17</td>
<td>26</td>
<td>14</td>
</tr>
<tr>
<td>Distributeda</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned</td>
<td>17</td>
<td>26</td>
<td>3</td>
<td>14</td>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td>Return Rate</td>
<td>94%c</td>
<td>96%c</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 1999</td>
<td>39</td>
<td>d</td>
<td>20</td>
<td>26</td>
<td>d</td>
<td>7</td>
</tr>
<tr>
<td>Distributeda</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned</td>
<td>26</td>
<td>d</td>
<td>14</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Return Rate</td>
<td>67%</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winter 2000</td>
<td>d</td>
<td>d</td>
<td>18</td>
<td>d</td>
<td>d</td>
<td>d</td>
</tr>
<tr>
<td>Distributeda</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned</td>
<td>d</td>
<td>d</td>
<td>9</td>
<td>d</td>
<td>d</td>
<td>4</td>
</tr>
<tr>
<td>Return Rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>75</td>
<td>49</td>
<td>133</td>
<td>47</td>
<td>39</td>
<td>31</td>
</tr>
<tr>
<td>Distributed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned</td>
<td>47</td>
<td>39</td>
<td>31</td>
<td>28</td>
<td>38</td>
<td>17</td>
</tr>
<tr>
<td>Return Rate</td>
<td>63%</td>
<td>80%</td>
<td>23%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Pre = Pre-Practicum, Counseling = Counseling Practicum, Field = Field Practicum.

a The distribution rate for supervisors is unknown since the counselors distributed them and the participation was anonymous.
Table 1 - Continued

b The researcher distributed surveys to everyone listed as being enrolled in field practicum, however due to the record keeping it was unknown how many of these students were actually registered at that time.
c At this time the data collection strategy was changed, students were provided 30 minutes of class time to complete the surveys, prior to that the counselors were asked to take the surveys, complete them on their own time, and return them to a drop box.
d Once a training group had approximately 30 returned surveys researcher stopped collecting from that group.

The data were summarized in two ways. All counselors were included in the demographic summary, descriptive results of the instruments, and the ANOVA analyses. However, only counselor-supervisor dyads were used for the regression equations because both the counselor and supervisor provided information for the regressions. The breakdown of the number of dyads was 28 for pre-practicum, 37 for counseling practicum, and 17 for field practicum.

The demographic information that was collected for the counselors and their supervisors is provided in Table 2.

The majority of counselor participants were Caucasian, heterosexual women, with a Bachelor’s degree, of middle socio-economic status, during their second year of the master’s program. The counselors were primarily female (75.4%). The counselors were also primarily Caucasian (87.3%) and African-American (5.9%). The sexual orientation of participants was 93.2% heterosexual and 4.2% bisexual, gay, or lesbian. The socio-economic status ranged from lower to upper, middle (57.6%), upper middle (19.5%), lower middle (14.4%), lower (5.1%), and upper (.8). The education level
Table 2

Frequencies and Percentages of Gender, Race-Ethnicity, Sexual Orientation, SES, Education Level, Year in Program, Counseling Training, Verbal Persuasion, and Vicarious Experience

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Counselor</th>
<th></th>
<th>Supervisor</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>N=116</td>
<td>N=82</td>
</tr>
<tr>
<td>Female</td>
<td>89</td>
<td>75.4</td>
<td>47</td>
<td>56.6</td>
</tr>
<tr>
<td>Male</td>
<td>27</td>
<td>22.9</td>
<td>35</td>
<td>42.2</td>
</tr>
<tr>
<td>Race-Ethnicity</td>
<td></td>
<td></td>
<td>N=115</td>
<td>N=82</td>
</tr>
<tr>
<td>African American</td>
<td>7</td>
<td>5.9</td>
<td>15</td>
<td>18.1</td>
</tr>
<tr>
<td>Caucasian</td>
<td>103</td>
<td>87.3</td>
<td>61</td>
<td>73.5</td>
</tr>
<tr>
<td>Hispanic/Latino(a)</td>
<td>1</td>
<td>.8</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Multiracial</td>
<td>2</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1.7</td>
<td>5</td>
<td>6.0</td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
<td>N=115</td>
<td>N=80</td>
</tr>
<tr>
<td>Bisexual</td>
<td>1</td>
<td>.8</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Gay/Lesbian</td>
<td>4</td>
<td>3.4</td>
<td>9</td>
<td>10.8</td>
</tr>
<tr>
<td>Heterosexual</td>
<td>110</td>
<td>93.2</td>
<td>70</td>
<td>84.3</td>
</tr>
<tr>
<td>SES</td>
<td></td>
<td></td>
<td>N=115</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>6</td>
<td>5.1</td>
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<td></td>
</tr>
<tr>
<td>Lower Middle</td>
<td>17</td>
<td>14.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>68</td>
<td>57.6</td>
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</tr>
<tr>
<td>Upper Middle</td>
<td>23</td>
<td>19.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>1</td>
<td>.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
<td>N=115</td>
<td>N=82</td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>76</td>
<td>64.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s</td>
<td>33</td>
<td>28.0</td>
<td>8</td>
<td>9.6</td>
</tr>
<tr>
<td>Some Doctoral</td>
<td>6</td>
<td>5.1</td>
<td>57</td>
<td>68.7</td>
</tr>
<tr>
<td>Doctoral</td>
<td>17</td>
<td>20.5</td>
<td></td>
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Table 2 - Continued

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Counselor Frequency</th>
<th>Counselor Percent</th>
<th>Supervisor Frequency</th>
<th>Supervisor Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year in Program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>11</td>
<td>9.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>42</td>
<td>35.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>27</td>
<td>22.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>12</td>
<td>10.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt; +</td>
<td>4</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counseling Training</td>
<td>N=116</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>46</td>
<td>39.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>35</td>
<td>29.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>33</td>
<td>28.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal Persuasion</td>
<td>N=114</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (highly positive)</td>
<td>69</td>
<td>58.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>39</td>
<td>33.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (neutral)</td>
<td>3</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 (highly negative)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vicarious Experience</td>
<td>N=114</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (excellent)</td>
<td>12</td>
<td>10.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>61</td>
<td>51.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (neutral)</td>
<td>36</td>
<td>30.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>4.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 (very poor)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> An individual supervisor might have returned more than one survey.
<sup>b</sup> A number of counselors either did not respond to this question or gave unusable information. (e.g. The question read, "Indicate your year in the program" some counselors responded, "last")
<sup>c</sup> Counseling training = number of courses
<sup>d</sup> Verbal Persuasion – What have other people told you about being a counselor?
<sup>e</sup> Vicarious Experience – Think about all the students you have observed during your training, try to get an overall opinion of their abilities, do you believe they were/are...
was mostly counselors with a Bachelor’s degree (64.4%), followed by those with a
Master’s degree (28.0%), and finally those with some doctoral work (5.1%). The most
common response for year in program was second year (35.6%), followed by third
year (22.9%), then fourth year (10.2%), then first year (9.3%) and fifth year (3.3%).
The number of counseling courses, defined as containing individual counseling
elements, was also collected. The percentage of counselors who had one counseling
course (containing individual counseling elements) was 39.0%, two counseling
courses, 29.7%, three counseling courses, 28.0%, and four counseling courses 1.7%.

The last two items collected for the counselors were questions related to the
four pieces of information that influence self-efficacy. The first question asked, “What
have other people told you about being a counselor?” 58.5% indicated highly positive,
33.1% indicated between highly positive and neutral, 2.5% indicated neutral, and 2.5%
indicated between neutral and highly negative. The final question was, “Think about all
the students you have observed during your training, try to get an overall opinion of
their abilities, do you believe they were/are…” 10.2% indicated excellent, 51.7%
indicated between excellent and neutral, 30.5% indicated neutral, and 4.2% indicated
between neutral and very poor. Counselors generally indicated that they have received
positive messages about their ability to counsel. Whereas, when asked to rate their
perceptions of their fellow trainees abilities, the students were a little less positive, but
still mostly positive.
It is important to understand, while examining the demographic information of the supervisors, that numbers indicate the number of surveys completed; however, it does not necessarily mean that each survey was completed by a different individual. For example, for the pre-practicum and counseling practicum groups, the supervisors might have had 1 to 8 counselors complete the survey. If the supervisor decided to participate, she could have completed 1 to 8 surveys. Since the participation was completely anonymous, it was impossible to track if a supervisor completed more than one survey. Therefore, the counselor demographic numbers indicate individuals who participated, whereas the supervisor demographics indicate the number of surveys completed by any group or characteristic, (e.g. although the numbers indicate 15 supervisors were African-American, eight of those might have been the same individual completing the survey eight times).

The supervisors who completed the surveys were also mostly Caucasian, heterosexual women with at least some doctoral experience. The majority of supervisors were women (56.6%). The race/ethnicity of the supervisors was primarily Caucasian (73.5%) and African-American (18.1%). Supervisors indicated they were primarily heterosexual (84.3%), followed by bisexual, gay, or lesbian (12%). Finally the education level of the supervisors was mostly some doctoral work (68.7%), followed by doctoral degree (20.5%), or Master's degree (9.6%).
In Table 3, additional demographic information, including N, range, means, and standard deviation for age, courses, paraprofessional counseling experience, and supervision experience, is provided.

Table 3

N, Ranges, Means, and Standard Deviations for Age, Training, Counseling Experience, and Supervision Experience

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Counselor</th>
<th></th>
<th></th>
<th></th>
<th>Supervisor</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Range</td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
<td>Range</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>112</td>
<td>36</td>
<td>33.8</td>
<td>9.0</td>
<td>74</td>
<td>42</td>
<td>39.2</td>
<td>9.9</td>
</tr>
<tr>
<td>Training&lt;sup&gt;a&lt;/sup&gt;</td>
<td>115</td>
<td>3</td>
<td>1.9</td>
<td>0.9</td>
<td>76</td>
<td>32</td>
<td>9.7</td>
<td>8.1</td>
</tr>
<tr>
<td>Counseling Experience&lt;sup&gt;b&lt;/sup&gt;</td>
<td>117</td>
<td>40,320</td>
<td>2,109.0</td>
<td>4,940.7</td>
<td>76</td>
<td>32</td>
<td>9.7</td>
<td>8.1</td>
</tr>
<tr>
<td>Supervision Experience</td>
<td>75</td>
<td>26.7</td>
<td>3.5</td>
<td>5.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Training = number of courses

<sup>b</sup> The amount of paraprofessional counseling experience for the counselor is in hours, whereas the amount of counseling experience for the supervisor is in years.

The mean age of the counselors was 33.8 years with a range of 36 years. The mean number of counseling courses defined as courses that included individual counseling elements taken was 1.9. The mean number of hours of paraprofessional counseling experience was 2,109.0 with a range of 40,320. This variable was
computed in hours due to a number of counselors who had time limited but meaningful experiences, (e.g. working on counseling skills as a volunteer one hour per week for 15 weeks).

The mean age of supervisors who completed surveys was 39.2 years with a range of 42 years. The mean years of counseling experience was 9.7 with a range of 32 years. Finally, the mean years of supervisory experience was 3.5 with a range of 26.7 years.

Preliminary Analyses

The preliminary analysis section includes the descriptive statistics for the instruments and relevant variables used in the hypotheses. In the next section, the hypotheses for this study, including the regression equations and ANOVA analyses, are presented.

Descriptive Statistics

Descriptive statistics of the four instruments used in this study are provided in Table 4.

The three instruments completed by the counselors were the Counseling Self-Estimate Inventory (COSE), State Trait Anxiety Inventory (STAI), and the Supervisee Levels Questionnaire – Revised (SLQ-R). The overall mean for the COSE was 162.3 with a standard deviation of 22.5. Note that the higher the score, the higher the amount of counseling self-efficacy. The means for the three levels of training, pre-
Table 4

N, Ranges, Means, and Standard Deviations for the COSE, STAI, SLQ-R, and CERS for Counselors

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSE*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>117.0</td>
<td>162.3</td>
<td>22.5</td>
</tr>
<tr>
<td>Pre-Practicum</td>
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<td>117.0</td>
<td>151.7</td>
<td>21.8</td>
</tr>
<tr>
<td>Counseling Practicum</td>
<td>39</td>
<td>85.0</td>
<td>166.1</td>
<td>22.2</td>
</tr>
<tr>
<td>Field Practicum</td>
<td>31</td>
<td>56.0</td>
<td>173.5</td>
<td>16.7</td>
</tr>
<tr>
<td>STAI*</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>42.5</td>
<td>32.2</td>
<td>8.6</td>
</tr>
<tr>
<td>Pre-Practicum</td>
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<td>42.0</td>
<td>34.6</td>
<td>10.0</td>
</tr>
<tr>
<td>Counseling Practicum</td>
<td>39</td>
<td>30.0</td>
<td>31.6</td>
<td>7.5</td>
</tr>
<tr>
<td>Field Practicum</td>
<td>31</td>
<td>24.5</td>
<td>29.3</td>
<td>6.9</td>
</tr>
<tr>
<td>SLQ-R*</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>97.0</td>
<td>148.6</td>
<td>20.4</td>
</tr>
<tr>
<td>Pre-Practicum</td>
<td>47</td>
<td>82.9</td>
<td>140.0</td>
<td>21.3</td>
</tr>
<tr>
<td>Counseling Practicum</td>
<td>39</td>
<td>86.0</td>
<td>152.5</td>
<td>18.0</td>
</tr>
<tr>
<td>Field Practicum</td>
<td>31</td>
<td>78.0</td>
<td>156.7</td>
<td>18.0</td>
</tr>
<tr>
<td>CERS*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>98.8</td>
<td>52.7</td>
<td>21.2</td>
</tr>
<tr>
<td>Pre-Practicum</td>
<td>28</td>
<td>96.0</td>
<td>49.5</td>
<td>24.5</td>
</tr>
<tr>
<td>Counseling Practicum</td>
<td>37</td>
<td>97.8</td>
<td>50.8</td>
<td>20.7</td>
</tr>
<tr>
<td>Field Practicum</td>
<td>17</td>
<td>35.3</td>
<td>62.2</td>
<td>12.0</td>
</tr>
</tbody>
</table>

* Instrument completed by counselors.

b Instrument completed by supervisors.

c CERS item 16 had 12 missing responses out of 82, the item reads, “Works well with other professional personnel (e.g. teachers, counselors, etc.)”.

COSE - Counseling Self-Estimate Inventory; STAI - State Trait Anxiety Inventory; SLQ-R - Supervisee Levels Questionnaire – Revised; CERS - Counselor Evaluation Rating Scale.
practicum, counseling practicum, and field practicum, were 151.7, 166.2, and 173.5 and the standard deviations were 21.8, 22.2, and 16.7. The range of scores on the COSE at the three levels of training were 117 for pre-practicum, 85 for counseling practicum, and 56 for field practicum. The range decreased as the level of training increased.

The overall mean for the STAI was 32.2 with a standard deviation of 8.6, with higher scores on the STAI indicating higher levels of anxiety. The means for the three levels of training were 34.6 for pre-practicum, 31.6 for counseling practicum, and 29.3 for field practicum. The standard deviations were 10.0, 7.5, and 6.9 at the three levels of training. The range of scores on the instrument steadily decreased at higher levels of training, 42 for pre-practicum, 30 for counseling practicum, and 24.5 for field practicum.

The SLQ-R overall mean was 148.6 with a standard deviation of 20.4. Higher scores on this instrument indicate higher levels of counselor development. The means at the three levels of training were 140.0 for pre-practicum, 152.5 for counseling practicum, and 156.7 for field practicum. The standard deviations were 21.3, 18.0, and 18.0 at the three levels of training. The range of the scores at the three levels of training was 82.9 for pre-practicum, 86 for counseling practicum, and 78 for field practicum. As the levels of training increased, the range of scores decreased.

The supervisors completed the Counselor Evaluation Rating Scale (CERS); the overall mean for this instrument was 52.7 with a standard deviation of 19.8. Higher
scores on this instrument indicate higher levels of counselor performance. The means for the three levels of training were 49.5 for pre-practicum, 50.8 for counseling practicum, and 62.2 for counseling practicum. The standard deviations were 24.5, 20.7, and 12.0 at the three levels of training. The range of scores on the CERS at the three levels of training were 96 for pre-practicum, 76 for counseling practicum, and 35.3 for field practicum. The range of responses decreased as the level of training increased.

In Table 5, a correlation matrix and correlation coefficients for the COSE, STAI, SLQ-R, CERS, number of courses, and amount of paraprofessional counseling experience is presented.

As evident in Table 5, the COSE had a statistically significant correlation to all of the other variables except amount of paraprofessional counseling experience. The highest correlation was with the SLQ-R at $r = .82$ ($p < .01$), and the next highest relationship was with the STAI at $r = -.55$ ($p < .05$). For the STAI, higher scores indicate higher anxiety; therefore, there was an inverse relationship between the two scales indicating that the higher the levels of CSE, the lower the anxiety scores. The variable, amount of paraprofessional counseling experience, did not have a statistically significant correlation with any other variable and it was negatively correlated with the number of courses. Therefore, the lower the amount of paraprofessional counseling experience, the higher number of courses the counselors had taken. The CERS also had a statistically significant correlation to all other variables except amount of
### Table 5

Correlation Matrix for COSE, STAI, SLQ-R, CERS, Training, and Paraprofessional Counseling Experience

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. COSE</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. STAI</td>
<td>-.55**</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. SLQ-R</td>
<td>.82**</td>
<td>-.60**</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. CERS</td>
<td>.34**</td>
<td>-.28*</td>
<td>.34**</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Training</td>
<td>.31**</td>
<td>-.20</td>
<td>.26</td>
<td>.27*</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>6. Counseling Experience</td>
<td>.05</td>
<td>-.15</td>
<td>.11</td>
<td>.22</td>
<td>-.16</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Note.** COSE - Counseling Self-Estimate Inventory; STAI - State Trait Anxiety Inventory; SLQ-R - Supervisee Levels Questionnaire – Revised; CERS - Counselor Evaluation Rating Scale.

*p<.05, **p<.01

paraprofessional counseling experience (r = .22). The CERS also had a negative relationship with STAI that was statistically significant (r = -.28; p ≤ .05) so that higher scores on counselor performance were related with lower scores of anxiety. The SLQ-R had a statistically significant relationship to the other three instruments, but did not have a statistically significant correlation to number of courses or the amount of paraprofessional counseling experience. The STAI also had a statistically significant and negative relationship to the other three instruments, but did not have a statistically significant relationship to number of courses (r = -.20) or amount of experience (r = -.16). The last variable, number of courses had a statistically significant relationship to the other three instruments, but did not have a statistically significant correlation to number of courses or the amount of experience.
relationship to the COSE ($r = .31; p \leq .01$) and the CERS ($r = .27; p \leq .05$), but did not have a statistically significant relationship to any other variable.

Results of Statistical Analyses by Hypothesis

This section is organized according to the research hypotheses and their results. The hypothesis is listed first followed by the statistical results in table form and a brief description of the results.

Hypothesis 1

COSE, STAI, SLQ-R, amount of paraprofessional counseling experience, and amount of training will significantly predict CERS for master’s level practicum students.

$H_{01}$: CSE, anxiety, developmental level of the counselor, amount of paraprofessional counseling experience, and amount of training do not predict counseling performance for master’s level practicum students.

$H_{01a}$: The COSE does not significantly predict scores on the CERS above and beyond all the other predictor variables.

$H_{01b}$: The STAI does not significantly predict scores on the CERS above and beyond all the other predictor variables.

$H_{01c}$: The SLQ-R does not significantly predict scores on the CERS above and beyond all the other predictor variables.
The first hypothesis was explored through four separate hierarchical regression procedures. It was necessary to conduct four regression analyses in order to determine the unique contributions of three of the variables, CSE, anxiety, and developmental level. However, prior to reporting the regression equations, a description of the findings for the assumptions of regression based upon this sample is provided.

Analyses were conducted to check that the assumptions of regression were met. Estimates of linearity of the data, heteroscedasticity (i.e., unequal variance for the different values of the predictor; Grimm & Yarnold, 1995), and normality of the distribution of data were conducted and found to be adequate. Estimates of linearity of the data and heteroscedasticity were made from a plot of the residual errors from the regression equation. A visual examination of the residual plot of the various independent variables did not indicate a curvilinear relationship. Therefore, assumptions of linearity of the independent variables in the regression equation were met. A visual examination of the plot of the residuals also indicated that assumptions of heteroscedasticity were met. Normality of the distribution of data was checked by an examination of the distribution of the residual error values. A normal probability plot was made and examined for normality. The data points did not deviate markedly from the horizontal line, which indicates normality. Therefore, the assumption of normality of the sample was met.

Although the assumptions in the previous paragraph were met, the assumption of multicollinearity was not met. Multicollinearity is when two or more variables
included in a regression equation are highly intercorrelated (Grimm & Yarnold, 1995).
Due to how the regression statistics are computed, the assumption made is that all of
the predictor variables are mostly independent of each other. When they are not
independent, there are difficulties with multicollinearity and the results of the
regression analysis can be compromised. One problem encountered when there is high
multicollinearity is difficulty interpreting the beta coefficients because the direct and
indirect effects of the variables can not be determined without further analysis.
Therefore the beta coefficients are unstable and should not be interpreted.

Multicollinearity was first assessed through an examination of a correlation
matrix of all variables in the regression equation and provided in Table 5. The
correlation between SLQ-R and COSE was .82 and deemed problematic based upon a
.80 guideline proposed by Berry & Feldman (1985). This high correlation indicates
that the variables are possibly measuring the same construct. The second step in
examining multicollinearity was to regress all of the predictor variables on each other.
An examination of these regression analyses was made and provided a more accurate
estimate of multicollinearity because all of the variables are examined in combination
with each other (Berry & Feldman, 1985). Five regression analyses were conducted
with each of the five variables as the criterion variable and the other four variables as
predictor variables. Two of these analyses were problematic, the ones that used the
COSE and SLQ-R as the criterion variable. When the SLQ-R was the criterion
variable, the $R^2$ was .71. When COSE was the criterion variable, $R^2$ was .69. These
results echoed the results of the correlations, that these two instruments were problematic variables.

Cohen and Cohen (1983) describe three issues related to multicollinearity, interpretation of partial coefficients, sampling stability of the partial coefficients, and the accuracy of the computation (rounding the numbers during computation of the regression analysis). Since the values for COSE and SLQ-R exceeded the guidelines for detecting multicollinearity, the partial coefficients were not used to describe the regression equations. By not using the partial coefficients, the first two issues described by Cohen and Cohen (1983) are resolved. Due to the improvements in computer technology and statistical analyses by being able to carry out more digits in their analysis, the third issue was not problematic according to Cohen and Cohen (1983). They wrote that improvements in computer capabilities enabled all but the most extreme cases of multicollinearity manageable by the statistical analysis because present-day computers can round numbers and handle enough digits in the computation. The researcher used a current version of SPSS for Windows.

A search for outliers was also conducted. During an examination of extreme values in the data, an outlier was found. A score on the CERS was more than 3.5 standard deviation points from the mean based on the residual. The guideline according to Norusis (1993), and Cohen and Cohen (1983) is when the value exceeds 3 standard deviation points the case is to be removed from the analysis. Therefore, one case was removed from the analyses.
The results of the hierarchical regression procedure for testing the first null hypothesis and the first subsection of the first null hypothesis are provided in Table 6.

**Table 6**

Hierarchical Regression Procedure of Training, Paraprofessional Counseling Experience, STAI, SLQ-R, and COSE on CERS

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>$R^2 \Delta$</th>
<th>$B^{ab}$</th>
<th>$B^{ac}$</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.14</td>
<td>.14</td>
<td>6.23</td>
<td>6.23</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Training</td>
<td>.22*</td>
<td>.31**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coun. Exp.</td>
<td>.22*</td>
<td>.26*</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>.20</td>
<td>.06</td>
<td>2.88</td>
<td>4.71</td>
<td>.06</td>
<td>.00</td>
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<td></td>
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<tr>
<td>SLQ-R</td>
<td></td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
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<td>.01</td>
<td>.61</td>
<td>3.87</td>
<td>.44</td>
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<td>COSE</td>
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<td>.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Coun. Exp. — Counseling Experience; COSE - Counseling Self-Estimate Inventory; STAI - State Trait Anxiety Inventory; SLQ-R - Supervisee Levels Questionnaire — Revised; CERS - Counselor Evaluation Rating Scale.

a The beta coefficient is not a stable estimate of relationship between the predictor and criterion variables in this regression equation due to multicollinearity.

b The beta coefficient with all of the variables included during the last step.

c The beta coefficient for the variables included in the last statistically significant step.

* $p \leq .05$, ** $p \leq .01$

The overall null hypothesis was rejected since the overall regression model for all of the three regression equations was statistically significant. Any one of the three
overall regression results would determine the results of the null hypothesis since all of the variables are entered by the last step. For purposes of examining the overall hypothesis, the first regression will be explained. This regression equation also provides information about Part A of the null hypothesis, which was not rejected. The first overall regression equation was statistically significant ($F = 3.87$, $p = .00$) and it accounted for 21% of the variance on the criterion variable of counselor performance. The regression was conducted in a hierarchical fashion by adding variables in steps to the regression model. The first step included the number of courses and the amount of paraprofessional counseling experience. This step accounted for 14% of the variance on the criterion variable, which was statistically significant ($F = 6.23$, $p = .00$). The second step added two variables, STAI, and SLQ-R, to the variables in the first step. The $R^2$ was statistically significant at the first step and therefore will be statistically significant at all other steps. However, the $R^2$ change for the second step was only marginally significant ($F = 2.88$, $p = .06$), accounting for a $R^2$ change of 6%. The third step added COSE to the other variables for a $R^2$ change of 1%; this step was not statistically significant ($F = .61$, $p = .44$).

The results of the second hierarchical regression procedure are in Table 7.

Part B of the null hypothesis was not rejected, since the STAI was not a statistically significant predictor of variance above and beyond the other variables. As expected, however, the overall regression, including all of the variables for the second equation was statistically significant ($F = 3.87$, $p = .00$), accounting for 21% of the
Table 7
Hierarchical Regression Procedure of Training, Paraprofessional Counseling Experience, COSE, SLQ-R, and STAI on CERS

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>$R^2\Delta$</th>
<th>$B^{ab}$</th>
<th>$B^{ac}$</th>
<th>F</th>
<th>p</th>
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<tbody>
<tr>
<td>Step 1</td>
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<td>.14</td>
<td>6.23</td>
<td>6.23</td>
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<td>Training</td>
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<td>.22*</td>
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<tr>
<td>Coun. Exp.</td>
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<td>.22*</td>
<td></td>
<td></td>
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<tr>
<td>Step 2</td>
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<td>4.85</td>
<td>.05</td>
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</tr>
<tr>
<td>SLQ-R</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>-.06</td>
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<td></td>
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</tbody>
</table>

Note. Coun. Exp. — Counseling Experience; COSE - Counseling Self-Estimate Inventory; STAI - State Trait Anxiety Inventory; SLQ-R - Supervisee Levels Questionnaire — Revised; CERS - Counselor Evaluation Rating Scale.

* The beta coefficient is not a stable estimate of relationship between the predictor and criterion variables in this regression equation due to multicollinearity.

b The beta coefficient with all of the variables included during the last step.

c The beta coefficient for the variables included in the last statistically significant step.

* $p \leq .05$

variance on the criterion variable of counselor performance. The first step included the number of courses and the amount of paraprofessional counseling experience. This step accounted for 14% of the variance on the criterion variable, which was statistically significant ($F = 6.23, p = .00$). The second step added two variables, COSE, and SLQ-R to the variables in the first step. The second step accounted a $R^2$
change of 7%, this step was also statistically significant ($F = 3.12, p = .05$). The third step added STAI to the other variables, but did not result in a $R^2$ change and was not statistically significant ($F = .18, p = .67$).

The results of the third hierarchical regression procedure are in Table 8.

Table 8

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>$R^2 \Delta$</th>
<th>$B^{ab}$</th>
<th>$B^{bc}$</th>
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<th>p</th>
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<td>.00</td>
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<td>3.06</td>
<td>4.81</td>
<td>.05</td>
<td>.00</td>
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<td>.22*</td>
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</table>

Note. Coun. Exp. — Counseling Experience; COSE - Counseling Self-Estimate Inventory; STAI - State Trait Anxiety Inventory; SLQ-R - Supervisee Levels Questionnaire – Revised; CERS - Counselor Evaluation Rating Scale.

*a The beta coefficient is not a stable estimate of relationship between the predictor and criterion variables in this regression equation due to multicollinearity.

*b The beta coefficient with all of the variables included during the last step.

*c The beta coefficient for the variables included in the last statistically significant step.

*p \leq .05
Part C of the null hypothesis was not rejected, since the SLQ-R was not a statistically significant predictor of variance above and beyond the other variables. As in the previous equations, the overall regression equation was statistically significant \( (F = 3.87, p = .00) \), accounting for 21% of the variance on the criterion variable of counselor performance. The first step included the number of courses and the amount of paraprofessional counseling experience. This step accounted for 14% of the variance on the criterion variable, which was statistically significant \( (F = 6.23, p = .00) \). The second step added two variables, COSE, and STAI to the variables in the first step. The second step accounted for a \( R^2 \) change of 7%, this step was also statistically significant \( (F = 3.06, p = .05) \). The third step added SLQ-R to the other variables, but did not result in an \( R^2 \) change and was not statistically significant \( (F = .30, p = .59) \).

Since there was an issue with multicollinearity, the two related instruments, COSE and SLQ-R, were examined for item similarity. An item examination revealed that the two instruments resembled each other, in fact both shared a major theme, in that both focused on counselors’ self-perceptions of their counseling. Since the two instruments appeared to be measuring the same construct, developmental level was removed from the regression equation so an analysis could be conducted that was free of multicollinearity issues and, therefore, beta coefficients could be examined. The results of this analysis are provided in Table 9.
Table 9

Hierarchical Regression Procedure of Training, Paraprofessional Counseling Experience, STAI, and COSE on CERS

<table>
<thead>
<tr>
<th>Variables</th>
<th>R^2</th>
<th>R^2 Δ</th>
<th>B^a</th>
<th>B^b</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
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<td></td>
<td>6.23</td>
<td></td>
<td>.00</td>
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<tr>
<td>Training</td>
<td>.14</td>
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<td>.31**</td>
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<tr>
<td>Step 2</td>
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<td>3.02</td>
<td></td>
<td>.09</td>
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<td>4.81</td>
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<td>.00</td>
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</tr>
</tbody>
</table>

Note. Coun. Exp. — Counseling Experience; COSE - Counseling Self-Estimate Inventory; STAI - State Trait Anxiety Inventory; SLQ-R - Supervisee Levels Questionnaire — Revised; CERS - Counselor Evaluation Rating Scale.

a The beta coefficient with all of the variables included during the last step.
b The beta coefficient for the variables included in the last statistically significant step.
* p ≤ .05; ** p ≤ .01

In this analysis, the overall regression equation examined the relationship of the variables without the influence of the SLQ-R and was statistically significant (F = 4.81, p = .00). The overall regression equation accounted for 20% of the variance on the criterion variable of counselor performance. Step one included the number of courses and the amount of paraprofessional counseling experience. This step accounted for 14% of the variance on the criterion variable, which was statistically significant (F = 6.23, p = .00). The second step added one variable, the STAI, to the variables in the
first step. The second step accounted for a $R^2$ change of 3%, but was not statistically significant ($F = 3.02, p = .09$). The third step added the COSE to the other variables for a $R^2$ change of 3% and was not statistically significant ($F = 3.01, p = .09$).

Two of the beta coefficients were statistically significant. The number of courses was statistically significant ($p = .05$), with a beta coefficient of .22, and the amount of paraprofessional counseling experience was also statistically significant ($p = .04$) with a beta coefficient of .22, indicating that these variables both made statistically significant and unique contributions to explaining the criterion variable. The contributions were independent of all other variables. The other three variables’ beta coefficients were not statistically significant indicating their unique contribution in predicting the criterion variable could have been caused by chance. Another explanation is that the constructs greatly overlapped each other and resulted in low beta coefficients, however, this possibility can not be detected with this type of analysis.

**Hypothesis 2**

CSE will be different at the three levels of training; the first and third levels of training will be significantly higher than the second level.

$H_{2}$: There is no difference between CSE scores at the three levels of training.

Before examining the ANOVA results, several issues must be considered: the unequal sample sizes and the assumptions underlying this analysis. As might be noted
in the previous descriptive summaries, there were unequal sample sizes for the three levels of training. When an ANOVA analysis uses unequal sample sizes, the analysis can be less robust. Harmonic means of pairs of groups were used to deal with unequal sample sizes (Norusis, 1993). Two assumptions relate to the one-way ANOVA analysis, normality of the data distribution and independence of observations across subjects (Keselman & Keselman, 1993). A plot of the observed values on the expected normal line provided the information on normality. A visual examination of this plot indicated that the values did not deviate drastically from the normal distribution. Independence of the observations was controlled during data collection, because once counselors participated in this study they were not able to participate again.

The results for testing the second hypothesis are provided in Table 10.

Table 10
One-way ANOVA for COSE at the Three Levels of Training

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>9730.7</td>
<td>2</td>
<td>4865.3</td>
<td>11.4</td>
<td>.00</td>
</tr>
<tr>
<td>Within Groups</td>
<td>48812.9</td>
<td>114</td>
<td>428.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>58543.6</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. COSE - Counseling Self-Estimate Inventory.
Although the ANOVA results indicate statistically significant differences among the means, the second null hypothesis was not rejected because the differences between the mean scores were not in the expected direction. The expected direction was that the first and third level of training scores would be higher than the second level of training.

The post hoc analysis was conducted to determine which groups of means had statistically and significant differences. A Bonferroni analysis was conducted for this post hoc analysis and is provided in Table 11.

Table 11
Bonferroni Post Hoc Analysis for COSE by Training Level

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Mean Difference</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Practicum vs. Counseling Practicum</td>
<td>-14.4</td>
<td>.01</td>
</tr>
<tr>
<td>Pre-Practicum vs. Field Practicum</td>
<td>-21.8</td>
<td>.00</td>
</tr>
<tr>
<td>Counseling Practicum vs. Field Practicum</td>
<td>-7.4</td>
<td>.42</td>
</tr>
</tbody>
</table>

Note. COSE - Counseling Self-Estimate Inventory.

Two of the three post hoc comparisons were statistically significant. The comparison of pre-practicum and counseling practicum was statistically significant (p = .01) and comparison of the pre-practicum and field practicum was statistically significant (p = .00). In all cases, the pre-practicum mean scores on the COSE were...
lower than the other groups. However, the counseling practicum and field practicum comparison was not statistically significant (p = .42).

**Hypothesis 3**

Counselor developmental level will be significantly higher at the higher levels of training.

**H₃**: There is no difference between counselor developmental level scores at the three levels of training.

The third null hypothesis was tested using an ANOVA and the findings are provided in Table 12.

**Table 12**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6075.4</td>
<td>2</td>
<td>3037.7</td>
<td>8.2</td>
<td>.00</td>
</tr>
<tr>
<td>Within Groups</td>
<td>42360.2</td>
<td>114</td>
<td>371.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48435.6</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** SLQ-R - Supervisee Levels Questionnaire – Revised.

The ANOVA was statistically significant (F = 8.2, p = .00), indicating there were statistically significant differences among the means at the three levels of training;
therefore, the third null hypothesis was rejected. Since the overall ANOVA was statistically significant, a Bonferroni analysis was conducted to determine which or all of the comparison group means was statistically significant. The results for the post hoc analysis are provided in Table 13.

### Table 13

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Mean Difference</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Practicum vs. Counseling Practicum</td>
<td>-12.5</td>
<td>.01</td>
</tr>
<tr>
<td>Pre-Practicum vs. Field Practicum</td>
<td>-16.7</td>
<td>.00</td>
</tr>
<tr>
<td>Counseling Practicum vs. Field Practicum</td>
<td>-4.2</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Note.** SLQ-R - Supervisee Levels Questionnaire – Revised.

Two of the three post hoc comparisons were statistically significant. The comparison of pre-practicum and counseling practicum was statistically significant (p = .01) and the comparison of pre-practicum and field practicum was statistically significant (p = .00). However, the comparison of counseling practicum and field practicum was not statistically significant (p = 1.00). In all cases, the pre-practicum had the lowest mean score and the field practicum had the highest mean score.
Hypothesis 4

Developmental level will be a significant intervening variable between amount of training and CSE.

H₄: Counselor developmental level is not an intervening variable between amount of training and CSE.

The results of the hierarchical regression procedure are provided in Table 14.

Table 14

Hierarchical Regression Procedure of Training, Paraprofessional Counseling Experience, STAI, SLQ-R, and Courses by SLQ-R on COSE

<table>
<thead>
<tr>
<th>Variables</th>
<th>R²</th>
<th>R² Δ</th>
<th>Bᵃ</th>
<th>Bᵇ</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.11</td>
<td></td>
<td>4.58</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coun. Exp.</td>
<td></td>
<td></td>
<td>4.58</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>.59</td>
<td></td>
<td>71.66</td>
<td>.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td>.53</td>
<td>.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coun. Exp.</td>
<td></td>
<td>-.04</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>.69</td>
<td></td>
<td>42.32</td>
<td>.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAI</td>
<td></td>
<td>-.10</td>
<td>-.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLQ-R</td>
<td></td>
<td>.89***</td>
<td>.75***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>.70</td>
<td></td>
<td>34.04</td>
<td>.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Courses X SLQ-R</td>
<td></td>
<td>-.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Coun. Exp. – Counseling Experience; COSE - Counseling Self-Estimate Inventory; STAI - State Trait Anxiety Inventory; SLQ-R - Supervisee Levels Questionnaire – Revised; CERS - Counselor Evaluation Rating Scale.

ᵃ The beta coefficient with all of the variables included during the last step.
ᵇ The beta coefficient for the variables included in the last statistically significant step.

*** p ≤ .001
The fourth null hypothesis was not rejected since the interaction variable was not statistically significant. However, the overall regression equation was statistically significant ($F = 34.04, p = .00$), accounting for 70% of the variance on the criterion variable of CSE. The first step included the number of courses and the amount of paraprofessional counseling experience. This step accounted for 11% of the variance on the criterion variable, which was statistically significant ($F = 4.58, p = .01$). The second step added two variables, STAI, and SLQ-R to the variables in the first step. The second step accounted for a $R^2$ change of 59%. This step was also statistically significant ($F = 71.66, p = .00$). The third step added the interaction variable of SLQ-R and number of courses to the other variables with no change in $R^2$ and was not statistically significant ($F = .97, p = .33$).
CHAPTER IV

DISCUSSION

The discussion chapter is comprised of several sections, first a summary of the entire dissertation is provided. The next section provides a specific discussion of the results including the preliminary analyses as well as the results grouped by hypothesis. The following section provides an overview of the implications of the results. Then the limitations of the study and findings are provided for a clearer understanding of how to utilize and evaluate the results. Finally suggestions for future research are provided.

Summary

Relevant theories and research related to self-efficacy, Counseling Self-Efficacy (CSE), and developmental level, were summarized in the first chapter to provide a frame for understanding the present study. Bandura’s (1977, 1982) Self-Efficacy Theory and later Social Cognitive Theory (1986) provided the theoretical framework for understanding the relatively new area of CSE. Bandura explored and developed a theory about self-efficacy through research. He found that self-efficacy could explain and predict internal changes in people and that self-efficacy was a better predictor of future performance than one’s prior performances. He also identified self-
efficacy as part of the dynamic interaction of action, thought, and affect, which influences human existence.

An important aspect of self-efficacy is to understand the four pieces of information which influence the development and retention of self-efficacy. The four phenomena are mastery experiences, vicarious experiences, social persuasion, and physiological and emotional states. Of all of these phenomena, mastery experiences have the biggest and most important influence on self-efficacy.

Bandura’s theory has been utilized in many different areas; however, the area of interest in this study was that of counselor self-efficacy (CSE). A more specific area within CSE is that of using it, and other variables, to predict counselor performance (Larson, Suzuki, Gillespie, Potenza, Bechtel, & Toulouse; 1992; Ridgway & Sharpley; 1990; Sharpley & Ridgway, 1993; Watson, 1992; White, 1996). Existing studies have shown statistically significant predictors of counselor performance to be anxiety with CSE where 22% of the variance was explained (Larson et al., 1992) and nature of one’s training identified 46% of the variance. Another variable, counseling course-work, explained 12% of the variance (Watson, 1992). In addition, affective empathy was also found to predict performance when purpose-in-life scores were low (Ridgway & Sharpley, 1990). However, there was one instance when CSE was negatively related to performance (Sharpley & Ridgway, 1993).

An additional area of interest related to CSE was that of developmental level of the counselor. Ossana’s (1991) findings suggested that developmental level was a
moderator variable between level of training and CSE. Therefore, developmental level was explored in the present study to better understand the relationship between these two important counseling related concepts and to provide more information for future studies.

The present study collected information from 117 master’s degree student counselors at three levels of training, pre-practicum, counseling practicum, and field practicum. The counselors completed measures of CSE (COSE), anxiety (STAI) and counselor developmental level (SLQ-R) plus a demographic survey that gathered basic information and information about number of counseling courses and amount of paraprofessional counseling experience. Data were also collected from 82 supervisors who completed a short demographic survey and a measure to assess the counselors’ performance (CERS).

Four hypotheses were tested, the first hypothesis predicted counselor performance based on CSE, anxiety, developmental level, number of courses, and amount of training. The first hypothesis also had three subsections, CSE, developmental level, and anxiety did not explain variance above and beyond the other variables on counselor performance. The next two hypotheses compared the scores on the CSE and developmental level at three levels of training. Finally, developmental level was examined to determine if it was a moderator variable between training and CSE.
The first null hypothesis was rejected. CSE, anxiety, developmental level, number of courses, and amount of paraprofessional counseling experience together were statistically significant predictors of scores on counselor performance. However, none of the subsections of the first hypothesis were rejected since the last step in the regression analyses was not statistically significant. The second hypothesis was not rejected either. CSE was different at the three levels of training, however the differences in mean scores were not in the hypothesized direction. A post hoc analysis was conducted in which two of the three comparisons were statistically significant. However, the comparison between the counseling practicum and the field practicum was not statistically significant. The third hypothesis was rejected. Developmental level had statistically significant differences at the three levels of training. In a post hoc analysis it was, again, only the first practicum and field practicum comparison that was not statistically significant. Finally, the fourth hypothesis was not rejected because the interaction variable was not statistically significant.

Overall these analyses suggest that counselor training appears to be effective. All of the variables, CSE, anxiety, developmental level, number of courses, and amount of paraprofessional counseling experience, were together statistically significant predictors of counselor performance. Another important finding was that of CSE uniquely explaining variability on counselor performance. Although not statistically significant, since there were power issues a finding to highlight is that CSE appears to be an important variable to focus on above and beyond the other variables
of, the number of courses, paraprofessional counseling experience, and anxiety. It was also interesting to note that CSE and developmental level was higher at higher levels of training; therefore, both appear to be enhanced with training. Another interesting finding is that paraprofessional counseling experience external to training did not have a statistically significant correlation with CSE, developmental level, anxiety, number of courses, or even counselor performance. Finally, developmental level of the counselor had a very high correlation with CSE. This significant finding could be a measurement issue in that either the SLQ-R or the COSE is not measuring what the developers thought, a validity problem. This could also be indicative of the constructs being more similar than theorized. The findings for developmental level as a moderator variable were not statistically significant. This variable should be further investigated in relation to CSE and counselor performance.

Discussion of Results

This section is comprised of two main subsections, preliminary analyses and discussion by research hypothesis. However, prior to these sections a discussion of the return rate and demographic information is provided. In the preliminary analysis section the means and correlations of the relevant variables are interpreted and discussed. The last section is organized according to the four research hypotheses. Each hypothesis is discussed, then compared to the research in the relevant area, and finally implications are provided.
Prior to a discussion of the findings, return rate issues were explored to provide a more accurate frame for understanding the data. As was evident by an examination of the return rate for the field practicum group in Table 1, data collection was problematic for this group. Several aspects of data collection were different for this group than the other groups. During the first and second semesters of data collection, the surveys were mailed to all or nearly all of the field practicum counselors, compared to the on-site data collection for the other two groups. As Baruch (1999) indicated, return rates for mail surveys tend to be lower than in-person data collection. But what is a good return rate? Baruch (1999) suggested there were two approaches for determining that - sampling theory and benchmarking. He used benchmarking by compiling return rates from three different years, 1975, 1985, and 1995 and five different journals from management and behavioral sciences. He generated means of the return rates from these sources. The average return rate across the five journals and three years was 55.6% with a standard deviation of 19.7%. Baruch (1999) recommended using the average within one standard deviation point as an estimate of a comparatively adequate return rate. This study's return rate falls within his guidelines.

Further explanation of the low return rate included that the nature of the field practicum potentially limits participation. The counselors in this course are in a field setting for a minimum of 600 hours and typically complete this requirement in one to two semesters for an average of 20 to 35 hours per week. The counselors tend to be
busier in completing this course requirement than other requirements; therefore, they may have been less willing to participate.

A final consideration in data collection for the field practicum group was their supervisors. The on-site supervisors had less contact with the department, and might have been less willing to participate than teachers and students within the department. Although an important group to collect data from, participation in the field practicum group was very low. The findings might not be representative of the population because those counselors who participated might be different than those who decided not to participate.

The majority of the counselors who participated in this study were heterosexual women, with a bachelor’s degree, from a middle socio-economic status, during their second year of the masters program and their mean age was 34. Most of the supervisors were also Caucasian, heterosexual women with at least some doctoral experience and a mean age of 39 years old. It was interesting to note that the mean ages of the two groups was similar; however, a large number of supervisors - instructors were doctoral students. In addition, it is important to note that the data collection enabled supervisors to report their demographic information more than once, if they had more than one trainee participate in the study.

Additional considerations about the instruments used in this study must be made before understanding the interpretations of the results. Two of the instruments, COSE and SLQ-R are relatively new and have minimal reliability and validity.
information. Only one of the instruments, STAI, has extensive psychometric
information in support of its reliability and validity.

Preliminary Analyses

The areas explored in this section include normative information, means and
correlations of relevant variables. Interpretation of the findings and connections to the
literature in general are provided.

The only instrument with normative information was the STAI. Unfortunately,
it only had norm scales for adults, college students, high school students, and military
recruits, not counseling students or master's students. However, the mean score for
male working adults was 34.9 and 34.8 for female working adults. The mean score for
college students for males was 38.3 and 40.4 for females. The overall mean score for
male and female and across all training levels obtained in this study was 32.2. Higher
scores on the STAI indicate higher levels of anxiety, therefore compared to the most
relevant norm groups, working adults and college students, the participants in this
study had lower anxiety.

The means for the four instruments, COSE, STAI, SLQ-R, and, CERS, varied
across training levels and were consistent in increasing or decreasing. As the level of
training increased, CSE of the counselor increased, whereas the anxiety of the
counselors decreased. Finally, as the level of training increased, developmental level of
the counselor increased and the counselor performance measure increased. Indicating that these constructs had a linear relationship to training level.

One of the patterns of mean scores across training level was particularly notable. The CERS mean was very similar for the pre-practicum and counseling practicum groups, 49.5 and 50.8 respectively. These means were especially similar when compared to the scores for the field practicum group of 62.2. Some related issues might have been the frame of reference when the supervisors completed the forms, the nature of the two groups (on-campus vs. off campus supervisors), or even the supervisors themselves. Unfortunately, the researcher did not provide a frame of reference for the counselor performance scale (i.e. based upon your experience with master students in training in general, how would you rate...). Therefore, across the different levels there was no assurance of a consistent frame for evaluation.

Another issue might have been that the on-site (pre-practicum and counseling practicum) and field supervisors rate differently, which would be more of a reflection of the supervisor as opposed to the individual being rated. It was also observed by the former Center Director who reviewed field supervisors and counseling practicum supervisors' evaluation of the counselors over 30 years that field supervisors tended to rate higher than supervisors in the training program. A final consideration about the mean scores across the three training groups was the experience of the supervisors. Nearly all of the supervisors for pre-practicum and counseling practicum were doctoral students, whereas those supervisors in the field practicum group had at least a masters...
degree and many had doctoral degrees. The scores on the counselor performance measure might have reflected the supervisor's own counseling development, understanding of counseling, frame of reference, and even anxiety.

A correlation matrix was created using the COSE, STAI, SLQ-R, CERS, number of courses, and amount of training. Paraprofessional counseling experience did not have a statistically significant relationship to any of the other variables and was negatively related to number of courses. This finding could be because nearly half of the counselors (48.7%) had no paraprofessional counseling experience so the variance of their scores on the other variables would all be correlated with the same score of zero. Watson (1992) found that counseling experience had a statistically significant relationship with a measure of self-efficacy that assessed the strength of the efficacy perception. However, he did not find statistically significant correlations between paraprofessional counseling experience and counseling courses, self-efficacy as measured by level of efficacy, or a measure of counselor performance. Perhaps at later stages of training or even post graduate work, the relationship between amount of paraprofessional counseling experience and the other variables could be more accurately assessed. The overall interpretation of this finding, however, is that paraprofessional counseling experience outside of counseling training does not seem to be related to CSE, developmental level of the counselor, amount of anxiety, or even number of courses. Perhaps all training experiences are not equal. Since the number of courses correlated with other constructs, perhaps it is something in the nature of the
paraprofessional counseling experience that makes less effective than training through coursework and practica.

The COSE had statistically significant relationships to all of the other variables with the exception of amount of paraprofessional counseling experience, which was explored in the previous paragraph. Other studies have found that CSE has a statistically significant relationship with CSE (i.e. CSE level was correlated with CSE strength; Watson, 1992), STAI - negatively correlated (Larson et al., 1992), counseling courses (Watson, 1992), counseling experience as explained in the previous paragraph (Watson, 1992), and counselor performance (Larson et al., 1992; White, 1996). Apparently, CSE is positively related to developmental level, counselor performance, and number of courses, but negatively related to anxiety.

The CERS also had a statistically significant relationship to all of the other variables in the correlation matrix with the exception of amount of paraprofessional counseling experience. However, all of the correlations were around .30, indicating a moderate relationship between the other variables and the CERS. The findings of other studies also indicated that performance had a statistically significant relationship with CSE (Larson et al., 1992; Watson, 1992; White, 1996).

The SLQ-R had a statistically significant relationship to the other instruments, but not to the number of courses. Although contradicting findings related to the hypothesis that tested this, the finding seems to support the hypothesis that developmental level is a moderator variable between level of training and CSE. It
would be expected that developmental level would have a positive relationship to CSE, anxiety, and counselor performance, however, if developmental level was a moderator variable for level of training, the correlation would not be as strong. The only study (Ossana, 1991) that compared developmental level to CSE did not conduct a correlation analysis between the two variables, so there were no findings that could confirm or not confirm the present findings.

The number of courses had a statistically significant relationship with the COSE and the CERS. Watson (1992) also found that measures of CSE and counselor performance had a statistically significant relationship with counselor coursework. Apparently formal counselor training is correlated to a higher level of CSE and performance, which indicates that training through coursework, is related to an improvement in counselor's self-perceptions of counseling ability and their supervisors' perceptions of their abilities.

Statistical Analyses by Hypothesis

In the final section of the discussion of findings, the results for the assumptions of using regression equations with these data are provided. Then each of the results of the four research hypotheses is discussed, which includes a summary of the findings, connection to related research, and implications for the findings.

The assumptions of linearity, heteroscedasticity, and normality of the data for the regression equation were met. However, the assumption of multicollinearity was
not met. Two issues, multicollinearity and low sample size, caused the beta coefficients to be unstable and potentially inaccurate estimates of the individual relationships between the predictor and criterion variables. Therefore, beta coefficients were not used or interpreted for the three main regression analyses. A final regression equation was conducted without developmental level in order to remove concerns about multicollinearity and examine the beta coefficients of the other variables.

Since the COSE and the SLQ-R had a correlation high enough to suggest multicollinearity, an item examination was conducted to see if the instruments were similar in wording. Both had very similar wording and focus. In addition, the COSE and the SLQ-R were self-report instruments that focused on the counselors’ self-perceptions of their counseling. Because of this similarity, developmental level might be better assessed through observation of the counselor as opposed to a self-report method. Further exploration of the relationships between CSE, developmental level and method for assessing developmental level should be conducted.

Hypothesis 1

The first overall null hypothesis was rejected. In this study with these predictor variables and these subjects CSE, anxiety, developmental level of the counselor, amount of paraprofessional counseling experience, and amount of training were statistically significant predictors of counseling performance for master’s level practicum students. The overall regressions of the three subsections of the first
hypothesis as would be expected, provide the same results that the five variables predict counselor performance. This is expected since the three regression equations include the same variables, just entered in different orders. Therefore, the overall regression equation in the last step, after all the variables have been entered, has the same results.

Number of courses and amount of paraprofessional counseling experience accounted for 14% of the variance on the counselor performance measure. Anxiety and developmental level accounted for an additional 6% of the variance and finally, counselor self-efficacy added 1% after all of the other variables. However, the second step including anxiety and developmental level was marginally significant and the last step adding CSE was not statistically significant.

An examination of the next regression equation revealed that when counselor self-efficacy and developmental level were entered after the training variables, they accounted for an additional 7% of the variance and this change was statistically significant. However, when anxiety was entered last in the equation, it did not add to the explanation of variance on the counselor performance and was not statistically significant.

After reviewing the results of the last regression equation, it is clear that counselor self-efficacy and anxiety were statistically significant predictors of an additional 7% of the variance after the training variables. However, when
developmental level was entered last, it did not explain additional variance on counselor performance and this step was not statistically significant.

All three subsections of the first null hypothesis were accepted since not one of the variables, counseling self-efficacy, anxiety, and developmental level were a statistically significant predictor of variance on counselor performance above and beyond the other variables.

Therefore, the findings of the first hypothesis indicated that together the variables, number of courses, amount of training, counseling self-efficacy, developmental level, and anxiety, predicted counselor performance. Since the issue of multicollinearity caused the beta coefficients to be suspect in this study, the contributions and meaningfulness of the variables within the equation cannot be examined or interpreted.

However, after an examination of the items on the two instruments that were problematic in terms of multicollinearity, it was viewed that the instruments were measuring the same construct, i.e. counselors' self-perceptions of their counseling. For a final analysis related to this hypothesis, a regression equation was computed without developmental level so that beta coefficients could be examined and the contributions of the variables more clearly understood. The overall equation was statistically significant in that number of courses, amount of paraprofessional counseling experience, anxiety and CSE predicted counselor performance.
However, the most important finding from this regression equation is the third step that included CSE. The CSE in the third step explained an additional 3% of the variance above and beyond the other variables of number of courses, amount of training, and anxiety. This step was not statistically significant at the set alpha but the probability value was .09, which could be marginally significant. In addition, due to the power problems because of the small sample size, with a larger sample, the step might have been statistically significant. Therefore there are aspects of CSE as measured by the COSE that explain counselor performance above and beyond the other variables. This indicates that CSE is an important variable in order to understand and predict counselor performance.

Thus, after an examination of the beta coefficients, the unique contributions of these variables could be described. Two variables, number of courses and amount of paraprofessional counseling experience, had statistically significant beta coefficients. Therefore, these variables were uniquely related to counselor performance, above and beyond the other variables. The two variables of anxiety and CSE did not uniquely relate to counselor performance in this regression. However, this may have been due to power issues rather than truly describing the relationships.

These findings were somewhat supportive of and somewhat contradictory to other studies. Watson (1992) found that counseling related course-work uniquely predicted counselor performance with a beta coefficient of .13 when his regression equation included type of counseling student. Whereas, in the case of CSE, two other
studies found it to be uniquely related to counselor performance. Larson et al. (1992) found that CSE had a statistically significant and unique relationship to counselor performance with a beta coefficient of .69 with anxiety in the regression analysis. White’s (1996) findings indicated that the beta coefficient for CSE was .37 and statistically significant with self-awareness and level of experience in the regression analysis. However making comparisons between findings must be done cautiously since there were different variables included in the regression equations.

Based upon the findings from the present study and those from past studies, it appears that counseling coursework is an important predictor of counselor performance. Whereas, CSE has more mixed results in terms of its unique relationship to performance, though it has some support as evidenced in the second step of the regression equations. When it was included at the second step, the R^2 change was statistically significant as opposed to when it was entered last and the second step was marginally significant at .06.

Together, all of the five variables predicted counselor performance, which is consistent with previous research. The variables in previous studies that were found to predict counselor performance (with different measures) were counseling self-efficacy (Larson, et al., 1992; White, 1996), anxiety (Larson, et al., 1992), counseling coursework (Watson, 1992), and level of experience (White, 1996).

However, in some studies some of the relevant variables were not found to predict counselor performance. These variables were previous counseling experience
(Watson, 1992), and counseling self-efficacy (Ridgway & Sharpley, 1990; Sharpley & Ridgway, 1993; Watson, 1992). Many of the studies that found that CSE and previous counseling experience were not statistically significant predictors of counselor performance, had small sample sizes, or small sample sizes relative to the number of predictor variables (Ridgway & Sharpley, 1990; Sharpley & Ridgway, 1993; Watson, 1992).

What was unique about the present study was that the overall regression equation was statistically significant. A closely related issue is that this study had a relatively larger sample size in order to explore this issue. In addition, developmental level was one of the variables that comprised the statistically significant equation, which added a new piece of information to the CSE literature.

Another unique finding in this study was that when CSE was included in the second step of the regression equation, it accounted for 1% more variance than when the second step included the two other variables and the step was statistically significant. This is in contrast to the first equation when it was entered last, in the third step and the second step was only marginally significant. Although this finding does not have solid statistical support, it suggests that CSE is important to examine above and beyond the other four variables, courses, counseling experience, anxiety and developmental level.

Present findings support Bandura’s (1977, 1982) Self-Efficacy Theory. Higher levels of performance accomplishments, higher number of courses, larger amounts of
paraprofessional counseling experience, developmental level, and lower levels of anxiety, were related to higher levels of counselor performance. Bandura (1982) believed that CSE was one of the best predictors of performance.

**Hypothesis 2**

The second null hypothesis was not rejected. Although CSE was different at the three levels of training, the first and third levels of training were not higher than the second level. The one-way ANOVA for this hypothesis was statistically significant. A post-hoc Bonferroni test comparing the pairs of training levels indicated that the only pair that was not statistically significant was the counseling practicum vs. field practicum groups. Since the means at the three levels increased at the three levels of training, the hypothesis was not accepted. However, the lack of difference between counseling practicum and field practicum might indicate that these two groups are closer in their self-perceptions about their abilities than the other comparison groups. Another possible explanation is that differences between scores on CSE are minimal after beginning levels of training as was found by Potenza (as cited by Larson & Daniels, 1998). A third explanation is related to the sample size. The sample sizes in the first two groups (pre-practicum = 47, counseling practicum = 39) were larger than the last group (field practicum = 31). Therefore, with a larger sample size the last comparison with the smaller sample sizes and smaller effect sizes might detect a statistically significant difference.
The findings concerning hypothesis two is consistent with some previous research. Friedlander and Snyder (1983) found that CSE had statistically significant higher means at higher levels of training. However, the three groups used in this study were beginning practicum students, advanced practicum students, and interns. Another study (Margolies et al., 1986) also reported an increase in counselor self-efficacy at higher levels of training. The students in this study were medical students before and after a psychiatry rotation. Larson et al. (1992) also hypothesized that the relationship between CSE and counselor performance was linear. Their hypothesis was supported by the data, showing that students with a bachelor’s degree had the lowest scores, whereas those with a master’s degree had higher scores and, finally, those with a doctoral degree had the highest scores of all the groups. The linearity of the relationship between CSE and counselor performance was also found by Melchert et al. (1996). They found that students from first year master’s students, to second year master’s students, to third to six year doctoral students, and professional psychologists had increasing means for CSE. Finally, O’Brien et al. (1997) also found the relationship to be linear; however, they measured only two groups. They found that graduate students had lower CSE means than staff psychologists.

Other studies that explored the relationship between CSE and level of training found nonlinear relationships. Sipps et al. (1988) hypothesized a different relationship between CSE and level of training. They examined the scores of four groups of students, first, second, third, and fourth year students. They hypothesized that the
second year students would have lower means than the first year students would and then the third and fourth year students would have the highest means, their hypothesis was supported. Another study found a nonlinear relationship between CSE and counselor performance. Potenza (as cited by Larson & Daniels, 1998) found that differences between scores on CSE are minimal after beginning levels of training.

Making sense of these seemingly contradictory findings related to CSE and level of training might be mostly related to the operationalization of level of training. Some of the studies that found a linear relationship used only two comparison groups. In addition, most of the studies that found a linear relationship used a combination of bachelor’s or master’s students with either doctoral level students or post doctorate professionals. This was compared to the studies that found a non-linear relationship and used only master’s students in training. Perhaps the studies that found a linear relationship did not have as sensitive results as the other studies that used students only. In addition, the studies that found a linear relationship tended to use more general categories (e.g. beginning and advanced) as opposed to the ones that found a curvilinear relationship that tended to use finer degrees of measurements (e.g. first, second, third year etc.).

In the present study, only master’s level counselors were used which would seem to suggest there would be a curvilinear relationship as hypothesized. However the degree of measurement was not related to the year in school, but to specific courses in the training. These courses have to be taken in a progressive order, but can
be taken at any point in training (e.g. counselors in the first class, pre-practicum could be first year through even fourth year students).

However, the improvement of CSE across level of training is consistent with Bandura's (1977, 1982) Self-Efficacy Theory, if the person experiences mastery of the behavior. Since nearly all of the students pass the courses on the first attempt, it is likely that the majority of the students felt performance accomplishment.

Hypothesis 3

The third null hypothesis was rejected. Statistically significant differences between counselor developmental level scores at the three levels of training were found. The one-way ANOVA for this hypothesis was statistically significant. Since there was an overall significance, a post-hoc Bonferroni test was conducted on the pairs of training levels. The only pair that was not statistically significant was the counseling practicum vs. field practicum groups. The means at the three levels increased, which suggests that the developmental level increased at the different levels of training as would be expected. However, the lack of difference between counseling practicum and field practicum might indicate that these two groups are closer in their self-reported developmental level than the other comparison groups. Similar to the issue with the Bonferroni tests in the second hypothesis, sample sizes and effect size might have influenced the power of the third comparison. Since the effect size in the
last comparison was relatively small, the power could have been effected by the lower sample size in the field practicum group.

This finding is consistent with findings in several other studies. McNeill, Stoltenberg, and Pierce (1985) studied students grouped into three categories (beginning, intermediate, and advanced trainees) based upon three criteria (counseling experience, supervision experience, and education). They found that developmental level, as measured by the SLQ increased at the higher levels of training. Wiley and Ray (1986) also looked at the relationship between developmental level and level of training. They found that, generally, the higher the number of supervised practica, the higher the developmental level as measured by the Supervision Level Scale. Another study that explored the relationship between developmental level and level of training was by McNeill et al. (1992). They examined students grouped into three categories, beginning, intermediate, and advanced based upon three categories (counseling experience, supervision experience, and graduate education). They found that the mean scores on the SLQ-R increased at the three levels of training. The final study, by Tryon (1996) focused on an ipsative change within counselors across a yearlong practicum experience. The majority of students increased across the three times of measurement. The next largest group was a U-shaped distribution, then an inverted U-shaped distribution. Tryon (1996) believed this variability to be related to the developmental level of the counselor since all of his subjects were in the same year of practicum.
The general findings of the studies that looked at the relationship between developmental level and level of training were that developmental level increased across time, which was similar to the findings of the present study. That developmental level increased at higher levels of training suggested that training and experience were effective in increasing developmental levels of trainees. These results, however, need to be explored using a causal experimental design so that a causal statement can be made.

**Hypothesis 4**

The fourth and last hypothesis stated that developmental level was a statistically significant intervening variable between amount of training and CSE. The final null hypothesis was not rejected since the interaction variable was not statistically significant. However, the regression equation including the variables, courses, developmental level, and the interaction variable (courses by developmental level) was statistically significant and accounted for 70% of the variance. The last step in the regression equation added the interaction variable to the other four predictor variables. Since the interaction variable was not statistically significant, and since the last step in the regression equation did not account for any variability, in this study developmental level was not a moderator variable. This offers an initial examination of the developmental level as a moderator variable. However, measurement issues with the SLQ-R as well as the multicollinearity found in this study between developmental level
and CSE could have influenced the findings. Clearly additional exploration of the relationship between developmental level, number of courses, CSE, and counselor performance is merited.

Based on Ossana’s (1991) findings, developmental level was thought to be a moderator variable between number of courses and CSE. Ossana (1991) found that at advanced developmental levels, students had higher CSE expectations, but the students had a negative relationship between CSE at beginning developmental levels. Since the present study did not support this hypothesis, further investigations are necessary.

Implications of Findings

Based upon the findings of this study, training appeared to be related to an increase in counselor performance. Within this global statement are several relevant issues to be highlighted, including the implications of the variables used together, the importance of CSE, surprising issues related to counseling experience, and developmental level as used in training.

All of the variables, CSE, developmental level, anxiety, number of courses, and amount of paraprofessional counseling experience, together were statistically significant predictors of counselor performance. Other research findings (Larson et al., 1992; White, 1996) have found that some of these variables, CSE and anxiety, were statistically significant predictors of counselor performance as well. Using all of these
variables together in practice would be advisable given current findings. Although this might seem overwhelming for instructors and supervisors, many of these constructs theoretically overlap. CSE has components of anxiety and previous experience, which can be understood as courses and counseling experience. In addition, CSE and developmental level were highly correlated in this study which might indicate similar measurement, or more importantly, similar theoretical constructs. Instructors and supervisors should be mindful of these variables regardless of how they incorporate them into their training.

CSE was a very important variable in explaining variability on counselor performance. This is depicted in the regression analysis that did not include developmental level and included CSE in the last step. This step was not statistically significant, but did explain variability on counselor performance above and beyond the other variables. In addition, when CSE was included in the second step of the regressions testing the subsections of the first hypothesis, the step was statistically significant. However, when it was not included, it was not statistically significant. Both of these findings indicate that CSE is a key variable in understanding and predicting counselor performance.

CSE also appeared to be highly relevant to training issues. CSE was higher at higher levels of training, which might indicate that although probably not by intention, it is enhanced through training. If instructors and supervisors were to focus more closely on CSE, perhaps counselor performance could be enhanced since there was a
moderate relationship between CSE and counselor performance. There is some
evidence that CSE might be a more useful construct to focus on than developmental
level because the number of courses counselors had a statistically significant
relationship to counselor performance and CSE, but not developmental level. In
addition, when CSE was included in the second step of the regression equations, the
second step was statistically significant. This is another indication of the importance of
this variable and construct above and beyond the other variables.

Since CSE appears to be a very important variable in predicting counselor
performance, it should be attended to during training. Although aspects of the pieces
of information (verbal persuasion, performance accomplishment, vicarious experience,
and emotional arousal) that influence CSE are already included in training, more
attention needs to be given to the development of CSE. This could include focusing on
each of the four pieces of information during training. One example is for instructors
and supervisors to take time to reflect on performance accomplishments and explore
attributions of the counselor. Does the counselor believe the accomplishment was due
to ability or external influences? Taking time to reflect on accomplishments will
accomplish two things, enable counselors to recognize successes and reinforce verbal
persuasion of success and ability. Both of these pieces of information are very
important to the formation and retention of self-efficacy. Vicarious experience and
emotional arousal are the other two pieces of information that should be attended to
during training. Helping the counselor process their experiences observing peers
during counseling and exploring the emotional arousal of the counselor are additional
goals for counselor trainers.

Another interesting finding that has significant implications for training was related to counseling experience. Paraprofessional counseling experience, as operationalized by this study, did not have a statistically significant relationship with CSE, developmental level, anxiety, number of courses, or even counselor performance. This is contrary to what would be expected. It was posited that students with more outside paraprofessional counseling experience would have higher levels of positive counseling related attributes. Perhaps these findings are related to how counseling experience was defined in this study, or perhaps it was not as important as formal supervised training (course-work/practica). This study operationalized counseling experience as paraprofessional counseling work including such characteristics as dealing with emotional issues, crisis work, clinical assessments/intake evaluations, biofeedback, case management, group work, or social work. These additional experiences may or may not have had an influence on counselor performance.

Developmental level was the final variable of interest that has large implications for practice. Developmental level was correlated with low anxiety, CSE, and counselor performance. It was also found that developmental level had higher means at higher levels of training. These findings supported the theoretical notion of developmental level being important in training counselors; however, as discussed
above, CSE was as, or more, important for instructors and supervisors to develop. A final consideration for developmental level was considering it as a moderator variable. The study that found developmental level to be a moderator variable was by Ossana (1991). She had a sample size of 75 student-supervise dyads enrolled in doctoral programs and she used the Supervision Level Scale as the measure of developmental level and the Counselor Ability Scale for the measure of CSE. The sample was different than in the present study of primarily master's level students and the instruments in Ossana's (1991) study were different than those used in the present study. The instrument Ossana used to measure developmental level was not a self-report measure, but had two scales completed by the supervisor. Perhaps then, the lack of significance for the moderator variable is a measurement issue for the SLQ-R. Therefore the discrepant findings could be related to differences in the target populations, or measurement differences between the various instruments. More tentatively, perhaps trainers and supervisors should pay more attention to developmental level than experience (courses or counseling) during training activities.

Limitations

There were several limitations about this study that need to be addressed. These included the low return rate, use of psychometrically young instruments, multicollinearity issues, measurement issues, power issues, and the design of the study.
Although the return rate fell within Baruch’s (1999) guideline, the return rate was on the lower end of the average. In addition, as noted in the results chapter, the field practicum group had the lowest return rate and drastically affected the overall return rate. The return rate for the field practicum group fell below Baruch’s (1999) guidelines at 23%. Although there were many reasons for the low return rate, and despite the importance of measuring these variables in this group, the low return rates make the generalization of the findings tentative.

Another issue relates to the instruments used in this study. Two of the four instruments were very new and have minimal psychometric information to support their consistent and accurate measurement of the relevant constructs. Despite this limitation, the use of these instruments was necessary in order to attempt to measure these constructs. Generally, it was also necessary to use new instruments so that psychometric information can be collected and accrued. Although it was necessary to use these instruments and their initial psychometric information supports their reliability and validity, the findings must be interpreted with this issue in mind.

Another limitation to this study was the multicollinearity issue with the measure of developmental level and CSE. This prevented the interpretation of beta coefficients in most of the regression equations, which are important aspects of using regression to understand complex relationships. Since the beta coefficients were not interpretable in this study, useful information was lost.
Measurement problems were another limitation to this study. As was discussed, the CERS, a measure of counselor performance might not have represented the actual performance of students at the different levels of training. Perhaps the frame of reference used by the different supervisors was different at the different levels. Instead of all the supervisors assessing their students' abilities across all master's students at all levels of training, supervisors might have been comparing the students within their group, e.g. comparing pre-practicum students to the supervisor's experience with other pre-practicum students. Since this cannot be checked out with the supervisors, this potential problem in measurement should be considered while interpreting the results.

Power was a limitation of this study as well. The power to detect significance in the second and third steps of the regression analysis was very low. Despite this, two of the three regressions in hypothesis one had a second step that was statistically significant. However, none of the third steps were statistically significant which could be related to the number of subjects, rather than the hypothesis. However, this was discovered in a post hoc power analysis after the effect sizes of the second step were known.

A final limitation is related to the design of the study, which was correlational. There are many questions that need to be addressed in relation to the causality of these variables. The practical use of this knowledge is endless. Therefore, this issue was both a limitation of this study as well as a direction for future research.
Future Research

There are many directions for future research, and as is typical of conducting research, it appears there are more questions to be answered than were answered by the results obtained in this study. Future directions for research include studies that employ causal experimental designs, correlation between two of the main variables (CSE and developmental level), the possible moderating effect of developmental level, larger sample sizes, and path analysis.

Most, if not all, of the research in this area has been correlational. Although it maybe difficult to manipulate these variables, the use of causal experiments will be a next step to more fully understand the variables. Instead of using prediction and correlation to understand these variables, being able to make statements about causality is necessary to further both our understanding as well as application of these important variables.

Another area for future research will be to further understand the relationship between the COSE and the SLQ-R. The extremely high correlation between these variables in this study suggested that these instruments were not measuring what they were attempting to measure, or the constructs were more similar than the theorists believe. Therefore the question is, does this correlation relate to measurement or theory? In addition, tying in the suggestion for causality would provide even more meaningful findings, if these variables are so closely related, does one cause the other to occur?
Yet another related issue was the relationship between developmental level, level of training, and CSE. Previous research suggested that developmental level was a moderator variable between level of training and CSE. The findings in this study failed to reject the null hypothesis (i.e. moderator variable). Therefore, further exploration of this interaction should be conducted to more fully understand the relationships.

Future studies should also focus on obtaining larger sample sizes. The literature in this area is full of studies with contradictory findings that could be related to sample sizes. Although this study had more subjects than previous research and yielded some statistically significant findings, with even larger sample sizes sensitivity to detecting smaller effect sizes would be possible.

In the more distant future, path analysis should be conducted to better understand the directionality of the variables. Path analysis studies are more in the future because there are several variables, or combinations of variables, that need to be understood more fully through regression studies prior to path analysis.
Appendix A

Demographic Survey - Student
Descriptive Information – Trainee

1. _____ Age

2. Indicate gender
   _____ Female _____ Male

3. Racial/Ethnic identification (check as many as apply)
   _____ African American/Black _____ Asian-American
   _____ Caucasian/White _____ Hispanic/Latino(a)/Chicano(a)
   _____ Multiracial _____ American Indian
   _____ Pacific Islander
   _____ Other, please write identification _____________________________

4. Indicate your sexual orientation:
   _____ Bisexual _____ Gay/Lesbian
   _____ Heterosexual _____ Unsure
   _____ Other, please describe _________________________________________

5. Indicate your Socio-economic status:
   _____ Lower _____ Lower Middle
   _____ Upper Middle _____ Upper

6. Indicate your education level
   _____ Bachelor's Degree _____ Master's Degree
   _____ Some Doctoral _____ Other, please list. _________________________

7. Indicate your year in the program ________

8. Which course are you currently taking:
   CECP 604 CECP 612 CECP 613

9. List previous counseling or counseling related experience (including volunteer work, work experience etc.). Record position title, describe typical duties performed, the number of months you were in this position and the average hours per week. If more space is needed, record on back of page.
   a. _______________________________________________________________
   b. _______________________________________________________________
   _______________________________________________________________
10. List courses related to actual counseling experience or counseling skills you have completed by listing year and semester that you took the course. Also describe additional graduate courses you have taken that were counseling related, or comparable to one of the listed courses (list title of course, year and semester you took it, as well as the comparable course if relevant).

<table>
<thead>
<tr>
<th>Course</th>
<th>Year and semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CECP 604 Counseling Techniques</td>
<td></td>
</tr>
<tr>
<td>CECP 612 Counseling Practicum</td>
<td></td>
</tr>
<tr>
<td>CECP 613 Field Practicum</td>
<td></td>
</tr>
</tbody>
</table>

(list additional courses on the back of this page)

11. What have other people told you about being a counselor? Try to develop a theme of what other people have told you, generally people have told you...

(Highly Positive)  (Neutral)  (Highly Negative)
You would be a wonderful counselor  You would not be a good counselor

1  2  3  4  5

12. Think about all the students you have observed during your training, try to get an overall opinion of their abilities, do you believe they were/are...

(Excellent)  (Neutral)  (Very Poor)
They would be wonderful counselors  They would not be good counselors

1  2  3  4  5

Thank you for your participation!
Appendix B

Demographic Survey - Supervisor
Descriptive Information – Supervisor/Instructor

1. _____ Age

3. Indicate gender
   _____ Female  _____ Male

3. Racial/Ethnic identification (check as many as apply)
   _____ African American/Black  _____ Asian-American
   _____ Caucasian/White  _____ Hispanic/Latino(a)/Chicano(a)
   _____ Multiracial  _____ American Indian
   _____ Pacific Islander
   _____ Other, please write identification _____________________________

4. Indicate your sexual orientation:
   _____ Bisexual  _____ Gay/Lesbian
   _____ Heterosexual  _____ Unsure
   _____ Other, please describe _______________________________________

6. Indicate your education level
   _____ Master’s Degree  _____ Some Doctoral work
   _____ Doctoral Degree  _____ Other, please list _________________

9. Indicate number of years as counselor ________.

10. Indicate number of years as supervisor ________.

If your trainee’s initials are on the envelope please remove prior to returning the surveys.

Thank you for your participation!
Appendix C

HSIRB Approval

March 12, 1999

February 24, 2000
Date: 12 March 1999

To: Robert Betz, Principal Investigator
    Catherine Kocarek, Student Investigator for dissertation

From: Sylvia Culp, Chair

Re: HSIRB Project Number 99-02-13

This letter will serve as confirmation that your research project entitled “Counseling Self-Efficacy and Selected Variables” has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 12 March 2000

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Human Subjects Institutional Review Board
PROJECT APPROVAL REVIEW FORM

Western Michigan University's policy states that "the HSIRB's review of research on a continuing basis will be conducted at appropriate intervals but not less than once per year." In compliance with that policy, the HSIRB requests the following information:

PROJECT TITLE: Counseling Self-Efficacy and Selected Variables
HSIRB Project Number: 99-02-13
Date of Review Request: 1/26/00
Date of Last Approval: 3/12/99

Principal Investigator or Advisor
Name: Robert L. Betz
Department: CECP
Electronic Mail Address: robert.betz@wmich.edu

1. The research, as approved by the HSIRB, is completed.
   ☐ Yes (Continue with items 5-7 below.) ☒ No (Continue with items 2-5 below.)

2. Have there been changes in Principal or Co-Principal Investigators?
   ☐ Yes ☒ No
   (If yes, provide details on an attached sheet.)

3. Is the approved protocol still accurate and being followed with respect to:
   (If no to any item below, provide the details on an attached sheet.)
   a. Procedures ☐ Yes ☒ No
   b. Subjects ☐ Yes ☐ No
   c. Design ☐ Yes ☒ No
   d. Data collection ☐ Yes ☒ No

4. Has any instrumentation been modified or added to the protocol?
   ☐ Yes ☒ No
   (If yes, attach new instrumentation or indicate the modifications made.)

5. Have there been any adverse events which need to be reported to the HSIRB?
   ☐ Yes ☒ No
   (If yes, provide details on an attached sheet.)

6. Current total number of subjects enrolled: 1
   Current number of subjects in the control group: 1

7. Provide copies of the consent documents signed by the last two subjects enrolled in the project. Cover the signature in such a way that the name is not clear but there is evidence of signature. If subjects are not required to sign the consent document, provide a copy of the most current consent document being used.
   (Remember to include a clean original of the consent documents to receive a renewed approval stamp.)

Principal Investigator/Faculty Advisor Signature: Robert L. Betz
Date: 1/26/00

Co-Principal or Student Investigator Signature: Catherine E. Kocarek
Date: 1/26/00

Approved by the HSIRB:

Sylvia Culp
HSIRB Chair Signature
Date: 2-24-00

Approval Termination Date: 24 February 2001

Revised 5/98 WMU HSIRB

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Appendix D

Research Protocol
Hello!, my name is ________, I am a research assistant/doctoral student in CECP.

I have been asked to request your participation in a study by Cathy Kocarek, a doctoral student. She is attempting to gather more information about beginning counselors and their early experiences in providing counseling for her dissertation. By participating you would be contributing to a new area of research which may assist future beginning counselors, clients, and supervisors.

Participation will involve 3 surveys and a demographic questionnaire. The approximate time to complete all of the questions is one half-hour. Your supervisor will also be asked to complete a survey for each of you. It will describe what you do in your counseling session. Please do not complete the surveys if you participated in this study during a previous semester.

Participation or non-participation will not affect your grade, standing in class, program, or your relationship with Western Michigan University. If you chose to participate, you may withdraw at any point without penalty. Your name will not be associated with your responses.

I will distribute a survey packet to everyone whether or not you wish to participate. (Distribute packets).

Please take the next half-hour to review the materials and if you decide to participate, complete the surveys. Return completed or blank surveys to the drop-box. (show where the box is located)

If you have any questions or concerns during or after you complete the surveys you may contact Cathy Kocarek, or the chair of her dissertation committee, Dr. Betz. Contact information is provided in the packets.

Are there any questions?

Thank you for your time.
Appendix E

Cover Letter – Counselor in Clinic
February 8, 2000

Dear Master’s Degree student,

Hello! My name is Cathy Kocarek; I am a doctoral student in the Counselor Education and Counseling Psychology Department at Western Michigan University. I am conducting a research project entitled “Counseling Self-Efficacy and Selected Variables.” I am attempting to gather more information about beginning counselors and their early experiences in providing counseling for my dissertation. By participating you would be contributing to a new area of research which may assist future beginning counselors, clients, and supervisors.

Participation will involve 3 surveys and a demographic questionnaire, which takes approximately one half-hour to complete. If you participate, your supervisor will be given a demographic survey and a survey that focuses on your counseling. If you are interested please write your initials in the corner of the envelope for your supervisor. Before your supervisor returns their envelope, they will be asked to tear off the corner with your initials. After you put your initials on the envelope, give it to your supervisor.

Return your envelope by dropping it off in the seminar room of the Center for Counseling and Psychological Services to the “drop box” in the corner. Returning the envelope indicates your consent for the use of the answers you supply. Please do not complete the surveys if you participated in this study during a previous semester.

Participation or non-participation will not affect your grade, standing in class, program, or your relationship with Western Michigan University. If you choose to participate, you may withdraw at any point without penalty. Your replies will be completely anonymous, so do not put your name anywhere on the form. You may also choose to not answer any question and simply leave it blank.

If you have any questions or concerns you may contact Dr. Robert Betz at 387-5107, Cathy Kocarek at 387-5100, the Human Subjects Institutional Review Board at 616-387-8293, or the vice president for research at 616-387-8298.

Thank you for your time.

Sincerely,

Cathy Kocarek
Appendix F

Consent Form – Counselor in Clinic
You are invited to participate in a research project entitled "Counseling Self-Efficacy and Selected Variables" designed to explore self-perceptions of counseling ability of master's degree counseling students. This project is being conducted by Dr. Robert L. Betz and Catherine Kocarek from Western Michigan University, Department of Counselor Education and Counseling Psychology. This research is being conducted as part of the dissertation requirement for Catherine Kocarek.

The research involves three surveys and a demographic form which take about one half hour to complete. Your replies will be completely anonymous, so do not put your name anywhere on the forms. You may choose to not answer any question and simply leave it blank. If you choose to not participate in this survey, please return the blank surveys to the drop-box in the Center for Counseling and Psychological Services seminar room. Returning the survey indicates your consent for use of the answers you supply. Please do not complete the surveys if you participated in this study during a previous semester.

If you have any questions, you may contact Dr. Robert L. Betz at 387-5107, Cathy Kocarek at 387-5100, Human Subjects Institutional Review Board (387-8293), or the Vice President of Research (387-8298).

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. You should not participate in this project if the corner does not have a stamped date and signature.
Appendix G

Cover Letter – Supervisor in Clinic
February 8, 2000

Dear Supervisor/Instructor,

Hello! My name is Cathy Kocarek; I am a doctoral student in the Counselor Education and Counseling Psychology Department at Western Michigan University. I am conducting a research project entitled “Counseling Self-Efficacy and Selected Variables.” I am attempting to gather more information about beginning counselors and their early experiences in providing counseling for my dissertation. By participating you would be contributing to a new area of research which may assist future beginning counselors, clients, and supervisors.

Since you received this letter and envelope from your trainee, this means your trainee is interested in participating. If you wish to participate it would involve one survey for each trainee and a brief demographic questionnaire. The approximate time to complete all of the questions is ten minutes. If you choose to participate, you may withdraw at any point without penalty. You may also choose not to answer any question and simply leave it blank. Your replies will be completely anonymous so do not put your name anywhere on the forms.

If you are interested, please complete the surveys and then check the corner of the envelope. If there are initials written there please tear off the corner. Then return the envelope by dropping it off in the seminar room of the Center for Counseling and Psychological Services to the “drop box” in the corner. Returning the envelope indicates your consent for the use of the answers you supply.

If you have any questions or concerns you may contact Dr. Robert Betz at 387-5107, Cathy Kocarek at 387-5100, the Human Subjects Institutional Review Board at 616-387-8293, or the vice president for research at 616-387-8298.

Thank you for your time.

Sincerely,

Cathy Kocarek
Appendix H

Consent Form – Supervisor in Clinic
Western Michigan University,  
Department of Counselor Education and Counseling Psychology  

Counseling Self-Efficacy and Selected Variables  
Robert L. Betz, Ph.D.  
Catherine Kocarek, M.A.

You are invited to participate in a research project entitled "Counseling Self-Efficacy and Selected Variables" designed to explore self-perceptions of counseling ability of master's degree counseling students. This project is being conducted by Dr. Robert L. Betz and Catherine Kocarek from Western Michigan University, Department of Counselor Education and Counseling Psychology. This research is being conducted as part of the dissertation requirement for Catherine Kocarek.

The research involves a survey and demographic form which take about 10 minutes to compete for each of your students. This survey will describe what your counseling student does in counseling sessions. Your replies will be completely anonymous, so do not put your name anywhere on the form. You may choose to not answer any question and simply leave it blank. If you choose to not participate in this survey, please return the blank surveys to the drop-box in the Center for Counseling and Psychological Services seminar room. Returning the survey indicates your consent for use of the answers you supply.

If you have any questions, you may contact Dr. Robert L. Betz at 387-5107, Cathy Kocarek at 387-5100, Human Subjects Institutional Review Board (387-8293), or the Vice President of Research (387-8298).

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. You should not participate in this project if the corner does not have a stamped date and signature.
Appendix I

Cover Letter – Counselor by Mail
February 8, 2000

Dear Master’s Degree student,

Hello! My name is Cathy Kocarek; I am a doctoral student in the Counselor Education and Counseling Psychology Department at Western Michigan University. I am conducting a research project entitled “Counseling Self-Efficacy and Selected Variables.” I am attempting to gather more information about beginning counselors and their early experiences in providing counseling for my dissertation. By participating you would be contributing to a new area of research which may assist future beginning counselors, clients, and supervisors.

Participation will involve 3 surveys and a demographic questionnaire, which takes approximately one half-hour to complete. If you participate, your supervisor will be given a demographic survey and a survey that focuses on your counseling. If you are interested please complete your portion of the surveys and give the other envelope to your supervisor. Mailing the surveys to the researcher indicates your consent for use of the answers you supply. Please do not complete the surveys if you participated in this study during a previous semester.

Participation or non-participation will not affect your grade, standing in class, program, or your relationship with Western Michigan University. If you choose to participate, you may withdraw at any point without penalty. Your replies will be completely anonymous, so do not put your name anywhere on the form. You may also choose to not answer any question and simply leave it blank.

If you have any questions or concerns you may contact Dr. Robert Betz at 387-5107, Cathy Kocarek at 387-5100, the Human Subjects Institutional Review Board at 616-387-8293, or the vice president for research at 616-387-8298.

Thank you for your time.

Sincerely,

Cathy Kocarek
Appendix J

Consent Form – Counselor by Mail
You are invited to participate in a research project entitled "Counseling Self-Efficacy and Selected Variables" designed to explore self-perceptions of counseling ability of master's degree counseling students. This project is being conducted by Dr. Robert L. Betz and Catherine Kocarek from Western Michigan University, Department of Counselor Education and Counseling Psychology. This research is being conducted as part of the dissertation requirement for Catherine Kocarek.

The research involves three surveys and a demographic form which take about one half hour to complete. Your replies will be completely anonymous, so do not put your name anywhere on the forms. You may choose to not answer any question and simply leave it blank. If you choose to not participate in this survey, you may return the blank survey or you may discard it. Mailing the survey to the researcher indicates your consent for use of the answers you supply. Please do not complete the surveys if you participated in this study during a previous semester.

If you have any questions, you may contact Dr. Robert L. Betz at 387-5107, Cathy Kocarek at 387-5100, Human Subjects Institutional Review Board (387-8293), or the Vice President of Research (387-8298).

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Appendix K

Cover Letter – Supervisor by Mail
February 8, 2000

Dear Supervisor/Instructor,

Hello! My name is Cathy Kocarek; I am a doctoral student in the Counselor Education and Counseling Psychology Department at Western Michigan University. I am conducting a research project entitled “Counseling Self-Efficacy and Selected Variables.” I am attempting to gather more information about beginning counselors and their early experiences in providing counseling for my dissertation. By participating you would be contributing to a new area of research which may assist future beginning counselors, clients, and supervisors.

Since you received this letter from your trainee, this means your trainee is interested in participating. If you wish to participate it would involve one survey for each trainee and a brief demographic questionnaire. The approximate time to complete the questions is ten minutes. If you choose to participate, you may withdraw at any point without penalty. You may also choose not to answer any question and simply leave it blank. Your replies will be completely anonymous so do not put your name anywhere on the forms.

If you are interested, please complete the surveys and mail them to the researcher. Mailing the survey to the researcher indicates your consent for the use of the answers you supply.

If you have any questions or concerns you may contact Dr. Robert Betz at 387-5107, Cathy Kocarek at 387-5100, the Human Subjects Institutional Review Board at 616-387-8293, or the vice president for research at 616-387-8298.

Thank you for your time.

Sincerely,

Cathy Kocarek
Appendix L

Consent Form – Supervisor by mail
You are invited to participate in a research project entitled "Counseling Self-Efficacy and Selected Variables" designed to explore self-perceptions of counseling ability of master's degree counseling students. This project is being conducted by Dr. Robert L. Betz and Catherine Kocarek from Western Michigan University, Department of Counselor Education and Counseling Psychology. This research is being conducted as part of the dissertation requirement for Catherine Kocarek.

The research involves a survey and demographic form which take about 10 minutes to complete. This survey will describe what your counseling student does in counseling sessions. Your replies will be completely anonymous, so do not put your name anywhere on the forms. You may choose to not answer any question and simply leave it blank. If you choose to not participate in this survey, you may return the blank survey or you may discard it. Mailing the survey to the researcher indicates your consent for use of the answers you supply.

If you have any questions, you may contact Dr. Robert L. Betz at 387-5107, Cathy Kocarek at 387-5100, Human Subjects Institutional Review Board (387-8293), or the Vice President of Research (387-8298).

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. You should not participate in this project if the corner does not have a stamped date and signature.
BIBLIOGRAPHY


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