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# Psychometric Evaluation of the Counselor Supervisor Self-Efficacy Scale

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Psychometric Evaluation of the Counselor Supervisor Self-Efficacy Scale

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A Dissertation Submitted to The Graduate School at the  
University of Missouri - St. Louis in partial fulfillment of the requirements  
for the degree Doctor of Philosophy in Education with an emphasis in Counseling

December 2017

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**ABSTRACT**

Counselor supervision is an integral component in the development of counselors. While counseling and supervision share some similarities, they are distinct competencies that develop separately and therefore must be measured separately. The belief that one can perform the tasks associated with a particular role is conceptualized as self-efficacy, so supervisor self-efficacy requires its own scale to be measured appropriately. A descriptive correlational survey research design was used to examine the six factor structure of the Counselor Supervisor Self-Efficacy Scale (CSSES). Two hundred and five counselor supervisors completed the CSSES, an impression management scale, and a demographic survey. Confirmatory factor analysis was conducted to determine the goodness-of-fit of the six-factor model, and exploratory factor analysis was used to identify alternative factor structures for the CSSES. Results did not support five-, six-, seven-, or eight-factor models, but may provide evidence for a single underlying factor. Findings, limitations, implications for counseling, and areas for future research are also presented and discussed.

Keywords: counselor supervision, self-efficacy, CACREP, confirmatory factor analysis, exploratory factor analysis

**DEDICATION**

I dedicate this dissertation to the memory of Dr. Joe Worth, an exemplary professor, supervisor, counselor, and mentor.

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## CHAPTER I

### INTRODUCTION

In the field of counselor education, supervision serves as a bridge between didactic coursework and clinical practice. Through individual and group supervision, counselors-in-training learn how to function effectively, appropriately, and ethically as practitioners in the field by integrating their existing knowledge with new and challenging opportunities. The supervisors who facilitate this learning fundamentally influence their supervisees by guiding them through the dual processes of identity development and skill development/enhancement. Supervision typically occurs both during the acquisition of the Master's degree and during the period post-Master's in which many counselors seek licensure. Because licensed counselors in the United States are not required to participate in supervision, an important function of pre-licensure supervision is helping trainees internalize the processes and behaviors of supervision in order that they may better self-supervise in the future (Bernard & Goodyear, 2014). Supervision may also be conceptualized as a gatekeeping process through which supervisors protect clients, agencies, and the public at large from "impaired, unethical, or incompetent counselors" (Borders et al., 2014; Bhat, 2005, p. 399). Thus supervisors are critical to the field of counseling.

The Council for the Accreditation of Counseling and Related Educational Programs (CACREP) serves as the accrediting body for the field of counseling. Receiving CACREP accreditation indicates that a counselor education program has met certain requirements and standards that "reflect the needs of society, respect the diversity of instructional approaches and strategies, and encourage program improvement and best

practices” (CACREP, 2014). CACREP requires that supervisors be professionals in the field of counseling. State licensure boards may also require that supervisors for licensure have the same training (i.e. they must have a Master’s in Counseling plus additional qualifications in order to supervise counselors-in-training). Other organizations offer counselor supervision credentials such as the Approved Clinical Supervisor (ACS; Center for Credentialing & Education) to indicate a certain level of preparedness to perform as a counselor supervisor. Even if credentials are not actively sought by counselor supervisors, continuing education and training seminars on supervision are offered as a form of professional development. These opportunities, policies, and standards indicate that the counseling profession values supervision as a part of counselor education and a means of protecting the public at large.

Counselor supervisors are frequently (but may not exclusively be) counselors themselves. While the preference (and sometimes policy) seems to be for supervisors to have additional training in providing supervision, this is not always the case. In those instances, the underlying assumption seems to be that any mental health professional can supervise by nature of accepting the role of supervisor. This generalization denies the complexity of the process of becoming a counselor supervisor, a developmental process that mirrors the process of becoming a counselor in the sense that a new identity (counselor supervisor) and new skill set (counselor supervision) must be cultivated and honed. For example, in an agency setting that employs both social workers and counselors, a social worker may supervise a counselor and vice versa. While both fields exist under the umbrella of mental health providers, paradigmatic differences distinguish social work from counseling (see Cottone, 2012). Other professional identities that may

provide supervision of counselors include marriage and family therapists, psychologists, psychiatric nurses, and psychiatrists. Bernard and Goodyear (2014) argued that although counselors who “are supervised by people from different professions often receive excellent training from them... for the sake of professional identity development, it is important that a majority of supervision be done by someone who is in the profession that the supervisee is preparing to enter” (p. 12). While all practitioners are served positively by collaborating on client care, from the perspective of fostering professional development and serving as gatekeeper to the identity of counselor, counselors supervisors may be best suited to provide supervision to counselors-in-training.

### **Self-Efficacy and Supervisor Development**

Counselor development and the impact of supervision have been studied for more than fifty years. Stage models of supervisee development are typically offered as guidelines for supervisors to understand and to use in response to the needs of counselors-in-training (Watkins, 2014). For instance, Hogan (1964) proposed a four stage model of “psychotherapist” development and provided suggestions for matching supervision methods to the supervisee’s developmental level. Stoltenberg and McNeill’s (2009) Integrative Developmental Model (IDM) mirrors Hogan’s model in the sense that stages of supervisee development are presented as a way of indicating how supervisors should respond. Ladany, Friedlander, and Nelson (2005) presented an interpersonal approach to supervision based around critical events or markers in supervision.

An informed or reactionary model of supervision purports that supervisors learn what to look for and what to do with supervisees but mostly in response to the actions or attributes of the supervisees. This approach means that trainees benefit from supervisors

who are responding to their individual needs, not applying a blanket treatment of supervision.

However, even though these models are helpful in terms of explaining the processes of counselor development and potential events in supervision, they do not address whether or not supervisors or supervisors-in-training develop and appropriately use skills associated with counselor supervision. Supervisors-in-training may be taught what to do through these developmental models, but they may not believe themselves to be capable of actually acting in the role of supervisor. At some point, however, supervisors-in-training make the shift from just knowing what to do to feeling capable of doing it, and this moment is very important in supervisor development. It may be that the actual use of these skills is connected to their sense of self-efficacy as a counselor supervisor.

Self-efficacy refers to the connection between knowing what to do and feeling confident that one can do it. In the field of counseling, self-efficacy may be reflected in a trainee's "perceived ability to use helping skills, both individually and integratively to help direct the counseling process" (Lent, Hill, & Hoffman, 2003, p. 105). These perceptions also influence a counselor's performance in a reciprocal manner as "efficacy expectations are clearly linked to the performance of various tasks" and therefore "it follows that self-efficacy is essential to the acquisition and mastery of the complex set of component skills that make up the performative nature of counseling and therapy" (Kozina, Grabovari, DeStefano, & Drapeau, 2010, pp. 117-118).

However, because these previous models emphasize that supervisors should react to certain events in supervision, educators need to understand where supervisor self-

efficacy comes from in order to take a proactive approach to its development. Counselor educators may understand what is expected of counselor supervisors, but understanding how and why they are able to supervise effectively seems to be a major gap in the literature.

### **Theoretical Framework**

The majority of the literature focuses on counselor development, while a small but growing segment of research targets supervisor development. A substantial portion of the research on supervision in general derives from the application of Bandura's (1997) social cognitive theory (SCT) to the process of counseling supervision. With SCT in mind, Larson and Daniels (1998) conducted a review of the literature and concluded that counselors "simultaneously...regulat[e] their actions, thoughts, and feelings based on feedback from their own actions, from their supervisors, and from their clients" (p. 181). From this perspective, the process of supervision is compatible with a SCT framework because part of the supervisor's role is to help the counselor-in-training to develop counseling self-efficacy through the process of integrating feedback.

Watkins' (1993) Supervisor Complexity Model (SCM) seems to be the prevailing model in the field in terms of counselor supervisor development. It includes four stages: role shock, role recovery/transition, role consolidation, and role mastery. Supervisors "must develop a preponderant sense of ableness, autonomy, supervisory identity, and self-awareness" in order to resolve the crises and complete the tasks required at each stage (Watkins, 1993, p. 67). As "supervisor growth is theorized to occur cognitively...affectively...behaviorally...and in identity formation and consolidation,"

self-efficacy, as traditionally conceptualized, represents one facet of cognitive change that occurs through the supervisor development process (Watkins, 2012, p. 49).

Barnes (2002) posited that self-efficacy contributes to supervisor development as conceptualized by Watkins' (1993) Supervisor Complexity Model, and that therefore assessing self-efficacy may provide a measurable benchmark for supervisor development. For her dissertation, she developed the Counselor Supervisor Self-Efficacy Scale (CSSES), a 39-item scale with six underlying factors: Theories and Techniques, Group Supervision, Supervisory Ethics, Self in Supervision, Multicultural Competence, and Knowledge of Legal Issues. Initial results supported its utility as a measure of supervisor self-efficacy, and its use in the field suggests that researchers assume it is a valid and reliable instrument. Other studies have used it to establish convergent and/or divergent validity for other measures (e.g., Barnes & Moon, 2006; Chung, 2009, Barker & Hunsley, 2014). Bernard and Goodyear (2014) even included it in "The Supervisor's Toolbox," an appendix at the end of *Fundamentals of Clinical Supervision*, largely regarded as the standard manual for teaching supervision. Barnes also recommended that further testing be done to provide empirical support for the CSSES. However, no further psychometric testing has been published since 2002 regarding the CSSES.

Some of the items of the CSSES may correspond with aspects of professional identity included in CACREP's (2016) doctoral program standards (see 6.B), so CACREP-accredited programs could potentially use the CSSES as a way to demonstrate that their trained supervisors have in fact grown and developed in response to the program. For instance, the item "*Model effective decision making when faced with ethical and legal dilemmas*" could be interpreted as a representation of the ability to demonstrate



“ethical and culturally relevant counseling in multiple settings” (6.B.1.f). The ability to “*Describe the strengths and limitations of the various supervision modalities*” seems consistent with knowledge of “theoretical frameworks and models of clinical supervision” (6.B.2.b). If a supervisor can “*demonstrate respect for various learning styles and personal characteristics within supervision*”, that supervisor may be utilizing knowledge of “models of adult development and learning” (6.B.3.c). These examples represent some of the ways in which the CSSES could be incorporated into an institution’s CACREP-accredited plan for assessing its doctoral students.

It could also be used when designing training programs or professional development opportunities. Supervisors-in-training could use it to track their development. Supervisors at the Master’s level who are licensed counselors and supervise other counselors for licensure may also be able to use it to track their own sense of ability. In that way, the CSSES could almost function as a diagnostic tool for supervisors to figure out the areas in which they may need to consult. It may also serve as another form of verbal persuasion (as defined by Bandura (1997)) in the sense that it identifies and validates areas of strength and areas for growth, potentially facilitating the development of supervisor self-efficacy. As for training implications, knowing that Group Supervision is a factor separate from Theories and Techniques, for example, provides justification for explicitly addressing the dynamics underlying group supervision as a unique dimension of supervisor training. The items for the CSSES were originally developed based on existing standards, guidelines, and curriculum guides for supervision, so it was worthwhile to examine if those competencies and how they are measured have changed over time (Barnes, 2002).

### **Purpose Statement**

The purpose of this study was to examine the six factor structure underlying supervisor self-efficacy as measured by the Counselor Supervisor Self-Efficacy Scale (CSSES, Barnes, 2002).

### **Research Question**

Although the CSSES has been used as a measure to establish convergent validity in other studies, there is no other published evidence of further psychometric analysis on the CSSES itself since its development. Therefore the research question for this study was: Is the six factor structure of the CSSES model appropriate for measuring counselor supervisor self-efficacy?

### **Significance of the Study**

This study contributed meaningfully to the literature of counselor education and supervision by examining the structure of the CSSES, a tool purported to measure a facet of supervisor development. Watkins (2012) suggested that the “lack” of “reliable, valid measures of supervisor development” may constitute “the most significant stumbling block to research advancement” (p. 78), and use of invalid or unreliable instruments also obstructs progress. This study provided empirical assessment of the CSSES, an instrument intended to measure self-efficacy as it relates to supervisor development. Because the CSSES is a published instrument, the aim of this study was not to change the CSSES, but rather to evaluate its psychometric properties and examine its relevance and utility in the field.

### **Delimitations and Assumptions**

This study took place between November 2016 and May 2017. Counselor supervisors conducting supervision in CACREP-accredited Counselor Education and Supervision programs were targeted. Due to the growing acceptance of CACREP-accredited programs for licensure and certification (e.g. CACREP accredited degrees are accepted without question by many state counselor licensure boards and starting in 2022, the National Board of Certified Counselors [NBCC] will require graduation from a CACREP-accredited program in order to be eligible for certification), these participants may best represent the future population of counselor supervisors that could use the CSSES. An anticipated limitation is that there is no evidence that perceived competence as a supervisor does not necessarily indicate enhanced outcomes for supervision. In order to determine whether or not supervisor self-efficacy impacts supervision outcomes, the psychometric properties of the tool purported to measure supervisor self-efficacy must first be examined.

### **Organization of the Document**

This document is organized into five chapters: Introduction, Literature Review, Methods, Results, and Discussion. A review of the relevant literature on self-efficacy and its application to counselor supervision will be addressed in Chapter II. Chapter III will describe the sample selection, data collection procedures, and measures used in the study. Chapter IV will include a statistical and narrative description of the results of the study, and Chapter V will provide interpretation of the results, suggestions for future research, limitations of the study, and implications for the training and practice of counselor supervisors. References and appendices will follow Chapter V.

## CHAPTER II

### LITERATURE REVIEW

This chapter will review relevant literature pertaining to counseling, supervision, and self-efficacy. The concept of self-efficacy as developed by Bandura will be discussed and then applied to counseling and supervision. The relationships between counselor self-efficacy, supervisor self-efficacy, counselor development, and supervisor development will be explored. Finally it will be demonstrated that counseling self-efficacy and supervisor self-efficacy, as concepts that develop distinctly from one another, must also be measured differently, thus providing support for the relevance and meaningfulness of the CSSES.

#### The Origins of Self-Efficacy

According to Social Cognitive Theory (SCT, Bandura, 1997), people learn through their observations of and interactions with other people. Through triadic reciprocal causation, individual characteristics, actions, and the environment interact to influence behavior. Because personal beliefs, attitudes, and knowledge are a part of this process, certain beliefs may be conceptualized as particularly influential in development and functioning (Bandura, 1993). Bandura (1997) has identified *perceived self-efficacy* as one such construct, defining it as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Therefore self-efficacy interacts with other influences to shape behavior:

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. A capability is only as good as its execution. (Bandura, 1982, p. 122)

Not only must people know what to do, but they must believe that they are capable and then act accordingly. Bandura incorporated all of these components into his model because he observed that “indeed, people often do not behave optimally, even though they know full well what to do” (Bandura, 1982, p. 122).

One of the challenges with identifying and measuring these beliefs is that self-efficacy represents an internal phenomenon. According to Bandura’s (1997) model, self-efficacy beliefs—which vary by level, strength, and generality—direct behavior. Self-efficacy thus can be intuited based on behavior, but it is not itself behavior, at least not in an observable sense. Efficacy beliefs are not to be confused with outcome expectations or locus of control as people can expect that a particular outcome will arise from a series of behaviors (high outcome expectations, internal locus of control) and people can simultaneously believe that they cannot perform as needed (low efficacy beliefs). Therefore outcome expectancies can shape the relationship between behavior and outcome just as self-efficacy can, but the concepts remain distinct.

Self-efficacy can be influenced by four sources of information: past experiences, vicarious experiences, verbal persuasion, and physiological arousal (Bandura, 1997). For example, experiencing success with a task or observing others demonstrate successful behaviors can positively influence an individual’s self-efficacy. Feedback from others, particularly those of rank and/or importance in a person’s life, can influence self-efficacy. Bodily sensations like sweaty palms or a racing heartbeat may also enhance or diminish a person’s sense of self-efficacy. Simply having these experiences is not enough though;

some sort of process (such as reflection) must occur in order to make sense of and connect these experiences to the development and/or maintenance of self-efficacy beliefs (Bandura, 1997). Lent (2016) observed that self-efficacy can then serve as an “ability catalyst” because it connects perceptions of ability to past performance. It follows then that individuals with higher self-efficacy may be more likely to persevere in situations related to the sources of that self-efficacy and therefore experience better outcomes than individuals with lower self-efficacy who may not opt to endure the challenge. The caveat remains, however, that self-efficacy may contribute to competent action but does not necessarily predict it.

Self-esteem and self-efficacy (as defined by Bandura) are alike in that they are both judgments about the self, but while self-esteem refers to judgments of self-worth, self-efficacy refers to judgments of personal ability (Bandura, 1997). Other definitions of self-esteem use similar language and this similarity can cause confusion. For example, Branden (1994) defines self-esteem as consisting of self-efficacy and self-respect, but his definition of self-efficacy is more about self-trust and the belief that one can rely on one’s own mind. For the purposes of this argument, Bandura’s definitions will be used. People can have low self-esteem and still see themselves as able to perform needed behaviors; similarly they can judge themselves to have considerable self-worth and see themselves as incompetent in terms of a given task. When applying this concept to counseling self-efficacy, counselors may believe themselves to be valuable as people but ineffective as mental health practitioners, or they could see themselves as capable of performing the behaviors of counseling while not valuing themselves. Other intersections of these beliefs

are possible, including high self-esteem and high self-efficacy or low self-esteem and low efficacy, but the point is that they represent constructs that do not necessarily co-vary.

Bandura's definition lends itself to use in a variety of disciplines, as people demonstrate different levels of self-efficacy based on the requirements of the situation at hand. Just since the beginning of 2016, publications have addressed the intersection of self-efficacy with such varied fields as leadership (Seibert, Sargent, Kraimer, & Kiazad, 2016), education (Zee, De Jong, & Koomen, 2016), exercise science (Strachan, Perras, Brawley, & Spink, 2016), public health (Meilstrip, Thygesen, Nielsen, Koushede, Cross, & Holstein, 2016), and family studies (Roskam, Meunier, & Stieveart, 2016). Each of these studies refers back to Bandura in some way, indicating a consistent understanding and use of the concept throughout the published literature. Many refer to self-efficacy explicitly as a moderator or a mediator, using it in accordance with its original conceptualization as an influence on behavior.

### **Counseling Self-Efficacy**

Larson (1997) applied SCT to counselor training and developed the Social Cognitive Model of Counselor Training (SCMCT), framing counseling-specific self-efficacy as a mediator of behavior for counselors-in-training. Counseling self-efficacy may then be reflected in a trainee's "perceived ability to use helping skills, both individually and integratively to help direct the counseling process" (Lent, Hill, & Hoffman, 2003, p. 105). These perceptions influence a counselor's performance because "efficacy expectations are clearly linked to the performance of various tasks" and therefore "it follows that self-efficacy is essential to the acquisition and mastery of the complex set of component skills that make up the performative nature of counseling and

therapy” (Kozina, Grabovari, DeStefano, & Drapeau, 2010, pp. 117-118). Barnes (2004) explained that “persons with strong [counseling self-efficacy] believe they are highly capable to counsel, whereas persons with weak [counseling self-efficacy] do not believe they possess adequate skills to perform counseling” (p. 56). These beliefs may therefore influence the behavior of counselors-in-training as the process of counselor development requires learning how to provide counseling and then connecting it to actual counseling performance. The assumption is that self-efficacy is a desired outcome and indicates successful training (Barnes, 2004). Having high counseling self-efficacy suggests having made progress through the stages of counselor development.

### **Supervisor Self-Efficacy**

Supervision training develops out of and responds to the supervisor’s own counseling and supervision experiences, making it a separate experience from counselor development or the development process of other mental health providers. Pelling (2008) surveyed members of the Association for Counselor Education and Supervision (ACES) about their experience and training and concluded that “counseling experience and being a competent counselor seem necessary but not sufficient to being a supervisor” (p. 244). The ACA Code of Ethics (2014) specifies that in order to practice ethically, “prior to offering supervision services, counselors are trained in supervision methods and techniques” (F.2.a, p. 12). With intentionality and reflection, supervisors can use their counseling theory as a basis for their supervision work, employing models of supervision that are grounded in psychotherapy such psychodynamic supervision, cognitive-behavioral supervision, or narrative approaches to supervision. For instance, a narrative approach to counseling involves helping clients to re-author their stories, so a narrative



approach to supervision may similarly involve a focus on story-telling. In supervision, however, supervisors using a narrative approach would both “assist supervisees in the editing of clients’ stories” and “help [the supervisees] to develop their own professional stories” (Bernard & Goodyear, 2014, p.31). In order to appropriately use a psychotherapy-based model of supervision, supervisors must specifically conceptualize how the concepts from a counseling theory can apply to supervision.

The quality of supervision is also influenced by the ability of supervisors to recognize their own strengths and areas of growth, so considerable personal work—in addition to supervision training—is needed to become effective supervisors (Ronnestad & Skovholt, 1993). Therefore there seems to be an important and separate process of supervisor development that occurs, perhaps in tandem with but separate from counselor development. It makes sense then that the supervisor self-efficacy that develops as part of supervisor development differs from the counselor self-efficacy that develops out of the process of counselor development.

Similar to counselor self-efficacy, supervisor self-efficacy may not be overtly observable. It can affect intention, but does not necessarily predict it (Bandura, 1997). It can also be influenced by personal or vicarious experiences, verbal feedback, and bodily experiences. All of these influential and relevant experiences, however, either come out of supervision-specific experiences or have been refiltered through the lens of the supervisory role. For instance, comfort with establishing rapport may transfer readily from the counseling relationship to the supervisory relationship for a practitioner who views those relationships as egalitarian rather than hierarchical. That same person who feels comfortable in the helping role as a counselor may struggle with the transition to the

gatekeeping function of a supervisor. Whereas a counselor has one role as helper, the supervisor serves as counselor, consultant, and teacher (Bernard & Goodyear, 2014). Thus some experiences may influence both counselor self-efficacy and supervisor self-efficacy if they are relevant to competencies associated with both roles (e.g. establishing a positive working relationship), but other experiences (e.g. providing constructive criticism) which reflect the uniqueness of each role also act here to inform and differentiate these domain-specific types of self-efficacy. Supervisor self-efficacy is therefore uniquely experienced as the sense that one understands how to provide supervision and can actually do so.

Nonetheless, there is nothing in the concept of self-efficacy that determines the actual competence of the supervisor. For example, a supervisor may experience high counseling supervision self-efficacy, feeling strongly that he or she can do what is necessary for supervision, but the actual supervision may produce detrimental results for the supervisee or the client being served. The link between self-efficacy and competency is therefore unclear.

### **Counselor Development and Self-Efficacy**

The cultivation of self-efficacy has been conceptualized as a part of counselor development. Understanding these developmental models can guide supervision too because they frame supervision as responding to supervisee needs at different levels of counselor development. For instance, Hogan (1964) presented four stages of psychotherapist development in the context of suggesting appropriate stage-matched interventions for supervision. He suggested that although these levels suggest a linear progression, therapists may experience this cycle many times throughout their careers.

The Level 1 therapist is characterized by dependence on the supervisor, lack of certainty of personal motivation, insecurity about the ability to perform in the field, and lack of insight into one's impact on others. As such, appropriate supervision interventions include direct teaching, providing support, encouraging self-awareness, and explicit role modeling. Level 2 brings a dependency-autonomy conflict for developing therapists as they vacillate between overconfidence and feeling overwhelmed, "deep commitment" to and "grave misgivings" about this profession, and using self-awareness and feeling paralyzed by it (p. 140). The burgeoning sense of counselor self-efficacy may contribute to this experience as supervisees try to figure out if they actually know what to do to help or if they know enough just to fake it. Supervisors still teach, provide support, and role model appropriate behavior, but providing validation and clarity about these conflicts becomes an integral part of supervision. Personal therapy may be recommended at this time for the supervisee.

Once therapists have progressed to Level 3, they demonstrate increased self-confidence and insight about themselves and the profession. They understand themselves, their motivation, and their performance, and the supervisory relationship reflects a more collegial nature with both supervisor and supervisee sharing and confronting each other. This enhanced sense of self-awareness may be reflected in more stable counselor self-efficacy beliefs. Level 4 reflects a sense of mastery and artistry associated with time and experience. These therapists are autonomous, insightful, and aware of personal motivations and challenges. Supervision looks more like mutual consultation at this point with an egalitarian exchange of ideas; this shift may be in response to the supervisee's now-established counseling self-efficacy beliefs.

Stoltenberg (1981) integrated Hogan's four levels of counselor development into a counselor complexity model that reflects the development of a counselor identity in addition to skill acquisition. He has since expanded upon this theory to develop the Integrative Developmental Model (IDM, Stoltenberg & McNeill, 2010) which provides another roadmap for understanding supervisees and their needs in supervision. Similar to Hogan's Level 1, IDM Level 1 supervisees are highly dependent on their supervisors due to their limited relevant experience. They exhibit considerable confusion and anxiety and a frequently negative focus on the self. Nonetheless, these supervisees can be highly motivated by a desire to help others and to learn about themselves. The main tasks of the supervisor then are to provide structure for the supervisee, to help manage anxiety, to teach theories and role model approaches, and to facilitate self-awareness of strengths and areas for growth. All of these duties are consistent with facilitating experiences and feedback to increase self-efficacy as explained by Bandura.

IDM Level 2 resembles Hogan's Level 2 in that it is a turbulent experience characterized by a dependency-autonomy conflict in which autonomous behavior is possible but support is still desired. These supervisees have shifted their focus from themselves to their clients and have thus realized the inadequacy of the one-size-fits-all approach they thought they mastered in Level 1. This represents an opportunity to develop a fuller sense of empathy, but only if the reaction to this decreased sense of self-efficacy is more motivation. Supervisees may stagnate at Level 2 if they are unable to use reflection-on-action (ROA, Schön, 1983). ROA consists of reflecting back on actions and evaluating the process and outcomes; some may argue that this is the fundamental process of developing self-efficacy and thus consequently the foundation of supervision.

The transition to IDM Level 3 brings stability, autonomy, and a return to a focus on the self. Because their doubts are no longer disabling, these supervisees can use reflection-in-action (RIA) to “consciously reflect on [their] actions in real time using reasoned and purposeful experimentation to improve [their] performance in the here and now” (cf. Schön, 1983; Stoltenberg & McNeill, 2010, p. 10). There is an increased sense of responsibility for themselves and their clinical actions, and this experience serves more as motivation than a source of anxiety. As the supervisee provides more structure in supervision, the supervisor helps to facilitate integration of personal and professional values. IDM Level 3i reflects the continuation of this development as the counselor-in-training develops into an experienced and masterful professional.

Self-efficacy refers to beliefs about the self and the ability to perform. For counselors-in-training, the perception of their ability to perform counseling is typically limited by a lack of experience and context. Part of what the supervisors do is provide information for supervisees to better understand their experiences, so they change the context in which counselors-in-training evaluate themselves and their abilities. Lent, Hoffman, Hill, Treistman, Mount, and Singley (2006) even refer to the supervisor role as “efficacy-builder,” explicitly tying the cultivation of self-efficacy to the supervision process (p. 462). Based on Bandura’s (1977) framework, supervision can facilitate the personal and vicarious experiences associated with increases in self-efficacy, and supervisors can provide the verbal persuasion that positively affects counselor self-efficacy as well by validating the trainee’s successes. Supervisors can also role model reflecting on and using physiological responses as information in session, potentially also increasing counselor self-efficacy.

### **Supervisor Development and Self-Efficacy**

Supervisors role model appropriate behaviors and attitudes as part of supervision, so if building efficacy is part of supervision, presumably one of the beliefs that they demonstrate is self-efficacy. What happens in supervision has implications for what happens in the counseling relationship through parallel process, the phenomenon in which “the processes at work currently in the *relationship between* patient and therapist are often reflected in the *relationship between* therapist and supervisor” (Searles, 1955, p. 135). There is evidence that what occurs in the supervision relationship may affect what happens in the counseling relationship, and that may have positive outcomes for the client (Tracey, Bludworth, & Glidden-Tracey, 2012). Therefore it is possible that enhanced supervisor self-efficacy can influence counselor self-efficacy, and that if this enhanced counselor self-efficacy meaningfully influences the client, this parallel process may be associated with positive client outcomes. In the same way, a supervisor who lacks supervisor self-efficacy may fail to provide an adequately challenging and supportive environment for the supervisee, potentially having a negative influence on the counselor and even the client. Because of this existing dynamic, it behooves supervisors and supervisees to attend to their own experiences of self-efficacy since they can influence each other. In fact, working through these relational aspects may be integral to a successful supervision experience. The Events-Based Model of Supervision (Ladany, Friedlander, & Nelson, 2005) includes these experiences as part of the task environment in which supervisee markers are addressed and resolved. Bernard’s discrimination model conceptualizes three foci—intervention, conceptualization, and personalization—which can all be addressed from three different roles (teacher, counselor, consultant) based on

what is occurring in supervision (Bernard & Goodyear, 2014). Process models of supervision attend to the supervision process itself.

Watkins (2012) compared five existing models of counselor supervisor development (Alonso, 1983; Hess, 1986; Rodenhauser, 1994; Stoltenberg and Delworth, 1987; and his own Supervisor Complexity Model, Watkins, [1993]) and concluded that they all involved a linear progression of stages characterized by enhanced supervisory identity and skills and decreased doubt, insecurity, and negative affect about oneself as a supervisor. Similar to counselor development, supervisor growth is hypothesized to occur in terms of cognition, affective experience, behavior, and identity development. For instance, Watkins (1993) suggested that movement through the four stages of role shock, role recovery/transition, role consolidation, and role mastery requires “a preponderant sense of ableness, autonomy, supervisory identity, and self-awareness” (p. 67). This sense of ableness, potentially conceptualized as supervisor self-efficacy, like counselor self-efficacy, may be a cognitive mediator in supervisor development.

The place of self-efficacy in counselor development therefore mirrors its influence on supervisor development in that it may be integral to the process of growth. While this summary may seem reductionist, it reflects Watkins’ sentiment that supervisor development models aptly describe the beginning and end stages of growth without a lot of specificity as to what happens in the middle. Therefore existing research suggests that supervisor self-efficacy increases as supervisors develop supervision skills and consolidate their identities as supervisors, but exactly how this process occurs remains relatively unexplored. Applying Bandura’s (1977) theory here suggests that experiences in the role of supervisor and vicarious experiences communicated through supervision of

supervision would be key sources of self-efficacy; “consistent feedback” also seems like an important influence on supervisor self-efficacy (Bernard & Goodyear, 2014, p. 283). However, more research is necessary to understand supervisor self-efficacy and its relationship to supervisor development and to actual counseling outcomes so that more meaningful interventions and training can be developed and implemented.

### **Measuring Domain-Specific Self-Efficacy**

Theories and theoretical constructs gain empirical support through practical applications as well as hypothetical ones. The concept of self-efficacy clearly appeals to researchers as evidenced by its use in the literature. The existing research demonstrates that self-efficacy does appear to be an important influence on professional development, and numerous measures have been developed to help validate the construct in various areas. Because perceived self-efficacy refers to beliefs within a specific domain, it makes sense that different scales need to be developed in order to measure self-efficacy in different areas. Bandura (2006) argued that all-purpose self-efficacy measures are useless because they are ambiguous; self-efficacy scales must be specific to a domain of functioning in order to have meaning. Counselor and supervisor have been conceptualized as two distinct roles with their own processes of development; while they may share some common traits or experiences, the roles differ fundamentally and do not necessarily co-vary. For instance, a person may have high counselor self-efficacy but low supervisor self-efficacy. Therefore two separate and distinct scales are appropriate to measure counselor self-efficacy and supervisor self-efficacy.



### **Measuring Counselor Self-Efficacy**

The Counseling Self-Estimate Inventory (COSE, Larson, Suzuki, Gillespie, Potenza, Mechtel, & Toulouse, 1992) was developed to measure counseling self-efficacy, operationalized as the extent to which counselors perceive themselves as competent in using microskills, attending to the process of counseling, addressing difficult client behavior, exhibiting cultural competence, and developing awareness of personal values. Sample items include: “I am confident that I will be able to conceptualize my client’s problems” and “I am uncomfortable about dealing with clients who appear unmotivated to work toward mutually determined goals”. Each of the 37 items is rated on a six-point Likert-style scale, from 1 (*strongly disagree*) to 6 (*strongly agree*) to reflect the counselors’ self-efficacy beliefs at that moment. Scores are summed with higher total scores indicating higher counseling self-efficacy beliefs. Cronbach’s alpha was .93 among 213 Master’s level counselors, suggesting good internal consistency for trainees. The COSE demonstrated convergent validity as evidenced by positive correlations of higher self-efficacy scores with higher self-concept, higher perceived problem solving ability, and lower state and trait anxiety, and discriminant validity was supported by minimal correlation with measures of defensiveness, faking, estimates of aptitude, and academic performance.

### **Measuring Supervisor Self-Efficacy**

Barnes (2002) clarified the relationship between self-efficacy and supervisor development as conceptualized by Watkins’ (1993) Supervisor Complexity Model. She posited that because developing supervisor self-efficacy (meaning the belief that one can perform the duties associated with counselor supervision) is integral to supervisor

development as a whole, assessing self-efficacy may provide a measurable benchmark for supervisor development. Measuring self-efficacy “identifies the upper limits of people’s perceptions of their capabilities,” so creating a self-efficacy scale for supervisors provided a way to conceptualize supervisor self-efficacy as perceptions of mastery in several key competencies (Bandura, 1989, p. 730). In order to develop evidence-based supervision training, competencies must first be identified and then validated (Barker & Hunsley, 2013). As the field of counseling increasingly leans on empirical support to provide evidence of its effectiveness, the identification and evaluation of these competencies becomes all the more important. Once an instrument has been validated, then studies can be designed to measure supervisor self-efficacy’s relationship to the actual outcome of counseling (that is, was the client helped in any meaningful or beneficial way by the supervised counseling?).

## **CHAPTER III**

### **METHODS**

The purpose of this study was to investigate the six-factor structure model underlying the Counselor Supervisor Self-Efficacy Scale (CSSES, Barnes, 2002). Although the properties of the CSSES were examined during the original development process and the CSSES itself has been used in published studies, its structure had not been further investigated. The primary research question was: Is the six factor structure of the CSSES model appropriate for measuring counselor supervisor self-efficacy?

This study used confirmatory factor analysis (CFA) to examine the six factor structure of the CSSES and exploratory factor analysis (EFA) to identify alternative factor structures. Barnes (2002) used exploratory factor analysis (EFA) and CFA to develop the original CSSES and suggested that another CFA be “conducted to determine whether the correlations and covariances produced with the CSSES items and factors in this sample can be reproduced” (p. 92). Because CFA is driven by past evidence and theory, this study used Barnes’ original data to study the factors and factor loadings of the CSSES (Brown, 2015). Using CFA, this study evaluated how well Barnes’ model held up in describing the data obtained from this new sample of counselor educators (Meyers, Gamst, & Guarino, 2013). EFA was then used to explore other models that could better describe the data.

#### **Research Design**

This study used a descriptive correlational survey research design. This design was appropriate because the study sought to examine the psychometric properties of the CSSES.

## Participants

Clinical supervisors associated with counselor education programs were targeted for participation in this study. Because this scale measured supervisor self-efficacy at all levels of development, all clinicians who serve as clinical supervisors—whether doctoral student supervisors-in-training, faculty, or experienced practitioners—were eligible to participate.

The final sample consisted of 205 self-identified counselor supervisors associated with CACREP-accredited Master's-level programs that ranged in age from 24 to 76 ( $M=39.71$ ,  $SD=12.01$ ). Thirty-five participants identified their gender as male (17%), 169 identified as female (83%), and one participant identified as transgender (1%). In terms of racial/ethnic background, 151 participants identified as White, 16 identified as Asian, 13 identified as Multiracial, 12 identified as Black or African American, and 10 identified as Hispanic or Latino. Two participants declined to answer. The vast majority (97%) indicated that English was their preferred language, with four participants (2%) preferring Spanish and three preferring another language (Other). The sample included participants from all areas of the United States including 96 participants from the South (48%), 48 from the Midwest (24%), 31 from the West (15%), and 27 from the Northeast (13%). Three participants declined to identify with one of the listed regions.

A little more than half (55%) of the participants indicated that their highest level of education was a Master's degree while the rest reported earning doctorates (44%) and "Other" degrees (1%). Eighty-three of these participants (41%) reported some type of faculty role associated with CACREP-accredited program while the rest identified as doctoral students ( $n=75$ ; 37%), site supervisors ( $n=38$ , 19%), or "Other" roles in the

program ( $n=9$ , 4%). The participants primarily identified as counselors (85%) with marriage and family therapists (7%), psychologists (2%), social workers (1%), and “Other” professional identities (5%) represented as well. The majority affirmed that they were licensed by their state to practice (77%), but less than half were currently approved by their state to provide supervision for licensure (43%). Only 32 participants (16%) indicated that they currently held the Approved Clinical Supervisor (ACS) credential from the National Board for Certified Counselors (NBCC). In terms of supervision training that they have experienced, participants endorsed a variety of activities including a Master’s level course (31%), a doctoral level course (76%), in-person workshops (53%), online webinars (23%), self-study (i.e. books, 52%), and “Other” opportunities (5%). Only six participants (3%) reported that they had received no supervision training whatsoever.

### **Measures**

The participants completed the Counselor Supervisor Self-Efficacy Scale (CSSES), the Impression Management (IM) subscale of the Balanced Inventory of Desirable Responding (BIDR), and a demographic questionnaire (Appendix A) that included gender, racial or ethnic identity, language preference, level of education obtained, professional identity, academic rank, years of counseling experience, supervision training completed, years of supervision experience, and licensure status.

**Supervisor Self-Efficacy.** The 39-item Counselor Supervisor Self-Efficacy Scale (CSSES; Appendix C) was used to measure counselor supervisor self-efficacy beliefs (Barnes, 2002). The CSSES assessed the extent to which counselor supervisors perceive themselves as competent in the different domains of providing clinical supervision. Each

CSSSES item was rated on a ten-point Likert scale, from 1 (*Not confident at all*) to 10 (*Completely confident*) to reflect the supervisor's confidence for completing each task at that time. Possible scores ranged from 39 to 390. Scores were summed with higher total scores indicating higher supervision self-efficacy beliefs. In Barnes' (2002) original research with a sample of 287 supervisors associated with CACREP-accredited programs who had provided supervision within the past two years, Cronbach's alpha was .97. Internal reliability was similar in this study –  $\alpha=.96$ .

The mean score indicated the supervisor's level of confidence across supervision tasks. In the original study, the scores were based on a scale from 0 (*not at all confident*) to 9 (*completely confident*), and the mean scale score was 7.57 ( $SD=.92$ ). The mean scale score for this study which was scaled from 1 (*not confident at all*) to 10 (*completely confident*) was 8.54 ( $SD=.86$ ). These scores indicate that many of the supervisors in both the original sample and the current study expressed rather high confidence in their ability to perform the activities associated with supervision.

In the original study, the CSSSES demonstrated convergent validity as evidenced by positive correlations of higher self-efficacy scores with more years of reported counseling experience ( $r=.41, p>.0001$ ) and supervision experience ( $r=.40, p>.0001$ ). The current study also found positive correlations, albeit somewhat weaker - CSSSES total score and years of clinical experience,  $r = .24, p = .001$ , and CSSSES total score and years of supervision experience,  $r = .18, p = .011$ . Barnes also found significant correlations between the CSSSES total score and factor scores and the Psychotherapy Supervisor Development Scale (PSDS; see Watkins, Schneider, Haynes, & Nieberding, 1995) total score and its factors (e.g.  $r=.79, p<.0001$ ). Furthermore, test-retest reliability was

established with a second administration four to six weeks after the initial administration with 57 of the original participants. Pearson correlations between the total scores for the initial and second administrations were .82 ( $p < .0001$ ), indicating temporal stability.

Discriminant validity was not addressed in the original dissertation.

Barnes concluded that a second-order six-factor model best described the data and was most interpretable. This model accounted for 62% of the variance observed in the data. The main construct was Supervisor Self-Efficacy, and the six sub-constructs or factors were Theories and Techniques, Group Supervision, Supervisory Ethics, Self in Supervision, Multicultural Competence, and Knowledge of Legal Issues.

Theories and Techniques (TT) consisted of 14 items that covered knowledge of supervision models, counselor development, and the ability to perform supervision-specific interventions. Factor loadings ranged from .47 to .80. Internal consistency was highest for this factor compared to the other factors ( $\alpha = .94$ )

Group Supervision (GS) included five items that describe specific tasks associated with group supervision. Factor loadings for GS ranged from .60 to .85. The alpha coefficient for GS was .92.

Eight items made up the Supervisory Ethics (SE) factor with factor loadings ranging from .41 to .56. This factor addressed knowledge and perceived ability to respond to ethical issues and dilemmas within the supervisory relationship and specific to supervision. Cronbach's alpha was .90 for SE.

Self in Supervision (SS) was comprised of five items that describe a supervisor's perceived ability to respect individual differences and receive feedback within the

supervisory relationship. Factor loadings ranged from .46 to .76 with good internal consistency ( $\alpha=.84$ ).

Four items loaded on the factor Multicultural Competence (MC) with factor loadings that ranged from .66 to .80. These items represented the supervisor's perceived ability to recognize and respond to cultural issues in the supervision setting. Cronbach's alpha was .90 for MC.

The last factor, Knowledge of Legal Issues (KLI), pertained to the supervisor's knowledge of legal issues as they present in supervision. Three items load on this factor (.44 to .76), and the alpha coefficient was .78.

**Social Desirability.** One 20-item subscale of the Balanced Inventory of Desirable Responding (BIDR; Appendix B) was used to measure Impression Management (IM; Paulhus, 1991). This social desirability scale was appropriate because it measured overconfidence in one's abilities or the tendency to present oneself in an inflated manner, a risk inherent in self-assessment measures of self-efficacy, particularly those instruments like the CSSES that explicitly ask participants to rate their level of confidence. Items were rated on a Likert-style scale from 1 (*not true*) to 7 (*very true*) to indicate the truth of each statement for the supervisor at that time. Sample items included: "I am a completely rational person," "I don't always know the reasons why I do the things I do" "I have some pretty awful habits," and "I don't gossip about other people's business". Scores were summed, and higher scores indicated higher levels or more frequent engagement in those types of behaviors. Previous studies have found that the coefficient alpha for the IM subscale ranges from .75 to .86, indicating good internal consistency for this BIDR subscale. Convergent and discriminant validity were originally established through



correlational analyses with concepts such as coping style, appraisal style, social approval, and situational demand.

### **Procedure**

Prior to data collection, these procedures were reviewed and approved by the University of Missouri-St. Louis Institutional Review Board (Appendix H). Participants were recruited from Master's level programs that have been accredited by the Council for Accreditation of Counseling and Related Programs (CACREP). CACREP-accredited programs were targeted for this study because CACREP has specific requirements regarding supervision which state that supervisors must have relevant experience, credentials, supervision training, and knowledge of the program in order to supervise students during practicum or internship (see CACREP, 2016, 3.N-P). As of November 2016, there were 717 CACREP-accredited counselor education programs in the United States. Out of those 717 programs, 680 were Master's level and included program types such as Clinical Mental Health Counseling, School Counseling, Marriage, Couple, and Family Counseling, and Career Counseling.

The primary condition for participation was that the clinical supervisor has provided supervision for at least one Master's-level counselor education student in a CACREP-accredited program in the past twelve months. A question in the Qualtrics survey specifically asked whether or not the supervisor met this criteria. Supervisors who answered "yes" were permitted to continue in the survey while those who answered "no" were not found eligible to participate and were taken to the end of the survey. Eligible supervisors included full-time faculty, adjunct faculty, site supervisors, and doctoral students if they were currently enrolled in or have completed a supervision course and if

they had provided supervision to Master's level students. Based on existing recommendations (Bryant & Yarnold, 1995) that the sample size include at least five participants for every variable—and for this calculation, the 39 items of the Counselor Supervisor Self-Efficacy Scale serve as variables—at least 195 participants were targeted for this study.

The listed Program Contact for each eligible program was emailed personally with information about the study and asked to consider distributing the electronic invitation to the program's current clinical supervisors (Appendix D). Because some program contacts were listed with several programs, the list was checked for redundancy to prevent sending duplicate emails; ultimately 348 individuals (listed as the Program Contact for one or more CACREP-accredited Master's program) were emailed. They were informed that they had the right to refuse forwarding the study information. The email included a letter that described the purpose of the study and the conditions, risks, benefits, incentives, and directions for participation. The email included a link to the study questions which were delivered through Qualtrics for accessibility and confidentiality. This email invitation was sent three times between April 2017 and May 2017.

The invitation to participate was also distributed through the Counselor Education and Supervision Network Listserv (CESNET-L), a professional listserv for counselors, counselor educators, and supervisors following approval from the listserv listowner (Appendix E; Appendix G). The invitation emphasized that only supervisors associated with CACREP-accredited programs would be eligible for participation. It was distributed three times via CESNET-L between April and May 2017.

Interested potential participants clicked the link in the email to be taken to the informed consent page (Appendix F). The counselor supervisors were informed that the study pertained to the experiences of clinical supervisors and that participation included responding to a survey consisting of a supervision questionnaire and a demographic questionnaire that required 10 to 15 minutes to complete and could be completed at their convenience. There were no anticipated risks associated with participating in this study, and no specific benefits to participants were anticipated other than the possibility to contribute to the field's knowledge of supervisor development.

An incentive for participation was the opportunity to enter a raffle for one of six \$50 Amazon gift cards after completion of the survey. Winners were selected using Random.org, and the incentives were delivered electronically in June 2017. Supervisors who elected not to participate were not punished in any way. The participants had the opportunity to read the informed consent letter, and they indicated their willingness to participate and their understanding of their rights and responsibilities as a participant by clicking "yes" and entering the survey. Following the administration of the survey, participants had the opportunity to contact the author directly to be debriefed and obtain information regarding the study's purpose and hypotheses.

While 286 participants started the survey, only the 250 individuals who responded affirmatively that they had provided supervision to a Master's student in the past 12 months were eligible to complete it. Out of those 250 participants, 207 counselor supervisors completed the survey. Two more individuals were removed based on excessive missing data as described in Chapter IV. The final sample was comprised of 205 participants.

### **Data Analysis**

Factor analysis (FA) refers to statistical techniques used to determine how variables within a set relate to each other (Tabachnick & Fidell, 2014). FA assumes that the variables in a given set are intercorrelated, making it an appropriate strategy for determining the underlying dimensions of a given hypothetical construct such as supervisor self-efficacy (Whitley & Kite, 2013). Developing valid and reliable measures of constructs requires two types of FA: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Whereas EFA can be used to determine patterns in data and develop potential models that explain these patterns, CFA is used to test the hypothesized model. Barnes (2002) used EFA in her original research developing the CSSES. She examined solutions with five, six, and seven factors and determined that the six-factor model was the most interpretable based on theory.

Just as EFA explored possible models underlying counselor supervisor self-efficacy as measured by the CSSES, confirmatory factor analysis (CFA) can be used to confirm the relationships between scale items and latent factors. CFA is thus hypothesis-driven as researchers must have a model already in mind that they are seeking to confirm (Brown, 2015). In this case, this study sought to examine Barnes' six factor model. As part of measure validation, CFA determines whether or not a given factor structure is a good fit for a data set by comparing a hypothesized model against the model produced by the data to determine goodness-of-fit. Simply put: "the better the degree of reproduction, the more accurate the model" (Whitley & Kite, 2013, p. 349-350). It was anticipated and

hypothesized that the six factor model of supervisor self-efficacy would be reproduced with a new sample of supervisors, but EFA was also used to determine if other models would be a better fit for the data. The study used SPSS and AMOS for conducting these analyses.

Barnes (2002) suggested that a CFA be conducted on a new sample of counselor supervisors in order to determine if her six-factor model can be replicated. As of November 2017, no further research has been published on the validity and reliability of the CSSSES, suggesting that this initial EFA conducted by Barnes (2002) was the only empirical source of support for the measure. Watkins (2012) decried this kind of “one and done” research as a noteworthy component of why the study of supervisor development remains in its infancy, arguing that “our research is only as good as our research measures, and in psychotherapy supervisor development, we are left with little upon which to draw” (p. 75). Anecdotal evidence indicated that researchers regarded the CSSSES as valid and reliable. For instance, some unpublished dissertations and published studies have used it to establish convergent and divergent validity of other measures (e.g., Barnes & Moon, 2006; Chung, 2009; Williams, 2010; Barker & Hunsley, 2014). However, use by other researchers did not constitute sufficient evidence. Further research was needed to validate and justify the use of the CSSSES as an important, usable, and empirically supported measure.

Measures that demonstrate validity and reliability help to provide support for the underlying theory on which it is based; CFA in particular is used to confirm that a theorized model has practical evidence. Conducting a CFA on the CSSSES had the potential to produce further meaningful support for a six-factor model of supervisor self-

efficacy which contributes positively to the field on a few different levels. If a measure of supervisor self-efficacy can be used to measure supervisor development, then supervisors can use it to evaluate their own progress throughout their professional lives, from supervisors-in-training to seasoned supervisors. Training programs—whether doctoral-level courses or weekend workshops—can use it as evidence that the trainings are effective.

Conducting a CFA also gave the researcher the opportunity to address some of the limitations of the original study. For example, the self-report nature of the measure by itself invites potential criticism regarding social desirability bias. Replicating the original study with a new sample of counselor supervisors and adding in a social desirability scale at least partially addressed that limitation. The inherent subjectivity of factor analysis means that interpretability is in the eye of the beholder; using EFA with a new sample created an occasion to explore alternative factor structures and evaluate the interpretability of these other solutions.

## **CHAPTER IV**

### **RESULTS**

This study examined the structure of the Counselor Supervisor Self-Efficacy Scale (CSSES) with a new population of counselor supervisors. This chapter will report the results of the analyses conducted on the CSSES. Data cleaning procedures will be presented first, and then the results of the confirmatory factor analyses (CFAs) will be described. Exploratory factor analyses (EFAs) will follow. The analyses were conducted using IBM SPSS Statistics 23 and Amos 23.

#### **Data Cleaning**

Data were cleaned and examined for normality, outliers, and missing data. The data did not meet the assumptions of normality as evidenced by significant scores on the Shapiro-Wilk test for all items, but given the preponderance of high scores, it was already demonstrated that the data were negatively skewed and therefore would not fit a normal distribution. Items were individually reviewed for skewness and kurtosis values in SPSS 23 and AMOS 23. In SPSS 23, all skewness values were less than 3 and all kurtosis values were less than 10. Using Amos 23, no evidence of kurtotic items was found. No univariate or multivariate outliers were found using the Mahalanobis distance for each case.

Based on a 15% guideline, participants missing three or more items from the Impression Management (IM) subscale or seven or more items from the CSSES were eliminated from the sample. A Missing Value Analysis (MVA) was conducted and determined that the remaining data appeared to be primarily Missing At Random (MAR).

In the case of these participants with one to five items missing, available item analysis was used to handle the item-level missing data per Parent's (2013) recommendations.

### **Validity and Reliability**

Because the sources of self-efficacy are experiential and interpersonal (Bandura, 1997), it was not anticipated that stable characteristics like gender or racial/ethnic identity would correlate with supervisor self-efficacy. To test this hypothesis, one-way analysis of variance (ANOVA) was used to examine the relationship between the CSSES total score and gender, and CSSES total score and racial/ethnic identity. No statistically significant main effects were found for gender,  $F(2, 202) = .28, p = .76$ , or racial/ethnic identity,  $F(4, 197) = 2.34, p = .056$ . Therefore the sample was treated as one group, regardless of gender or racial/ethnic identity.

In contrast, it was expected that characteristics like age, years of clinical experience, and years of supervision experience would correlate with supervisor self-efficacy. Weak positive correlations were found between CSSES total score and reported age,  $r = .25, p = .000$ , CSSES total score and years of clinical experience,  $r = .24, p = .001$ , and CSSES total score and years of supervision experience,  $r = .18, p = .01$ . In other words, participants who were older, had more years of clinical experience, and had more years of supervision experience expressed higher levels of confidence in their abilities to function effectively as counselor supervisors. This finding supports the convergent validity of the CSSES.

One of the limitations to Barnes' original study was the role of social desirability in patterns of response. Given that the means of all items in the original study "were generally in the 7-8 range... with most of the respondents reporting somewhat to



complete confidence in perform many of the supervision tasks” it was reasonable to attempt to examine the relationship between socially desirable responding and perceived supervisor self-efficacy using the scores from the BIDR and the CSSES in a new sample (Barnes, 2002, p. 53). Such positive self-assessment across the board suggests the potential influence of self-inflation. For this study, a weak positive correlation was found between the IM total score and the CSSES total score,  $r = .31, p = .000$ . The means for all individual items followed a similar pattern to the original study, ranging from 7.58 to 9.41; standard deviations ranged from .85 (*Listen carefully to concerns presented by a supervisee*) to 1.91 (*Establish a plan to safeguard a supervisee’s due process within supervision*). The subscale scores were also similar to the original study, with means between 8 and 9 and standard deviations between .85 (Supervisory Ethics (SE) subscale) and 1.31 (Group Supervision (GS) subscale). Therefore it appears possible that impression management may influence the results of the CSSES, specifically that supervisors who engage in socially desirable responding may be more likely to report higher confidence in their abilities to complete the tasks associated with counselor supervision.

### **Factor Analysis**

In order to evaluate the factor loadings of the six-factor model with this new sample, maximum likelihood estimation with direct oblimin rotation was conducted using SPSS. Oblique rotation was used as the six factors were previously found to be intercorrelated. Communality estimates greater than 1 were found during dimension reduction, indicating an ultra-Heywood case that signals an improper solution or “an impossible outcome” (Fabrigar et al., 1999; Costello & Osborne, 2005, p.7). The six

factors accounted for 57% of the variance in the data set. Factors loadings ranged from .26 (*Assist a supervisee to deal with termination issues; Understand key research on counselor development and developmental models as they pertain to supervision*) to -.87 (*Facilitate a supervisee's cultural awareness*). Final communalities were also examined and were found to range from .22 (*Present procedures for assessing and reporting an occurrence of child abuse*) to .87 (*Help a supervisee assess the compatibility between his/her in-session behaviors and espoused theoretical orientation*). For both factor loadings and communalities, values greater than .40 are desired in order to indicate that the item and its variance can be appropriately attributed to a factor. Therefore the presence of a Heywood case and communalities less than .40 indicated that the six-factor structure was likely to be an impossible model for the new data set.

To confirm that the six-factor structure of the CSSES was a poor fit for the data, confirmatory factor analysis (CFA) was conducted using Amos 23. Consistent with other researchers, this study used the variance-covariance matrix and maximum likelihood (ML) estimation. The loading factor on one item from each subscale of the six subscales was constrained to equal one. The chi-square statistic is reported, but it should be noted that the sample size may distort this value. Reported fit indices include the incremental fit index (IFI), Tucker-Lewis Index (TLI), the comparative fit index (CFI), and root-mean-square error of approximation (RMSEA). Based on Hu and Bentler's recommendations (1999) for ML estimation, the cutoff standard of .95 and up was used for the IFI, TLI, and CFI to indicate good fit, and .06 and below was used for the RMSEA to indicate good fit.

A first-order CFA model with six factors and 39 items was examined with the items constrained to load on their respective subscales. The data did not appear to demonstrate a good fit for the six-factor structure of the CSSES;  $\chi^2(687) = 1740.71, p = .000, \chi^2/df = 2.53, IFI = .81, TLI = .79, CFI = .81, \text{ and } RMSEA = .09$ . Because of the nonnormal distribution of the data, the Bollen-Stine bootstrap procedure was used. Rather than assuming a normal distribution, bootstrapping assumes that “the population and sample distributions have the same shape”, therefore testing for the “correctness of a hypothesized model without assuming normality” since the point of CFA is to determine the goodness-of-fit of a proposed model to a given dataset (Byrne, 2016, p. 124). All 2000 randomly generated datasets (bootstrap samples) fit the hypothesized model better than the present study’s data set, providing further evidence that the original proposed six-factor model was not a good fit for the data,  $p = .000$ .

Following Barnes’ (2002) example, a second-order CFA with 39 items was also tested in which there were six first-order factors (TT, GS, SE, SS, MC, KLI) and one second-order factor (Supervisor Self-Efficacy). The fit for this model also did not appear adequate:  $\chi^2(696) = 1777.21, p = .000, \chi^2/df = 2.55, IFI = .80, TLI = .79, CFI = .80, \text{ and } RMSEA = .09$ .

Given the lack of good fit of the six-factor model found by Barnes (2002) to the current sample data, exploratory factor analyses (EFAs) were conducted to examine alternative factor structures of the CSSES. EFA was used instead of principal components analysis (PCA) because the goal of this analysis is not data reduction, but “a parsimonious representation of the associations among measured variables” (Fabrigar, Wegener, MacCallum, & Strahan, 1999, p. 275). As the factors were still anticipated to

be intercorrelated, maximum likelihood extraction with oblique rotation was used to conduct an initial EFA to determine the number of factors to retain. This initial EFA utilized all 39 items from Barnes' model. The Kaiser-Meyer-Olkin measure of sampling adequacy value was .93, indicating that there was enough common variance in the variables to proceed with the EFA. Bartlett's test of sphericity indicated that the variables were intercorrelated,  $\chi^2(741) = 5737.87, p = .000$ . Review of the final communalities indicated that values ranged from .27 (*Assist a supervisee to deal with termination issues*) to .84 (*Employ interventions appropriate to a supervisee's learning needs*).

Based on the Kaiser criterion, eight factors with eigenvalues greater than 1.0 were retained. This eight-factor model explained 62% of the variance in the data set, a slight improvement over the six-factor model (57%). Review of the scree plot supported an eight-factor model as well. Using O'Connor's (2000) syntax, parallel analysis was conducted in SPSS to determine how many factors to retain. Common factor analysis with raw data permutation was used, and 1000 parallel sets were computed to find the 95<sup>th</sup> percentile values for the eigenvalues. Factors for which the raw data eigenvalues were greater than their corresponding 95<sup>th</sup> percentile values were retained as those factors are unlikely to be due to chance, providing further support for an eight-factor model underlying the CSSES. Interestingly, when Barnes originally developed the CSSES, potential items were derived from the eight supervision task categories proposed by the *Curriculum Guide for Training Counselor Supervisors* (Borders, Bernard, Dye, Fong, Henderson, & Nance, 1991).

However, the choice of how many factors to retain remains a subjective decision and may ultimately be based on the interpretability of a solution. The rotation failed to

converge after 25 iterations, so the number of permitted iterations was increased to 50. The rotation converged in 29 iterations. Review of the pattern matrix for the eight-factor solution revealed six problematic items. Four items had no loadings greater than .32 (*Assist a supervisee to deal with termination issues; Understand key research on counselor development and developmental models as they pertain to supervision; Model strategies that may enhance a supervisee's case conceptualization skills; Recognize possible multiple relationship issues that may arise within supervision*) and two items had loadings greater than .32 on two different factors (*Demonstrate knowledge of various counseling theories, systems, and their related methods; Address parallel processes as they arise within the supervisory relationship*). The content of these problematic items was worth noting as an example of how interpretability was considered and applied in this case. Removing these items could have potentially improved the statistical support for the CSSES, but removing items that include knowledge of counseling theories and counselor development from a scale that purports to measure counseling supervision competencies seemed counterproductive.

The only factor that was replicated in this eight-factor model from Barnes' original six factor model was Group Supervision; the same five items from the six-factor model loaded on the same factor in this eight-factor model. Three of the eight factors only had two items that had factor loadings greater than .32 and only on that single factor. Factors with fewer than three items are problematic, so this eight-factor structure, although supported by the parallel analysis and the scree test, did not appear interpretable.

Nonetheless, sometimes removing the problematic items can resolve the issues with the structure, so based on Costello and Osborne's (2005) recommendations, the six problematic items were removed and the analysis was rerun with the 33 remaining items. This second EFA with maximum likelihood and direct oblimin rotation indicated adequate sampling ( $KMO=.92$ ) and Bartlett's test of sphericity indicated that the variables were intercorrelated,  $\chi^2(528) = 4756.17, p = .000$ . Seven factors were retained that explained 62% of the variance in the data set. Final communalities ranged from .33 (*Present procedures for assessing and reporting an occurrence of child abuse*) to .83 (*Employ interventions appropriate to a supervisee's learning needs*). Review of the pattern matrix again revealed problematic items: one item that did not have any loadings above .32 (*Solicit critical feedback on my work as a supervisor from either my peers or an evaluator*) and two items that had loadings greater than .32 on two factors (*Articulate to a supervisee the ethical standards regarding client welfare; Assist a supervisee to develop a strategy to address client resistance*). Group Supervision again appeared as a factor, consisting of the same five items. However, two of the seven factors only had two items each, and as such, were insufficiently defensible as stable factors. The seven-factor model therefore did not appear to be viable either.

While overidentification of factors is preferable in factor analysis, it is sometimes appropriate to test models with fewer factors than anticipated. Another EFA was conducted that specified extraction of five factors. As expected, sampling adequacy was verified ( $KMO = .93$ ) and variable intercorrelation was supported ( $\chi^2(741) = 5737.87, p = .000$ ). Review of final communalities again revealed wide variation among the items, ranging from .21 (*Present procedures for assessing and reporting an occurrence of child*

*abuse*) to .81 (*Offer adequate support to all members of a group during group supervision*). The pattern matrix did not reveal meaningful factor loadings as the majority of items loaded strongly on one factor and several items crossloaded on multiple factors. Thus the five-factor model was not stable or interpretable.

None of the tested factor structures appeared to adequately explain the variance in the data set. Costello and Osborne (2005) specified that “item loadings above .30, no or few item crossloadings,” and “no factors with fewer than three items” indicate a model that represents “the best fit to the data” (p. 3). Five-, six-, seven-, and eight-factor models all failed to meet these criteria.

A final higher order factor analysis was conducted to test Barnes’ other hypothesis that the CSSES has one underlying factor that represents overall counselor supervisor self-efficacy as opposed to having multiple distinct factors. The extraction method was maximum likelihood, and the six factor subscales were used as the variables. The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the sample had enough variance to proceed with the EFA, and Bartlett’s test of sphericity indicated that the variables were interrelated ( $\chi^2(15) = 724.05, p = .000$ ). The single factor accounted for 60% of the variance in the data set. Even so, the variable Knowledge of Legal Issues did not meet the .40 threshold desired for communalities. This factor also only had three items, the bare minimum for a factor to be considered stable. Nonetheless, this final model of one factor – Supervisor Self-Efficacy – appeared the most defensible of the tested models.

**Table 1. Factor Loadings and Final Communalities from Second Order Factor****Analysis**

	Factor Loadings	$h^2$
Theories & Techniques	.89	.80
Group Supervision	.71	.51
Supervisory Ethics	.89	.79
Self in Supervision	.81	.66
Multicultural Competence	.72	.51
Knowledge of Legal Issues	.59	.35

**Summary**

This study examined the six-factor structure of the Counselor Supervisor Self-Efficacy Scale. Correlational analyses suggested a statistically significant relationship between impression management and supervisor self-efficacy, but age, counseling experience, and supervision experience were also found to correlate positively with supervisor self-efficacy. Confirmatory factor analysis was used to assess the goodness-of-fit of the six-factor structure put forth by Barnes (2002) with the data from a new set of counselor supervisors. The six-factor structure was not found to be a good fit for the data, but by correlating the overall scale with age and experience, it demonstrated some degree of convergent validity. Exploratory factor analyses were conducted to determine if an alternative factor structure would be more appropriate, but the tested (five-, six-, seven-, and eight-factor) models failed to demonstrate structural validity and interpretability. A solitary underlying factor, Supervisor Self-Efficacy, may represent the most interpretable structure of the CSSES. A complete discussion of these findings will be presented in Chapter V.



## **CHAPTER V**

### **DISCUSSION**

This study sought to examine the six-factor structure of the Counselor Supervisor Self-Efficacy Scale (CSSES; Barnes, 2002) with a new sample of counselor supervisors. This chapter will review and expand upon the results of the study. Limitations, implications for counseling, and recommendations for future research will also be discussed.

#### **Findings**

Watkins (2012) identified the lack of meaningful measures as a “preeminent obstacle” to our understanding of supervisor development (p. 75), suggesting the importance to the field of developing new measures or at least conducting further psychometric analyses on the measures currently in use. Other researchers may have regarded the CSSES as reliable and valid based on the initial study, but without further psychometric evaluation, those properties were relatively unsupported, drawing into question any conclusions derived from the results of such an instrument. Despite the CSSES being used in previous publications, there has been no published evidence of psychometric analysis since its development. Therefore this study sought to examine the factor structure of the CSSES using a sample of counselor supervisors associated with CACREP-accredited programs. While some properties of the CSSES were validated by the present study, others were unable to be replicated in a new sample.

#### **Validity and Reliability**

This study found some support for the convergent validity of the CSSES. As anticipated, stable aspects of identity like gender and racial/ethnic identity were not found

to influence supervisor self-efficacy. Conversely, age, years of clinical experience, and years of supervision experience showed small positive correlations with the CSSES total score. Given that Bandura's (1997) conceptualization of self-efficacy bases the development of task-specific self-efficacy on experience, this finding was theoretically consistent and provided some evidence of convergent validity for the CSSES.

Supervisors who have been in the field for longer likely have had more exposure to the sources of self-efficacy – past experience, vicarious experience, verbal feedback, and physiological arousal – and have been able to grow both in terms of their supervision competency and in terms of their ability to recognize it.

The internal reliability of the CSSES appears high, but the interpretation remains in question. Cronbach's alpha for the CSSES in this study was .96, very similar to Barnes' (2002) original finding of .97, Chung's (2009) finding of .98, and Williams' (2010) finding of .97. While these statistics may have been interpreted as representing very high internal consistency for the CSSES, they also suggested a high level of redundancy in the scale. Streiner (2003) provided some guidelines for interpreting Cronbach's alpha with caution that are particularly applicable in the case of the CSSES. Streiner suggested that "scales over 20 items or so will have acceptable values of  $\alpha$ ", and thus "high values do not guarantee internal consistency or unidimensionality" (p. 103). In fact, Streiner posited that values of  $\alpha$  above .90 may indicate redundancy more than reliability. The CSSES has 39 items, almost double the number of items that Streiner posited will inherently demonstrate reliability, and all values of  $\alpha$  reported in these studies were considerably higher than .90. Thus, in this case, the studies that documented

a Cronbach's alpha for the CSSES all may have provided evidence that contradicted the utility of the instrument rather than verified it.

The present study also questioned the discriminant validity of the CSSES. Other researchers conducting factor analyses on existing instruments (cf. Kashubeck-West, Coker, Awad, Stinson, Bledman, & Mintz, 2013) have used social desirability scales in conjunction with the measures in question to assess discriminant validity, the underlying presumption being that scales intended to measure constructs other than social desirability would not correlate with social desirability. The CSSES was purported to measure a supervisor's confidence in the ability to perform the tasks associated with supervision. In a society that prizes superlatives, it is not uncommon for individuals to present themselves in a way that reflects higher confidence than they may actually experience.

This study used the Impression Management (IM) subscale of the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1991) to represent potential self-inflation and examined the correlation between the IM total score and the CSSES total score. A weak positive correlation was found, indicating a relationship between socially desirable responding and higher reported confidence in supervision tasks. Therefore it may be possible that the CSSES captures more than a supervisor's self-efficacy; it may also reflect the desire to present oneself as confident and capable. This inclination may prove adaptive in a competitive job market, but it may not be helpful in fostering self-awareness and professional development. If the CSSES captures social desirability as well as supervisor self-efficacy, it may not be an appropriate instrument to document supervisor development because the self-inflation obscures how the supervisors actually

see themselves and their abilities. In this way, the internal validity of the CSSES was threatened as well.

### **Factor Analysis**

Confirmatory factor analysis (CFA) was used to determine the goodness-of-fit of the six-factor model with the current data set. Given that the six factor model was not confirmed by CFA, the structural validity and external validity of the scale were also debatable. Based on the incremental fit index (IFI), Tucker-Lewis Index (TLI), the comparative fit index (CFI), and root-mean-square error of approximation (RMSEA), the six-factor structure of the CSSES presented by Barnes (2002) was not supported with a new sample of counselor supervisors. The results of the CFAs suggested that the six factor model of the CSSES was a very poor fit for the data collected in the present study and the covariances from the original study were unable to be replicated. The higher order model with one underlying factor of supervisor self-efficacy was also shown to be inadequate, drawing further into question the six-factor structure of the CSSES. In order to interpret the results of a measure, it must be clear what the measure actually measures. The difficulty with validating the structure, along with the threats to validity described above, suggested that the CSSES may not be interpretable in its current form.

Exploratory factor analysis (EFA) was then used to determine if other factor structures better fit the data. Posthoc exploratory analyses should always be interpreted with caution, but they can provide evidence of viable alternatives to research in the future. Multiple strategies were used to determine the number of factors to extract (eigenvalues greater than 1, scree test, and parallel analysis) and all indicated that eight factors could be extracted. However, just because eight factors could be extracted did not

mean that eight factors should necessarily have been extracted. The interpretability of the eight-factor model was limited due to poor factor loadings and weakly supported factors. Two factors had two items only, and factors with fewer than three items are regarded as unstable. Furthermore, factors should have multiple items that load strongly and appear theoretically consistent. Review of the proposed factors violated these principles as well.

While removing items could have improved model fit, removing the items that did not load adequately threatened the content validity of the CSSSES. Following convention and dropping items that did not load above .32 on any factor meant that items intended to measure knowledge of counseling theories and counselor development were no longer included in the scale. These areas of competency are fundamental to the practice of supervision as conceptualized by CACREP (e.g. 6.B.2.f) and the Supervision Best Practices Guidelines (e.g., 11.a.i, Borders et al., 2014). Removing those items also did not produce an interpretable model. The next iteration, a seven-factor model, still had problematic items that did not load adequately, and continuing with removing those items would have removed important competencies related to explaining ethics, soliciting feedback, and helping supervisees with client resistance. Factor analysis seeks to “retain enough factors for an adequate fit, but not so many that parsimony is lost” (Tabachnick & Fidell, 2014, p. 697). Dropping these items limited the extent to which the CSSSES was parsimonious, interpretable, and ultimately meaningful.

Whenever an analysis produces an unworkable factor structure, several elements could be responsible for that result. Inadequate sample size can limit the interpretability of the findings, as can faulty item construction and improper scale development. While this study had an adequate sample according to some published guidelines, it may not

have been robust enough. Method issues like participants having trouble accessing and understanding the survey could also have interfered. The underlying concept itself may have been problematic. Given that there is considerable support in the literature for the concept of self-efficacy, it is likely not self-efficacy itself that was being challenged here, but the conceptualization of supervision-specific self-efficacy as measured by the CSSSES. Understanding supervisor self-efficacy forms the theoretical basis for the CSSSES, and the inability to identify a cohesive factor structure indicated that the scope is too narrow or perhaps incomplete. Based on the results of this study, the CSSSES cannot be regarded as valid or reliable with its published six-factor structure and therefore all studies that have used or referenced it should question the interpretability of their results.

### **Limitations**

The sample presented multiple limitations to this study. Supervision occurs in places other than counselor education programs (i.e. pre-licensure supervision), so the fact that this sample was derived only from CACREP-accredited programs may limit the generalizability of the results to counselor supervisors who are providing supervision within accredited programs. Validity may also have been threatened by the voluntary nature of the study. Because participants were recruited through their CACREP program contacts and CESNET-L, there was no way to identify and track who chose to participate versus who chose not to participate. Although some CACREP program contacts responded to the author that they forwarded the survey invitation, not all did, so it is also difficult to determine how many eligible counselor supervisors even received the invitation. Response rate also could not be calculated for this reason. Therefore it was unclear what differentiated the identity of the counselor supervisors who responded to the

survey from those who did not. The sample also overwhelmingly represented White cisgender female counselors, drawing into question the generalizability of these findings to other intersections of cultural identities. Furthermore, even though the sample size was adequate according to some published guidelines for CFA, other researchers (e.g. Costello & Osborne, 2005) suggest much larger sample sizes for a persuasive CFA and replicable EFA.

Other limitations stem from the methodology. Results of a factor analysis are based on the researcher's interpretation of the data, meaning that there may be inherent bias in the use of any FA. Additionally there are numerous published guidelines for interpretation at each step of dimension reduction, and sometimes these guidelines conflict. It becomes a judgment call for the researcher to determine which guideline applies more in the present situation. No validity checks (e.g. "Please select 7 for this question") were included in the survey, so it is possible that participants did not completely read each item before answering. The use of the BIDR (Paulhus, 1991) was to address social desirability and establish discriminant validity, but social desirability may nonetheless lead participants to respond in a way that reflects higher self-efficacy than they actually experience. In fact, a statistically significant correlation was found between impression management and supervisor self-efficacy, suggesting a relationship between the desire to present oneself in a positive light and one's perceived confidence with supervision.

The original sample's mean total score was 7.57 for a scale from 0 to 9; this study's mean total score was 8.54 on a scale from 1 to 10. In both cases, the relatively high scores indicate considerable confidence in supervisory abilities. It was unclear if and

how this confidence translates into actual supervision and if this confidence was based on personal opinion or observable behavior. No causal relationship can be inferred either, so it cannot be determined if the drive to promote oneself derives from confidence as a supervisor or if that inclination to promote oneself as better leads to higher reported levels of confidence.

As such, the CSSES provided no measure of the supervisor's competency or effectiveness as a supervisor. This study only purported to assess a measure of supervisor self-efficacy which has been theoretically and anecdotally linked to counselor supervisor development. To date there has been no link between CSSES scores and supervision outcome, and the study did not address whether the CSSES factors associate with successful supervision.

Supervisors may also feel differentially efficacious, depending on their current supervisee. Lent and colleagues (2006) observed this phenomenon with client-specific counseling self-efficacy beliefs in novice counselors. Given that supervision is also based on an interpersonal relationship, counselor supervisors may experience different levels of supervisor self-efficacy with different supervisees. Participants were instructed to consider their ability to perform the tasks of supervision at the moment when they took the survey, but they were not instructed to think of a particular supervisee or scenario. If the participants were thinking about a certain experience while taking the survey, the supervisors who reflected on a supervisee with whom they had a positive working relationship may have rated themselves more highly than if they had been asked to consider a supervisee that they found challenging. Given the relationship between socially desirable responding and CSSES score, supervisors may also have been more



likely to think about those supervisees with whom they felt efficacious in order to support their high levels of reported confidence . Supervisor perceptions of the supervisee and/or the supervisory relationship may also influence supervisor self-efficacy, but those variables were outside the scope of this study.

### **Implications for the Field of Counseling**

This study did not find empirical support for the six-factor structure of the CSSES. Particular items could still be selected to serve as measurable benchmarks for supervisor development that are consistent with CACREP requirements for doctoral students, but the scale as a whole is uninterpretable in a meaningful and parsimonious way. One exception may be the Group Supervision factor as it was present in six-, seven-, and eight-factor models, but GS represents only five out of the 39 items and one out of the six factors. It is not enough to justify the use of the whole instrument as it currently exists. Because scores on the CSSES correlated with counseling and supervision experience, parts of the CSSES may still be an effective tool for measuring some aspect of experiential supervisor development, but it should not be regarded as a valid and reliable measure for capturing counselor supervisor self-efficacy. The CSSES itself should be further reviewed, and all published findings from studies that used the CSSES should be questioned. If the psychometric properties of an instrument cannot be verified, the results cannot be interpreted in any meaningful way.

### **Recommendations for Future Research**

The results of this study strongly indicate a need to return to the concept of counselor supervisor self-efficacy as measured by the CSSES. Qualitative methodologies may be appropriate in order to capture how supervisors conceptualize their own self-

efficacy. The supervisor perspectives may then be compared with published competencies or guidelines for documenting supervisor development. These studies may lead to a revision of the CSSES or possibly an entirely new instrument. In either case, follow-up factor analyses should be conducted to examine the revised CSSES or new instrument in order to avoid practitioner use of an invalid or unreliable measure.

Appropriate future research on the CSSES (or a revised/new instrument) should include measures of supervisor ability and supervision outcomes to connect the supervisor's perception to observable behaviors. Multiple sources of data could also be useful in pursuing this type of research. For instance, assessing the supervisee's beliefs about the supervisor's ability to effectively execute the tasks associated with supervision could provide a valuable point of comparison to the supervisor's self-assessment. Supervisee outcomes and client outcomes could also be relevant here, using other scales like the Supervision Outcome Scale (Tsong & Goodyear, 2014) or the Outcome Questionnaire (OQ-45). Owen, Wampold, Kopta, Rousmaniere, and Miller (2016) suggested that the use of client outcomes in evaluating training outcomes is appropriate, given that they are frequently used to operationalize psychotherapy outcomes in other counseling research. Johnson (2009) developed an unpublished alternative to the CSSES, the Psychotherapy Supervisor Self-Efficacy Scale (PSS-ES), so comparing the two instruments might also provide more clarity regarding the nature of supervisor self-efficacy. Forms of assessment other than self-report survey measures would also be useful here in expanding the scope of how supervision is measured and understood.

It might be especially relevant to look at individuals who are developing counselor self-efficacy and supervisor self-efficacy simultaneously. While some doctoral

programs require clinical experience or licensure prior to admission, not all do, so it is very possible for a doctoral student learning to be a supervisor to have limited counseling experience. In that instance, the supervisor would likely be increasing in counseling self-efficacy as well as supervision self-efficacy. A Master's level clinician could be assigned to supervise clinicians-in-training and therefore engage in a similar process of learning to supervise while continuing to grow as a counselor.

Even though the CSSES purports to measure supervisor self-efficacy—an individual construct—a relational lens may also be appropriate for future inquiry. The nature of the relationship between the supervisor and the supervisee, typically referred to in the literature as the supervisory working alliance, may influence a supervisor's sense of self-efficacy. In fact, three out of four of Bandura's (1997) sources of self-efficacy (past experiences, vicarious experiences, verbal persuasion, and physiological arousal) in this case would necessarily involve the supervisee. Past and vicarious experiences that would enhance a supervisor's self-efficacy involve experiences within the context of the supervisory relationship, and verbal feedback also implicitly requires another person's perspective. Therefore an intriguing way to expand this research would be to look at the factors pertaining to the relationship between supervisor and supervisee that influence the counselor supervisor's supervision self-efficacy. These factors could be individual (e.g. supervisor's perception of the supervisee or vice versa) or relational (e.g. the strength of the working alliance). Several unpublished dissertations have looked at the supervisory working alliance and counselor self-efficacy (cf. Humeidan, 2002; Mirgon, 2007; Akkurt, 2017; Williams, 2017; Logan, 2015; McCarthy, 2013), so it may be appropriate to mirror that focus from the supervisor's perspective. Factors external to the supervisory

relationship, such as the nature of the supervisee's clients, could also be examined. For instance, does supervisor self-efficacy fluctuate based on whether a supervisee presents with clients actively in crisis?

While Barnes (2002) established test-retest reliability of the CSSES with the original study, no further research has been published on the use of this instrument over time. The CSSES was developed within Watkins' (1993) Supervisor Complexity Model, a model that sees supervisor growth as a developmental process characterized by the resolution of various crises. An important extension of this study would be to use the CSSES with a diverse group of supervisors over a longer stretch of time – five or ten years even. For example, if this scale was used with a group of doctoral students from the beginning of their work in a CACREP-accredited program, the CSSES could document their self-efficacy prior to any CACREP-program doctoral training, during supervision coursework, during supervision internship, and upon graduation. These four time points could provide one form of evidence for supervisor growth. It would be even more meaningful to then ask these supervisors to retake the CSSES every year or every couple years to track ongoing professional growth and development. A mixed methods study could be useful here as well to better flesh out the sources of that increasing supervisor self-efficacy. Shorter timeframes could be useful to study too. The CSSES could be used as a pre-test/post-test measure for any sort of supervision training to document the effectiveness of the training in increasing a supervisor's self-efficacy.

### **Summary**

This study continues Barnes' (2002) work of promoting the CSSES as a resource for measuring supervisor development. Its use in the field and its place in *Fundamentals*

*of Clinical Supervision* mean that it is likely to continue to be used in its current iteration. While the six-factor structure was not supported by the current study, limited evidence was generated that supports its utility as a professional development tracker – at least in the role of counselor supervisor – specifically related to supervisor age and experience.

However, in order to improve data quality, trustworthiness, and utility, reformulation of the scale may be appropriate. Factor analyses demonstrated that a multiple factor model did not adequately describe the variation in the data, but a single factor model may be both parsimonious and meaningful. Researchers should continue to explore how this scale can be used in tandem with other measures of supervisor development to document a supervisor's professional growth. Further research on the CSSES could impact both current and future supervisors by validating it as an measure of supervisory confidence associated with outcomes. The fundamental goal of research on supervision is to validate what works and improve what can be improved, and the influence of good supervision goes beyond a weekly meeting. By continuing our study of supervision, we proactively seek positive outcomes for supervisors, counselors, and clients.

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## Appendix A: Demographic Questionnaire

1. How do you identify your gender?
  - a. Male
  - b. Female
  - c. Transgender
  - d. Gender Queer
  - e. Gender Non-Conforming
  - f. Other
  
2. How do you identify your racial/ethnic background?
  - a. American Indian or Alaska Native
  - b. Asian
  - c. Black or African American
  - d. Hispanic or Latino
  - e. Multiracial
  - f. Native Hawaiian or Other Pacific Islander
  - g. White
  
3. What is your age?
  
4. What is your preferred language?
  - a. English
  - b. Spanish
  - c. Other
  
5. In which of the following geographic regions do you live?
  - a. Northeast (CT, ME, MA, NH, NJ, NY, PA, RI, VT)
  - b. Midwest (IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI)
  - c. South (AL, AK, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV)
  - d. West (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY)
  
6. What is the highest level of education that you have completed?
  - a. Bachelor's degree (e.g. BA, BS)
  - b. Master's degree (e.g. MA, MSW)
  - c. Doctorate (e.g. PhD, PsyD, EdD, MD)
  - d. Other
  
7. How do you classify your professional identity?
  - a. Counselor
  - b. Marriage and Family Therapist
  - c. Psychiatrist
  - d. Psychiatric Nurse
  - e. Psychologist

- f. Social Worker
- g. Other

8. How many years of clinical experience do you have in your field? Please consider time spent delivering individual or group services to clients as a member of your identified profession.

- a. Less than 5 years
- b. 5 to 10 years
- c. 11 to 15 years
- d. 16 to 20 years
- e. 21 to 25 years
- f. More than 25 years

9. Are you currently licensed by your state to practice in your identified field?

- a. Yes
- b. No

For the remaining questions, supervision is defined as “an intervention provided by a more senior member of a profession to a more junior colleague or colleagues who typically (but not always) are members of that same profession. This relationship is evaluative and hierarchical, extends over time, and has the simultaneous purposes of enhancing the professional functioning of the more junior person(s); monitoring the quality of professional services offered to the clients that she, he, or they see; and serving as a gatekeeper for the particular profession the supervisee seeks to enter” (Bernard & Goodyear, 2014, p. 9).

10. In the past twelve months, have you provided supervision for at least one Master’s-level student enrolled in a counseling program that has been accredited by the Council for Accreditation of Counseling & Related Educational Programs (CACREP)?

- a. Yes
- b. No

11. Are you currently providing or have you ever provided individual supervision? Individual supervision takes place with one supervisor and one supervisee.

- a. Yes
- b. No

12. Are you currently providing or have you ever provided triadic supervision? Triadic supervision takes place with one supervisor and two supervisees.

- a. Yes
- b. No

13. Are you currently providing or have you ever provided group supervision? Group supervision takes place with at least one supervisor and more than two supervisees.

- a. Yes
- b. No

14. What is your role in the CACREP-accredited program in which you have provided or are providing supervision for Master's-level students?
- Professor
  - Associate Professor
  - Assistant Professor
  - Visiting Professor
  - Adjunct Professor
  - Doctoral student
  - Site Supervisor
  - Other
15. How many years have you been providing supervision?
- Less than 5 years
  - 5 to 10 years
  - 11 to 15 years
  - 16 to 20 years
  - 21 to 25 years
  - More than 25 years
16. Are you currently approved in your state to provide supervision for licensure?
- Yes
  - No
17. Do you currently hold the Approved Clinical Supervisor (ACS) credential from the National Board for Certified Counselors (NBCC)?
- Yes
  - No
18. Which of the following types of supervision training have you experienced or attended?
- Master's-level course
  - Doctoral-level course
  - In-person workshop or training
  - Online webinar or training
  - Self-study (i.e. books)
  - None – I have not had any supervision training.
  - Other



## Appendix B: Balanced Inventory of Desirable Responding (BIDR)

## Impression Management subscale

Please rate the following items on a scale from 1 (NOT TRUE) to 7 (VERY TRUE).

1. I sometimes tell lies if I have to.
2. I never cover up my mistakes.
3. There have been occasions when I have taken advantage of someone.
4. I never swear.
5. I sometimes try to get even rather than forgive and forget.
6. I always obey laws, even if I'm unlikely to get caught.
7. I have said something bad about a friend behind his/her back.
8. When I hear people talking privately, I avoid listening.
9. I have received too much change from a salesperson without telling him or her.
10. I always declare everything at customs.
11. When I was young I sometimes stole things.
12. I have never dropped litter on the street.
13. I sometimes drive faster than the speed limit.
14. I never read sexy books or magazines.
15. I have done things that I don't tell other people about.
16. I never take things that don't belong to me.
17. I have taken sick-leave from work or school even though I wasn't really sick.
18. I have never damaged a library book or store merchandise without reporting it.
19. I have some pretty awful habits.
20. I don't gossip about other people's business.

## Appendix C: Counselor Supervisor Self-Efficacy Scale (CSSES)

Directions: Each of the items listed below is related to a task performed in counselor supervision. Please rate your level of confidence for completing each task right now on a scale from 1 (Not confident at all) to 10 (Completely confident). Please answer every question, regardless of whether you have actually performed the corresponding activity.

1. Select supervision interventions congruent with the model/theory being used
2. Articulate to a supervisee the ethical standards regarding client welfare
3. Present procedures for assessing and reporting an occurrence of child abuse
4. Describe the strengths and limitations of the various supervision modalities (e.g., self-report, live observation, audiotape review)
5. Assist a supervisee to deal with termination issues
6. Assist a supervisee to include relevant cultural variables in case conceptualization
7. Model effective decision making when faced with ethical and legal dilemmas
8. Demonstrate knowledge of various counseling theories, systems, and their related methods
9. Structure supervision around a supervisee's learning goals
10. Assist a supervisee to develop working hypotheses about her/his clients
11. Solicit critical feedback on my work as a supervisor from either my peers or an evaluator
12. Understand key research on counselor development and developmental models as they pertain to supervision
13. Assist a supervisee to develop a strategy to address client resistance
14. Encourage a supervisee to share his/her negative feelings about supervision without becoming defensive
15. Listen carefully to concerns presented by a supervisee
16. Identify key ethical and legal issues surrounding client confidentiality
17. Address a supervisee's racial or ethnic identity as a counseling process variable
18. Understand appropriate supervisor functions of teacher, counselor, and consultant
19. Employ interventions appropriate to a supervisee's learning needs
20. Describe the legal liabilities involved in counseling minors
21. Establish a plan to safeguard a supervisee's due process within supervision
22. Help a supervisee assess the compatibility between his/her in-session behaviors and espoused theoretical orientation
23. Model strategies that may enhance a supervisee's case conceptualization skills
24. Conduct supervision in strict accordance to the ethical standards governing my profession
25. Facilitate a supervisee's cultural awareness
26. Appear competent in interactions with a supervisee
27. Receive critical feedback from a supervisee on my performance as a supervisor without becoming defensive or angry
28. State a rationale for choosing a supervision intervention based on theory, client/counselor dynamics, and/or setting
29. Recognize possible multiple relationship issues that may arise within supervision
30. Demonstrate respect for a supervisee who has a different worldview from myself

31. Assess a supervisee's multicultural competencies
32. Address parallel processes as they arise within the supervisory relationship
33. Communicate due process procedures to a supervisee if he/she is unhappy with the supervision I have provided
34. Demonstrate respect for various learning styles and personal characteristics within supervision
35. Facilitate case discussion during group supervision
36. Balance the needs of the group with the individual needs of each supervisee during group supervision
37. Model appropriate responses to affect presented in group supervision
38. Offer adequate support to all members of a group during group supervision
39. Integrate an understanding of supervisees' learning styles into the group supervision process

## Appendix D: CACREP Contact Invitation

Greetings!

My name is Brittany Murphy and I am a doctoral candidate in the Department of Counseling and Family Therapy at the University of Missouri – St. Louis. I am in the process of collecting data for my dissertation under the advisement of Dr. R. Rocco Cottone. The purpose of my research is to examine the six-factor structure of the Counselor Supervisor Self-Efficacy Scale.

I am contacting you because I am targeting counselor supervisors associated with CACREP-accredited programs for my study. You are the listed Program Contact for your program according to CACREP, so I would appreciate it if you would forward the following information to any and all individuals who have provided supervision for your Master's students in the past twelve (12) months. Full-time faculty, adjunct faculty, doctoral students, and site supervisors associated with your program are all eligible for participation if they meet the following criteria.

Supervisors are eligible to participate in this study if they are at least 18 years old and if they have provided supervision for at least one (1) Master's-level student enrolled in your program within the past twelve (12) months.

The survey is anonymous and takes about 10-15 minutes to complete. For those interested in participating in this study, they will click on the following link (<https://umsl.az1.qualtrics.com/MurphyDissertation>) which will take them to the consent form and survey. When they have finished the survey, they will have the option to enter a raffle for one of six (6) \$50 Amazon gift cards.

This research has been approved by the Institutional Review Board for protection of human subjects at the University of Missouri-St. Louis #1013153-1.

Please feel free to forward this email announcement to eligible friends, colleagues, and other relevant listservs. Should you have any questions, please contact me ([bng359@mail.umsl.edu](mailto:bng359@mail.umsl.edu)) or my doctoral advisor, Dr. R. Rocco Cottone ([cottone@umsl.edu](mailto:cottone@umsl.edu)).

Thank you in advance for your help with my dissertation study! I appreciate your willingness to take the time to forward the following invitation. Because of you, I can directly contact the eligible individuals. Thank you.

Sincerely,

Brittany (Gilje) Murphy, MA, LPC, NCC  
Doctoral Candidate, Department of Counseling & Family Therapy  
University of Missouri – St. Louis  
[Bng359@mail.umsl.edu](mailto:Bng359@mail.umsl.edu)  
314.266.9854

## Appendix E: Electronic Invitation

Greetings!

My name is Brittany Murphy and I am a doctoral candidate in the Department of Counseling and Family Therapy at the University of Missouri – St. Louis. I am in the process of collecting data for my dissertation under the advisement of Dr. R. Rocco Cottone.

I would like to invite you to participate in my study which is examining factors associated with supervisor self-efficacy. The purpose of my research is to examine the six-factor structure of the Counselor Supervisor Self-Efficacy Scale.

You are eligible to participate in this study if you are at least 18 years old and if you have provided supervision for at least one (1) Master's-level student enrolled in a counseling program that has been accredited by the Council for Accreditation of Counseling & Related Educational Programs (CACREP) within the past twelve (12) months. If you provide supervision to Master's students who are not in a CACREP-accredited program, you are not eligible to participate in this study.

The survey is anonymous and takes about 10-15 minutes to complete. For those interested in participating in this study, please click on the following link (<https://umsl.az1.qualtrics.com/MurphyDissertation>) which will take you to the consent form and survey. When you have finished the survey, you will have the option to enter a raffle for one of six (6) \$50 Amazon gift cards.

This research has been approved by the Institutional Review Board for protection of human subjects at the University of Missouri-St. Louis #1013153-1.

Please feel free to forward this email announcement to eligible friends, colleagues, and other relevant listservs. Should you have any questions, please contact me ([bng359@mail.umsl.edu](mailto:bng359@mail.umsl.edu)) or my doctoral advisor, Dr. R. Rocco Cottone ([cottone@umsl.edu](mailto:cottone@umsl.edu)).

Thank you in advance for your help with this project! By participating, you are contributing to our knowledge of counselor supervisors. I appreciate your willingness to use your time to help our profession better understand the crucial role of supervision.

Sincerely,

Brittany Murphy  
Doctoral Candidate, Department of Counseling & Family Therapy  
University of Missouri – St. Louis  
[Bng359@mail.umsl.edu](mailto:Bng359@mail.umsl.edu)  
314.266.9854

Appendix F: Informed Consent



Department of Counseling & Family Therapy

One University Blvd.
St. Louis, Missouri 63121-4499
Telephone: 314-516-5782
E-mail: bng359@umsl.edu

Informed Consent for Participation in Research Activities
Examining Factors Associated with Supervisor Self-Efficacy

Participant \_\_\_\_\_ HSC Approval Number
Principal Investigator Brittany Murphy, MA \_\_\_\_\_ PI's Phone Number 314-266-9854

- 1. You are invited to participate in a research study conducted by Brittany Murphy, MA and R. Rocco Cottone, PhD. The purpose of this research is to examine the six-factor structure of the Counselor Supervisor Self-Efficacy Scale.
2. a) Your participation will involve
- Completing an electronic questionnaire that includes
- A demographic survey
- Surveys pertaining to your experiences as a counselor and as a supervisor
You will be asked to read statements and identify the extent to which you agree or feel that the statement accurately describes your experience.
Approximately 600 counselor supervisors may be involved in this research.
b) The amount of time involved in your participation will be approximately ten to fifteen (10-15) minutes. If you complete the questionnaire, you will be eligible to enter a raffle for one of six (6) \$50 Amazon gift cards.
3. There are no anticipated risks associated with this research.
4. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge about counselor supervisors.
5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any

- questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.
6. By agreeing to participate, you understand and agree that your data may be shared with other researchers and educators in the form of presentations and/or publications. In all cases, your identity will not be revealed. In rare instances, a researcher's study must undergo an audit or program evaluation by an oversight agency (such as the Office for Human Research Protection). That agency would be required to maintain the confidentiality of your data. In addition, all data will be stored on a password-protected computer and/or in a locked office.
  7. If you have any questions or concerns regarding this study, or if any problems arise, you may contact the Investigator, Brittany Murphy, MA (314-266-9854, bng359@mail.umsl.edu) or the Faculty Advisor, R. Rocco Cottone, PhD (314-516-6094). You may also ask questions or state concerns regarding your rights as a research participant to the Office of Research Administration at 314-516-5897.

**I have read this consent form and have been given the opportunity to ask questions. By clicking Yes and pressing the >> button, I consent to my participation in the research described above.**

Appendix G: Approval for CESNET-L Distribution

From: JENCIUS, MARTIN ([mjencius@kent.edu](mailto:mjencius@kent.edu))  
To: Gilje, Brittany N. (UMSL-Student)  
Date: Wed 4/26/2017 9:06 AM  
Subject: Re: Permission to request participants

Brittany,

Thank you for taking the appropriate and ethical procedure to contact me and ask permission to post to the listserv. Please also pass on to your advisor my gratitude.

Take a look at the survey recommendations at [www.cesnet-l.net](http://www.cesnet-l.net) for ideas about doing research using CESNET-L. Make sure that your request contains all of the specified information. After that, feel free to proceed and post.

With best regards,

Dr. Marty Jencius  
Associate Professor of Counseling  
Kent State University  
Counseling & Human Development Services  
Rm 310 - White Hall Bldg  
Kent, OH 44242  
[mjencius@kent.edu](mailto:mjencius@kent.edu)



## Appendix H: IRB Approval

**Office of Research Administration**

One University Boulevard  
St. Louis, Missouri 63121-4499  
Telephone: 314-516-5899  
Fax: 314-516-6759  
E-mail: ora@umsl.edu

DATE: March 12, 2017

TO: Brittany Murphy, MA  
FROM: University of Missouri-St. Louis IRB

PROJECT TITLE: [1013153-1] Examining Factors Associated with Supervisor Self-Efficacy  
REFERENCE #:   
SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS  
DECISION DATE: March 12, 2017

REVIEW CATEGORY: Exemption category # 2

The chairperson of the University of Missouri-St. Louis IRB has APPROVED the above mentioned protocol for research involving human subjects and determined that the project qualifies for exemption from full committee review under Title 45 Code of Federal Regulations Part 46.101b. The time period for this approval expires one year from the date listed above. You must notify the University of Missouri-St. Louis IRB in advance of any proposed major changes in your approved protocol, e.g., addition of research sites or research instruments.

You must file an annual report with the committee. This report must indicate the starting date of the project and the number of subjects to date from start of project, or since last annual report, whichever is more recent.

Any consent or assent forms must be signed in duplicate and a copy provided to the subject. The principal investigator must retain the other copy of the signed consent form for at least three years following the completion of the research activity and they must be available for inspection if there is an official review of the UM-St. Louis human subjects research proceedings by the U.S. Department of Health and Human Services Office for Protection from Research Risks.

This action is officially recorded in the minutes of the committee.

If you have any questions, please contact Carl Bassi at 314-516-6029 or [bassi@umsl.edu](mailto:bassi@umsl.edu). Please include your project title and reference number in all correspondence with this committee.