THE IMPACT OF ROLE STRESS, SELF-EFFICACY, ORGANIZATIONAL SUPPORT, AND SUPERVISORY SUPPORT ON PERFORMANCE IN SCHOOL-BASED MENTAL HEALTH TRAINEES

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Dedication

This dissertation is dedicated to my parents, Jorge and Carmen Correa, brother, Marco Correa, and husband, Michael Perin. Thank you for encouragement and never doubting my abilities.

Abstract

There is limited understanding of the variables that impact trainee performance in clinical settings. As such, investigating the tools used to assess performance was warranted. In the first part of the present research study, I investigated the independent factors that comprised the FPEF using 294 archival forms completed by clinical supervisors at the California School of Professional Psychology, Alliant International University, San Francisco. The five conceptually derived domains of clinical competency of the FPEF included: psychological intake, evaluation and assessment; clinical interventions; professional roles and behaviors; self-examination and development; and supervision. A principal factor analysis was conducted to determine whether the items of the FPEF comprised performance factors that were based on these FPEF domains. Results yielded a four-factor solution based on how the items clustered together. Thus, subscales were retitled as follows: Clinical Development, Professional Roles and Behaviors, Psychological Conceptualization and Intervention, and Psychological Assessment Skills. The second part of the present study included trainee self-ratings and supervisor ratings on the FPEFs for 47 school-based mental health trainees. This part of the study focused on whether the internal psychological variables of role conflict, role ambiguity, and self-efficacy (domain specific), and the external variables of both organizational support and supervisory support were associated with performance ratings on the FPEF. Findings indicated that the internal and external variables were both associated with trainees' performances across various domains. However, some of these relationships were contrary to what was expected. Organizational support and supervisory support were found to have negative associations with specific performance domains, which may have been due to limitations of the instruments or moderating variables that were not measured in this study.

Table of Contents

List of Tables

List of Figures

CHAPTER I

Introduction

Furthering the understanding of how clinical competency is currently assessed in psychology graduate students by examining the factor structure of the Field Placement Evaluation Form (FPEF) currently used at Alliant International University, San Francisco was the primary purpose of the present study. Investigating the perspectives and experiences of school-based mental health (SBMH) trainees and how these factors may influence trainees' levels of clinical competency was another key goal. To do so, I first identified the performance indicators on the FPEF to determine if they differed from the factors currently on the FPEF. I also examined internal variables including role conflict, role ambiguity, domain-specific self-efficacy, and external or environmental variables including organizational support and supervisory support to determine their association with the performance indicators based on self and supervisor ratings on the FPEF in SBMH trainees.

This study contains five core chapters. In Chapter I, Introduction, I put forth a summary of the research purpose and rationale. In Chapter II, Literature Review, I provide the current literature specific to SBMH practitioners and variables that may increase or decrease trainees' performance. In Chapter III, Method, I explain the research methods and procedures. Chapter IV contains the results from data analysis. Lastly, in Chapter V, results of the study are presented in addition to study limitations.

The "competency movement" cited in clinical supervision and training literature is a key development in the field of psychology. The American Psychological Association (APA) has increasingly required educators to specify reliable training objectives, assess performance, and define core competencies expected in psychology graduate students (Schofield & Grant, 2013).

Clinical competence is defined by Epstein and Hundert (2002) as "the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and the community being served" (p. 226). Core clinical competencies should correlate with performance and should be able to be enhanced through continuous training (Kaslow et al., 2007). The assessment of clinical competencies also "places emphasis on the ability to apply knowledge and skills in the real world and uses performance outcomes as criteria for evaluating both learners and training programs" (Falender & Shafranske, 2004, p. 20). The identification of these core competencies can also help training programs identify which trainees are likely to be successful (Kamen, Veilleux, Bangen, VanderVeen, & Klonoff, 2010). Although most training programs have adopted a competency model, there is a lack of standardized evaluation tools available for use. In addition, there is limited research regarding how particular trainees' competencies are measured and evaluated.

Clinical supervisors have been increasingly required to formally evaluate trainees based on core competencies relative to the trainees' training level (Fouad et al., 2009). Clinical supervision within competency-based models "draws on principles derived from positive psychology, informs the learning process and leads to increased competence and self-efficacy" (Falender & Shafranske, 2004, p. 4). Effective clinical supervision provides ongoing trainee assessment, clearly communicates feedback, and supports trainees' competencies by instilling plans to remediate their difficulties. Supervisors provide support by showing empathy, normalizing anxieties, and providing feedback consistent with trainees' training levels (Berger & Buchholz, 1993; Carifio & Hess, 1987; Falender & Shafranske, 2004). Because trainees are unlicensed clinicians, supervisors also provide the monitoring they need while encouraging their

independence and professional development. Clinical supervision has been found to have many benefits for trainees. Quality supervision is associated with an increase of alignment regarding training outcomes and trainees' duties and is also associated with lower levels of role stress. Role stress, defined as one's varying perception of his or her role, is a contributing factor to low performance levels across a range of settings. It has been found that within weak supervisory relationships "expectations nor standards of accountability were clear, and supervisee needs were not assessed" (Falender & Shafranske, 2004, p. 46). These findings indicate that supportive supervisory relationships are likely to increase clinical competence in trainees.

The call for the development of empirically validated competency assessment tools includes those for use in specialized settings. Among these specialized settings are schools, which are often utilized as clinical training sites for graduate psychology students. Across the United States, schools provide 70%–80% of all psychosocial services to children and support children's social and academic development (Atkins, Hoagwood, Kutash, & Seidman, 2010; Hughes & Theodore, 2009). Mental health services delivered in schools vary widely (Duchnowski & Kutash, 2011), and schools are often used for training trainees from many mental health fields. While graduate students pursuing a Pupil Personnel Services credential or master's degree in school counseling are subject to training that specializes in providing services in a school setting, doctoral-level psychology students often do not receive this type of education. How this impacts the application of clinical skills is not known.

The transition from traditional classroom learning environments to "real-world" practice settings may be difficult and often involves many personal and professional challenges (Britt & Gleaves, 2011, p. 172). Practicums and internships are often stressful experiences for graduate psychology students as they face constant evaluation and pressure from clinical supervisors and

personnel who work at training sites to perform well (Pakenham & Stafford-Brown, 2012; Shen-Miller et al., 2011). Clinical psychology trainees are often forced to utilize ad hoc methods of incorporating what they have learned in courses with practice (Baillie et al., 2011). In rare cases, this may result in low performance levels as most trainees are able to perform at or above expected competency levels. When they do not, this is likely due to the inability to handle organizational pressures from their school placement and training program. Ideally, trainees would experience low levels of role stress and have supportive supervisors and helpful people in their working environment throughout their training. Performance can be influenced by the environment and by those with whom one works. Research has demonstrated that socially supportive relationships in one's work setting can have a positive impact on professional development and work performances (Acker, 2012; Dollarhide, Smith, & Lemberger, 2007; Sutton & Fall, 1995). Within the school climate, social support among staff and positive interactions in the work environment are associated with more positive work experiences (Sutton & Fall, 1995). However, when trainees receive low levels of support from supervisors and school staff, they may still be able to perform at high levels.

In an effort to enhance an individual's ability to adapt to his or her training environment, positive psychology is used in clinical training and supervision (Howard, 2008). One's self-efficacy or beliefs that he or she can successfully execute duties impacts how the individual attempts to cope with the situation, the energy to be invested, and the degree of tolerance when dealing with situational stress (Bandura, 1977; Sutton & Fall, 1995). Feedback from others in one's environment mediates the relationship between achievement, motivation, and performance (van den Berg & Feij, 2003). This is consistent with research suggesting that self-efficacy is associated with higher performance levels (Friedlander, Keller, Peca-Baker, & Olk, 1986).

When discussing self-efficacy, the context in which one operates is essential to one's expectations about what he or she can and cannot do. Therefore, self-efficacy is often measured in a way that captures one's perceived abilities and skills that is specific to a particular domain (Riggs, Warka, Babasa, Betancourt, & Hooker, 1994; Sherer & Maddux, 1982).

Purpose Statement

For the present study, quantitative methods were used to investigate clinical competency assessment as it relates to performance using quantitative methods. The FPEF used by the Office of Professional Training at Alliant International University, San Francisco was examined to identify the factors accounting for the correlations between items. The goal was to determine the FPEF's underlying factor structure. Internal and external variables associated with performance indicators on the FPEF, based on self and supervisor ratings, were also investigated. A list of the contextual variables and performance variables can be found in Table 1.

Table 1

Independent and Dependent Variables

	Dependent variables (performance variables)	
Independent variables (contextual variables)	Supervisor evaluation of competency	Trainee self-evaluation of competency
Role conflict (internal variable)	Psychological Intake, Evaluation, and Assessment	
Role ambiguity (internal variable)	Clinical Interventions	
Self-efficacy (internal variable)	Professional Roles and Behaviors	
Organizational support (external variable)	Self-Examination and Development	
Supervisory support (external variables)	Supervision	

Note. Current dependent variables (subscales from the Field Placement Evaluation Form) are listed here. Field Placement Evaluation Form variables were transformed after factor analysis (see Chapter III).

CHAPTER II

Literature Review

This chapter includes an overview of relevant literature on SBMH trainees. It also provides research on SBMH services, the need for these services, their role in the educational system, their effectiveness, and barriers to their implementation. It also reviews self-efficacy, organizational support, and supervisory support and how these variables impact performance.

SBMH Services

Rones and Hoagwood (2000) defined SBMH services as "any program, intervention, or strategy applied in a school setting that was specifically designed to influence students' emotional, behavioral, or social functioning" (p. 224). Given the wide scope of programs, it is important to distinguish between the various types of mental health models in school settings. One is the mental health component of a school-based health department in which district-employed school psychologists, nurses, counselors, and social workers provide students the assistance needed to foster their educational development. The other is a contracted school-based program from a community agency that offers off-site mental health services in the school that supplement the services already available. Approximately 60% of school districts across the United States have contracts with community mental health clinics to practice within the school setting. These clinics assign graduate students in training and licensed professionals to various school sites to deliver services and programs under a wide continuum of care (Massey, Armstrong, Boroughs, & Henson, 2005). Administratively, the students are outpatient clients seen off-site with records including charts and progress notes kept within the agency's office. This model of SBMH service is the type referred to henceforth.

The need for mental health services with the youth population. Approximately 5% of children exhibit symptoms of psychological distress that severely impairs their daily functioning with rates even higher for minority children in low income neighborhoods (Massey, Armstrong, Boroughs, & Henson, 2005). Of the 5%–9% of children and adolescents who meet criteria for an emotional disorder, approximately half actually receive services (Kazak et al., 2010; Reinke, Stormont, Herman, Puri, & Goel, 2011; Suldo, Friedrich, & Michalowski, 2010).

Without intervention, it is likely that many of these children and adolescents will experience continued distress into adulthood that is associated with substance abuse and school dropout (Davis, Kruczek, & McIntosh, 2006; Massey et al., 2005). By providing this assistance in schools, services become more accessible as transportation and possession of adequate insurance are eliminated. Paternite (2005) added that SBMH services reduce stigma for obtaining services, allow for more sustainable interventions, and more easily allow for prevention services. Other advantages of practicing in this setting include being able to observe the child's symptoms where they manifest and greater ability to work with others within the child's environment to help manage these symptoms (Davis et al., 2006, p. 414).

The role of schools in the delivery of mental health services. Federal initiatives from the U.S. Department of Health and Human Services, the U.S. Department of Education, the National Institute of Mental Health, and the President's New Freedom Commission of Mental Health have influenced the delivery of SBMH services. Reports from these parties have summarized elements that should be included in the expansion of school-based services including: (a) collaboration between school, family, and community; (b) a wide range of mental health services including prevention, intervention, assessment, and psychoeducation; and (c) services for students in both general and special education (Paternite, 2005, p. 658). The proper

expansion and execution of these services allows for treatment of children and adolescents that may benefit their academic progress.

Historically, schools have been the prime settings for the implementation of SBMH services. Beginning in the 1980s, schools began providing timely psychoeducational assessments to determine students' special education service eligibility (Davis et al., 2006). Students who qualified received clinical consultation and treatment services while those who did not qualify received minimal to no help. The political climate of the 1990s brought about changes in education and mental health policy that resulted in the closure of many schools designed to accommodate students with learning disabilities and psychological problems. The assignment of students to a "special" school was believed to be stigmatizing and harmful, resulting in the transfer of these students to mainstream classrooms (Dunn, 2012). Many of these students displayed significant levels of problematic and concerning behaviors that teachers were unprepared to handle. In an effort to hold schools accountable for the education of their students, SBMH services were developed and expanded.

Schools now play a much larger role in students' social and emotional development beyond academics and supply 75% of mental health services to children and adolescents (Bruns, Walrath, Glass-Siegel, & Weist, 2004; Kutash, Duchnowski, & Green, 2011; Ringeisen, Henderson, & Hoagwood, 2003; Rones & Hoagwood, 2000). Given the pressure on school systems to demonstrate adequate educational outcomes, schools have emerged as the de facto setting for the diagnosis and treatment of mental health services (Bruns et al., 2004; Kazak et al., 2010; Massey et al., 2005). Here, children and adolescents may exhibit psychological difficulties including low academic performance, truancy, and problems with peers (Storch &

Crisp, 2004). As a result, schools are often the first to intervene given the impact these problems may have on students' education (Massey et al., 2005).

Providers in the school setting may deliver services including individual therapy, group therapy, crisis intervention services, consultation to parents, behavioral interventions, and case management. Psychotherapy services are offered when "the relationship between typical development and the difficulty the child is experiencing is accounted for by interpersonal functioning and not by the proximal environmental factors in the school system" (Hughes & Theodore, 2009, p. 218). Providers may also deliver services in a therapeutic milieu as part of a team that supports students in special education classrooms and helps them reach established Individualized Education Program goals. Mental health consultation with parents and school staff is a significant element of SBMH services. The goal of consultation is to foster effective classrooms and school environments that promote positive student-teacher relationships and students' academic and social-emotional growth. Consultation services have been found to improve the overall school climate, facilitate organizational change at multiple levels, and increase teacher and schools staff abilities to address student problem behaviors (Bruns et al., 2004; Capella et al., 2012; Ferlie & Shortell, 2001).

Barriers to Providing SBMH Services

While schools are often utilized as sites for mental health services, they are not organized to facilitate providing them (Massey et al., 2005; Suldo et al., 2010). Kutash, Duchnowski, and Green (2011) noted that "SBMH is a multi-disciplinary entity and faces barriers posed by different languages, theoretical foundations, and emphasis in training of different professions" (p. 206). This poses many challenges for the provider as one must suit the therapeutic work, namely psychotherapy, that was originally developed for use in a clinic setting and practice it

within a complex school system. Basic elements essential to effective psychotherapy across theoretical orientations often become "disrupted by the realities of the school setting" (Dunn, 2012, p. 288). Music and Hall (2008) wrote of delivering psychotherapy in schools as having many "structural and institutional challenges that beset the clinician confronted by the maelstrom of school life as it contrasts with the relative safety or the traditional clinic setting" (p. 44). As a result, trainees must adapt their skills to a new environment in a way that meets the needs of the client and the school setting.

While each school has its own unique climate and culture, there are common difficulties for the practitioner (Rones & Hoagwood, 2000; Stephan, Davis, Callan Burke, & Weist, 2006). Some of these barriers to effective practice may not be as common in a clinic setting and are as follows.

Session inconsistency. In clinic settings, appointment times and meeting spaces are generally consistent. However, therapy sessions in schools may not always be as reliable given the provider's limited time and space. Although providers aim to schedule sessions so they are least disruptive to the student, this is not always possible. Teachers may view other obligations the student must fulfill as a higher priority than receiving psychological treatment, resulting in the child missing one or more therapy sessions (Suldo et al., 2010, p. 363). Because providers' resources are limited, this may lead to difficulty managing and scheduling sessions.

Unclear roles. In school settings, clinicians may lack a clear understanding of proper referrals and which students they are capable of treating. Students are often referred due to difficulties with their behavior, social adjustment, and personality, meaning the clinician must be able to accurately assess the students' treatment needs (Bratton, Ray, Rhine, & Jones, 2005). In many instances, teachers may refer children to therapy so that the provider can "fix" the children

and decrease their problematic behavior. They may also submit requests to providers to see children with needs that may not be suitable for therapy and would be more appropriate for a speech pathologist or an occupational therapist. As a result, inexperienced clinicians may experience some confusion as to what their role is.

Lack of support. Clinicians may experience resistance from school staff given that teachers may be more concerned with children's academic development than psychological problems (Massey et al., 2005). School staff may perceive the treatment as ineffective and exhibit a lack of support for the clinician. In some cases, the provider may become the source of anxiety as he or she must alert school personnel and parents to serious psychiatric or psychological risk. As a result, SBMH practitioners may often face a school climate that they may perceive as hostile or unsupportive. Lack of support from school personnel is further discussed within this chapter.

Lack of availability of school personnel and parents for consultation. Effective consultation requires ongoing collaboration with school personnel who already face many obligations. It also involves the participation of stakeholders including the principal, teachers, and other support staff. Because it may be difficult for school personnel to meet with practitioners during the school day, consultation may often be conducted informally in school hallways. While this is not ideal practice, this may be one of only a few opportunities for the practitioner to have this important interaction. Regarding parents, practitioners may often find it difficult to obtain the necessary documentation to begin working with a child. Parents may be reluctant to work with the therapist on an ongoing basis and may feel a sense of shame and embarrassment because of their child's difficulties (Dunn, 2012). This lack of stakeholder

availability can contribute to difficulties in providing a comprehensive treatment plan for students.

Issues of client confidentiality. School-based practitioners must do their best to maintain privacy and confidentiality in this public setting while helping staff feel included in the treatment. Client anonymity may be difficult to maintain in this setting as other students and teachers are likely to learn who is receiving services. For instance, the lack of privacy in spaces where therapy is provided can expose the identity of clients as people walk by or even pass through the therapy room. With younger children, the clinician may "pull out" the student from class, revealing to other students that the child is being seen for therapy. As the referral sources, teachers and school staff often inquire about students' progress. Despite this, the therapist should only disclose what is clinically appropriate to protect the student's confidentiality (Suldo et al., 2010). However, a complete lack of disclosure may communicate to the referral source that he or she is not a component of the student's treatment. Therefore, client confidentiality should be handled with caution to avoid ethical and legal violations.

Accountability to the school system. The pressure on SBMH trainees to perform well can be overwhelming in the school setting given the need to reduce or eliminate one or more of the student's problematic behaviors. Given that the referral source is often eagerly awaiting change in the student, the therapist may feel the need to rapidly produce some change in the child's symptoms. Over time, if the child does not respond to treatment in the desired manner, school personnel may lose their conviction in the provider's ability to produce change with the student. Research indicates that SBMH practitioners often struggle to show that treatment is "education-relevant" and to show how it contributes to students' academic development in measureable terms (Atkins, Graczyk, Frazier, & Abdul-Adil, 2003; Kutash, 2011; Ringeisen et

al., 2003, p. 158). This can contribute to feelings of stress and pressure to perform in a timely manner.

SBMH Outcomes

The discussion of providing SBMH services warrants a review of factors that can influence treatment outcomes. Generally, research of treatment in the clinic setting suggests that the practice is beneficial with moderate to strong effect sizes (Hughes & Theodore, 2009; Storch & Crisp, 2004; Zirkelback & Reese, 2010). However, there is much debate as to which psychotherapy approaches are the most effective (Miller, Wampold, & Varhely, 2008; Zirkelback & Reese, 2010). Play therapy, a psychotherapy approach often used with children, is defined as "the vehicle for communication between the child and the therapist on the assumption that children will use play materials to directly or symbolically act out feelings, thoughts, and experiences that they are not able to meaningfully express through words" (Bratton et al., 2005, p. 376). LeBlanc and Ritchie (2001) conducted a meta-analysis of 42 outcome studies on play therapy and found a treatment effect size of .66. More recently, Bratton, Ray, Rhine, and Jones (2005) reviewed 93 studies and found a treatment effect of .80 versus children who received no treatment of any kind. Overall, research indicates that psychotherapy is a beneficial intervention; however, it is important that a clinician be able to demonstrate how it yields measurable benefits to students' academic achievement.

Research on psychotherapy delivered outside of a traditional clinic may be less useful due to factors within the school setting that hinder successful delivery (Paternite, 2005; Ringeisen et al., 2003). For example, Rones and Hoagwood (2000) conducted a comprehensive review of 47 studies of SBMH programs and found that of 39% were labeled as effective. A more recent review by Farahmand, Grant, Polo, Duffy, and DuBois (2011) examined 29

programs and classified 17% as effective, 28% as mixed results, and 55% as ineffective. Bratton et al. (2005) found that play therapy conducted in a clinic setting produced a treatment effect of .81 versus a school setting of .69. Researchers of evidence-based practices have called for an examination of the "major components of practice implementation" in the school setting to better understand the discrepancies in these findings (Kazak et al., 2001).

Trainees as providers of SBMH services. As part of their clinical training experience, some trainees at the CSPP deliver SBMH services in public schools in the greater San Francisco Bay Area. Contractual school-based services are provided by agencies to various elementary, middle, and high schools depending on available funding. This gives trainees experience in working with children and adolescents to fulfill the breadth requirement for graduate training programs. Trainees may serve one or more schools and may differ in the number of provided hours per week. Assignment may be based on trainees' preferences for age of clients with whom they wish to work (e.g., children, adolescents), trainees' availability, and proximity to the schools. Should budgets permit, schools may be afforded more than one trainee.

Implications for SBMH trainees. Findings from SBMH research suggest that specialized training for implementation of these services is likely to increase treatment effectiveness. However, students in clinical psychology programs often do not receive this type of education until they begin their practicum or internship training. There is also no "best practice" to deliver these kinds of contractual SBMH services (Kutash, 2011). Research suggests that professionals providing SBMH services (e.g., school counselors or school psychologists) experience difficulty in executing their roles. Therefore, it is likely that novice SBMH practitioners in their practicum or internship year struggle in similar ways.

Support for trainees in SBMH settings. For trainees whose professional identity is developing and whose skills are beginning to materialize, the demands of the school-based setting can be particularly stressful (Dunn, 2012, p. 289). The school environment can elicit feelings of anxiety given the pressure on trainees to demonstrate treatment outcomes. In order to withstand pressures to perform well from school staff, it is important that trainees are able to maintain their role as professionals and as therapists and to be "ordinarily personable" (Music & Hall, 2008, p. 49). Fortunately, most trainees are often able to rely on weekly clinical supervision to support the maximum use of their skills, overcome challenges, and deliver quality services (Crespi, 2003). The effects of supervisory support on clinical competency are further discussed within this chapter.

Role Stress

Contractual SBMH services may not always fit neatly into a school system's chain of command. Therefore, trainees in a school-based setting must provide ongoing clarification and communication of their roles to others. As role receivers, trainees may be unclear about what their roles are given the many authority figures and stakeholders involved (Massey et al., 2005; Tubre & Collins, 2000). Role receiving becomes increasingly complex when one is subject to more expectations and subsystem involvements (Katz & Kahn, 1978). This lack of role clarity is often referred to in organizational literature as role stress and is often unavoidable when individuals who work in mental health are "subjected to changes and new demands that are incongruent with their professional expectations" (Acker, 2012, p. 477). Role stress is comprised of three dimensions that capture the confusion and negative feelings experienced by role receivers and include: (a) role conflict, (b) role ambiguity, and (c) role incongruence. In the present study, two dimensions of role stress were used (see Chapter III).

Dimensions of role stress. Role conflict, a component of role stress, has been the focus of many studies (Friedlander et al., 1986). It is defined as the result of incompatible roles that are communicated from more than one role sender or when the same individual sends two roles that compete with each other (Culbreth, Scarborough, Banks-Johnson, & Solomon, 2005). Role conflict is associated with higher anxiety and depression levels as well decreased job satisfaction and productivity (Andrews & Kacmar, 2001; Friedlander et al., 1986).

Role ambiguity, another dimension of role stress, occurs when duties are not clearly delineated or when one is unsure regarding the degree to which a job should be done (Culbreth et al., 2005). Individuals experiencing role ambiguity may have difficulty fulfilling responsibilities because they are unsure of what is expected of them (Tubre & Collins, 2000). As a result, individuals may cope by avoiding sources of stress or minimizing the importance of difficult situations related to the job (Rizzo, House, & Lirtzman, 1970). Role ambiguity "weakens the links between effort-to-performance and performance-to-reward contingencies" (Tubre & Collins, 2000, p. 164). Individuals whose performance relies on working with various teams are more likely to experience role ambiguity (Tubre & Collins, 2000). However, some researchers have found that direct feedback from superiors and coworkers is associated with lower levels of role ambiguity (Andrews and Kacmar, 2001). Research suggests that, similar to role conflict, higher levels of role ambiguity are associated with lower levels of job performance.

The third dimension of role stress is role incongruence, also referred to in the literature as role uncertainty. Role incongruence occurs when individuals have many roles to execute without the resources to do so or when they face expectations from two parties that they cannot fulfill (Culbreth et al., 2005). Ideally, individuals would receive roles from a single superior within an organization to prevent one "from being caught in the crossfire of incompatible orders" (Rizzo et

al., 1970). However, this is often not the case in school systems and service agencies where there is reduced consensus about role expectations. Given the many authority figures in organizations, role receivers can easily become unsure about whom they should receive roles from. Role incongruence "represents a condition that a person cannot easily control and that involves danger of social disapproval" (Wirtz, Ehlert, Kottwitz, La Marca, & Semmer, 2013). Research conducted with school psychologists suggests they may struggle to implement services in a thorough manner given the numerous demands upon them in this setting (Suldo et al., 2010). For SBMH trainees, multiple role senders are often present in their environment and they may name others as role senders even though they are not being formally evaluated by these individuals. While trainees are expected to fulfill the roles sent by their supervisors, they are also exposed to the expectations of others in positions of authority, namely school principals. Teachers and support staff in the school setting may also communicate their perceptions of trainees' roles, which may differ from the role sent by their clinical supervisor. As a result, trainees may be left to negotiate their role to please both parties if possible.

Role stress in other SBMH providers. Research on role stress on SBMH trainees is limited. However, school counseling and school psychology literature has shown that one may be expected to fulfill inappropriate roles in the school setting. For example, the American School Counselor Association's (ASCA) national model for school counseling programs was established to provide consistency in professional school counselors' roles. This model outlines what school counselors are to accomplish with their interventions and provides clear guidelines on what the counselor can and cannot do. For example, the standards state that school counselors should spend no less than 80% of their time providing direct service to students.

Despite these guidelines and extensive training in the school setting, professional school counselors continue to report high levels of role stress (Culbreth et al., 2005; Perusse, Goodnough, Donegan, & Jones, 2004). In addition, research indicates that principals often expect professional school counselors to fulfill more administrative tasks such as registration, scheduling, and testing than appropriate (Dollarhide et al., 2007). Perusse, Goodnough, Donegan, and Jones (2004) found that professional school counselors and principals were often not aligned regarding appropriate school counselors' tasks. Over 80% of principals labeled inappropriate jobs such as maintaining student records and registration and scheduling all new students (Perusse et al., 2004, p. 5) as school counselor duties. Perusse et al. (2004) also found that these were also the most frequently marked as unsuitable tasks by school counselors. While research on professional school counselors may not be generalizable to SBMH trainees, it does emphasize the high level of role stress found within the school setting. It also implies that school personnel expect SBMH trainees as "newcomers" to complete a wide range of duties that they may not be able to fulfill (Wang, Zhan, McCune, & Truxillo, 2011).

Role stress and performance. Role stress has been commonly linked to deficits in performance across settings. One explanation is that individuals who experience lower levels of role stress and higher levels of role clarity are better able to organize themselves with goal-directed behavior. This means that those who have a stronger awareness of what they are expected to complete in a work setting are better able to work in a particular environment. High levels of role clarity also enhance people's fulfillment of their roles. Because they can be resourceful with their time and energy, lower levels of role stress are associated with higher levels of performance and role fulfillment (Lindberg & Wincent, 2011).

Harmful Effects of Role Stress

Recent literature indicates that role stress may illicit many harmful outcomes including emotional exhaustion, anxiety, depression, and low self-esteem (Acker, 2012; Wirtz et al., 2013). Role stress may also have a significant impact on people due to their fear of being perceived by others as incapable (Dickerson & Kemeny, 2004). For instance, role uncertainty (i.e., role conflict and role ambiguity) has been found to be positively associated with an increase in cortisol responses (Dickerson & Kemeny, 2004, p. 123). This finding has been supported by Wirtz, Ehlert, Kottwitz, La Marca, and Semmer (2013), who demonstrated that higher levels of role uncertainty are associated with increased levels of cortisol stress reactivity linked to coronary heart disease. Results from these studies provide support for the detrimental effects role stress has on performance, one's well being, and experience in a work setting.

The Theory of Self-Efficacy

Bandura's (1986) construct of self-efficacy explains people's control over their self-determined judgments and actions. It is also a tool of personal agency that captures individuals' beliefs about their abilities to execute tasks and roles. Self-efficacy beliefs are comprised of self-persuasive elements gathered from various sources of information pertaining to previous performance mastery, vicarious experiences and self-comparison with others, verbal persuasion from social influences, and physiological states at these times. According to Bandura (1989), human motivation and actions are determined by cognitive, affective, personal, and environmental factors (Bandura, 1989, p. 1175). This cognitive process is comprised of thought patterns that help or hinder one's ability to carry out various tasks. It also entails one's inferences about the current situation while taking into account past experiences to predict how

one will perform in the future. One then assesses his or her abilities in a given context and then proceeds to engage in the necessary behaviors to effectively complete a task or fulfill a role.

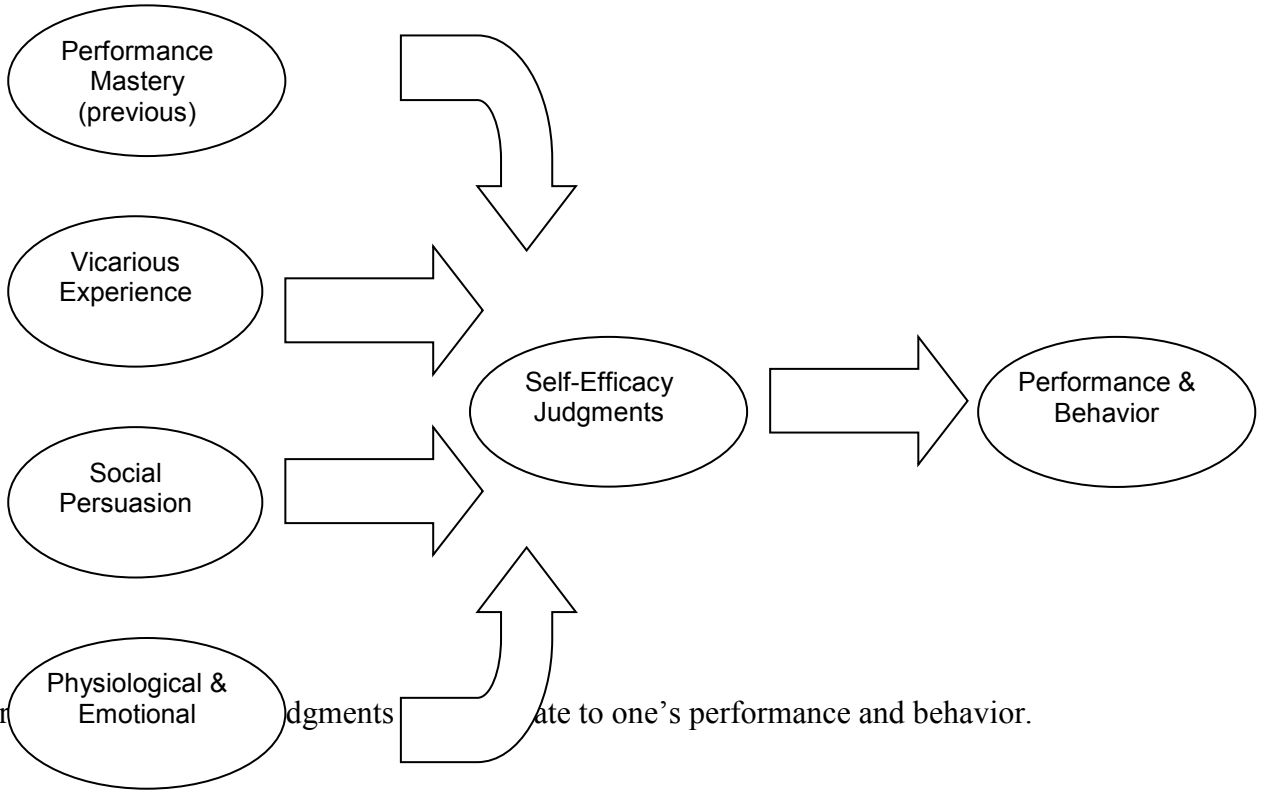

Figure 1. Sour dgments ate to one's performance and behavior.

Generally, domain-specific self-efficacy is shown to contribute to adaptive functioning, well-being, and performance in a work setting (Howard, 2008). This may be because individuals with high levels of self-efficacy envision themselves executing duties successfully and perceive difficulties as challenges (Bandura, 1989; Wang et al., 2011). These individuals are more likely to attempt new behaviors, exhibit higher levels of autonomy, and explore new settings independently (Sherer & Maddux, 1982; Wienlenga-Meijer, Taris, Wigboldus, & Kompier, 2011). In addition, they are more likely to engage in proactive behaviors including planning, resolving problems, and making decisions regarding which approaches work best for various tasks. This is consistent with research suggesting that self-efficacy is associated with enhanced effort and motivation (van den Berg & Feij, 2003). Increased motivation to learn is likely to

increase persistence, task completion, and role fulfillment (Weilenga-Meijer et al., 2011). Also, those with high levels of self-efficacy have been found to better cope and react appropriately to stressors, leading to faster adaptation to new environments and high levels of performance (Lent et al., 2009; Peterson, 2004). This suggests that those with high levels of job self-efficacy possess the resilience and robustness necessary to apply the extra effort required to overcome "ordinary performances" and can build the skills necessary to perform at high levels (Bandura, 1989, p. 1177).

Organizational Support

School organizations are comprised of teachers, school principals, school psychologists, and school counselors who may have a substantial impact on the efficacy of interventions in schools. Good "practice conditions," including continued support from school personnel, can help SBMH providers feel capable of providing effective services (Massey et al., 2005; Paternite, 2005, p. 661). Research has found that a lack of support from school personnel hinders SBMH practitioners' abilities to provide services to students (Suldo et al., 2010). This is likely because staff can give them useful information about the school, guidance in a complex environment, and facilitate the implementation of services (Paternite, 2005; Ringeisen et al., 2003). They can also help the provider obtain the some of the basic resources needed to deliver services, including a space to work, a phone, an inbox, and other needed materials. Given that practitioners meet more resistance than those who are part of internal school programs, they must work persistently to integrate into the school system. Research indicates that this is accomplished by establishing strong working relationships with staff and demonstrating flexibility in this setting (Armbruster, 2002; Bruns et al., 2004, Dunn, 2012; Massey et al., 2005; Somody, Henderson, Katrina, & Zambrano, 2008; Stephan et al., 2006; Suldo et al., 2010).

The importance of teachers' support. Teachers are stakeholders in students' education and play a large role in the facilitation of service delivery. For example, they must "allow" for the student to miss class for the therapy session. In some cases, they may request a student not attend the session given other obligations he or she must fulfill such as completing class work or attending other school functions (Dunn, 2012). Teachers may also show reluctance to allow providers into the classroom to observe a student given they may perceive the clinicians as "outsiders" (Armbruster, 2002; Massey et al., 2005).

Some teachers may have a negative perception of mental health providers and believe that therapy is ineffective and that practitioners are incapable of helping their students (Reinke et al., 2011). They may also hesitate to implement techniques provided to them in consultation and may not feel the services are necessary. Given teachers' importance in the delivery of treatment to students, it is crucial that school personnel do not view SBMH services as burdens to the school system but rather as support to their work as educators (Ringeisen et al., 2003).

Teachers, as native resources in the school setting, are identified as "primary change agents" who allow for implementing sustainable and practical interventions through consultation (Kutash et al., 2011, p. 193). Rones and Hoagwood (2000) found that factors contributing to effective SBMH services were the inclusion of teachers and integration of program content into the general classroom curriculum (Rones & Hoagwood, 2000, p. 237). Within this model, teachers may receive support from staff to help them maintain a classroom setting conducive to learning. Students who exhibit disruptive behavior in the school setting can affect the environment other students need for learning (Massey et al., 2005; Rones & Hoagwood, 2000; Zirkelback & Reese, 2010). It is also necessary that teachers adhere to and implement interventions and maintain treatment integrity (DiGennaro, Martens, & Kleinmann, 2007). For

example, a teacher who uses 10 min of classroom time redirecting disruptive students each class period loses over 34 instructional days per school year (Paternite, 2005, p. 659). With effective consultation, teachers may be able to reduce the amount of time spent addressing students' behavior issues and spend more time teaching.

The importance of principals' support. Many authors emphasize the importance of principals' attitudes toward SBMH practitioners and how they may impact the school-wide perception of providers (Armbruster, 2002; Dollarhide et al., 2007; Massey et al., 2005). Within the school counseling literature, there is a positive relationship between the principal's support and a school counselor's ability to execute his or her role effectively (Sutton & Fall, 1995). In Sutton and Fall's 2001 study, significant predictors of principals' support for school counselors were the establishment of a strong working alliance between the two parties and each counselor's ability to work effectively within the school setting. In addition, supportive school staff and administrators were strongly predictive of professional school counselors' job self-efficacy (Sutton & Fall, 2001).

Clinical Competency

In the field of psychology, accountability has become emphasized along with the need for empirical support of training practices much like those found in medical training. This, in combination with a significant decrease in funding and support for mental health services, has prompted cost-effective and outcome-oriented practices (Baillie et al., 2011; Dunn, 2012; Knight, 2011; Watkins, 2012b). These changes have impacted the way the profession of clinical psychology educates trainees and assesses their competence levels. However, some questions remain unanswered, including what are considered core competencies and what trainees should be able to show they are capable of doing before graduating. The answers to these questions are

likely to differ due to discrepancies among some researchers and educators as to what should be included in clinical psychology training programs. Experts from various theoretical orientations often debate which skills and abilities trainees should possess and how trainees can show they have mastered them. For instance, many suggest that an emphasis on evidence-based treatments in clinical psychology education is necessary. However, manualized evidence-based protocols are most often grounded in cognitive behavioral therapy (CBT), meaning other theoretical orientations (e.g., psychodynamic, humanistic) may not be well represented or considered outcome oriented in the evidence-based literature. This is consistent with reviews of graduate programs in which research- and science-based programs tend to focus their curriculum on CBT training while the more practice-focused programs provide a wider variety of education across orientations. Meanwhile, within psychotherapy efficacy literature, many researchers note that the theoretical orientation treatment approach has shown to be insignificant and there is no evidence that *only* CBT treatments are scientifically supported. According many researchers, no single theoretical approach accounts for success, which suggests that students should be trained in more than one orientation in their graduate educations (Heatherington et al., 2012, Zirkelback & Reese, 2010). As a result of this lack of consensus among educators, researchers and practitioners continue striving for clearer definitions of the core skills necessary to work as an effective clinical psychologist (Peterson, 2004).

Currently, there are no standardized measures for evaluation of competence in trainees (Petti, 2008). Limited research has been conducted on the abilities found in competent clinical psychologists, making it difficult to operationalize what an effective psychologist is and what training should include (O'Donohue & Boland, 2012). However, many researchers have proposed core competencies they believe should be taught to students to give them an

opportunity that "will optimize their ability to function as competent professionals" (Hatcher, Grus, & Wise, 2011, p. 252). A competency-based model of training allows for evaluating individuals based on demonstrated skills (Peterson, 2004). Historically, competence was often assumed with one's completion of courses, hours of services provided, and psychodiagnostic reports written (Falender & Shafranske, 2012). However, there is no empirical evidence suggesting that more hours of clinical training, more supervision hours, Examination of Professional Practice in Psychology score, or state licensure examinations are predictive of competent practice later in one's career (Knight, 2011; O'Donohue & Boland, 2012). Despite this, professional training programs continue to use these methods in an effort to satisfy accrediting agencies such as the APA (Lewis, Virden, Hutchings, & Bhargava, 2011).

Over the past decade, the APA Task Force on the Assessment of Competence in Professional Psychology, the APA Education Leadership Conference, and the APA Assessment of Competency Benchmarks Workgroup have increasingly examined the fundamentals of education and training that allow an individual to practice effectively (Rubin et al., 2007). As a result, the APA requires doctoral and internship programs to demonstrate that trainees have met core competencies across theories and methods in psychology in the following domains: assessment, diagnosis, intervention, consultation, evaluation, supervision, professional conduct, and cultural and diversity issues (Rubin et al., 2007). Similarly, the National Council of Schools and Programs of Professional Psychology (NCSPP) has focused on the "deliberate, systematic, and reflective examination of standards for the education and training of professional psychologists" (Peterson, 2006, p. 17). The NCSPP has also delineated a core curriculum for doctoral level education and training that includes the following roles and functions of psychologists: relationship, assessment, intervention, research and evaluation, consultation and

education, and management and supervision (Peterson et al., 2006; Petti, 2008). This shift in the assessment of competence requires psychology graduate programs to be more accountable as they must demonstrate that trainees have met competence requirements that are expected and appropriate for their training levels (Falender & Shafranske, 2012). Experts in this area suggest that individual training programs should clearly delineate the outcomes and goals to be assessed (Baillie et al., 2011). Recent statistics show that training programs have already begun to do so as 92% use written assessment measures with structured rating scales (Gonsalvez & Freestone, 2007, p. 24). Even at the practicum level, 80% of practicum sites now have written competency goals for trainees to monitor their progress and evaluate performance (Hatcher et al., 2011).

Models of Clinical Competency

Research on clinical training has emphasized the importance of taking into account training level and appropriateness to setting in one's professional development and that "method selection must consider relevance, fidelity, authenticity, and validity" (Kaslow et al., 2007, p. 483). The cube model developed by Rodolfa et al. (2005) includes foundational competencies that are the "building blocks of what psychologists do," (Rubin et al., 2007, p. 458) and functional competencies including skills related to the "reflective practices and self-assessment, scientific knowledge and methods, relationships, ethical and legal standards and policy issues, individual and cultural diversity, and interdisciplinary systems" (Rubin et al., 2007, p. 458). Competency benchmarks that are components of the cube model are increasingly utilized as performance assessment measures and demonstration of the expected competencies for each stage of trainee development (Kaslow et al., 2007). Trainees with problems of professional competence do not perform to standards, possess behavior and attitude problems, and struggle

with interpersonal problems that occur at the foundational and functional domains of competence (Kaslow et al., 2007; Shen-Miller et al., 2011).

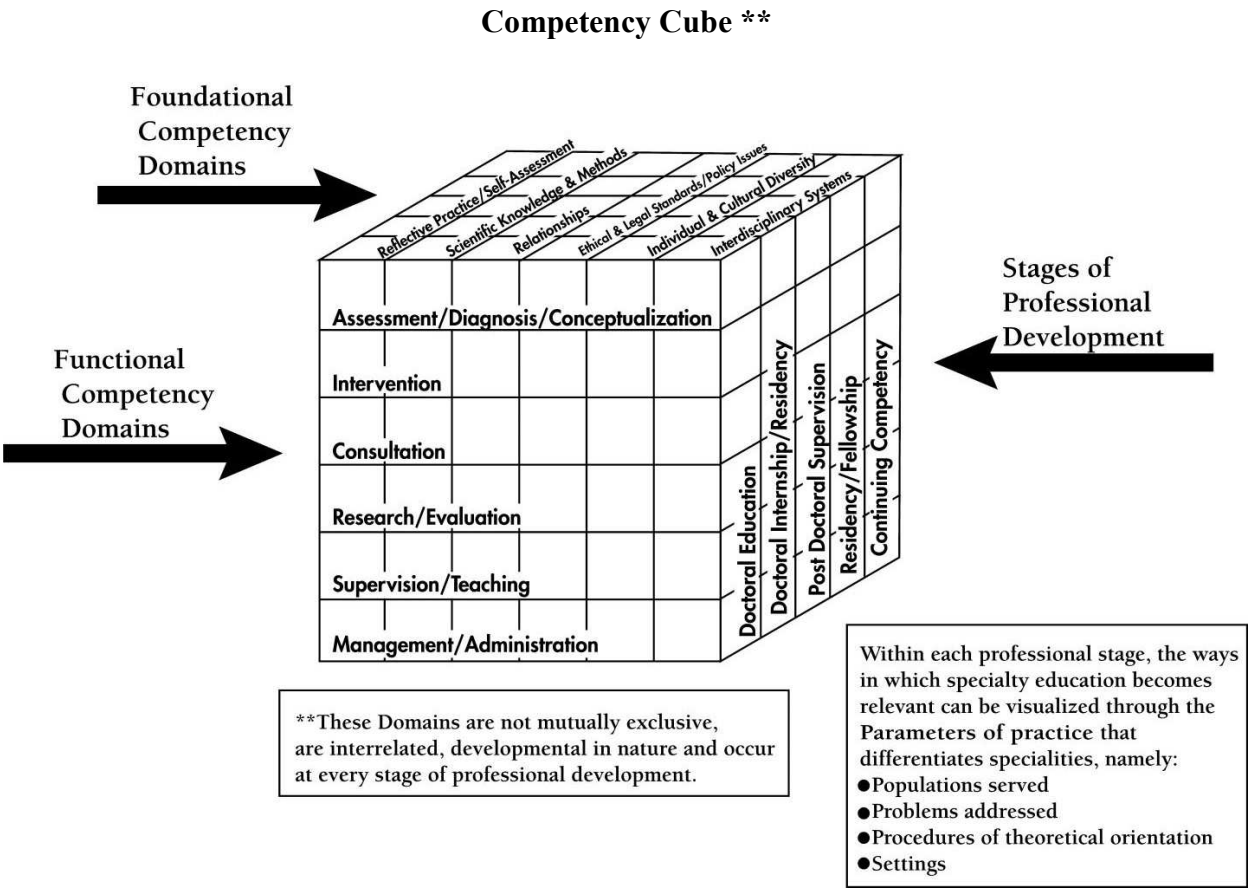

Figure 2. Rodolfa et al.'s (2005) competency cube. Adapted from "Beyond the Rube Goldberg Model of Clinical Training: Toward More Efficient Training of Core Competencies" by W.T. O'Donohue and M. Boland, 2012, *Training and Education in Professional Psychology, 6,* p. 179. Copyright 2012 by the American Psychological Association.

Collins, Callahan, and Klonoff (2007) presented a stairway model that proposes tiers of levels of competence similar to that of Rodolfa et al.'s (2005) competency cube. The authors wrote that individuals entering graduate school already possess a certain set of characteristics that allow them to be successful in their graduate program. With training, students develop the professional knowledge and skills necessary to perform well. Collins et al. (2007) noted that individuals may be fully competent in one domain and not another.

Consistent with the call for the delineation of competencies within different specialty areas, researchers have begun to develop competencies that apply to specific practice contexts (Peterson, 2004). Jackson, Wu, Aylward, and Roberts (2012) proposed a similar model to that of Rodolfa et al.'s (2005) that emphasizes the skills needed to work with children and adolescents. They more closely considered competencies needed to treat this population and stated that training should be directly related to the "actual functioning" of the trainee in this context. For example, Jackson et al. (2012) underscored the importance of teaching and assessing trainees' abilities to maintain appropriate professional working relationships with personnel in client schools. Similarly, Peterson (2006) emphasized the need for professional training programs to provide more education in the areas of mental health consultation. While many researchers appreciated efforts made to develop core competencies, some wrote that the development of these competencies is not complete given the lack of specification as to how they should be taught to students, including: what courses to require of students, how to carry out training, and how to structure a curriculum that addresses these competencies (O'Donohue & Boland, 2012, p. 178). As research in this area continues, curricula in these areas will likely continue developing.

Supervisor Evaluation of Performance

With its origins in psychoanalytical training in the 1920s, clinical supervision by licensed psychologists is the most fundamental method for the professional development and evaluation of competencies in trainees (Crespi, 2003; Gonsalvez & Freestone, 2007; Sharrock, Javen, & McDonald, 2013). "Competencies have increasingly become central to our conceptualization and discourse in supervision over the past decade" (Watkins, 2012a, p. 125).

Clinical supervision is also utilized in the fields of psychiatry, nursing, and other mental health professions (Schofield & Grant, 2013). The practice involves two parties, with one

assuming the supervisor's role and the other as the supervisee. It also gives trainees the tools needed to effectively intervene with clients and improve on their knowledge and skills. Inskipp and Proctor (1993) provided three purposes of supervision: formative, which includes learning and professional development; normative, which involves the ethical and professional components; and restorative or the provision of emotional support for the trainee's well-being. Given that supervisors are accountable for their supervisees' practice, they also work with trainees to protect client welfare (Cheon, Blumer, Shih, Murphy, & Sato, 2009; Falender & Shafranske, 2012; Gonsalvez & Freestone, 2007; Kozina, Grabovari, De Stefano, & Drapeau, 2010). If the trainee cannot adequately treat the client, the supervisor can properly intervene or instruct the trainee to refer the client elsewhere.

As the "gatekeepers" of the profession, supervisors are increasingly being held accountable for trainee performance given the competence- and evidence-based movements (Britt & Gleaves, 2011; Cheon et al., 2009; Watkins, 2012b). Therefore, ongoing evaluation of trainees is extremely valuable. Although the evaluation of competence in practicum or internship programs is based on a three-way learning contract including the trainee, agency staff, and the program faculty, the clinical supervisor holds the role of evaluating trainees' competence levels and deciding if they may advance in their training program (Muratori, 2001; Peterson, 2004). Supervisors evaluate trainees based on their interactions in supervision, direct observation, self-evaluation, peer evaluation, and field faculty evaluation (Peterson, 2004, p. 31). The clinical supervisor may not directly observe the supervisee with clients but rather discusses cases through meetings with the supervisee (Sharrock et al., 2013). Their evaluation of the trainee's performance should be based on expected levels of competency in comparison to peers with similar levels of experience (Practicum I, Practicum II, Practicum III, Supplemental

Practicum & Internship). Given supervisors' continued interactions and monitoring of trainees over time, they are often assumed to provide reliable and valid assessments of trainees' performances (Gonsalvez & Freestone, 2007). However, research indicates that supervisors tend to rate their trainees' performance more positively, a phenomenon referred to as halo effect. Experts in this area have stated that they believe this may be due to the "supportive and nurturing role supervisors are called to play in their own therapy with clients and the formative role they play in building up skills and confidence in an often anxious and sometimes vulnerable trainee" (Gonsalvez & Freestone, 2007, p. 28). Experts in this area have stated that inconsistency in supervisors' ratings may be due to the lack of assessment tools with stable psychometric properties. Currently, competence assessment is moving toward more efficient paper-and-pencil objective measures that are simple to administer and score. Current research suggests that supervisors should evaluate trainees using the same methods, such as videos or audiotapes of students' work. Findings also indicate that field supervisor ratings of trainees' competencies from previous placements are not predictive of their competencies in later training placements. Some note that an increase in the measures used to assess student's knowledge, skills, and attitudes equates to "more reliability we can assume in our measures of multiple types of knowing and learning and gauged competence" (Lewis et al., 2011, p. 89). As more is understood about supervisee evaluation, it is likely that standardized measures of clinical competency will be further developed.

Supervision Outcomes

Researchers have found that supervision is generally associated with better client outcomes (Callahan, Almstrom, Swift, Borja & Heath, 2009). However, approximately 40% of supervision outcome studies since the 1990s were inaccurately labeled as supervision-patient

outcome studies yet provided implications for supervision outcomes (Watkins, 2011, p. 247). Bambling, King, Raue, Schweitzer, and Lambert (2006) conducted a study believed to be one of the best designed in the supervision outcome literature. Bambling et al. (2006) randomly assigned patients with major depression to supervised and unsupervised clinicians. They found that patients in the supervised treatment groups rated a higher working alliance with the clinician and experienced a significant reduction of symptoms than in the control groups. Other research suggests that strong supervisory relationships may indirectly lead to better client outcomes and trainees' performance (Vallance, 2005). Despite these recent developments, there is a dire need for more methodologically sound supervision outcome studies that examine the link between supervision and client outcomes over time that can more effectively support the practice of supervision (Britt & Gleaves, 2011; Vallance, 2005).

Supportive Clinical Supervision

Research suggests that supervisors should ideally provide moderate levels of support given that "autonomy is beneficial for learning, but only up to a certain optimum" (Wienlegna-Meijer et al., 2011, p. 293). Supervisors support trainees in many ways, including normalizing their anxieties, helping them cope with organizational stressors, and guiding them in their interactions with difficult clients (Britt & Gleaves, 2011; Howard, 2008). Supervisory support is also considered one of the most important components in the "change process" of supervision (Ladany, Ellis, & Friedlander, 1999, p. 447). Supervisees' feelings that supervisors were collaborative and that a mutual understanding existed in the relationship were found to predict overall satisfaction ratings of supervision (Britt & Gleaves, 2011). Many have found that the working alliance in the supervisory relationship is a key factor in determining supervisee satisfaction and wellbeing (Cheon et al., 2009; Howard, 2008). According to some experts,

"When the goals and tasks of supervision are clearly understood, collaboration in supervision is expected to be facilitated and the trainees' comfort with the supervisor and with self-evaluation will be enhanced" (Ladany et al., 1999, p. 448). This is supported by research suggesting that trainees' lower levels of satisfaction with their supervisors were associated with perceptions of higher levels of role difficulties with their supervisors. In professional school counselors, low levels of supervisory support were found to contribute to perceptions that they were less effective and to feelings of role dissatisfaction (Somody et al., 2008). Some have cited the benefits of clinical supervision to supervisees as including increased confidence and self-awareness (Vallance, 2005). It has also been found to be a practice that is negatively associated with job burnout, emotional exhaustion, and work stress (Howard, 2008; Schofield & Grant, 2013).

Group supervision is often provided in training programs to supplement individual supervision. Smith, Riva, and Cornish (2012) defined it as

> the regular meeting of a group of supervisees (a) with a designated supervisor or supervisors, (b) to monitor the quality of their work, and (c) to further their understandings of themselves as clinicians, of the client with whom they work, and of service delivery in general. (p. 238)

Group supervision is often perceived by trainees as supportive and as having many positive benefits including vicarious learning, perspective taking, obtaining feedback, and creating cohesion among individuals. It has been shown to be protective against burnout and other negative effects on mental health care providers (Acker, 2012). It is also a forum for open discussion that models appropriate responsiveness to feedback and evaluation (Peterson, 2004). For school-based trainees, this component of supervision is recommended as it provides trainees

the opportunity to exchange experiences and process their work in the school setting (Dunn, 2012).

Self-efficacy and clinical training. Some models of clinical training emphasize the importance of self-efficacy on performance. Within these models, supervisors utilize principles of positive psychology that enhance trainees' strengths and the development of their self-efficacy (Fialkov & Haddad, 2012; Ladany et al., 1999).

The social cognitive model of counselor training (SCMCT) was proposed by Larson (1998) and later by Daniels and Larson (2001) to support counselor educators as they help trainees become effective counselors. Based on Bandura's social cognitive theory, self-efficacy significantly impacts counselor performance. According to the SCMCT, supervisors provide modeling, social persuasion, and feedback to trainees to enhance their counseling self-efficacy and, ultimately, performance levels. Goodyear (1998) and Kincade (1998) praised the SCMCT model for being a useful application of Bandura's theory to guide research. Another model constructed by Briggs and Miller (2005) aims to enhance trainees' competence by enhancing their self-efficacy. This model facilitates the therapist-in-training's clinical abilities and positive outcomes by emphasizing what the trainee has done correctly.

Many studies have demonstrated the association between self-efficacy and performance levels in the context of clinical supervision. Lent et al. (2009) measured levels of change of master's level trainees' self-efficacy while conducting therapy. Results indicated that self-performance evaluations were associated with self-efficacy levels. A change in confidence was associated with participants' self-evaluation of their behaviors and interventions with clients. A study conducted by Daniels and Larson (2001) measured the impact of performance feedback from clinical supervisors on trainees' counseling self-efficacy. Daniels and Larson provided

positive or negative "bogus" feedback regarding the trainees' performance during a mock counseling session. Results suggested that sources of self-efficacy were associated with the feedback, either positive or negative, received from supervisors. This supports the idea that clinical supervision plays a significant role in performance because it enhances self-efficacy beliefs and gives trainees more opportunities to obtain feedback (Ladany et al., 1999; Van der Berg & Feij, 2003).

Effective supervision has also been shown to decrease levels of role stress in trainees. Friedlander, Keller, Peca-Baker, and Olk (1986) investigated whether graduate trainees' "conflict-prone" position in supervision led to decreases in their performance as counselors in a clinic setting (Friedlander et al., 1986, p. 73). Participants were divided into one of two groups in which they received either a conflicting or consistent message regarding their roles from their supervisors. Participants exposed to the role-conflicted condition were more likely to report negative perceptions of their performance. This suggests that supervisors' clear communication of trainees' roles can strongly impact the manner and efficacy in which they carry out tasks and how they perceive their abilities in this context. It also implies that role stress within supervisory relationships can form a barrier to appropriate levels of clinical competency.

Despite the developments made in clinical supervision, there are cases in which supervisors and supervisees do not experience a positive rapport and working alliance. This could be because of an incompatible match between supervisor and supervisee or a supervisee who is not receptive to his or her supervisor. It is also possible that a supervisor may not give the supervisee his or her full attention during the session, does not exhibit appropriate modeling, or cannot manage boundaries within the supervisory relationship (Crespi, 2003). Conflict within the supervisory relationship may arise when the supervisor and supervisee disagree on

contextual, environmental, and methodological variables (Cheon et al., 2009, p. 55). Weak supervisory relationships are often marked by "confrontational criticism, the direct attribution of blame, unclear agendas, and instructive, rather than interactive learning processes (Schofield & Grant, 2013, p. 2). They may also result in trainees ignoring feedback from their supervisors and inability to cope with challenging cases (Schofield & Grant, 2013). In addition, trainees may perceive supervision as a requirement rather than a process that facilitates training. In group supervision, trainees may feel more anxious if they have the impression that they are being criticized by their peers (Goodyear, 1998; Steward, 1998). While research in this area has significantly increased, the need remains for research on poor supervisory relationships and how they impact trainee's levels of clinical performance and competency levels (Schofield & Grant, 2013).

Self-evaluation of competence. Despite the growing amount of research regarding trainees with lower than expected levels of competence, few studies have been conducted that examine trainees' views of their own competencies or confidence in their skills and abilities (Kamen et al., 2010, p. 229).

Introducing trainee self-assessment could provide useful information on the understanding of competence. Kamen, Veilleux, Bangen, VanderVeen, and Klonoff (2009) highlighted the importance of developing an accurate self-assessment of performance early in clinical training so that one does not face a "rude awakening" when applying to internships and jobs (Kamen et al., 2009, p. 232). Researchers found that self-perceived competencies are more closely associated with students' performance later in their graduate programs than those made by their supervisors and peers. Other significant findings suggest that trainees' perceived abilities in certain domains correlate with their future career trajectory and that trainees may put

forth more effort in areas related to their intended career goals. This demonstrates the importance of obtaining trainees' perspectives of their performance as it gives them the opportunity to enhance their strengths and identify their weaknesses.

Research Questions and Conceptual Model

The literature previously discussed suggests that mental health practitioners often face many stressors, including a lack of clarity regarding roles, high job demands, and a lack of social support (Acker, 2012; Howard, 2008). This is especially true for psychology trainees who interface with "a new organizational culture, stress from new tasks and role demands, unfamiliar tasks, potential interpersonal communication issues, and other kinds of uncertainty in the new environment" (Wang et al., 2011). When trainees transition to higher levels of training and practice, they may be subject to systems that are obscure, suspicious, and hostile (Sharrock et al., 2013). This applies to those training in the school setting given the many challenges that arise in the delivery of SBMH services, including effective communication with school personnel and parents, discrepancies of treatment goals, and lack of a clinical psychology model of best practice in this context (Duchnowski & Kutash, 2011, p. 324). As the providers of many of these services, school-based trainees are often expected to uphold the same roles and performance as well as experienced providers and are often faced with "sink-or-swim" situations (Stephan et al., 2006, p. 219). Therefore, in the school setting the ideal provider is one who is autonomous and proactive and can effectively communicate, earn staff support, deliver treatment to students, and fulfill the school system's expectations (Den Hartog & Belschak, 2012; Peterson, 2006; Ringeisen et al., 2003). High levels of self-efficacy in trainees along with support from those in the school organization can also facilitate one's functioning in the school system (Massey et al., 2005; Suldo et al., 2010). Clinical supervision has been shown to support trainees' competence

levels. Effective supervision allows for an optimum level of autonomy for learning to occur (Weilenga-Meijer et al., 2011). It may also decrease role stress and enhance self-efficacy (Britt & Gleaves, 2011; Cheon et al., 2009; Ng & Smith, 2012; Weilenga-Meijer et al., 2011). Effective supervision has also been shown to have an impact on intervention outcomes (Ringeisen et al., 2003). Interaction with peers in group supervision where they may explore the cultures of the school, clinic, and mental health care can also serve as another forum in which trainees can gain better understanding of their work in the schools (Armbruster, 2002; Ladany et al., 1999).

Social-cognitive theory is engrained in the "implicit theories that underlie current clinical psychology curricula" (Baillie et al., 2011, p. 97). For instance, the modeling component of social-cognitive theory is found in didactics and the direct and indirect modeling of a practitioner (Peterson, 2004). Throughout training, it is essential that trainees increase their self-efficacy and beliefs in their ability to utilize skills and handle new responsibilities as this impacts their performance in a given context (Howard, 2008).

The present study is important because there is a dearth of literature on clinical psychology trainees and their experience in the school setting. Little is known about the unique challenges trainees face and the learning process they experience (Baillie et al., 2011). In addition, many resources are invested in clinical psychology trainees so that they are able to deliver quality mental health services (Baillie et al., 2011). Therefore, assessing trainee competence is of great importance and a challenge to clinical psychology programs (Petti, 2008). Examining trainees' interactions with providers and systems and their influence on performance in specific settings is necessary and just beginning to emerge (Capella et al., 2012; Jackson, Wu, Aylward, & Roberts, 2012; Pakenham & Stafford-Brown, 2012; Petti, 2008). Professional

psychology programs must evaluate students on their "attitudes, aptitudes, and values that appear likely to predict future professional competence" (Peterson, 2006, p. 31). This requires the delineation of clear competencies in training programs to allow for reinforcing trainees' abilities while also noting areas for improvement and remediation (Peterson, 2004). When trainees are able to recognize their strengths and weaknesses, they are more likely to show motivation and the capacity for professional growth (Lewis et al., 2011). In addition, methods for evaluating clinical competency for self-performance and supervisor performance of trainees across settings need to be further developed and validated. In doing so, the field of psychology "should take into account organizational influences, stressors, individual personality and coping styles, and psychological symptoms commonly reported by psychologists" (Kaslow et al., 2007, p. 488).

I chose the variables mentioned here because of their impact on performance. The present study used quantitative methods to investigate clinical competency assessment as it relates to performance. The significance of the study is twofold. First, it examined the association between the factors that account for the correlations between items on the FPEF used by the CSPP's Office of Professional Training to determine the FPEF's underlying factor structure. Second, it investigated the internal and external variables that are associated with performance indicators on the FPEF based on SBMH trainee self-ratings and supervisor ratings.

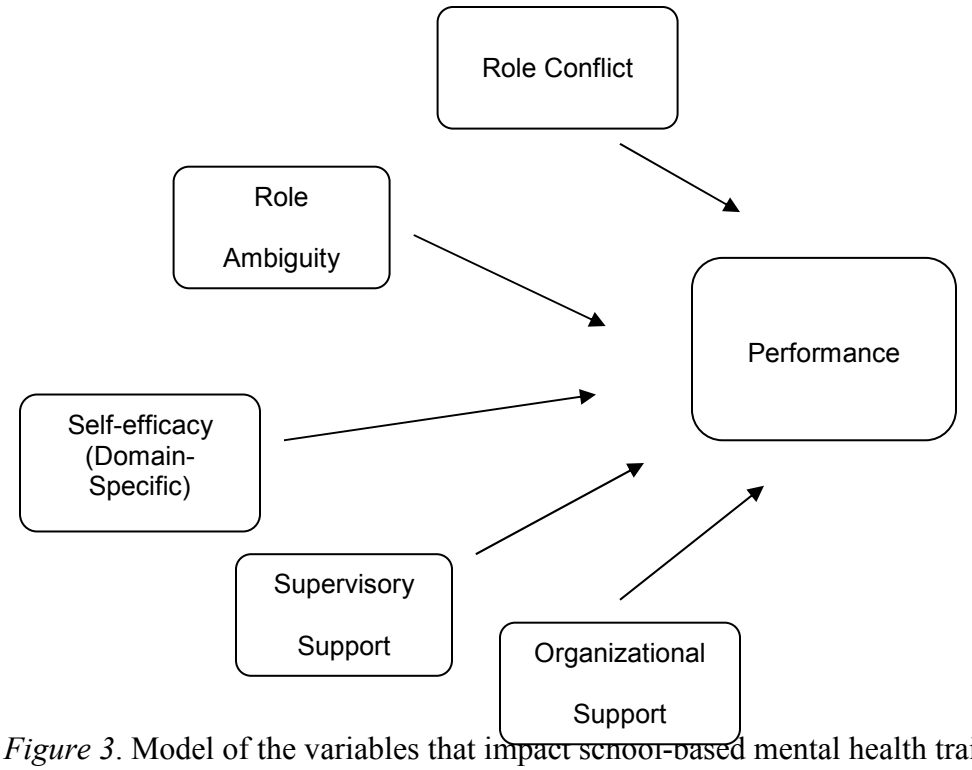

Figure 3. Model of the variables that impact school-based mental health trainee performance.

Research Questions

The challenging work done by mental health practitioners warrants a deeper understanding of the "structural and professional support mechanisms needed to optimize performance" (Schofield & Grant, 2013, p. 8). Therefore, it is necessary to understand how this construct is measured at the CSPP. The FPEF scales are based on perceived similarities between items. However, a more thorough investigation of the underlying factor structure was warranted. Based on the literature on clinical competence, the following research questions were posed:

Research Question 1: What are the independent factors that comprise the FPEF as rated by supervisors? Does the factor structure reveal different factors than those on the FPEF?

Research Question 2: What contextual variables are associated with the performance indicators on the FPEF based on self and supervisor ratings?

Literature suggests that the school setting as a training environment may pose many challenges to trainees with little or no clinical experience. While there is limited understanding of the factors that may contribute to clinical competence with this population, research indicates that there are variables impacting performance and the implementation of SBMH services. These include support from school personnel and its impact on SBMH service implementation. Lack of support from school principals, teachers, and support staff has been found to contribute to lower performance levels in school counselors (Hughes & Theodore, 2009). In addition, support from school staff has been shown to give individuals a sense of capability and the resources needed to fulfill their roles.

Lastly, in the school setting, role receivers (i.e., SBMH practitioners) may not exactly know from whom they should receive roles. SBMH practitioners may receive roles from many parties, including school principals, teachers, and supervisors, resulting in difficulty implementing services (Suldo et al., 2010). This could cause some confusion as to who is the primary role sender. It may also cause some distress, as trainees want to avoid social disapproval from those in their environments.

In optimal situations, trainees in the school setting who perceive high levels of support from their supervisor will manage challenges through clarified roles, enhanced self-efficacy, and received support. Support from supervisors and peers is essential to each trainee's development (Britt & Gleaves, 2011; Dunn, 2012; Howard, 2008; Ladany et al., 1999). Supervision may help the trainee understand roles and enhance treatment knowledge and interactions with clients (Stephan et al., 2006; Watkins, 2012b). Research indicates that strong supervisory relationships have a significant impact on client outcomes and trainee performance (Vallance, 2005). When communication between supervisor and supervisee is strong, the supervisory relationship is also

likely to be perceived as supportive (Ladany et al., 1999, p. 448). Direct feedback from superiors and peers has been found to be associated with lower levels of role ambiguity (Andrews & Kacmar, 2001). In school counselors, low levels of supervisory support were associated with role dissatisfaction (Somody et al., 2008). Some models of clinical training based on Bandura's social cognitive theory emphasize the importance of self-efficacy on performance (Briggs & Miller 2005; Daniels & Larson 2001; Larson 1998). Many studies have demonstrated the association between self-efficacy and performance levels within the context of clinical supervision (Larson & Daniels, 2001; Lent et al., 2009). This is partly due to trainees obtaining another opportunity to receive feedback on their performance (Ladany et al., 1999; Van den Berg & Feij, 2003).

When assessing levels of social support in various settings, it is essential to recognize the individual's perception of help from others rather than objective levels of support. Capturing the source and type of support is necessary to understand what behaviors from various personnel assist an individual to function in that environment (Winefield, Winefield, & Tiggeman, 1992). Currently, it is unclear as to which of these variables are associated with performance indicators on the FPEF from trainees' and supervisors' perspectives. Based on research on the mentioned variables and performance, I tested the following hypothesis.

First, SBMH trainees' perspectives of variables will be associated with their performance as rated by trainees' self-ratings on the FPEF.

Hypothesis 1: Lower levels of role stress, higher levels of self-efficacy, and higher levels of organizational support and supervisory support will be associated with higher levels of trainee performance based on the trainee's self-evaluation.

Second, trainees' perspectives of variables will be associated with performance as rated by supervisors.

Hypothesis 2: Lower levels of role stress, higher levels of self-efficacy, and higher levels of organizational support and supervisory support will be associated with higher levels of supervisor's perceptions of the trainee.

CHAPTER III

Method

This chapter discusses the research method used in the present study. The purpose of this study was to determine if the five domains of the FPEF differed as rated by supervisors of 294 clinical psychology trainees. Another purpose was to identify the most influential performance indicators among the internal variables (role conflict, role ambiguity, self-efficacy) and external variables (organizational support and supervisory support) across FPEF domains.

Research Design

The present research provided insight on the clinical competency of clinical psychology graduate students. It included two sequential studies. The first study (Study One) used archival data to examine the association between the factors accounting for the correlations between items on the FPEF to determine the underlying factor structure. It was also to determine if the independent factors that comprise the FPEF as rated by supervisors reveal different factors than those on the FPEF. The second study (Study Two) examined the internal and external variables that are associated with performance indicators on the FPEF based on self and supervisor ratings.

The first study consisted of three phases:

- retrieval of data,
- data analysis and uncovering of factor structure, and
- finalization and labeling of the four factors that were found to influence performance according to supervisor ratings of clinical competency.

The purpose of the second study was to understand the most influential internal variables (role conflict, role ambiguity, domain-specific self-efficacy) and external variables (organizational support and supervisory support) on FPEF ratings. Here, I used multiple

regression analyses to predict SBMH trainees' perspectives of aspects of their training in the school setting and how this influenced their performance as rated by supervisors and self-ratings. Demographic questionnaires completed by trainees and FPEFs completed by supervisors and trainees themselves were used as data collection tools. I then applied descriptive, correlational, and regression statistical analysis. Demographic data were collected from SBMH trainees via a questionnaire that was distributed either in person or on the Internet. FPEFs from each participant were collected either in person or from the Office of Professional Training at the CSPP.

Next, I describe the two studies in detail, including sampling, procedure, and statistical analysis methods used. The major sections of this chapter describe each study, and each section includes the following subsections: Objectives, Participants, Procedure, Instrumentation, Reliability and Validity, and Data Analysis.

Study One: Uncovering the Independent Factors Comprising the FPEF as Rated by Supervisors to Determine if the Factor Structure Reveals Different Factors Than Those on the FPEF

Objectives. Clinical competence is defined by Epstein and Hundert (2002) as "the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and the community being served" (p. 226).

Core clinical competencies should correlate with performance, reflect one's real world performance, and can be used to evaluate students (Falender & Shafranske, 2004; Kaslow et al., 2007). Thus, to understand the foundations of clinical competency in graduate students, how they are currently being measured must be identified. While this is likely to vary from program

to program, at the CSPP the FPEF has been used to understand how trainees perform at their training placements. Therefore, examining the FPEF's underlying factor structure allows for a meaningful investigation of performance measurement. The newly generated performance indicators were revealed by a factor analysis of the FPEF based on the following domains: psychological intake, evaluation and assessment; clinical interventions; professional roles and behaviors; self-examination and development; and supervision. The following steps were taken to uncover the newly generated performance indicators:

1. A principal factor analysis on the archival data collected was performed.
2. The most salient factors based on the items' correlations were determined.
3. The newly generated factors were labeled.

One of the main purposes for conducting the factor analysis was to identify performance indicators and compare them to those on the FPEF. The newly generated factor structure was used as an outcome measure for the second study.

Participants. The sample included 294 de-identified FPEFs as rated by trainees' supervisors. All of the evaluations were from students working toward a doctoral degree (doctor of psychology [PsyD] or doctor of philosophy [PhD]) in the CSPP's clinical psychology program.

Students may have been part or full time. Evaluations were from training levels including Practicum I (PhD only), Practicum II, Practicum III, Supplemental Practicum, and Internship. Students had secured their training placements through the university's Office of Professional Training. Trainees were given credit for their practicum and internships once the evaluations were submitted at the end of the each semester. This form was completed twice per training year by trainee supervisors at the end of each semester.

For this research, I decided to utilize FPEFs from the Fall semesters 2011 and 2012 (see Table 2 for detailed information on sample demographics). This decision was made for two reasons. First, in order to obtain the desired number of FPEFs, it was necessary to obtain evaluations from more than one academic semester. Second, using data from different years would allow obtaining the desired number of FPEFs without including any student's evaluation in the study more than once. In this way, each student's evaluation was included in the analysis once.

Table 2

*Trainees' Demographics From Archival Field Placement Evaluation Forms (*N = *294)*

Training year	Training level	Training program	
		Doctor of Psychology (PsyD)	Doctor of Philosophy (PhD)
2011	Second half-time internship	6	1
2011	Full-time internship	34	8
2011	Full-time APA internship	14	8
2012	Practicum I	n/a	16
2012	Practicum II	54	22
2012	Practicum III	41	n/a
2012	Supplemental practicum	8	13
2012	First half-time internship	1	3
2012	Full-time internship	6	43
2012	Full-time APA internship	8	8
Total per training program		172	122

The FPEF measure. The FPEF is comprised of 54 objective items that measure supervisor ratings of trainees' performance. The questionnaire was developed for use at the Office of Professional Training at the CSPP. The office agreed to my use of data for the purposes of this study. The measure was used to evaluate various dimensions of competence levels in clinical psychology training across a wide variety of settings and training levels. The FPEF domains were originally based on perceived item similarities across domains: psychological intake, evaluation and assessment; clinical interventions; professional roles and behaviors; self-examination and development; and supervision. Supervisors are asked to rate their supervisees' performance on a 5-point Likert scale from 1 (*significantly below expected competency*) to 5 (*significantly above expected competency*). Items include "Applies theoretical/conceptual understanding to interventions" and "Effectively manages demands of work and stress." A response for scores 2 or below (below expected competency) required that the supervisor provide an explanation as to why the trainee performed below expected competency. While it is possible to obtain a sum of scores on the FPEF, this is not how the form is utilized. Supervisors' ratings of each trainee are reviewed by each trainee's liaison. Trainees are then given one of three overall grades indicating no concern, some concern, or serious concern with the trainee's performance. Should any trainee's FPEF reflect that the trainee has not performed at the expected competency, a remediation plan is often put in place.

Not all of the FPEF domains are relevant to the present study; therefore, 44 of the 54 objective items were included in the analysis. Ten items were dropped because they provided redundant information.

Once verified, the performance indicators were defined by the factors generated by the principal factor analysis that was used in Study Two. The principal factor analyses revealed the underlying factor structure using supervisors' evaluations of trainees only.

Study Two: Identifying the Contextual Variables Associated With Performance Indicators on the FPEF Based on Trainees' Self-Ratings and Supervisor Ratings

Research goal and design. This section addresses the main components of the research design. The participants, procedures and measures are explained. The independent variables included were those internal to the trainees (role conflict, role ambiguity, self-efficacy) and those external to the trainees (organizational support and supervisory support).

The dependent variables were revealed by a factor analysis of the FPEF based on the following domains: psychological intake, evaluation and assessment; clinical interventions; professional roles and behaviors; self-examination and development; and supervision. SBMH trainees were solicited to complete a questionnaire either in person or online. The survey included Likert-type scales and queried participants on their perceived levels of the internal variables and the external variables. Participants signed a consent form (see Appendix A) that also included the release of their Fall 2013 FPEF as rated by their supervisors. Follow-up was 2 months later when participants' FPEFs were collected, either directly from the participant or from the Office of Professional Training. At that time, trainees also provided ratings of their performance on the Trainee Self-Evaluation Form.

Participants. Forty-seven SBMH trainees were included in the second study. I decided to pursue only students enrolled at the CSPP instead of those enrolled at other graduate institutions (see Table 3 for detailed information on participants' demographics) for a number of reasons. This allowed for the use of the FPEF, an evaluation required for all trainees to obtain

credit for their clinical placement. In this way, I would have access to trainees' FPEFs as they would be in the Office of Professional Training's possession. I chose not to recruit participants from other clinical psychology graduate programs given that their evaluations would most likely differ from those of CSPP students in approach and tool (or tools) used. As a result, the performance measure used could be compared across participants

Initially, 52 trainees consented to participate in the study. However, five surveys were excluded. Four cases were removed from the dataset because the participants did not complete the follow-up questionnaires, and one case was removed as there were many items that were not answered. As a result, 47 participants were included in this study.

Participation in the study was voluntary. Those who chose to participate were read a scripted invitation to participate either in person at a training clinic or were provided with a link to the survey or online postings (see Appendices B and C for the scripted invitation and online advertisement). In order to participate, trainees had to be contracted in a training program that provided SBMH services for the academic year (Fall 2013 to Spring 2014). Trainees were placed in approximately 15–20 training programs with services provided to 40–50 schools. Therefore, it was estimated that there was a pool of 65–75 eligible participants.

Power analysis for correlational and regression analysis was calculated to ensure accurate parameter estimates and an adequate sample size using sample size calculation software (Soper, 2013). Based on previous findings, moderate effect size (r = .35) was estimated for the current correlational analyses (Cohen, 1988). Fisher's exact test yielded a power of .80 with two-tailed alpha of .05. For the social sciences, .30 meets criteria for a medium effect size (Cohen, 1988). The regression analysis alpha was .05 with power at .80.

The regression analysis originally included six predictor variables (role conflict, role ambiguity, role incongruence, domain-specific self-efficacy, organizational support, and supervisory support). In order to attain an appropriate effect size with six predictor variables, the sample size required was 46 based on Cohen's criteria of .80 for a large effect size with 6 predictors with a two-tailed alpha of .05 (Cohen, Cohen, West, & Aiken, 2003). Role incongruence was later removed as a variable.

Respondent demographic characteristics. All respondents ($N = 47$) were graduate students conducting psychotherapy and possibly providing consultation to school staff and parents in a SBMH program. All trainees were enrolled in the CSPP's clinical psychology program and were pursuing doctorates. Of the respondents, 12 were male (25.53%) and 35 were female (74.47%). Of the respondents, 36 were enrolled in the PsyD program (76.6%), and 11 were enrolled in the PhD program (23.4%). Eleven respondents reported being under age 25 years (23.4%), 30 reported being 26–30 years of age (68.83%), and six were 31–40 years of age (12.77%).

Respondents were at various levels of training, with seven (14.89%) fulfilling their Practicum I (PhD only), 28 (59.57%) fulfilling Practicum II, seven (14.89%) fulfilling Practicum III, four (8.51%) fulfilling an optional Supplemental Practicum, and one respondent (2.12%) fulfilling Internship.

Participants worked in a variety of school settings, with 11 (23.4%) in elementary schools, eight (17.2%) in middle schools, 18 (38.3%) in high schools, three (6.38%) in special day classrooms, and seven (14.89%) in a combination of two school settings. About half (24, 51.06%) of respondents reported their highest level of education was a bachelor of arts/bachelor

of science degree while the other half (23) reported a master of science/master of arts degree (48.94%). Table 3 shows the demographic characteristics of the sample population.

Table 3

*Respondents' Demographic Characteristics (*N = *47)*

Demographic characteristics		Frequency	%
Gender	Male	12	25.53
	Female	35	74.47
Age (in years)	Under 25	11	23.40
	26–30	30	63.83
	31–40	6	12.77
	41–50	0	0
	51–60	0	0
	60+	0	0
Ethnicity	Asian	7	14.89
	Black	0	0
	Latino	3	6.38
	Native American	0	0
	White	30	63.83
	Other	7	14.89
Highest academic degree attained	Bachelor's	24	51.06
	Master's	23	48.94
	Specialist	0	0
	Doctoral	0	0
Type of degree in the process of attaining	Doctor of Psychology (PsyD)	36	76.60
	Doctor of Philosophy (PhD)	11	23.40
Current training placement	Practicum I	7	14.89
	Practicum II	28	59.57
	Practicum III	7	14.89
	Supplemental Practicum	4	8.51
	Internship	1	2.12
Years of experience as a mental health trainee or professional of any kind	Less than 1 year	9	19.15
	1–2 years	11	23.40
	2–3 years	17	36.17
	4+ years	10	21.28

(continued)

(continued)

Demographic characteristics		Frequency	%
Years of experience as a mental health professional in the school setting	Less than 1 year	19	40.43
	1–2 years	18	38.30
	2–3 years	7	14.89
	4+ years	3	6.38
Have you worked in a school setting before in any capacity?	Yes	32	68.09
	No	15	31.91
How long have you been in your present school placement?	Less than 1 year	42	89.36
	1+ year	5	10.64
Your school placement is currently in a:	Elementary school	11	23.40
	Middle school	8	17.02
	High school	18	38.30
	Special day class	3	6.38
	Combination of school settings	7	14.89
What is/are your school(s) current enrollment?	Less than 300	18	38.30
	300–700	25	53.19
	More than 700	4	8.51
Have you been enrolled in a school counseling program or have worked as a professional school counselor?	Yes	2	4.26
	No	45	95.74
I have heard of the American School Counselor Association	Yes	2	4.26
	Maybe	0	0.00
	No	45	95.74
I am familiar with ASCA standards	Yes	2	4.26
	Maybe	0	0.00
	No	45	95.74
I follow ASCA standards in my work with clients	Yes	2	4.26
	Sometimes	0	0.00
	No	45	95.74

Instrumentation. In order to better target SBMH trainees, I obtained a list of training agencies and programs from the CSPP's Office of Professional Training that provided the number of students at each training site. It also provided some information on whether the

training program had a school-based training program. From this list, directors of training programs were also asked for permission to recruit participants at their respective agencies. This was done in person (see Appendix D) and via individual emails.

Permission was obtained from the appropriate parties for the use of measures prior to data collection (see Appendix E). Data were collected for this study using an Internet-based survey instrument (Qualtrics) and in-person recruitment. Participants were recruited via advertisements posted on campus and online along with the survey link. Recruitment advertisements were also posted in social media. Participants were required to provide consent to use their data.

Data collection occurred in two phases and took place over approximately two months (December 2013 to February 2014). In December 2013, the Demographic Questionnaire was used to gather background information from participants. The Personal Efficacy Beliefs Scale, Role Questionnaire, Organizational Support subscale, and Supervisory Support subscale were also distributed.

The second data collection point was in February 2014. I presented each participant with a self-evaluation of performance based on the FPEF. In February 2014, supervisors' ratings (the FPEF) were collected from the Office of Professional Training or from the trainee directly. I had considered how to maximize power given this research design. To do this, I reduced the effects of random error by increasing the size of treatment effect (Mitchell & Jolley, 2007). I standardized testing procedures and developed a protocol to follow when gathering data.

Table 4

Data Collection Points

Data source	Point 1–December 2013	Point 2–February 2014
Trainee	Demographic Questionnaire	Field Placement Evaluation Form
	Personal Efficacy Beliefs scale	
	Role Questionnaire	
	Organizational Support subscale	
	Supervisory Support subscale	
Supervisor	N/A	Field Placement Evaluation Form

As an incentive for participation, trainees were given the option to participate in a drawing (see Appendix F) to win one of five $20 Target gift cards. To be eligible for the drawing, participants were required to complete all surveys, complete the follow-up self-evaluation, and provide the email they wished to be contacted at should they win one of the gift cards. Once data collection was complete, I randomly drew emails of the participants included in the drawing. These participants were then contacted to make arrangements for how they wanted to receive the gift card (i.e., mail). Participants were also offered the opportunity to receive a summary of results.

Participant information and data remained confidential and were stored in a secure location. Participants were also de-identified and assigned a participant number. Once participants' FPEFs were obtained from the Office of Professional Training, identifying information was immediately removed to ensure anonymity.

Measures

Demographic Questionnaire. A brief demographic self-report questionnaire was distributed to participants. It contained items pertaining to participants' background, education, type of graduate program, and experience as a trainee.There were three additional questions for trainees regarding their exposure to ASCA standards.

Personal Efficacy Beliefs Scale. The Personal Efficacy Beliefs Scale is a 10-item measure developed to assess personal self-efficacy as it relates to one's job based on Bandura's construct (Riggs et al., 1994). The measure was altered to apply to the domain-specific self-efficacy investigated in this study.

The instrument contains a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) to assess trainees' ability to fulfill their position in the school setting. A total of 70 points is possible with lower scores associated with lower levels of personal efficacy beliefs. For the purposes of this study, items were altered from "I have all the skills needed to perform my job very well" to "I have all the skills needed to perform my job very well in this setting" and from "Most people in my line of work can do this job better than I can" to "Most trainees who had this position could do this job better than I can." Five of the 10 items are reverse scored. Changes to the Scale such as these are appropriate as the authors have stated the need for custom construction of the scales to demonstrate valid and reliable psychometric properties. In a sample of 138 employees of various work groups from Southern California, internal consistency for the Personal Efficacy Beliefs Scale yielded a Cronbach's alpha of .86.

Role Questionnaire. The Role Questionnaire is a self-report instrument developed by Rizzo, House, and Lirtzman (1970) to measure aspects of role stress in work settings. including role conflict, role ambiguity, and role incongruence in work settings. The questionnaire was

originally created to identify weaknesses in a planned management-development program in a manufacturing company and measured two aspects of role stress: conflict and ambiguity. A factor analysis was later conducted by Freeman and Coll (1997), who were interested in measuring role stress in school counselors. This allowed researchers to observe factor loadings, and an additional subscale was developed to identify items that assessed role incongruence. However, in the present study the Role Incongruence subscale yielded a low value at .34. Given this low level of reliability, the original two-factor structure model was utilized (see Table 5).

Table 5

Role Questionnaire Subscales

Role stress dimension	Items
Role conflict	1–8 (role overload and inconsistencies between role senders)
Role ambiguity	9–14 (lack of clarity of duties and responsibilities)

The Role Questionnaire uses a 7-point Likert scale was utilized ranging from 1 *(strong disagreement)* to 7 *(strong agreement)*. Items measure the dimensions of role stress: (a) role conflict, "I work with two or more groups who operate quite differently"; and (b) role ambiguity, "I work on unnecessary things." A total of 98 points is possible with higher scores associated with higher role stress. Six items are reverse scored. Internal reliability was reported in the average range of .75 for a range of occupational groups including nursing and public utility workers (Culbreth et al., 2005).

Organizational Support. The Organizational Support subscale contains five items and was adapted from the Multi-Dimensional Support Scale (Winefield et al., 1992). This scale was designed to gather data regarding each respondent's frequency of emotional, practical, and informational support from various sources.

The original version contains three subscales that pertain to confidants, peers, and supervisors. The original version of the supervisor's subscale was adapted for use in the present study because of its applicability for organizational support. The subscale used for this study demonstrated high internal reliability of availability of received support (.87) in 483 young adults from their supervisors or professors. The subscale measuring sufficiency of support was not included. The measure was slightly adjusted for use in this study so participants could provide their perceptions of levels of organizational support from the principal and from teachers and support staff at their school placement. Participants were asked to rate each support source using the same five items. Respondents rated frequency of support on a 4-point scale ranging from 1 (*never*) to 4 (*always*). A range of 10–40 points is possible with higher scores associated with higher levels of support. Examples of altered items include "How often did they listen to you when you talked about your concerns or problems?" and "How often did they listen to you when you talked about your concerns or problems of working in this setting?" One item, "How often did they fulfill their responsibilities towards you in helpful practical ways?", was not changed as it was applicable to this study.

Supervisory Support. The Supervisory Support subscale was also adapted from Winefield et al.'s (1992) Supervisor's subscale of the Multi-Dimensional Support Scale. For the purpose of this study, the measure was adjusted in the same manner as the Organizational Support subscale. Participants respond to items in two sections in relation to supervisory support from individual and group supervisors and group supervision with peers in their training programs. Respondents rated frequency of support on a 4-point scale ranging from 1 *(never)* to 4 *(always)* with a range of 10–40 points possible. This subscale was scored in the same manner as the Organizational Support subscale.

CHAPTER IV

Results

This chapter provides the results in addition to corresponding tables and figures. Analyses were conducted to examine the FPEF's underlying factor structure. First, the appropriate analyses were conducted. Second, the findings are reported as they relate to the hypotheses. Last, a summary of relevant results is included.

Study One: Examining the Underlying Factor Structure of the FPEF as Rated by Trainees' Supervisors

The underlying factor structure of the 44-item FPEF was examined. The measure is divided into domains including: psychological intake, evaluation and assessment; clinical intervention; professional roles and behaviors; self-examination and development; and supervision. One research question guided Study One: What are the independent factors that comprise the FPEF as rated by supervisors? Does the factor structure reveal different factors than those on the FPEF? Findings for Research Question 1 are explained in the following section.

Data cleaning and preparation, and preliminary analyses. Descriptive analyses were completed to determine the appropriateness of the data set. Distribution statistics were examined using skewness and kurtosis indices and histograms. Most variables showed some skewness in the negative direction, likely associated with the underlying construct of the performance factor (see Table 6). Despite the presence of some outliers, there was not sufficient evidence to suggest they would distort the factor analysis. Therefore, no data transformation procedures were conducted given that the factor extraction method utilized, principal factor analysis, has no distributional assumptions (Garson, 2007).

Table 6

*Descriptive Statistics for Original 44-Item Field Placement and Evaluation Form (*N *=294)*

Item	Scale	*M*	*SD*	Skewness	Kurtosis
	Psychological Intake, Evaluation, & Assessment				
A1		3.50	.78	-.82	4.14
A2		3.55	.80	-.90	3.97
A3		3.61	.87	-1.11	4.28
A4		3.44	.73	-.60	3.92
A5*		3.57	.715	.36	-.38
A6*		3.61	.78	.35	-.55
A7		3.27	1.35	-1.37	1.33
A8		3.37	1.19	-1.53	2.63
A9		3.62	1.00	-1.68	4.58
	Clinical Interventions				
B1		3.95	.67	.06	-.79
B2		4.00	.73	-.54	1.90
B3		3.71	.72	-.07	1.34
B4		3.69	.81	-.60	2.96
B5		3.50	.67	.46	-.20
B6		3.78	.72	.19	-.63
B7		3.82	1.87	13.34	209.15
B8		3.77	.73	-.33	1.58
B9		2.97	1.43	-1.14	.40
B10		3.81	.73	-2.40	1.39
B11		3.50	.80	-.61	3.70
B12		3.38	.90	-1.41	5.03

(continued)

(continued)

Item	Scale	*M*	*SD*	Skewness	Kurtosis
	Professional Roles & Behaviors				
C1		4.02	1.88	12.76	197.96
C2		3.88	.78	-.40	.99
C3		3.82	.81	-.43	.99
C4		3.81	.78	-.27	.88
C5		3.91	.77	-.76	3.13
C6		3.82	.80	-.46	1.25
C7		3.68	.88	-.95	3.60
C8		3.89	.73	-.40	1.60
C9		3.73	.77	-.52	2.57
	Self Examination & Development				
D1		4.01	.70	-.80	-.73
D2		3.88	.71	.00	-.69
D3		3.72	.71	.06	-.09
D4		3.65	.76	.156	-.53
D5		3.66	-.75	-.30	1.66
D6		3.68	.70	.29	-.51
D7		3.72	.73	-.78	1.13
D8		3.38	.72	.16	-.85
	Supervision				
E1		4.18	2.43	15.10	248.11
E2		3.96	.73	-.26	.041
E3		3.97	.71	-.13	-.57
E4		4.01	.67	-.15	-.34
E5		3.84	.76	-.40	1.57
E6*		3.89	.68	.14	-.77

Note. Asterisked items were not included in factor analysis given the large number of missing values; A5 (n = 137), A6 (n = 56), and E6 (n = 45).

Psychometric properties: Internal consistency results. Internal consistency estimates were used to determine reliability of the FPEF using the Cronbach's alpha split-half analysis. It was found that the FPEF yields adequate reliability (see Table 7).

Table 7

Overall Reliability Statistics (41 Items)

Half	*N*	Cronbach's alpha
Part 1	21	.882
Part 2	20	.914

Note. The Part 1 items are: A1, A2, A3, A7, A9, B1, B2, B3, B5, B7, B8, B11, C4, C5, C6, C8, D4, D6, E1, E2, E3, E. The Part 2 items are: A4, A5, A6, A8, B4, B6, B9, B10, B12, C1, C2, C3, C7, C9, D1, D2, D3, D5, D7, D8, E4, E5. Items A4, A5, and A6 were excluded from reliability statistics due to missing values. Correlation between Part 1 and Part 2 = .909.

Cronbach's alpha was calculated on each FPEF subscale to determine if each subscale measured the construct it is intended to measure (Field, 2009). Cronbach's alphas with values (> .60) were considered to show adequate reliability (Hair, Black, Babin, Anderson, & Tatham, 2006). Subscales yielded the subsequent alphas and surpassed the recommended levels (see Table 8). In addition, correlations between subscales are shown in Table 9.

Table 8

Reliability Statistics for Subscales

Scale	Cronbach's alpha	No. of items
Psychological Intake, Evaluation, & Assessment	.94	9
Clinical Intervention	.84	12
Professional Roles & Behaviors	.87	9
Self-Examination & Development	.93	8
Supervision	.96	6

Table 9

Correlations Among Field Placement Evaluation Form Subscales

Scale	Psychological Intake, Evaluation, & Assessment	Clinical Intervention	Professional Roles & Behaviors	Self-Examination & Development	Supervision
Psychological Intake, Evaluation, & Assessment		.808*	.758*	.810*	.839*
Clinical Intervention	.808*		.709*	.764*	.827*
Professional Roles & Behaviors	.758*	.709*		.738*	.810*
Self-Examination & Development	.810*	.764*	.738*		.852*
Supervision	.839*	.827*	.810*	.852*	

*$p < .01$ level.

Principal factor analysis. Principal factor analysis, a type of exploratory factor analysis, determines the least number of factors that may account for the common variance of a set of variables and is generally used when the purpose is to understand data structure (Garson, 2007). The factor analysis assists in concluding whether items clustered together based on the five FPEF domains. This was done in two stages: factor extraction and factor rotation.

Factor extraction. Criteria used to determine which factors were retained were decided by using guidelines put forth by Field (2009). An overall correlation matrix was produced (see Table G1 in Appendix G) and intercorrelations among variables were examined.

Most of the Pearson correlation coefficients demonstrate medium relationships (> .30). Correlation coefficients ranged from .044 to .799. Multicollinearity is not of concern as all values are below .80. Bartlett's test of sphericity and Kaiser-Meyer-Olkin statistics (see Table 10) each indicate that the sample size is sufficient to provide a stable factor solution (Field, 2009). The anti-image covariance matrix shows the negatives of the partial covariance (see Table G2 in Appendix G). The anti-image correlation matrix also demonstrates the factorability of the matrix (see Table G3 in Appendix G) as diagonals of the anti-image correlation were large (.84 to .98) and above .5, which is above the recommended value (Field, 2009). Missing data were addressed through the use of pairwise deletion, an appropriate approach given that biases in parameter estimates are likely to be small due to the large number of items (Graham, 2009).

Table 10

Kaiser-Meyer-Olkin and Bartlett's Test for 41 Items

Measurement	Value	Chi-square	*df*	*p*
Kaiser-Meyer-Olkin	.960			
Bartlett's test of sphericity		8984.69	820	.000

Factor retention. Factor loadings for the unrotated factor matrix are presented in Table 11. Six factors were identified as clusters using the unrotated analysis. It was concluded that four factors were appropriate for retention. In order to determine this, factors with eigenvalues of 1.00 or greater (see Table 12) were maintained for rotation (Kaiser, 1960). This was verified by using the variance explained criteria (Garson, 2007), Cattell's scree plot test (1966), and Horn's (1965) parallel analysis.

Table 11

Unrotated Principal Axis Factoring Eigenvalues and Total Variance Explained in the Field Placement Evaluation Form (41 Items)

Factor	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	19.56	47.71	47.71	19.22	46.87	46.87
2	2.06	5.02	52.73	1.71	4.18	51.07
3	1.74	4.24	56.97	1.40	3.41	54.46
4	1.45	3.54	60.51	1.10	2.66	57.12
5	1.11	2.71	63.22	.75	1.83	58.95
6	1.05	2.57	65.78	.64	1.57	60.52

Table 12

Unrotated Factor Analysis for Field Placement Evaluation Form Data

	Factor					
Item	1	2	3	4	5	6
A1	.69	.42				
A2	.65					
A3	.64					
A4	.58					
A7		.48	.41			
A8	.50	.55		.40		
A9	.59					
B1	.71					
B2	.69				.47	
B3	.78					
B4	.69					
B5	.73					
B6	.75					
B7	.21					
B8	.71					
B9	.37					
B10	.71					

(continued)

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Item	Factor					
	1	2	3	4	5	6
B11	.66					
B12	.57					
C1	.24					
C2	.79					
C3	.68					
C4	.78					
C5	.75					
C6	.76					
C7	.72					
C8	.80					
C9	.78					
D1	.78					
D2	.71					
D3	.76					
D4	.76					
D5	.73					
D6	.78					
D7	.76					
D8	.82					
E1	.23					
E2	.78					
E3	.76					
E4	.79					
E5	.79					

Note. Extraction method: Principal axis factoring. Six factors extracted. Ten iterations required.

Communalities (h^2) demonstrate the amount of variance explained for an item (Field, 2009). Items that measure identifying and resolving therapeutic problems (.05), the effective termination of therapy (.21), professional and conscientious execution of duties (.10) and approaching supervision in an open manner (.07), have the lowest communalities meaning these

items may not be related to other items (see Table G4 in Appendix G). These problematic items were further analyzed in relation to their identified factor.

Varimax rotation. Varimax rotation was used to generate independent factors. The procedure attempts to load a smaller number of variables onto each factor (Field, 2009). This form of rotation accounts for the unique contribution of variance between each item and factor and ignores the variance between factors. Given that the factors are allowed a modest correlation, the factor correlation matrix was examined and deemed appropriate (see Table 13). In addition, the size of factor loadings were examined in the rotated factor matrix (see Table G5 in Appendix G), and conceptual meaningfulness of items onto each factor were taken into account (Wood, Tataryn, & Gorsuch, 1996) to further determine the appropriateness of varimax rotation.

Table 13

Factor Correlation Matrix

Factor	1	2	3	4
1	.66	.54	.46	.23
2	-.28	-.43	.59	.62
3	-.55	.68	-.23	.44
4	-.43	.26	.62	-.61

Note. Extraction method: Principal axis factoring.

Table G5 in Appendix G shows the varimax rotated eigenvalues as: $\lambda = 9.11$, $\lambda = 6.65$, $\lambda = 5.20$, and $\lambda = 2.35$. The four factors account for 56.86% of the total variance.

Acceptance or nonacceptance of current factor model. The first research question was: What are the independent factors that comprise the FPEF as rated by supervisors? Does the factor structure reveal different factors than those on the FPEF?

A differentiated pattern from the original five-factor solution emerged from the data, revealing four factors with the highest loading items (note that for some variables the factor loadings are too small to be displayed given that they are below .40). The pattern matrix is displayed in Table 14 and contains the factor loadings of the rotated factor solution and information regarding the unique contribution of each item to a factor (Field, 2009). The resulting verified performance (VP) factors or subscales seem to measure four domains, which have been retitled: Clinical Development (VP-CD), Professional Roles and Behaviors (VP-PRB), Psychological Conceptualization and Intervention (VP-PCI), and Psychological Assessment Skills (VP-PAS).

Table 14

Principal Axis Factoring Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3	Factor 4
Variable	VP-CD	VP-PRB	VP-PCI	VP-PAS
A1 Organizes clinical material and formulates accurate diagnoses.			**.74**	
A2 Develops relevant treatment plans based on initial interviews.			**.69**	
A3 Evaluation of dangerousness, suicide, abuse and other reporting concerns.			**.55**	
A4 Conceptualizes problems within theoretical framework.	.42		**.48**	
A7 Prepares written reports effectively and with high quality.				**.80**
A8 Provides appropriate feedback to clients based on evaluation and assessment.				**.81**
A9 Considers cultural/ethnic context in evaluating and assessing clients.				**.55**
B1 Establishes rapport and therapeutic alliance with clients.	**.56**			
B2 Communicates and demonstrates empathy, warmth, and genuineness with clients.	**.58**			

(continued)

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Variable	Factor 1 VP-CD	Factor 2 VP-PRB	Factor 3 VP-PCI	Factor 4 VP-PAS
B4 Can be relied on to perform effectively in crisis situations.			**.48**	
B5 Applies theoretical/conceptual understanding to interventions.	.49		**.51**	
B6 Understands and manages professional boundaries with clients.	**.48**	.45		
B7 Identifies therapeutic problems and works toward their resolution.		.17*		
B8 Shows flexibility and creativity in clinical work.	**.57**			
B9 Able to terminate therapy appropriately and effectively.			.34*	
B11 Demonstrates understanding of relevant evidence-based practices in clinical interventions.			**.65**	
B12 Uses clinical outcomes in work with clients.			**.64**	
C1 Executes duties and responsibilities in a professional and conscientious manner.		.27*		
C2 Demonstrates appropriate professional demeanor.	.41	**.70**		
C3 Fulfills required administrative duties (progress notes, charting, reports, etc.).		**.69**		
C4 Interacts and communicates effectively with administrative staff.		**.79**		
C5 Maintains cooperative working relationships with peers.		**.73**		
C6 Active and helpful participation in training and case conference.		**.64**		
C7 Organization and quality of presentations in case conferences and training.		**.56**		
C8 Shows awareness of and sensitivity to multicultural issues in professional roles.	.45	**.67**		
C9 Demonstrates responsible handling of ethical and legal issues in accordance with ethical standards of psychologists.		**.63**		

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Variable	Factor 1 VP-CD	Factor 2 VP-PRB	Factor 3 VP-PCI	Factor 4 VP-PAS
D2 Engages in self-reflection & self-examination regarding clinical work.	**.74**			
D3 Recognizes limits of own skills and capabilities.	**.70**			
D4 Effectively manages demands of work and stress.	.57	**.42**		
D5 Aware of personal issues that could interfere with professional roles.	**.57**			
D6 Manages/makes use of personal reactions to clinical work (counter transference).	**.70**			
D7 Examines and utilizes personal reactions to multicultural differences.	**.60**			
D8 Continues to develop a professional identity.	**.66**			
E1 Approaches supervision in an open and collaborative manner.	.22*			
E2 Takes initiative in developing the content of supervisory sessions.	**.70**			
E3 Actively seeks out clinical and professional consultation when appropriate.	**.64**			
E4 Uses supervision feedback to improve clinical effectiveness.	**.69**			
E5 Examines and attends to multicultural issues in supervision.	**.62**			

Note. Rotation method: Varimax; rotation converged in 8 iterations. Asterisk indicates small loadings for item. VP-CD = verified performance–Clinical Development; VP-PRB = verified performance–Professional Roles and Behaviors; VP-PCI = verified performance–Psychological Conceptualization and Intervention; VP=PAS = verified performance–Psychological Assessment Skills. Items in bold indicate loadings above .40. Loadings below .40 were suppressed.

Significant differences were noted in comparing the four-factor solution to the original five-factor model. The newly generated Clinical Development subscale loaded with items that capture interactions with clients, motivation and willingness to develop as a clinician, and use of

supervision (B1, B2, B3, B6, B8, D1, D2, D3, D5, D6, D7, D8, E2, E3, E4, and E5). These were items that originally comprised three separate domains—clinical interventions, self-examination and development, and supervision. The revised Professional Roles and Behaviors subscale loaded with six items (C3, C4, C5, C6, C7, and C9) that measure ability to fulfill administrative duties, appropriate working relationships, and handling of ethical and legal issues. The revised subscale is similar to the original with the exception of a few dropped items. Factor 3, Psychological Conceptualization and Intervention, loaded with six items that evaluate the ability to develop and formulate treatment plans, trainee reliability, and the use of evidence-based practices (A1, A2, A3, B4, B11, B12). These items were a part of the original Psychological Intake, Evaluation, and Assessment subscale and the Clinical Interventions subscale. The Psychological Assessment Skills subscale loaded with three items that evaluate competencies in the area of report writing, providing feedback to clients, and consideration of cultural context (A7, A8, and A9). These were originally part of the Psychological Intake, Evaluation, and Assessment subscale.

Some items loaded significantly on two factors and required the consideration of how they fit on factors conceptually. Items A4 “Conceptualizes problems within theoretical framework” and B5 “Applies theoretical/conceptual understanding to interventions” both loaded on Factor 1 and Factor 3. They were added to the Psychological Conceptualization and Intervention subscale as they are more applicable of one’s work with clients rather than professional behavior. Five items loaded on Factor 1 and Factor 2 (B6, B10, C2, C8, and D4). Items B6 “Understands and manages professional boundaries with clients” and B10 “Demonstrates understanding and skill in working with diverse clients” fit better conceptually on the Clinical Development subscale. Items C2 “Demonstrates appropriate professional

demeanor," C8 "Shows awareness of and sensitivity to multicultural issues in professional roles," and D4 "Effectively manages demands of work and stress" are more appropriate items for Factor 2, the revised Professional Roles and Behaviors subscale.

The rotated factor matrix indicated that items that measured the identification of therapeutic problems, termination of therapy, conscientious execution of duties, and open approach to supervision (B7, B9, C1, E1) displayed loadings below the .40 value as recommended by Field (2009). This suggests that supervisors may have found the items to be vague, resulting in the low loadings across factors. Items were removed from the analysis separately to ensure that removal of all four items was most appropriate.

Reliability of the four-factor structure. A second principal axis factor analysis was conducted with four factors and with the removal of the four problematic items. The new eigenvalues, displayed in Table G6 in Appendix G, show the eigenvalues as: $\lambda = 8.54$, $\lambda = 7.16$, $\lambda = 5.18$, $\lambda = 2.40$. New eigenvalues suggest an increase in total variance explained after the removal of the four items from 56.86% to 62.9%.

Reliability statistics were generated once again with the four factor solution subscales (see Table 15). The Clinical Development subscale now contains 17 items from three of the five original subscales with reliability at .94. Items that were originally on the Supervision subscale were combined onto this subscale. The revised Professional Roles and Behaviors subscale increased from nine to 12 items and reliability of .95. The Psychological Conceptualization and Intervention subscale yielded a reliability of .90 with eight items. The Psychological Assessment Skills subscale showed reliability of .82 with three items.

Table 15

Reliability Statistics for Newly Generated Subscales

Subscale	Cronbach's alpha	No. of items
Clinical Development	.94	17
Professional Roles & Behaviors	.95	9
Psychological Conceptualization and Intervention	.90	8
Psychological Assessment Skills	.82	3

The finalized verified performance factors and items of each factor are listed in Table 16. The factors included below provide a simplified structure for the FPEF.

Table 16

Final Verified Performance Factors

Factor	Items
Clinical Development (VP-CD)	B1 Establishes rapport and therapeutic alliance with clients.
	B2 Communicates and demonstrates empathy, warmth, and genuineness with clients.
	B3 Provides appropriate help to clients under their care.
	B6 Understands and manages professional boundaries with clients.
	B8 Shows flexibility and creativity in clinical work.
	D1 Motivated and takes initiative to learn and grow as a clinician.
	D2 Engages in self-reflection & self-examination regarding clinical work.
	D3 Recognizes limits of own skills and capabilities.
	D5 Aware of personal issues that could interfere with professional roles.
	D6 Manages/makes use of personal reactions to clinical work (counter transference).
	D7 Examines and utilizes personal reactions to multicultural differences.
	D8 Continues to develop a professional identity.

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Factor	Items
Clinical Development (VP-CD)	E2 Takes initiative in developing the content of supervisory sessions.
	E3 Actively seeks out clinical and professional consultation when appropriate.
	E4 Uses supervision feedback to improve clinical effectiveness.
	E5 Examines and attends to multicultural issues in supervision.
Revised Professional Roles and Behaviors (VP-PRB)	C2 Demonstrates appropriate professional demeanor.
	C3 Fulfills required administrative duties (progress notes, charting, reports, etc.).
	C4 Interacts and communicates effectively with administrative staff.
	C5 Maintains cooperative working relationships with peers.
	C6 Active and helpful participation in training and case conference.
	C7 Organization and quality of presentations in case conferences and training.
	C8 Shows awareness of and sensitivity to multicultural issues in professional roles.
	C9 Demonstrates responsible handling of ethical and legal issues in accordance with ethical standards of psychologists.
	D4 Effectively manages demands of work and stress.
Psychological Conceptualization and Intervention (VP-PCI)	A1 Organizes clinical material and formulates accurate diagnoses.
	A2 Develops relevant treatment plans based on initial interviews.
	A3 Evaluation of dangerousness, suicide, abuse and other reporting concerns.

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Factor	Items
Psychological Conceptualization and Intervention (VP-PCI)	A4 Conceptualizes problems within theoretical framework.
	B4 Can be relied on to perform effectively in crisis situations.
	B5 Applies theoretical/conceptual understanding to interventions.
	B11 Demonstrates understanding of relevant evidence-based practices in clinical interventions.
	B12 Uses clinical outcomes in work with clients.
Psychological Assessment Skills (VP-PAS)	A7 Prepares written reports effectively and with high quality.
	A8 Provides appropriate feedback to clients based on evaluation and assessment.
	A9 Considers cultural/ethnic context in evaluating and assessing clients.

Summary. Several analyses were performed to examine the FPEF's underlying factor structure. Principal factor analysis was conducted with varimax rotation and showed that four subscales rather than five reproduced simple structure. In addition, four items were dropped from the FPEF. These findings are further discussed in Chapter 5.

Study Two: Identifying the Contextual Variables Associated With Performance Indicators on the FPEF Based on Self- and Supervisor Ratings

One research question and two hypotheses guided Study Two. The research question was: What contextual variables are associated with the performance indicators on the FPEF based on self- and supervisor ratings? The first hypothesis was: Lower levels of role stress, higher levels of self-efficacy, and higher levels of organizational support and supervisory support will be associated with higher levels of trainee performance based on the trainee's self-

evaluation. The second hypothesis was: Lower levels of role stress, higher levels of self-efficacy and higher levels of organizational support and supervisory support will be associated with higher levels of supervisor's perceptions of the trainee.

Effect size. Previous studies related to the present study with a wide range of participants have demonstrated small to large effect sizes. The following guidelines for social sciences were used to estimate effect size: small (.10), medium (.30), and large (.50). Kozina, Grabovari, DeStefano, and Drapeau (2010) examined changes in 20 participants' self-efficacy levels to find an effect size of .35. Friedlander et al. (1986) examined the effects of anxiety on performance with 52 participants and found a medium to large effect size of .37. Lindberg and Wincent (2011) found medium to large effect sizes with 311 participants when examining dimensions of role stress including role ambiguity (-.59) and role overload (-.26) upon performance. Tubre and Collins (2000) conducted a meta-analysis of the relationships between role ambiguity, role conflict, and job performance with a total sample size of 11,698 and found small to medium effect sizes of -.07 to -.21.

Data cleaning and preparation, and preliminary analyses. Data from the paper and pencil questionnaires and online questionnaires were input into an SPSS for Windows database. Data were examined for completeness, and surveys with missing data were excluded from the analysis.

Prior to computing the subscales, all items were verified. If relevant, items were reversed to be in the same direction as the other items on each subscale. Domain-specific self-efficacy items were calculated by computing all self-efficacy item scores so that the higher values indicated a stronger sense of self-efficacy, and then the mean was calculated to obtain an overall self-efficacy score regarding working in the school setting. The same was conducted with role

conflict, role ambiguity, organizational support, and supervisory support to obtain separate means. A self-evaluation of performance (SEP) mean and a supervisor's evaluation of performance (SUP) mean were calculated across all FPEF domains. The VP variables from the FPEF's four-factor structure were also included and a mean was calculated across each domain.

Overview of planned analyses. Data were examined further by verifying assumptions including linearity, normality, and homoscedasticity. The following analyses were performed:

- Descriptive statistics of respondents' demographics (see Table 3 in Chapter III).
- Pearson correlations were examined. One-tailed tests of significance at the .05 level were used to examine associations among variables. A correlation of study variables was created to investigate correlation coefficients. This yielded the direction and magnitude between the variables.
- Fourteen multiple-regression analyses were used to determine the effect of internal variables of role conflict, role ambiguity, and domain-specific self-efficacy and external variables of organizational support and supervisory support on the dependent variables. The percentage of variance accounted for in the criterion variable by each predictor variable (the multiple correlation squared or the measure of strength of association [R^2]) was calculated.

Additional statistical analyses were conducted to determine the amount of variance accounted for by each predictor variable.

Descriptive statistics for derived subscales. Variables in Study Two were based on self-report and supervisor ratings. Table 17 provides the predictors and criterion for each of the regression equations.

Table 17

Predictors and Criterion of Regression Equations

Source	Predictors (contextual variables)	Criterion
Regression equations based on trainee self-evaluation domains (not verified)	Role conflict	SEP-PIEA
	Role ambiguity	SEP-CI
	Self-efficacy	SEP-PRB
	Organizational support	SEP-SD
	Supervisory support	SEP-S
Regression equations based on supervisor evaluation domains (not verified)	Role conflict	SUP-PIEA
	Role ambiguity	SUP-CI
	Self-efficacy	SUP-PRB
	Organizational support	SUP-SD
	Supervisory support	SUP-S
Regression equations based on supervisor evaluation domains (verified)	Role conflict	VP-CD
	Role ambiguity	VP-PRB
	Self-efficacy	VP-PCI
	Organizational support	VP-PAS
	Supervisory support	

Note. Cronbach's alpha was used to determine if items across nonverified domains are intercorrelated and form a meaningful subscale (see Table 17). SEP-PIEA = self-evaluation of performance–Psychological Intake, Evaluation, and Assessment; SEP-CI = self-evaluation of performance–Clinical Intervention; SEP-PRB = self-evaluation of performance–Professional Roles and Behaviors; SEP-SD = self-evaluation of performance–Self-Examination and Development; SEP-S = self-evaluation of performance–Supervision; VP-CD = verified performance–Clinical Development; VP-PRB = verified performance–Professional Roles and Behaviors; VP-PCI = verified performance–Psychological Conceptualization and Intervention; VP-PAS = verified performance–Psychological Assessment Skills. The third set of analyses included the following VPs from Study One as criterion based on supervisors' perceptions of trainees across the following subscales: Clinical Development (Revised; VP-CD; $N = 47$, $M = 3.49$, $SD = .39$), Professional Roles and Behaviors (VP-PRB; $N = 47$, $M = 3.47$, $SD = .44$), Psychological Conceptualization and Intervention (VP-PCI; $N = 47$, $M = 3.32$, $SD = .40$), and Psychological Assessment Skills (VP-PAS; $N = 47$, $M = 3.33$, $SD = .58$).

For the first set of regression analyses, the criterion variables for the first five analyses were based on trainees' SEPs across subscales including Psychological Intake, Evaluation and Assessment (SEP-PIEA; $N = 47$, $M = 3.21$, $SD = .34$), Clinical Interventions (SEP-CI; $N = 47$, $M = 3.33$, $SD = .34$), Professional Roles and Behaviors (SEP-PRB; $N = 47$, $M = 3.50$, $SD = .43$),

Self-Examination and Development (SEP-SD; $N = 47$, $M = 3.46$, $SD = .34$), and Supervision (SEP-S; $N = 47$, $M = 3.56$, $SD = .46$).

The second set of criterion variables for the next five analyses were based on SUPs across the following subscales: Psychological Intake and Evaluation (SUP-PIEA; $N = 47$, $M = 3.35$, $SD = .53$), Clinical Interventions (SUP-CI; $N = 47$, $M = 3.39$, $SD = .34$), Professional Roles and Behaviors (SUP-PRB; $N = 47$, $M = 3.53$, $SD = .44$), Self-Examination and Development (SUP-SD; $N = 47$, $M = 3.40$, $SD = .41$), and Supervision (SUP-S; $N = 47$, $M = 3.64$, $SD = .48$).

In addition, Cronbach's coefficient alphas were computed for all variables in Study Two. Cronbach's coefficient alphas provided the reliability of the internal consistency of each instrument item for each subscale. According to Hair et al. (2006), Cronbach's alpha coefficients are deemed acceptable if they surpass .60 ($\alpha > .60$). As a result, subscales that yielded values above .60 were retained. All Cronbach's coefficient alphas yielded acceptable reliability and ranged from .68 (for role conflict) to .94 (for organizational support and SEP–S). Table 18 displays the descriptive statistics and alphas for each subscale.

The descriptive statistics for the subscales showed that some of the subscales did not show normal distribution (significant *p*-value normality). To further assess subscale normality, I examined the residuals from the regression model for each predictor—self-efficacy, role conflict, role ambiguity, organizational support, and supervisory support—across each criterion, and they did not yield a normal distribution. Probability plots and heteroscedasticity indicated nonnormality. Pearson correlations were generated among the variables to investigate their magnitude and direction (see Tables H1 and H2 in Appendix H). Visual inspection of scatter plots was examined to ensure that correlations were not a product of outliers.

Table 18

*Descriptive Statistics and Subscale Alpha Coefficients for Derived Variables (*N = *47)*

Variable & label	Mean	*SD*	Min	Max	Number of items	Subscale alpha α
Domain-specific Self-Efficacy	4.61	.85	3.00	6.70	10	.82
Role Conflict	3.55	.83	1.88	4.88	8	.68
Role Ambiguity	3.57	1.21	1.67	5.50	6	.78
Organizational Support	2.78	.79	1.40	4.00	10	.94
Supervisory Support	3.52	.45	2.30	4.00	10	.86
Self-evaluation of performance–Psychological Intake, Evaluation and Assessment	3.22	.34	2.90	4.22	9	.86
Self-evaluation of Performance–Clinical Interventions	3.33	.34	2.75	4.25	12	.83
Self-evaluation of performance–Professional Roles and Behaviors	3.49	.43	2.89	4.44	9	.84
Self-evaluation of performance–Self Examination and Development	3.46	.34	2.88	4.25	8	.74
Self-evaluation of performance-Supervision	3.55	.46	3.00	5.17	6	.94
Supervisor evaluation of performance–Psychological Intake, Evaluation and Assessment	3.35	.53	2.89	4.88	7	.90
Supervisor evaluation of performance–Clinical Interventions	3.39	.34	2.58	4.25	12	.82
Supervisor evaluation of performance–Professional Roles and Behaviors	3.53	.44	2.56	4.78	9	.88
Supervisor evaluation of performance–Self Examination and Development	3.40	.41	2.13	4.25	8	.85
Supervisor evaluation of performance–Supervision	3.64	.48	3.00	5.00	5	.88

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Variable & label	Mean	*SD*	Min	Max	Number of items	Subscale alpha α
Verified performance factor–Clinical Development	3.49	.39	2.59	4.47	17	.92
Verified performance factor–Professional Roles and Behaviors	3.47	.44	2.33	4.56	9	.87
Verified performance factor–Psychological Conceptualization and Intervention	3.32	.40	2.75	4.75	8	.82
Verified performance factor–Psychological Assessment Skills	3.33	.58	2.67	5.00	3	.88

Note. Self-efficacy, role conflict, and role ambiguity were measured on a 7-point bipolar scale ranging from 1 to 7. Organizational support and supervisory support were measured on a 4-point bipolar scale ranging from 1 to 4. Self-evaluation of performance, supervisor evaluation of performance, and all verified performance factors were measured on a 5-point bipolar scale ranging from 1 to 5. Internal consistencies are provided for variables.

Bootstrapping. Given that assumptions of normality were not met, bootstrapping was used to transform data (see Table H3 in Appendix H). In data with nonnormal distributions, bootstrapping allows for the estimation of properties of the sampling distribution of the sample data (Field, 2009). The standard error of the mean is determined from the standard deviation of the sampling distribution generated from bootstrap samples (Field, 2009). Results from the bootstrapped regressions are subsequently presented.

Multiple regression and correlation. The contextual variables were entered simultaneously (forced entry), given the appropriateness for using this method for theory testing and to avoid the "random variation" in the data as recommended by Field (2009, p. 212). This helped to determine if the variables, taken together, contributed to variance for each newly generated performance factor.

Results were examined for significance and whether population R-squared statistic was greater than or equal to 0. R^2 provides information regarding the meaning and importance of each variable on each performance factor. Adjusted R^2 is an unbiased correlation coefficient. It yields information regarding "how much variance in Y would be accounted for if the model has been derived from the population from which the sample was taken; however, it is standard to report the unadjusted estimate" (Howell, 2010, p. 221). Therefore, both R^2 and adjusted R^2 are reported in Table 19; however, R^2 was used to interpret each regression.

Table 19

Multiple Regression of Contextual Variables on Performance Factors

Variable	R^2	ΔR^2	β
Model–Self-evaluation of performance–Psychological Intake, Evaluation, and Assessment	.46**	.36**	
Self-efficacy			.63
Role conflict			.59
Role ambiguity			.15
Organizational support			-.06
Supervisory support			.46**
Model–Self-evaluation of performance–Clinical Interventions	.36**	.28**	
Self-efficacy			.34
Role conflict			.56*
Role ambiguity			-.12
Organizational support			-.36**
Supervisory support			.24

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Variable	R^2	ΔR^2	β
Model–Self-evaluation of performance–Professional Roles and Behaviors	.01	-.10	
Self-efficacy			.12
Role conflict			.04
Role ambiguity			-.02
Organizational support			.03
Supervisory support			-.07
Model–Self-evaluation of performance–Self-Examination and Development	.17	.07	
Self-efficacy			.18
Role conflict			.35
Role ambiguity			-.47*
Organizational support			-.04
Supervisory support			-.08
Model–Self-evaluation of performance–Supervision	.18	.08	
Self-efficacy			-.15
Role conflict			.07
Role ambiguity			-.58**
Organizational support			-.02
Supervisory support			-.17
Model–Supervisor evaluation of performance–Psychological Intake, Evaluation, and Assessment	.29*	.18*	
Self-efficacy			-.23
Role conflict			.15
Role ambiguity			-.38
Organizational support			-.43***
Supervisory support			.33

(continued)

(continued)

Variable	R^2	ΔR^2	β
Model–Supervisor evaluation of performance–Clinical Intervention	.14	.04	
Self-efficacy			.29
Role conflict			-.14
Role ambiguity			-.03
Organizational support			-.17
Supervisory support			-.08
Model–Supervisor evaluation of performance–Professional Roles & Behaviors	.34**	.26**	
Self-efficacy			.38*
Role conflict			-.24
Role ambiguity			-.11
Organizational support			-.36***
Supervisory support			-.29*
Model–Supervisor evaluation of performance–Self-Examination and Development	.28**	.19**	
Self-efficacy			.47
Role conflict			-.45
Role ambiguity			.26
Organizational support			-.12
Supervisory support			-.29*
Model–Supervisor evaluation of performance–Supervision	.17	.07	
Self-efficacy			.01
Role conflict			-.03
Role ambiguity			-.37
Organizational support			-.27*
Supervisory support			-.00

(continued)

(continued)

Variable	R^2	Δ R^2	β
Model–Verified performance–Clinical Development	.20	.10	
Self-efficacy			.30
Role conflict			-.25
Role ambiguity			-.01
Organizational support			-.17
Supervisory support			-.09
Model–Verified performance–Professional Roles & Behaviors	.36***	.28***	
Self-efficacy			.47**
Role conflict			-.29
Role ambiguity			.02
Organizational support			-.34**
Supervisory support			-.38**
Model–Verified performance–Psychological Conceptualization and Intervention	.20	.11	
Self-efficacy			-.19
Role conflict			.02
Role ambiguity			-.38
Organizational Support			-.43***
Supervisory Support			.02
Model–Verified performance–Psychological Assessment Skills	.28**	.20**	
Self-efficacy			-.30
Role conflict			-.05
Role ambiguity			-.25
Organizational support			-.38**
Supervisory support			.32

*$p < .05$, **$p < .01$,***$p < .001$.

The beta weights of individual predictors were examined in each equation to determine if they make a unique contribution to predicting scores on verified performance factors. Should a predictor's individual beta weight show significance, it can be inferred that that variable makes an independent contribution to predicting scores on performance scores over and above the contribution of the other variables in the regression equation. The larger the beta weight, the more the variable predicts scores on the criterion (Field, 2009). To discuss their relative importance, I manually squared the semipartial correlation. Bivariate correlations among the predictors and criterion variable were also examined within the matrix of correlation coefficients (see Figure 4). This helped to determine if multicollinearity between variables was present.

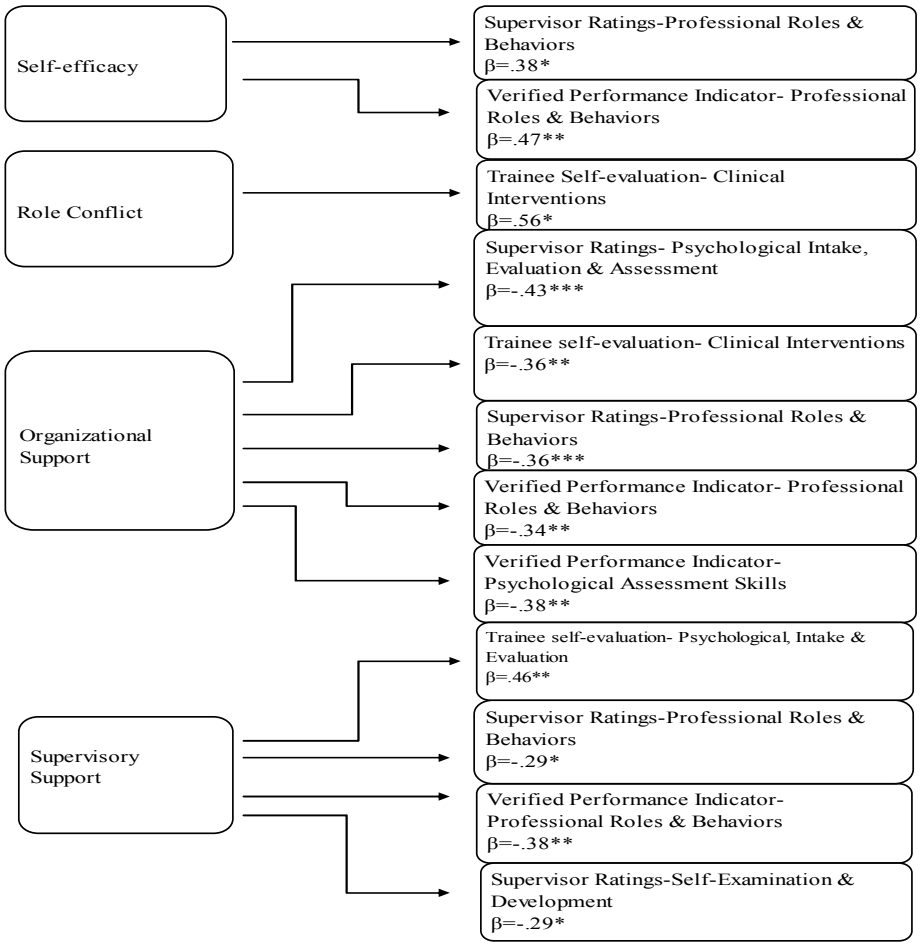

Figure 4. Diagram of study results. *$p < .05$, **$p < .001$, ***$p < .0001$. β = beta weight for performance indicator based on significant contextual variable.

Hypotheses findings. Findings related to the two hypotheses for Study Two are discussed next. The first hypothesis was: Lower levels of role stress, higher levels of self-efficacy, and higher levels of organizational support and supervisory support will be associated with higher levels of trainee performance based on the trainee's self-evaluation.

Results of two of the five regression models based on trainee SEPs were significant. Within these two models, three contextual variables were significant predictors of performance. It was found that supervisory support ($\beta = .46$, $p < .01$) accounted for 21.16% of the variance in self-ratings of Psychological Intake, Evaluation and Assessment. Role conflict ($\beta = .56$, $p < .05$) accounted for 31.36% of the variance in self-ratings of Clinical Interventions, and organizational support ($\beta = -.36$, $p < .01$) accounted for 12.96% of the variance in SEP-CI.

The second hypothesis was: Lower levels of role stress, higher levels of self-efficacy and higher levels of organizational support and supervisory support will be associated with higher levels of supervisor's perceptions of the trainee.

Three of the five models were significant for their abilities to predict variance on supervisor's ratings across performance domains. For newly generated performance indicators, two of the four models were significant.

Self-efficacy was a significant predictor ($\beta = .38$, $p < .05$) and accounted for 14.44% of the variance on the original Professional Roles and Behaviors subscale (SUP-PRB). On the revised subscale (VP-PRB), self-efficacy ($\beta = .47$, $p < .01$) accounted for 22.09% of variance.

Organizational support was a significant predictor in five equations. Organizational support ($\beta = -.43$, $p < .001$) accounted for 18.49% of the variance on the SUP-PIEA. Organizational support ($\beta = -.36$, $p < .001$) accounted for 12.96% of the variance on the original Professional Role and Behaviors subscale (SUP-PRB) and on the revised subscale (VP-PRB; $\beta =$

-.34, $p < .01$), and accounted for 11.56% of variance. Organizational support also accounted for 14.44% of the variance on Psychological Assessment Skills (VP-PAS; $\beta = -.38$, $p < .01$).

Supervisory support was significant ($\beta = -.29$, $p < .05$) and accounted for 8.41% of the variance on the original SUP-PRB subscale. Supervisory support ($\beta = -.38$, $p < .01$) was also significant on the revised VP-PRB subscale and accounted for 14.44% of variance on VP-PRB. Supervisory support ($\beta = -.29$, $p < .05$) accounted for 8.41% of variance on the SUP-SD subscale.

CHAPTER V

Discussion

The American Psychological Association (APA) has called for educators to specify training objectives and core competencies for clinical psychology trainees (Schofield & Grant, 2013). Experts are continuing to develop ways to assess clinical competencies because there is a lack of standardized evaluation tools available. In addition, there is limited research regarding how trainees' competencies are measured and evaluated in the school setting and how trainees' perspectives of their environment and their own capabilities may relate to their performance. Therefore, the aim of the present research was twofold. Study One was conducted to establish the FPEF's current factor structure and to determine if it was different from its original conceptually derived domains. A review of the FPEF standard form was conducted using a factor analysis to examine the clusters of performance indicators that make up the construct of clinical competency. The focus of Study Two was to determine whether the FPEF's factors were related to the variables internal (psychological) and/or external (environmental) to SBMH trainees. In doing so, I examined the potential impact (i.e., associations) of internal and external variables on SBMH trainees' performance. This entailed the administration of measures in person and online to SBMH trainees as well as a study of these same trainees' FPEFs as rated by their supervisors.

Overall, the findings of this research contributed to the understanding of the FPEF's domains of clinical competency. Research results also demonstrated how clinical competency may be impacted by trainees' environments and internal variables. Results of this research confirmed some of the hypotheses and contradicted others. This chapter presents a discussion of

the significant findings and their relation to previous studies. In addition, this chapter provides implications of this research for clinical psychology training and supervision.

Study One: Evaluation of Clinical Competency in Trainees

For Study One, a factor analysis was conducted using 294 archival FPEFs of doctoral trainees at the CSPP as rated by supervisors. The results from Study One simplified and clarified how performance is defined. Study One also was intended to provide insight on educational outcomes and what clinical psychology trainees should be able to do as a result of their training. Specifically, the results from Study One also illustrated how FPEF items related to one another. More importantly, this research led to a more appropriate way for grouping the items.

The factor analysis confirmed that the FPEF, originally comprised of five domains, would be more appropriately comprised of four domains. To apply these findings, the original five subscales: Psychological Intake, Evaluation, and Assessment; Clinical Interventions; Professional Roles and Behaviors; Self-Examination and Development; and Supervision were reformulated as Clinical Development, Professional Roles and Behaviors (Revised), Psychological Conceptualization and Intervention, and Psychological Assessment Skills.

Previously, experts have based the domains of clinical competency on a conceptual framework of the fundamental skills and abilities necessary in a clinical psychologist. In Study One, the investigation of clinical competency was taken further and the domains were examined in a statistically meaningful manner based on actual ratings of trainees' performance. Furthermore, the five original domains included in Study One were roughly based on those put forth by the NCSPP and Rodolfa et al. (2005). Rodolfa et al.'s 12 domains of clinical competency include the following: reflective practice/self-assessment, scientific knowledge and methods, relationships, ethical and legal standards/policy issues, individual and cultural

diversity, interdisciplinary systems, assessment/diagnosis/conceptualization, intervention, consultation, research/evaluation, supervision/teaching, and management/administration. The domains were categorized by Rodolfa et al. into either foundational (the basis of what psychologists do) or functional (the knowledge, skills and values of what they do). Results of Study One suggested that 12 domains of clinical competency may be too broad and that these may be simplified to four.

The results from Study One supported Rodolfa et al.'s (2005) theory that domains of clinical competency are not mutually exclusive and may be interrelated. Competencies that Rodolfa et al. categorized under two different domains were shown to be more similar than originally perceived. For instance, Rodolfa et al. conceptualized the capacity for reflective practice and self-assessment as separate from the ability to manage relationships with supervisors, clients, and others in the work setting, resulting in two domains. However, findings from Study One demonstrated that items from these domains clustered together and resulted in one area of competency, the clinical development domain. This confirmed that many domains of clinical competency were alike and, in some cases, interdependent.

Findings from Study One did not support Rodolfa et al.'s (2005) grouping of domains based on foundational or functional categories. Rodolfa et al. classified clinical interventions (a functional competency) and relationships (a foundational competency) to illustrate differences in these domains of performance. However, Study One findings did not support this concept. For instance, the clinical development domain that was revealed in Study One included items from both functional and foundational groups that related to the management of relationships as well as the execution of interventions. Another example was that psychological assessment (a functional competency) was established as its own domain possibly due to the additional and

extensive training required for this skill. This domain also included an item on cultural competency (a foundational domain) and the trainee's ability to maintain cultural sensitivity when conducting psychological assessments. These findings imply that grouping domains of competency based on functional and foundational skills may not be meaningful or useful.

Study One limitations. There were limitations to Study One. First, its findings were based only on the FPEF's performance indicators. Therefore, it may not be appropriate to generalize these findings to other populations for which other instruments are used to evaluate performance. The second limitation was that I was unable to note the frequency of each supervisor's inclusion in the study due to the anonymity of the data. Therefore, the same supervisor may have been included in the study more than once, so systematic differences in the way supervisors rated trainees may have confounded the results.

Future directions of research based on Study One findings. Future research that thoroughly investigates the domains of clinical competency is warranted. It would be valuable to conduct a factor analysis including a sample of future CSPP students to determine whether the performance factors differ between the groups of students. This could also be done with trainees in various settings (e.g., medical, substance-abuse rehabilitation) to determine if domains of clinical competency are different in those contexts. Longitudinal research designs may be useful to determine variables that predict successful competency levels later in one's career. This type of research can allow for a realistic picture of the competencies required of psychologists relative to their jobs and how their graduate school performance may influence their careers.

Findings from Study One also have implications for understanding the core skills necessary to perform competently in various areas of specialization. The revised factor structure of the FPEF indicates that the skills required to conduct psychological and neuropsychological

assessments may be significantly different than those required to provide therapy. This implies that students may consider obtaining more training in a particular area of focus. Some graduate programs have already begun offering specialized training tracks.

The practical application of the FPEF allows for a more efficient way to measure clinical competency. The resulting four-factor structure of the FPEF may be used to guide how clinical competence can be assessed in training programs. Results from this investigation also served as a basis for Study Two as they were used to obtain an understanding of how the study variables related to the four performance factors of the FPEF in SBMH trainees.

Study Two: Key Internal and External Variables Related to Performance

Study Two, the second phase of this research, involved 47 SBMH trainees who served as participants. It was anticipated that perceived levels of the internal psychological variables (role conflict, role ambiguity, and self-efficacy) and the external variables in trainees' environments (organizational support and supervisory support) would be associated with their performance. Performance was the dependent variable and was measured by the FPEF's original verified performance domains as rated by trainees and supervisors. Multiple regression analysis was conducted to assess the relative influence of the internal and external variables on domains of performance. Overall, it was found that internal variables, including self-efficacy and role conflict, were related to some domains of trainees' performance. The external variables, including organizational support and supervisory support, were associated with these trainees' clinical competencies across some domains as measured by the FPEF. However, due to the direction of the relationships between one internal variable (role conflict) and environmental variables (organizational support and supervisory support) and performance, some hypotheses were not confirmed.

Results of the study showed that a greater sense of self-efficacy was associated with higher levels of performance as perceived by supervisors in the areas of professional roles and behaviors. This was consistent with findings suggesting that self-efficacy leads to enhanced levels of effort and performance in a work setting (Bandura, 1986; Howard, 2008). While self-efficacy did not appear to influence clinical skills, interventions, or psychological assessment abilities, it did positively relate to trainees' attentiveness to administrative duties and overall professional demeanor. This suggests that supervisors might intervene to help trainees further develop their self-efficacy and, in turn, possibly increase their abilities to present themselves as professionals.

Interestingly, higher levels of role conflict were associated with higher self-ratings in the area of clinical interventions. This was an unexpected finding as many studies have shown that role conflict is linked to negative experiences and performance deficits in work settings (Andrews & Kacmar, 2001; Friedlander et al., 1986, Lindberg & Wincent, 2011). One possibility for this outcome was that the trainees who performed at high levels may also have been better able to acknowledge role conflict yet adequately cope with it and manage it and still perform well. These trainees may have experienced higher levels of role stress because they were exposed to more expectations and demands from others given that they had shown they were capable of strong performances. This finding may also be attributable to a rater bias given that trainees were reporting both perceived levels of role conflict and their own performance. In contrast, role conflict was not associated with performance in this domain from the supervisors' perspective, further supporting that this finding may have been due to rater bias.

Another important finding was that higher levels of perceived supervisory support were associated with trainees' positive perceptions of their performance in the areas of case

formulation, conceptualization, and evaluation of dangerous situations (e.g., suicide, abuse). This finding was expected given the large amount of research showing that trainees' perceptions of having strong relationships with supervisors lead to higher levels of client outcomes and trainee performance (Vallance, 2005). It also implies that trainees who felt more competent in their abilities in these clinical skills had supervisors who they felt frequently listened to them, understood them, and provided practical approaches for carrying out their work. Furthermore, weekly individual and group supervision meetings were likely an effective practice that may have influenced trainees' views of their abilities.

Surprisingly, supervisory support was negatively associated with trainees' performance levels in the areas of self-examination and professional roles as rated by supervisors. Although trainees did not feel the supervision was helpful or useful, they were still viewed by their supervisors as being self-reflective and as having presented themselves as professionals. This was an unforeseen finding given that trainees' demonstration of high levels of professionalism and self-awareness was thought to be due in part to support from supervisors (Music & Hall, 2008; Vallance, 2005). One explanation for this relationship is that perceived lower levels of support from supervisors may have encouraged trainees to be more self-reliant and independent. Trainees may have been more motivated and conscientious given they did not receive frequent support from supervisors. These trainees may have also had a higher level of awareness of their personal strengths and weaknesses as a clinician given they had to work autonomously. As a result, the lower levels of support may have enhanced trainees' performance.

Additionally, this finding may have been due to an error in the way support was measured. The measure contained items that questioned the frequency of trainees feeling supported by supervisors. While the trainees may not have felt that the supervision was frequent,

they may have felt that it was sufficient. As a result, they may have rated the support as low because they had supervision once per week, but in reality the support may have been adequate.

Furthermore, organizational support was associated with many areas of performance, including trainees' perspectives of clinical interventions and supervisors' ratings of trainees' clinical skills, report writing, and professionalism. However, these finding suggest that lower levels of organizational support may shape trainees' performance in such a manner that they may perform *better* when there is a lack of organizational support. This finding was contrary to research suggesting that social support from school personnel facilitates SBMH trainees' delivery of services and gives them useful information about the school setting (Paternite, 2005; Ringeisen et al., 2003; Suldo et al., 2010). In addition, establishing strong working relationships with staff has been found to be essential for integrating into the school system and performing at high levels (Armbruster, 2002; Massey et al., 2005; Stephan et al., 2008).

While a negative association between organizational support and performance was unanticipated, there are some possible explanations for this finding. One is that trainees who performed well but experienced lower levels of support from school staff may have simply needed less supervision and therefore asked for less, which allowed them to spend more time focusing on clinical interventions, including developing clinical formulations and treatment plans and providing face-to-face services. They may have only interacted with school staff when they felt it was necessary to do so, such as in crisis situations or when there were significant problems. Therefore, even though support from school staff was perceived to be low for these trainees, the lack of support did not affect their ability to do their job. As such, they performed highly from the supervisors' perspectives.

A second explanation could be that lower levels of support from school staff were actually more helpful because it allowed trainees to be more focused on the clinical treatment goals they established rather than goals established by the stakeholders (i.e., teachers, principals, support staff). For instance, staff may have been more focused on decreasing children's behavioral problems or improving their academic performance while trainees' goals were to reduce children's distressing psychological symptoms. As an example, a trainee may have viewed a student's disruptive behavior in class as being a symptom of a mood disorder and would have focused on treating this psychological problem. However, a teacher's objective for the treatment may have been to reduce the child's attention-seeking behavior. Therefore, less input from staff may have allowed trainees to direct greater attention to treatment goals that they themselves established, further improving their performance.

An additional reason for the negative association could be that greater involvement in the organization itself could result in lower levels of performance. Seeking more help from school staff could result in trainees getting distracted from their clinical work as therapists. For example, they may have spent more hours in regular staff meetings, collateral meetings with teachers, or obtaining help from the school principal. The guidance provided by school staff may not have been consistent with therapeutic treatment goals, resulting in weaker performances as perceived by trainees' supervisors.

An additional reason for this finding is that it is possible that the subscale items may not have applied to the trainees who had fewer interactions with school staff. This could have resulted in trainees rating the organizational support as low when it was actually adequate. For example, a trainee who interacted with the principal once per month may have rated the support as low (infrequent) but perceived the support from him or her as satisfactory given that the

trainee had other sources of support (i.e., supervisors). Previous research has suggested that the construct of support is comprised of two components: frequency (i.e., availability) of the support and satisfaction (i.e., adequacy) of the support (Heitzmann & Kaplan, 1988; Sarason, Shearin, Pierce & Sarason; 1987). The addition of a subscale that also measured trainees' overall satisfaction with the support from school personnel may have resulted in higher ratings on support from trainees.

In summary, it appeared that both the internal (psychological) and the external (environmental) variables were associated with trainees' performance in a SBMH setting. While trainees' perspectives of self-efficacy were related to performance, role conflict, organizational support and supervisory support were associated with performance but in unexpected directions. It was possible that moderating variables accounted for these associations. Further research is needed to understand the complex relationships between role conflict, organizational support, and supervisory support on trainee performance.

Study Two limitations. There were some significant limitations to Study Two. One was that all participants were students at the CSPP, Alliant International University, San Francisco. There may have been unique characteristics about these participants and training programs affiliated with the university that would restrict generalizing study results to other populations. Similarly, these trainees were enrolled in doctoral clinical psychology programs and learning how to conduct psychotherapy in the school setting, so the results may not be applicable to individuals in other types of graduate programs (e.g., master's degree counseling programs).

Second, the sample was comprised of self-selected participants, and it was also not possible to randomly assign participants to particular conditions. Therefore, there may have been a systematic difference in the characteristics of those who chose to participate and those

who did not. For instance, trainees who perceived themselves as performing well may have been more likely to participate than those who felt they were performing poorly at the time of recruitment. As a result, Study Two findings may be more representative of trainees with higher levels of competency.

Third, many of the measures used for Study Two were based on trainees' perspectives. Because self-report measures can be a potential source of bias, it is possible that this may have impacted the way in which study variables were defined. As in all self-report measures, social desirability can confound the results should participants answer in ways they perceive are more acceptable. It is possible that this resulted in trainees not stating their true views. However, a strength of Study Two was that it included supervisor ratings in addition to self-ratings of performance; therefore, I was confident that measures of performance were valid.

There were also three limitations that specifically related to supervisor ratings of trainees. First, the supervisors' methods used to evaluate each trainee (e.g., videotapes, audio recordings) were not controlled. While some supervisors required that trainees provided taped recordings of their sessions to review in supervision, others relied on trainees' reports of their work with clients (Lewis et al., 2011). Trainees who did not present recordings of their sessions may have represented their work with clients as stronger than it was, thus impacting supervisors' ratings of their work. Therefore, the manner in which trainees were evaluated may not always have been consistent and may have been a source of error. Future research that thoroughly investigates differences across evaluation methods is warranted.

Second, I was not able to account for differences between supervisor ratings of trainees' performance due to participant confidentiality so I was unable to determine if any supervisors were biased in their ratings. Previous research has shown that some supervisors are more subject

to rating their trainees' performance more positively (Gonsalvez & Freestone, 2007). Other supervisors may have been more conservative in their ratings. Therefore, the manner in which supervisors tended to rate trainees may not have been consistent.

Third, I did not record how often a given supervisor may have had his or her ratings of trainees included in the study. It is possible that two participants may have had the same supervisor; therefore, a particular supervisor may have been a part of the study more than once. As a result, there may be some interdependence between supervisor ratings that may have confounded the results of the performance variables.

Future directions of research based on Study Two findings. Given the limitations of Study Two, future research should further investigate how organizational and supervisory environments may influence trainee performance and clinical competencies. Using a qualitative approach would be beneficial for understanding how trainees interact with different stakeholders and how these interactions may impact their performance or experience. Another potential path would be to examine whether the association between organizational support and clinical competencies involves moderating variables.

Implications for Clinical Training Programs and/or Supervisors

Numerous studies have shown that working within the school setting can be challenging (Dunn, 2012; Kutash et al., 2011; Massey et al., 2005; Rones & Hoagwood; 2000; Suldo et al., 2010). SBMH trainees must be able to overcome obstacles to the effective treatment of clients (e.g., lack of work space, inconsistent treatment sessions) and be able to substantiate how their work helps clients with behavioral and academic goals. Therefore, it is essential that trainees receive support from their supervisors as this guidance has been shown to lead to stronger outcomes and performance (Callahan et al., 2009; Vallance, 2005). Also, supervisors and those

responsible for clinical training should use information gathered from trainees' personal experiences and research on the difficulties of the delivery of mental health services in school settings to assist them. A stronger awareness of the barriers trainees face (e.g., differences in treatment goals between stakeholders) may help educators better prepare trainees for the challenges of working in the school setting.

The present research contributed to the literature on clinical competency in trainees from both the supervisor and trainee perspectives. It was conducted to determine whether the variables internal to trainees, including self-efficacy, role conflict, and role ambiguity; and those in their environment, including organizational support and supervisory support; were associated with clinical competency in the school setting. Results yielded some unexpected relationships between one psychological variable (role conflict) and environmental variables (organizational support and supervisory support) and performance. These results show the complexity of the relationships between one's environment and personal variables as they relate to performance. Those in charge of clinical training programs and clinical supervisors can use the results of this study to develop interventions to support trainees' performance in the school setting.

In order to support trainees' optimal performance in the school setting, I offer the following recommendations for training programs and supervisors regarding potential interventions and practices.

- Findings from Study Two indicated that self-efficacy was associated with high levels of professionalism as rated by supervisors. Therefore, supervisors can utilize principles of positive psychology to enhance trainee strengths and sense of self-efficacy by providing modeling, social persuasion, and feedback to trainees (Daniels & Larson, 2001; Fialkov

& Haddad, 2012; Ladany et al., 1999). This may result in higher levels of trainees' professionalism.

- Training program directors and/or supervisors should collaborate with school personnel to create a more supportive environment for trainees, including communicating directly with school personnel regarding what might be helpful or useful to trainees and what trainees need to deliver quality services (e.g., private room for sessions).
- Training program directors and supervisors should provide ways SBMH trainees can react to and manage role conflict and a lack of support in their environment. They can help clarify trainees' role if necessary and communicate with school personnel regarding their expectations of trainees.
- Given supervisors' positions as the "gatekeepers" of clinical psychology, their assessment of trainees is increasingly important (Britt & Gleaves, 2011; Cheon et al., 2009; Watkins, 2012b). Findings from the present study are consistent with research that showed that supervisors tend to rate their supervisees more positively than negatively (Gonsalvez & Freestone, 2007). This means that supervisors typically perceive trainees as performing well. Despite this, it is in supervisors' best interest to provide the most accurate evaluations of their trainees as possible. This can allow for a more sensitive measurement of trainees' clinical competence and growth over the training year.

Conclusions

A key focus of this study was to examine the FPEF's contents and to determine whether the items comprise performance factors based on the original five conceptually derived domains. After examining the instrument, the five-factor structure was reduced to four. Another objective of this study was to determine whether the internal or psychological variables (self-efficacy, role

conflict, role ambiguity) and the external variables (organizational support and supervisory support) were associated with FPEF domains. Findings showed that trainees' levels of self-efficacy regarding working in a school setting were associated with supervisors' perceptions of trainees' levels of professionalism.

Results of this study yielded some surprising findings. Among these, role conflict was positively associated with trainees' perceptions of their abilities to carry out clinical interventions. Low levels of organizational support showed associations with many areas of clinical competency, including supervisor ratings of psychological intake, evaluation, and assessment skills; supervisor perceptions of professional roles and behaviors (original and revised subscales); self-ratings of clinical interventions; and psychological assessment skills. However, these relationships were opposite to what was expected. Supervisory support yielded positive associations with trainees' ratings of psychological intake, evaluation, and assessment yet was negatively associated with supervisors' ratings of trainee professionalism (original and revised subscales), and self-examination and development. The relationship between the environmental variables (organizational support and supervisory support) and performance may have been due to moderating variables not measured in this study or due to limitations of the instruments. More qualitative research that explores the nature of these relationships is warranted.

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APPENDIX A

Consent Form

Consent Form

My name is Veronica M. Correa, M.A., and I am a Clinical Psychology doctoral student at California School of Professional Psychology, Alliant International University, San Francisco. I am conducting a study aimed at assessing clinical competency in school based mental health trainees. My focus is on understanding how role stress, self-efficacy, and support from school staff and supervisors impact performance. If you are a current student enrolled at CSPP in a Clinical Psychology doctoral program (Psy.D. or Ph.D.), and provide therapy or counseling at a school based site (K-12th grade), your participation would be much appreciated. Trainees from all training levels (Practicum I, Practicum II, Practicum III Supplemental Practicum, and Internship) are appropriate.

Participation involves completing a questionnaire, either online or in-person, which should take approximately 20 minutes to complete. In February, I will follow up with you to self-evaluate your own performance via an e-mail generated by Qualtrics that requires approximately 10 minutes to complete resulting in a total of about 30 minutes to participate in the study. Participation in the study also requires your consent to obtain your mid-year evaluation from the Field Placement Evaluation Form from the Office of Professional Training. I will obtain this using your name. You may also provide me this form directly when I return in February for a follow-up data collection.

Participation in this study is completely voluntary and there will be no adverse consequences if you decide not to participate, or if you withdraw from the study after starting. Participants will have the opportunity to enter a drawing for one of five $20.00 gift cards to TARGET stores. Participants will be notified if they win the drawing by being notified via e-

mail, therefore participants that wish to enter MUST provide an e-mail address. All identifying information provided in order to enter the drawing will be kept separate from your responses.

The information obtained in this study will be confidential however it will not be anonymous. Due to the nature of the data, responses from the initial survey will be linked to your self-evaluation and supervisor evaluation using your name. Once all data is collected you will be assigned a participant number and there will not be any link to your identity. Your supervisors and training directors will not have access to your answers. Only I, my research supervisor, and the Office of Professional Training will have access to the identity of participants or associated participants' names with the data collected. This information including original forms and surveys, or disks or USB drives will be kept in a locked cabinet. Only the researcher will posses the key. Electronic media will be protected with passwords and encryption software. The data and research materials will be destroyed five years after completion or publication of the study, whichever comes later. For original forms and surveys, and other documents that link participants' identities with data, documents will be shredded. For any disks or USB drives that contain this information, the disk will be erased using data erasure software.

You may chose to quit the survey at any time or refuse to answer specific question, as your participation is voluntary. You may terminate your participation up until the research project is complete and when data will remain identifiable (June 2014). Should you wish to withdraw your responses after you submit them, you must send me an e-mail with your name

The possible risks from participation in this study are minimal. Many measures in this study have been used in other studies and presented to participants with no ill effects. It is possible you may experience some discomfort in sharing your evaluation from your supervisor. While there are no direct benefits from your participation in this study, you may gain satisfaction

from participating in this study as data will be used to understand clinical competency assessment at Alliant International University.

In the unlikely event that you experience undue stress as a result of participating in this study, you may contact licensed psychologist Carolyn Swearingen Ph.D., PSY 21657 for one telephone consultation free of charge. Any questions or reports of problems can be e-mailed to clinicalcompetencyresearch@gmail.com , or you can contact the Institutional Review Board (IRB) at 415-955-2151.

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A summary of the results of the research will be available in approximately six months. Completion of the study is not required to request a summary of the results. If interested, please send an e-mail to clinicalcompetencyresearch@gmail.com to receive that summary.

After you have read the above description of the study, please click “I agree” below to agree to participate. In agreeing to participate, you are also confirming that you are a student at Alliant International University fulfilling a Practicum or Internship at an agency providing school based mental health services and agree to the researcher’s use of your Field Placement Evaluation Form:

__I agree

__I disagree

** After you have read the above description of the study please sign and date below. In agreeing to participate you are also confirming that you are a student at Alliant International

University fulfilling a Practicum or Internship at an agency providing school based mental health services and agree to the researcher's use of your Field Placement Evaluation Form:

Participant Signature_____

Date_____

Researcher Signature_____

Date_____

**For paper and pencil administration

APPENDIX B

Scripted Invitation/Agency Recruitment script

Hello,

My name is Veronica Correa and I am currently a Clinical Psychology Ph.D. student at Alliant- San Francisco. At the moment, I am working on my dissertation which is focused on assessing clinical competency in school-based mental health trainees. I would like to further understand how factors such as role stress, self-efficacy, and support from school staff and supervisors impact trainee performance.

Those of you that are currently enrolled at Alliant and are in the Clinical Psychology Psy.D. or Ph.D. programs, are fulfilling your practicum or internship, and provide therapy or counseling at a school-based site are eligible to participate in my study. Each participant would devote about 30 minutes total. Should you chose to participate, you will fill out this packet that contains a demographic questionnaire and a few surveys that will take you about 20 minutes to complete. In order to better understand how your experience as a school-based trainee has impacted your level of competency, I am using the Field Placement Evaluation Form as rated by your supervisor from the OPT as a measure of performance. So, after reading the consent form and agreeing to participate in the study, you must provide your name and signature in the designated areas as this allows me to retrieve your evaluation form from the OPT. You may also provide this form to me directly in February when I follow-up with you to obtain your self-ratings of your performance. Completing the second portion of the study should take you about 10 minutes.

Participation in this study is completely voluntary and there will be no consequences if you choose not to participate or decide to withdraw after starting. It is important to note that the information used in this study will not remain anonymous because I must obtain your name to link the data you provide to me. However, your responses will remain confidential. Neither your

supervisors nor training directors will have access to your answers, nor will they know which of you has participated. Again, your contribution of data is solely for the purposes of my dissertation and is not in any way linked to your obligations or duties to this practicum or internship placement.

All of you that participate and complete the study will have the opportunity to enter a drawing for one of five $20.00 gift cards to TARGET stores.

A summary of the results of the research will be available in approximately six months. Anyone including those that chose not to participate may request a summary of results by sending me an e-mail at clinicalcompetencyresearch@gmail.com.

This study has been reviewed and received ethics clearance through Alliant's Institutional Review Board. Your participation would be greatly valued and appreciated. However, the final decision about participation in this study is entirely yours.

Thank you for your time.

APPENDIX C

Research Advertisement

Participants are needed for an online study about understanding clinical competency in school based mental health trainees….

-Are you currently fulfilling your practicum or internship as a school therapist/counselor?

This study is intended to help further our understanding of how role stress, support from school staff and supervisors, and self-efficacy impacts trainee performance in your school based training programs.

-If you meet the above requirements, you are invited to answer research questions about your experience as a trainee in a school based setting. Completing the questionnaires should take a total of 30 minutes (20 minutes for the first questionnaire and 10 minutes for follow-up). Participation is voluntary and responses will be confidential. You will be required to submit your name therefore your identity will not remain anonymous. Upon completion of the questionnaires, you will be eligible to enter into a raffle to win one of five $20.00 TARGET gift cards.

-This research is being conducted by a student in the Ph.D. clinical psychology program at Alliant International University, California School of Professional Psychology, San Francisco.

- You may complete questionnaires online by clicking here: …If you have any questions, e-mail me at clinicalcompetencyresearch@gmail.com. Please be aware that if you contact the researcher, your e-mail address will not be linked to other information you provide in the survey and will be deleted upon response to your question.

APPENDIX D

Research Recruitment Letter for Directors of Training

Dear Training Director,

My name is Veronica M. Correa, M.A., and I am a Clinical Psychology Ph.D. student at California School of Professional Psychology, Alliant International University, San Francisco. In order to fulfill my dissertation requirement, I am conducting a study aimed at assessing clinical competency in school-based mental health trainees. My focus is on understanding how role stress, self-efficacy, and support from school staff and supervisors impact trainee performance.

I am writing to request your consideration of my recruitment of participants from your training site. Given the limited number of these trainees that currently provide school-based mental health services from CSPP, I am planning to engage individuals on-site of their training programs to better target this sample of participants. Participants will be invited to answer research questions about their experience as a trainee in a school-based setting. They will not be asked to identify their training agency nor their clinical supervisors. In addition, participants will be asked to disclose their identity by providing their full names to the researcher. They will also be asked to provide their Field Placement Evaluation Forms to the researcher as rated by their supervisors. Participants may provide this to the researcher directly or by consenting her to obtain them from Alliant's Office of Professional Training. Therefore, while their responses will remain confidential, their identity will not remain anonymous. Should you agree that I may recruit participants on-site, I will read a short recruitment script to potential participants. Those that are interested will receive a survey that will take approximately 20 minutes to complete. I will then return in February to conduct a follow-up data collection that will take about 10 minutes to complete resulting in a total of 30 minutes of participants' time.

Participants will be informed that their involvement in the study would be completely voluntary and that their decision as to whether they participate will not have an impact upon their current training position or their supervisors' evaluations of their performance. They may withdraw from the study at any time until the completion of the dissertation in June 2014. As compensation for participants' completion of the questionnaires, each will be eligible to enter into a raffle to win one of five $20.00 TARGET gift cards.

With your approval, it would be much appreciated if I may recruit participants at your training site beginning in December 2013 and concluding in March 2014. Your agreement to do so would greatly facilitate my data collection phase of my research project. Should you have any questions or concerns about the study feel free to contact me at any time.

Thank you for your consideration,

Veronica M. Correa, M.A.

clinicalcompetencyresearch@gmail.com

(661) 333-3481

APPENDIX E

Permission for Use of Measures

Self-efficacy: Permission is granted at no cost for sole use in a Master's Thesis and/or Doctoral Dissertation. Additional permission is also granted for the selection to be included in the printing of said scholarly work as part of UMI's "Books on Demand" program. For any further usage or publication, please contact the publisher.

Dear Veronica,

Thanks for your interest and I'm glad to grant your request to use the MDSS. To help, I attach a file of instructions re the scoring, with examples of how to tailor it to various samples and research questions.

I wish you every success with your research.

Kind regards,

Helen

--

Professor Helen Winefield,
School of Psychology (Hughes building, room 718b),
The University of Adelaide, Adelaide, AUSTRALIA 5005.
Ph: +61 8 8313 3172 (Monday - Wednesday)

e-mail: helen.winefield@adelaide.edu.au

https://www.adelaide.edu.au/directory/helen.winefield

From: vmcorrea@aol.com [mailto:vmcorrea@aol.com]

Sent: Sunday, 22 September 2013 5:05 AM

To: Helen Winefield

Subject: permission to use instrument

Hello Dr. Winefield,

My name is Veronica Correa and I am currently a Clinical Psychology Ph.D. candidate at Alliant International University - San Francisco. l am writing to request your permission to use the Multi-Dimensional Support Scale for my dissertation published in the journal article:

Winefield, H.R., Winefield, A.J., & Tiggeman, M. (1992). Social support and psychological well-being in young adults: The multi-dimensional support scale. *Journal of Personality Assessment, 58* (1), 198-210.

If granted permission, I will distribute the measure to approximately 70 clinical psychology graduate students training in the school setting. With the use of your instrument, I will determine the level of support received from those in their training setting including peers, and supervisors. I will adapt it slightly by allowing students to rate the principal of the school in which students are training, other teachers, individual supervisors and other trainees as sources of support.

Given that the Multi-Dimensional Support Scale captures the type of support I would like to measure, would you grant me permission to use it in my dissertation?
I would be happy to provide you with more information about it if needed. Your help is much appreciated.

Dear Veronica,

Thank you for your request. Please consider this e-mail as permission to reprint the material as detailed below in your upcoming dissertation. Please note that this permission does not cover any 3rd party material that may be found within the work. We do ask that you properly credit the original source, SAGE Publications. Please contact us for any further usage of the material.

Good luck with your dissertation,
Michelle Binur

-----Original Message-----
From: Veronica Correa [mailto:vmcorrea@aol.com]
Sent: 18 September 2013 03:08
To: PermissionsUK
Subject: Request for use of measure for public

Hello,

I would like to use the Role Questionnaire instrument from the journal article by Rizzo, House, & Lirtzman (1970) titled "Role conflict and ambiguity in complex organizations" in Administrative Sciences Quarterly 15 (2), 150-163. It will be used by myself, Veronica M. Correa to fulfill the

dissertation requirement for my PhD at Alliant International University - San Francisco. The dissertation is titled " The Impact of Role Stress, Self-Efficacy, Organizational Support, and Supervisory Support upon Performance in School-Based Mental Health Trainees. The Role Questionnaire will be distributed to approximately 70 trainees to determine their levels of role stress while training in the school setting.

Please let me know if there is anything else needed to fulfill my request.

Thank you,
Veronica M. Correa

APPENDIX F

Option to Enter Drawing

Option to Enter Drawing

The item below involves the option to choose to participate in a drawing now that you have completed the study questionnaires. In order to participate in the drawing you MUST provide the researcher with an e-mail address to contact you. All identifying information provided in order to enter the drawing will be kept separate from your responses.

I would like to be entered into the drawing for one of five $20.00 gift cards to TARGET stores. If I win, I can be notified at the provided e-mail address: _____

APPENDIX G

Tables for Study One

Table G1

Correlations Among Items of the Field Placement Evaluation Form

	A1	A2	A3	A4	A7	A8	A9	B1	B2	B3	B4
A1	1.00										
A2	.75	1.00									
A3	.59	.56	1.00								
A4	.59	.52	.51	1.00							
A7	.32	.24	.31	.25	1.00						
A8	.43	.37	.39	.36	.73	1.00					
A9	.44	.47	.44	.47	.50	.60	1.00				
B1	.43	.39	.43	.36	.14	.31	.33	1.00			
B2	.45	.38	.39	.35	.15	.30	.33	.76	1.00		
B3	.60	.54	.50	.46	.31	.43	.46	.63	.71	1.00	
B4	.46	.45	.66	.41	.21	.28	.35	.49	.47	.63	1.00
B5	.59	.54	.49	.63	.22	.33	.40	.48	.45	.63	.59
B6	.47	.45	.45	.43	.28	.32	.39	.54	.50	.61	.54
B7	.17	.16	.14	.16	.04	.12	.11	.16	.14	.19	.15
B8	.44	.39	.36	.36	.21	.32	.40	.59	.54	.62	.50
B9	.28	.24	.30	.14	.25	.28	.22	.20	.17	.33	.36
B10	.44	.45	.39	.39	.15	.27	.46	.55	.56	.58	.47
B11	.60	.51	.44	.38	.23	.38	.33	.39	.38	.52	.48
B12	.57	.57	.41	.37	.19	.29	.27	.31	.28	.41	.37
C1	.14	.06	.15	.05	.07	.10	.15	.13	.13	.18	.18

(continued)

	A1	A2	A3	A4	A7	A8	A9	B1	B2	B3	B4
C2	.44	.43	.45	.38	.29	.29	.46	.49	.49	.55	.53
C3	.35	.29	.37	.28	.33	.31	.39	.43	.40	.50	.44
C4	.39	.41	.44	.29	.28	.31	.44	.59	.54	.58	.49
C5	.44	.42	.49	.31	.27	.34	.40	.56	.51	.54	.51
C6	.45	.42	.47	.39	.24	.31	.40	.50	.47	.56	.52
C7	.45	.40	.47	.40	.34	.40	.39	.46	.42	.55	.54
C8	.43	.45	.47	.37	.27	.30	.49	.55	.55	.60	.53
C9	.48	.46	.60	.43	.29	.38	.45	.56	.48	.56	.54
D1	.49	.42	.43	.46	.26	.37	.45	.56	.58	.59	.49
D2	.43	.38	.38	.48	.18	.35	.38	.51	.54	.52	.43
D3	.48	.42	.43	.43	.25	.33	.39	.52	.47	.53	.47
D4	.51	.44	.40	.38	.20	.29	.43	.53	.55	.62	.48
D5	.57	.52	.45	.37	.20	.34	.37	.49	.50	.53	.48
D6	.54	.51	.44	.50	.19	.35	.46	.50	.52	.57	.48
D7	.48	.48	.43	.38	.26	.38	.48	.53	.51	.56	.47
D8	.53	.48	.45	.46	.28	.41	.47	.61	.60	.63	.51
E1	.17	.16	.14	.16	.06	.08	.10	.18	.17	.18	.16
E2	.49	.44	.42	.49	.26	.34	.43	.56	.56	.58	.51
E3	.44	.42	.44	.44	.21	.25	.38	.55	.51	.55	.55
E4	.51	.45	.44	.48	.23	.34	.40	.57	.56	.56	.52
E5	.44	.48	.45	.40	.24	.34	.50	.56	.51	.53	.51

(continued)

	B5	B6	B7	B8	B9	B10	B11	B12	C1	C2	C3
B5	1.00										
B6	.61	1.00									
B7	.19	.18	1.00								
B8	.58	.55	.17	1.00							
B9	.26	.28	.11	.32	1.00						
B10	.49	.57	.16	.55	.25	1.00					
B11	.57	.51	.14	.46	.39	.43	1.00				
B12	.42	.42	.16	.34	.36	.35	.70	1.00			
C1	.18	.19	.01	.16	.11	.16	.15	.14	1.00		
C2	.52	.64	.15	.49	.26	.56	.43	.39	.29	1.00	
C3	.44	.58	.13	.46	.20	.46	.38	.31	.25	.76	1.00
C4	.48	.57	.16	.52	.31	.58	.44	.37	.25	.75	.70
C5	.46	.54	.16	.49	.33	.56	.54	.46	.22	.69	.61
C6	.55	.56	.16	.54	.25	.53	.51	.36	.22	.67	.61
C7	.50	.50	.16	.47	.29	.49	.51	.36	.21	.59	.57
C8	.48	.56	.15	.54	.25	.71	.46	.40	.22	.71	.62
C9	.51	.60	.18	.49	.27	.54	.55	.48	.23	.70	.62
D1	.57	.57	.14	.55	.26	.50	.45	.43	.18	.63	.53
D2	.53	.46	.13	.54	.21	.45	.38	.37	.15	.47	.37
D3	.55	.59	.07	.54	.23	.50	.41	.39	.20	.58	.54
D4	.53	.65	.09	.55	.21	.53	.50	.41	.23	.66	.58
D5	.45	.51	.16	.53	.30	.52	.54	.48	.17	.54	.43

(continued)

	B5	B6	B7	B8	B9	B10	B11	B12	C1	C2	C3
D6	.53	.53	.17	.59	.24	.56	.47	.41	.17	.54	.41
D7	.48	.48	.15	.55	.28	.60	.46	.36	.15	.55	.48
D8	.55	.63	.17	.60	.25	.58	.49	.43	.19	.62	.52
E1	.19	.17	.04	.17	.10	.16	.15	.16	.05	.18	.14
E2	.58	.57	.17	.59	.19	.51	.46	.40	.16	.58	.50
E3	.56	.62	.14	.55	.23	.50	.46	.38	.17	.64	.50
E4	.59	.62	.16	.58	.20	.55	.47	.42	.18	.62	.54
E5	.53	.55	.15	.59	.29	.67	.49	.40	.18	.60	.53

(continued)

	C4	C5	C6	C7	C8	C9	D1	D2	D3	D4	D5
C4	1.00										
C5	.79	1.00									
C6	.71	.71	1.00								
C7	.65	.63	.76	1.00							
C8	.75	.67	.69	.62	1.00						
C9	.68	.73	.65	.60	.72	1.00					
D1	.56	.53	.61	.53	.58	.53	1.00				
D2	.48	.44	.53	.50	.50	.48	.74	1.00			
D3	.54	.48	.52	.53	.55	.52	.68	.68	1.00		
D4	.58	.53	.56	.49	.60	.59	.64	.56	.64	1.00	
D5	.50	.52	.49	.42	.53	.52	.56	.60	.66	.68	1.00
D6	.52	.52	.59	.54	.57	.57	.64	.69	.66	.61	.66
D7	.60	.53	.55	.52	.66	.57	.57	.57	.61	.55	.61
D8	.63	.56	.60	.55	.64	.62	.72	.65	.64	.65	.63
E1	.10	.16	.16	.16	.17	.17	.20	.19	.21	.12	.18
E2	.52	.50	.60	.55	.58	.57	.66	.65	.62	.60	.57
E3	.57	.51	.57	.54	.58	.58	.61	.57	.64	.57	.56
E4	.55	.53	.53	.54	.59	.56	.69	.60	.69	.57	.56
E5	.62	.56	.57	.54	.71	.61	.60	.59	.64	.54	.59

(continued)

	D6	D7	D8	E1	E2	E3	E4	E5
D6	1.00							
D7	.72	1.00						
D8	.67	.69	1.00					
E1	.20	.18	.20	1.00				
E2	.65	.58	.64	.21	1.00			
E3	.62	.57	.63	.21	.73	1.00		
E4	.61	.59	.66	.22	.73	.76	1.00	
E5	.67	.78	.66	.19	.66	.68	.68	1.00

Note. Correlations greater than or equal to .10 in absolute value are statistically significant at the .05 alpha level. Correlations greater than or equal to .14 in absolute value are statistically significant at the .01 alpha level. Correlations greater than or equal to .19 in absolute value are statistically significant at the .001 alpha level.

Table G2

Anti-Image Covariances Among Items of the Field Placement Evaluation Form

	A1	A2	A3	A4	A7	A8	A9	B1	B2	B3	B4
A1	.27										
A2	-.12	.32									
A3	-.07	-.04	.36								
A4	-.06	.00	-.05	.41							
A7	-.04	.03	-.01	.01	.38						
A8	.01	-.01	-.01	.00	-.20	.31					
A9	.02	-.06	-.03	-.08	-.04	-.11	.41				
B1	.00	.00	-.01	.00	.04	-.03	.02	.31			
B2	-.01	.01	-.01	.00	.01	-.01	.02	-.14	.28		
B3	-.04	-.02	.02	.00	-.01	-.02	.00	.00	-.10	.27	
B4	.05	.00	-.16	.02	.01	.02	.01	.00	.00	-.07	.35
B5	-.02	-.04	.03	-.12	.00	.00	.03	.00	.03	-.03	-.07
B6	.03	-.02	-.01	-.01	-.05	.01	.02	-.03	.01	-.01	-.01
B7	-.01	.02	.00	-.01	.05	-.02	.00	-.01	.02	-.03	.01
B8	.00	.02	.02	.04	.00	.01	-.03	-.06	.01	-.04	-.01
B9	-.01	.04	-.02	.03	-.04	-.02	.01	.02	.04	-.04	-.06
B10	-.01	.00	.02	-.02	.05	.00	-.05	-.01	-.03	-.02	.00
B11	-.04	.03	.03	.03	.03	-.04	.00	.02	-.02	.00	-.01
B12	-.02	-.10	.00	-.02	.00	.01	.04	.00	.03	.00	.02
C1	-.03	.08	-.02	.07	.04	-.02	-.04	.01	.00	-.01	.00

(continued)

	A1	A2	A3	A4	A7	A8	A9	B1	B2	B3	B4
C2	.00	-.02	.02	-.01	-.02	.03	-.02	.03	-.02	.02	-.02
C3	-.01	.04	.01	.00	-.02	-.01	.01	.02	.02	-.02	.00
C4	.02	-.02	.00	.04	-.01	.02	-.02	-.03	-.01	-.01	.02
C5	.00	.01	.00	.01	-.01	.00	.00	-.03	-.01	.02	-.02
C6	.00	-.01	-.02	.01	.03	.00	.01	.01	.02	.01	.02
C7	-.01	.00	.01	-.03	-.03	-.03	.04	.00	.02	-.01	-.06
C8	.02	.00	.01	-.01	-.03	.04	-.02	.02	-.02	-.01	-.01
C9	.01	.02	-.09	-.02	.01	-.03	.02	-.04	.03	.00	.02
D1	-.01	.02	-.01	.02	.00	.00	-.03	-.01	-.02	.00	.00
D2	.02	.03	.00	-.05	.02	-.03	.02	.02	-.03	.00	.01
D3	.00	.01	-.02	.01	-.01	.01	.01	-.03	.03	.00	.02
D4	-.02	.02	.02	.02	.03	.02	-.04	.00	-.01	-.03	.01
D5	-.04	-.04	-.01	.02	.00	-.02	.04	.00	-.01	.03	-.03
D6	-.01	-.02	.02	-.04	.03	.00	-.02	.04	-.01	.00	.00
D7	-.01	-.01	-.01	.02	.00	-.01	.00	-.01	.01	-.01	.01
D8	-.01	.01	.02	-.02	.00	-.02	.00	-.02	-.01	.00	.00
E1	.00	-.01	.00	.00	.00	.02	.00	-.02	-.01	-.01	.01
E2	.00	.00	.03	-.02	-.03	.01	-.01	-.01	-.02	.00	-.02
E3	.01	.01	-.01	-.01	-.02	.04	-.01	-.02	.01	-.01	-.02
E4	-.03	.00	.01	-.01	.03	-.04	.03	.01	-.02	.03	-.01
E5	.02	-.02	.00	.02	.00	.01	-.04	-.02	.01	.03	.00

(continued)

	B5	B6	B7	B8	B9	B10	B11	B12	C1	C2	C3
B5	.30										
B6	-.04	.34									
B7	-.03	-.04	.89								
B8	-.06	-.01	-.01	.41							
B9	.01	-.03	-.02	-.08	.68						
B10	-.01	-.07	.00	-.03	-.01	.36					
B11	-.08	-.03	.04	-.01	-.04	.02	.31				
B12	.05	.00	-.04	.01	-.07	.00	-.16	.38			
C1	-.04	.00	.04	.00	.00	.02	.02	-.04	.86		
C2	.00	-.02	.00	.02	-.01	-.01	.03	.00	-.06	.23	
C3	.00	-.03	-.02	-.02	.05	.02	.01	.00	.00	-.09	.31
C4	-.02	.00	-.01	.01	-.04	.01	.02	.00	-.01	-.03	-.05
C5	.01	.01	.01	.00	-.02	-.04	-.03	-.03	.00	-.02	.00
C6	-.03	-.02	.01	-.03	.02	.01	-.02	.04	.00	-.01	-.02
C7	.04	.03	-.03	.02	-.01	-.01	-.05	.02	-.01	.00	-.02
C8	.03	.02	.00	.00	.02	-.09	.01	-.02	-.01	-.01	.00
C9	.00	-.02	-.01	.01	.02	.02	-.03	-.02	.00	-.04	-.03
D1	-.02	.01	.00	.02	-.04	.01	.01	-.03	.03	-.03	-.02
D2	-.02	.02	.00	-.02	.01	.02	.03	-.03	.00	.02	.04
D3	-.03	-.03	.07	.00	.00	.01	.04	-.01	-.01	.01	-.04
D4	-.01	-.07	.06	-.01	.04	.01	-.02	.01	-.01	-.03	-.03
D5	.05	.03	-.05	-.01	-.03	-.02	-.05	.01	.00	-.02	.00

(continued)

	B5	B6	B7	B8	B9	B10	B11	B12	C1	C2	C3
D6	.03	-.01	-.02	-.04	.01	-.01	.01	.01	-.02	.00	.04
D7	.00	.03	.00	.01	-.02	.00	-.01	.03	.02	.01	-.01
D8	.01	-.05	.00	-.02	.03	.00	.01	-.01	-.01	.00	.02
E1	-.01	-.01	.01	.00	-.03	.01	.01	-.01	.00	-.02	-.02
E2	.00	.01	-.02	-.02	.03	.01	.01	-.02	.00	.01	.00
E3	.00	-.03	.02	.01	-.01	.03	-.01	.00	.02	-.04	.03
E4	-.01	-.02	-.02	-.03	.04	-.01	.00	.00	.00	-.01	-.02
E5	-.01	.01	.00	-.01	-.02	-.06	-.03	.01	.00	.01	-.03

(continued)

	C4	C5	C6	C7	C8	C9	D1	D2	D3	D4	D5
C4	.20										
C5	-.09	.25									
C6	-.02	-.05	.24								
C7	-.03	-.01	-.11	.31							
C8	-.04	.02	-.04	-.01	.23						
C9	.01	-.07	.00	.01	-.06	.26					
D1	.03	-.01	-.04	.02	-.01	.04	.26				
D2	-.02	.02	-.01	-.02	.01	-.01	-.10	.29			
D3	-.01	.01	.03	-.04	.00	.01	-.03	-.05	.29		
D4	.00	.02	.01	.00	-.01	-.03	-.03	.00	-.02	.29	
D5	.01	-.03	-.01	.06	.01	.02	.04	-.05	-.07	-.09	.30
D6	.02	-.01	-.02	-.02	.02	-.03	-.01	-.05	-.03	-.01	-.03
D7	-.02	.01	.00	.01	-.03	.01	.01	.01	-.01	.00	-.02
D8	-.03	.02	.00	.00	.00	-.02	-.06	-.01	.01	-.01	-.03
E1	.06	-.02	.00	-.02	-.02	.00	.00	-.01	-.02	.06	-.02
E2	.02	.01	-.04	.00	.01	-.01	-.01	-.03	.01	-.03	-.01
E3	-.01	.03	-.01	-.01	.01	-.01	.01	.01	-.01	.01	-.02
E4	.01	-.02	.04	-.01	-.01	.01	-.04	.01	-.05	.03	.01
E5	.00	.01	.02	.00	-.03	-.01	.00	-.02	-.01	.03	-.01

(continued)

	D6	D7	D8	E1	E2	E3	E4	E5
D6	.28							
D7	-.08	.27						
D8	.00	-.06	.28					
E1	.00	-.01	-.02	.90				
E2	-.02	.01	.01	-.01	.29			
E3	-.02	.01	-.01	-.01	-.07	.28		
E4	.01	.00	-.01	.00	-.06	-.09	.25	
E5	-.01	-.10	.01	.01	-.03	-.04	-.02	.23

Table G3

Anti-Image Correlations Among Items of the Field Placement Evaluation Form

	A1	A2	A3	A4	A7	A8	A9	B1	B2	B3	B4
A1	.95										
A2	-.42	.94									
A3	-.22	-.11	.94								
A4	-.19	.00	-.14	.95							
A7	-.12	.09	-.04	.02	.84						
A8	.03	-.04	-.02	.00	-.60	.89					
A9	.05	-.16	-.08	-.20	-.11	-.32	.95				
B1	-.01	-.01	-.04	-.01	.12	-.10	.05	.96			
B2	-.04	.04	-.04	.01	.02	-.02	.07	-.47	.95		
B3	-.13	-.08	.07	.02	-.04	-.07	-.01	-.01	-.37	.97	
B4	.16	-.01	-.46	.06	.03	.06	.03	.00	.02	-.23	.95
B5	-.08	-.13	.08	-.35	.01	.01	.08	.01	.10	-.12	-.20
B6	.09	-.05	-.02	-.02	-.13	.04	.06	-.08	.03	-.05	-.03
B7	-.02	.03	.00	-.02	.08	-.05	-.01	-.02	.03	-.05	.02
B8	.01	.05	.06	.10	-.01	.02	-.07	-.18	.03	-.12	-.04
B9	-.01	.09	-.05	.06	-.07	-.05	.01	.04	.08	-.09	-.12
B10	-.04	.00	.05	-.05	.13	.01	-.12	-.03	-.09	-.06	.01
B11	-.15	.11	.08	.09	.09	-.12	-.01	.08	-.05	-.01	-.03
B12	-.08	-.28	.01	-.06	.00	.02	.11	.01	.10	.01	.05
C1	-.07	.15	-.04	.11	.07	-.04	-.07	.02	.01	-.02	.00

(continued)

	A1	A2	A3	A4	A7	A8	A9	B1	B2	B3	B4
C2	.01	-.09	.07	-.04	-.07	.11	-.08	.11	-.06	.07	-.06
C3	-.02	.12	.03	.01	-.07	-.04	.02	.06	.06	-.07	-.01
C4	.07	-.09	.00	.12	-.02	.06	-.07	-.11	-.05	-.04	.08
C5	.01	.05	.00	.04	-.02	.00	-.01	-.10	-.05	.06	-.05
C6	-.01	-.02	-.08	.04	.09	.00	.03	.03	.06	.02	.08
C7	-.05	.00	.02	-.07	-.08	-.10	.11	-.01	.07	-.04	-.17
C8	.07	-.02	.02	-.03	-.11	.15	-.08	.06	-.08	-.05	-.05
C9	.04	.06	-.29	-.05	.05	-.10	.06	-.14	.11	-.01	.06
D1	-.02	.07	-.04	.06	.00	.00	-.09	-.04	-.08	-.01	.01
D2	.08	.08	.00	-.14	.08	-.10	.05	.06	-.10	.01	.03
D3	.00	.04	-.06	.02	-.04	.03	.02	-.09	.12	.01	.06
D4	-.07	.06	.06	.06	.09	.06	-.12	.01	-.03	-.12	.02
D5	-.12	-.12	-.02	.05	.00	-.08	.11	.01	-.02	.09	-.10
D6	-.05	-.07	.08	-.11	.09	-.01	-.05	.12	-.05	-.02	-.01
D7	-.03	-.03	-.03	.06	-.01	-.04	.00	-.03	.03	-.05	.03
D8	-.03	.03	.06	-.05	.00	-.07	.01	-.05	-.03	-.01	-.01
E1	-.01	-.01	.00	.00	.00	.04	.00	-.03	-.01	-.03	.02
E2	-.01	.01	.09	-.05	-.10	.04	-.04	-.05	-.07	-.01	-.05
E3	.05	.05	-.02	-.02	-.06	.15	-.02	-.08	.04	-.05	-.06
E4	-.10	.00	.02	-.04	.10	-.13	.09	.03	-.09	.10	-.02
E5	.10	-.08	-.01	.06	.00	.04	-.12	-.06	.04	.12	-.01

(continued)

	B5	B6	B7	B8	B9	B10	B11	B12	C1	C2	C3
B5	.95										
B6	-.11	.97									
B7	-.05	-.08	.90								
B8	-.17	-.02	-.02	.98							
B9	.02	-.06	-.03	-.14	.93						
B10	-.03	-.19	.01	-.07	-.02	.97					
B11	-.25	-.09	.08	-.02	-.09	.05	.94				
B12	.14	-.01	-.07	.02	-.14	.01	-.48	.93			
C1	-.08	.00	.05	.00	.00	.03	.04	-.07	.93		
C2	-.01	-.08	-.01	.06	-.03	-.03	.11	.01	-.13	.97	
C3	.01	-.11	-.03	-.07	.11	.06	.04	-.01	-.01	-.32	.96
C4	-.07	.01	-.03	.03	-.11	.05	.08	.01	-.02	-.15	-.20
C5	.03	.04	.03	.01	-.04	-.12	-.10	-.10	.00	-.10	.01
C6	-.12	-.05	.02	-.09	.05	.04	-.08	.14	.01	-.04	-.07
C7	.12	.09	-.06	.05	-.03	-.04	-.16	.07	-.03	.01	-.06
C8	.10	.08	.01	.00	.05	-.31	.02	-.08	-.02	-.06	.01
C9	.00	-.05	-.03	.04	.05	.08	-.10	-.07	.00	-.15	-.10
D1	-.06	.03	.00	.07	-.09	.05	.02	-.10	.06	-.14	-.08
D2	-.08	.07	.01	-.05	.02	.05	.11	-.08	-.01	.07	.14
D3	-.11	-.10	.14	.01	.01	.03	.13	-.04	-.02	.03	-.12
D4	-.02	-.21	.11	-.03	.08	.02	-.06	.02	-.02	-.13	-.10
D5	.18	.10	-.10	-.04	-.07	-.07	-.17	.02	-.01	-.07	.01

(continued)

	B5	B6	B7	B8	B9	B10	B11	B12	C1	C2	C3
D6	.09	-.05	-.05	-.12	.03	-.02	.04	.02	-.03	.00	.13
D7	-.01	.11	.00	.03	-.04	-.01	-.03	.09	.04	.03	-.03
D8	.03	-.15	-.01	-.06	.07	-.01	.03	-.05	-.01	.01	.08
E1	-.03	-.01	.01	.01	-.04	.01	.02	-.02	.00	-.04	-.04
E2	-.02	.04	-.03	-.06	.07	.04	.04	-.07	.01	.02	-.01
E3	-.01	-.10	.04	.03	-.02	.09	-.03	.00	.03	-.16	.12
E4	-.04	-.08	-.03	-.09	.09	-.03	-.01	.00	-.01	-.04	-.08
E5	-.04	.03	.01	-.04	-.06	-.21	-.11	.04	-.01	.04	-.11

(continued)

	C4	C5	C6	C7	C8	C9	D1	D2	D3	D4	D5
C4	.96										
C5	-.38	.96									
C6	-.09	-.19	.96								
C7	-.10	-.03	-.42	.96							
C8	-.20	.08	-.18	-.04	.97						
C9	.05	-.26	.00	.04	-.25	.97					
D1	.12	-.05	-.15	.08	-.03	.15	.96				
D2	-.10	.06	-.02	-.08	.03	-.03	-.36	.96			
D3	-.02	.05	.12	-.15	-.01	.05	-.12	-.17	.97		
D4	-.02	.08	.05	-.01	-.05	-.09	-.10	.00	-.08	.97	
D5	.04	-.11	-.04	.21	.02	.09	.14	-.16	-.25	-.31	.95
D6	.07	-.04	-.09	-.06	.08	-.13	-.04	-.17	-.12	-.05	-.09
D7	-.08	.02	.01	.02	-.11	.04	.04	.04	-.04	.00	-.06
D8	-.13	.09	-.02	-.02	-.02	-.09	-.23	-.04	.03	-.04	-.11
E1	.15	-.05	.01	-.03	-.04	.00	.00	-.02	-.03	.11	-.03
E2	.08	.04	-.16	-.01	.02	-.05	-.03	-.12	.04	-.10	-.02
E3	-.06	.10	-.05	-.03	.05	-.04	.05	.03	-.04	.04	-.06
E4	.02	-.08	.17	-.04	-.05	.04	-.17	.04	-.18	.09	.05
E5	.00	.04	.08	.01	-.14	-.05	.02	-.09	-.05	.12	-.02

(continued)

	D6	D7	D8	E1	E2	E3	E4	E5
D6	.97							
D7	-.30	.97						
D8	.00	-.22	.98					
E1	.00	-.02	-.04	.95				
E2	-.06	.02	.04	-.02	.98			
E3	-.07	.05	-.04	-.02	-.24	.97		
E4	.05	.00	-.04	-.01	-.21	-.33	.97	
E5	-.04	-.39	.02	.02	-.11	-.16	-.09	.97

Note. Diagonal elements are measures of sampling adequacy.

Table G4

Communalities for Unrotated Factor Analysis

Factor	Initial	Extraction
A1	.731	.719
A2	.676	.615
A3	.644	.521
A4	.589	.527
A7	.621	.678
A8	.694	.796
A9	.590	.530
B1	.692	.692
B2	.717	.754
B3	.734	.728
B4	.648	.540
B5	.695	.659
B6	.655	.590
B7	.105	.054
B8	.586	.535
B9	.324	.213
B10	.642	.567
B11	.692	.626
B12	.624	.581
C1	.136	.091
C2	.774	.761
C3	.688	.670
C4	.795	.799
C5	.750	.731
C6	.756	.666
C7	.689	.584
C8	.770	.732
C9	.739	.683
D1	.742	.677
D2	.713	.651
D3	.708	.687

(continued)

Factor	Initial	Extraction
D4	.706	.593
D5	.704	.634
D6	.725	.707
D7	.731	.706
D8	.718	.701
E1	.101	.065
E2	.706	.686
E3	.720	.663
E4	.746	.696
E5	.771	.707

Note. Extraction method: Principal axis factoring.

Table G5

Varimax Rotated Factor Variance

Factor	Initial eigenvalues			Rotation sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	19.56	47.71	47.71	9.11	22.20	22.20
2	2.06	5.02	52.73	6.65	16.22	38.44
3	1.74	4.24	56.97	5.20	12.69	51.13
4	1.45	3.54	60.51	2.35	5.73	56.86

Note. Extraction method: Principal axis factoring.

Table G6

Rotated Factor Variance After Removal of Items

Factor	Initial eigenvalues			Rotation sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	19.73	53.32	53.32	8.54	23.02	23.08
2	1.74	4.71	58.03	7.16	19.34	42.42
3	1.67	4.52	62.56	5.18	14.00	56.42
4	1.49	4.03	66.58	2.40	6.48	62.90

APPENDIX H

Tables for Study Two

Table H1

Pearson Zero Order Correlations (Pearson's R*) Among Model Variables (Self-Efficacy, Role Conflict, Role Ambiguity, Organizational Support, Supervisory Support, and Self-Evaluation of Performance)*

Model variable	S	RC	RA	OS	SS	SEP-PIEA	SEP-CI	SEP-PRB	SEP-SD	SEP-S
S										
RC	-.50**									
RA	-.69**	.72**								
OS	.13	-.17	-.28*							
SS	.47**	-.46**	-.39**	-.03						
SEP-PIEA	.34*	.11	-.10	-.13	.41**					
SEP-CI	.17	.23	.07	-.38**	.18	.41**				
SEP-PRB	.08	-.01	-.06	.05	-.03	.31*	.41**			
SEP-SD	.27*	-.04	-.29*	.07	.01	.41**	.61**	.61**		
SEP-S	.14	-.19	-.36**	.12	-.40	.20	.30*	.65**	.81**	
SUP-PIEA	-.01	-.08	-.08	-.39**	.30*	.52**	.23	.36*	.13	.10
SUP-CI	.33*	-.27*	-.26*	-.08	.13	.07	-.06	.35**	.16	.25*
SUP-PRB	.40**	-.35**	-.34**	-.22	.04	.04	.06	.27*	.08	.17
SUP-SD	.39**	-.37**	-.26*	-.04	.04	.07	-.10	.26*	.21	.25*
SUP-S	.22	-.27*	-.31*	-.16	.15	.01	.21	.39**	.44**	.50**
VP-CD	.37**	-.35**	-.31*	-.08	.16	.05	-.05	.30*	.26*	.32*
VP-PRB	.40**	-.32*	-.29*	-.21	-.03	.04	.04	.28*	.08	.18
VP-PCI	.06	-.14	-.17	-.34**	.10	.15	.07	.41**	.12	.21
VP-PAS	-.03	-.16	-.08	-.37**	.31*	.07	.14	.31*	.01	.05

p < .05,p < .01.*

SEP-PIEA = self-evaluation of performance–Psychological Intake, Evaluation, and Assessment; SEP-CI = self-evaluation of performance–Clinical Intervention; SEP-PRB = self-evaluation of performance–Professional Roles and Behaviors; SEP-SD = self-evaluation of performance–Self-Examination and Development; SEP-S = self-evaluation of performance–Supervision; VP-CD = verified performance–Clinical Development; VP-PRB = verified performance–Professional Roles and Behaviors; VP-PCI = verified performance–Psychological Conceptualization and Intervention; VP-PAS = verified performance–Psychological Assessment Skills.

Table H2

Pearson Zero Order Correlations (Pearson's R*) Among Model Variables (Supervisor Evaluation of Performance and Verified Performance Factors)*

Model variable	SUP-PIEA	SUP-CI	SUP-PRB	SUP-SD	SUP-S	VP- CD	VP-PRB	VP-PCI	VP-PAS
S									
RC									
RA									
OS									
SS									
SEP-PIEA									
SEP-CI									
SEP-PRB									
SEP-SD									
SEP-S									
SUP-PIEA									
SUP-CI	.53**								
SUP-PRB	.45**	.69**							
SUP-SD	.44**	.84**	.76**						
SUP-S	.49**	.69**	.73**	.75**					
VP-CD	.50**	.92**	.77**	.94**	.86**				
VP-PRB	.39**	.71**	.98**	.80**	.70**	.77*			
VP-PCI	.88**	.77**	.67**	.62**	.63**	.69**	.63**		
VP-PAS	.97**	.49**	.42**	.42**	.46**	.47**	.37**	.82**	

p < .05,p < .01.*

SEP-PIEA = self-evaluation of performance–Psychological Intake, Evaluation, and Assessment; SEP-CI = self-evaluation of performance–Clinical Intervention; SEP-PRB = self-evaluation of performance–Professional Roles and Behaviors; SEP-SD = self-evaluation of performance–Self-Examination and Development; SEP-S = self-evaluation of performance–Supervision; VP-CD = verified performance–Clinical Development; VP-PRB = verified performance–Professional Roles and Behaviors; VP-PCI = verified performance–Psychological Conceptualization and Intervention; VP-PAS = verified performance–Psychological Assessment Skills.

Table H3

Bootstrapped Regressions

Bootstrapped Regressions

---------- Model=1 Outcome=SEA_SCALE_A ----------

Variable	Estimate	Lower 95% CI	Upper 95% CI	P-Value
Intercept	0.14119	-1.77055	2.38519	0.85106
OrganizationalSup	-0.02445	-0.16370	0.07277	0.59499
RoleAmbiguity	0.04036	-0.12124	0.21370	0.69307
RoleConflict	0.22389	-0.07983	0.43249	0.12576
SelfEfficacy	0.22113	-0.01489	0.45081	0.06708
SupervisorySup	0.32885	0.09714	0.64885	0.00861

---------- Model=2 Outcome=SEA_SCALE_B ----------

Variable	Estimate	Lower 95% CI	Upper 95% CI	P-Value
Intercept	1.83646	0.13364	3.17536	0.03157
OrganizationalSup	-0.15304	-0.27046	-0.03439	0.00972
RoleAmbiguity	-0.03282	-0.16564	0.08223	0.50579
RoleConflict	0.22542	0.00958	0.36534	0.04117
SelfEfficacy	0.13511	-0.03022	0.25706	0.09527
SupervisorySup	0.17577	-0.02703	0.42830	0.08972

---------- Model=3 Outcome=SEA_SCALE_C ----------

Variable	Estimate	Lower 95% CI	Upper 95% CI	P-Value
Intercept	3.35994	1.14007	6.25955	0.00461
OrganizationalSup	0.01490	-0.18934	0.17536	0.86784
RoleAmbiguity	-0.00688	-0.23428	0.17118	0.87716
RoleConflict	0.01889	-0.29059	0.27919	0.80608
SelfEfficacy	0.05864	-0.20260	0.27654	0.61380
SupervisorySup	-0.06319	-0.39560	0.34263	0.77557

```
       ------------------------------------------- Model=4 Outcome=SEA_SCALE_D ----------------
------------------------------

                                                                  Lower       Upper
                            Variable                Estimate     95% CI      95% CI     P-
Value

                            Intercept                3.35411     1.46661     5.00867
0.00586
                            OrganizationalSup       -0.01675    -0.15220     0.10717
0.79170
                            RoleAmbiguity           -0.12855    -0.26619    -0.02085
0.01988
                            RoleConflict             0.14127    -0.11143     0.32380
0.22319
                            SelfEfficacy             0.07095    -0.09835     0.21748
0.40585
                            SupervisorySup          -0.06018    -0.27706     0.22865
0.69776


       ------------------------------------------- Model=5 Outcome=SEA_SCALE_E ----------------
------------------------------

                                                                  Lower       Upper
                            Variable                Estimate     95% CI      95% CI     P-
Value

                            Intercept                5.18239     2.88757     7.82071
0.00208
                            OrganizationalSup       -0.01302    -0.16906     0.13388
0.80688
                            RoleAmbiguity           -0.21663    -0.46907    -0.05622
0.01252
                            RoleConflict             0.03879    -0.28524     0.26029
0.75217
                            SelfEfficacy            -0.07999    -0.32153     0.12403
0.42954
                            SupervisorySup          -0.16504    -0.45456     0.13408
0.25633

       ------------------------------------------- Model=6 Outcome=FPEF_A ------------------
------------------------------

                                                                  Lower       Upper
                            Variable                Estimate     95% CI      95% CI     P-
Value

                            Intercept                3.76504     1.58655     9.67978
0.00010
                            OrganizationalSup       -0.28160    -0.54425    -0.08894
0.00065
                            RoleAmbiguity           -0.17120    -0.53650     0.17516
0.40026
                            RoleConflict             0.09490    -0.18794     0.47082
0.44928
                            SelfEfficacy            -0.14088    -0.53772     0.11723
0.34893
                            SupervisorySup           0.37478    -0.19133     0.83952
0.15486


       ------------------------------------------- Model=7 Outcome=FPEF_B ------------------
------------------------------

                                                                  Lower       Upper
                             Variable               Estimate     95% CI      95% CI    P-
Value

                             Intercept               3.48743     1.30138     6.08374
0.00628
```

OrganizationalSup	-0.06986	-0.18716	0.04158	0.25363
RoleAmbiguity	-0.00874	-0.19704	0.13637	0.87659
RoleConflict	-0.05841	-0.30376	0.20868	0.65972
SelfEfficacy	0.11721	-0.08460	0.32994	0.23503
SupervisorySup	-0.05708	-0.34810	0.24964	0.74348

---------- Model=8 Outcome=FPEF_C ----------

Variable	Estimate	Lower 95% CI	Upper 95% CI	P-Value
Intercept	4.75769	3.37735	7.40197	0.00000
OrganizationalSup	-0.19926	-0.37439	-0.07699	0.00027
RoleAmbiguity	-0.04105	-0.29307	0.15960	0.74577
RoleConflict	-0.12889	-0.33048	0.11851	0.27027
SelfEfficacy	0.20343	0.00369	0.37295	0.04751
SupervisorySup	-0.28409	-0.62971	-0.00323	0.04205

---------- Model=9 Outcome=FPEF_D ----------

Variable	Estimate	Lower 95% CI	Upper 95% CI	P-Value
Intercept	3.90191	2.01922	6.22045	0.00000
OrganizationalSup	-0.06039	-0.19034	0.05299	0.31855
RoleAmbiguity	0.09137	-0.10350	0.27622	0.35276
RoleConflict	-0.22802	-0.49977	0.04784	0.10503
SelfEfficacy	0.23484	-0.00190	0.46333	0.05322
SupervisorySup	-0.26401	-0.65869	0.10471	0.18071

----------Model=10 Outcome=FPEF_e ----------

Variable	Estimate	Lower 95% CI	Upper 95% CI	P-Value
Intercept	4.67784	2.45458	7.60843	0.00000
OrganizationalSup	-0.16244	-0.33575	-0.02127	0.02559
RoleAmbiguity	-0.14589	-0.41715	0.06586	0.18431
RoleConflict	-0.01848	-0.31797	0.30784	0.94177
SelfEfficacy	0.00344	-0.25592	0.22794	0.96500

```
                                SupervisorySup          -0.00151    -0.36679     0.37207
0.94801

       ------------------------------------------- Model=11 Outcome=NEW_FACTOR1 ---------------
------------------------------

                                                                      Lower       Upper
                                Variable                Estimate     95% CI      95% CI    P-
Value

                                Intercept                3.76471     1.45250     6.43346
0.00580
                                OrganizationalSup       -0.08143    -0.21534     0.02660
0.14816
                                RoleAmbiguity           -0.00148    -0.21550     0.17507
0.98998
                                RoleConflict            -0.11851    -0.40072     0.17843
0.39939
                                SelfEfficacy             0.14026    -0.10727     0.37642
0.24087
                                SupervisorySup          -0.07552    -0.42447     0.27305
0.70924

       ------------------------------------------- Model=12 Outcome=NEW_FACTOR2 ---------------
------------------------------

                                                                      Lower       Upper
                                Variable                Estimate     95% CI      95% CI     P-
Value

                                Intercept                4.66741     3.26432     7.16168
0.00000
                                OrganizationalSup       -0.18682    -0.33889    -0.06977
0.00250
                                RoleAmbiguity            0.00569    -0.22112     0.20782
0.94412
                                RoleConflict            -0.15530    -0.37575     0.07598
0.16523
                                SelfEfficacy             0.25098     0.05848     0.44360
0.01421
                                SupervisorySup          -0.36871    -0.71992    -0.05867
0.01422

       ------------------------------------------- Model=13 Outcome=NEW_FACTOR_3 ---------------
------------------------------

                                                                      Lower       Upper
                                Variable                Estimate     95% CI      95% CI     P-
Value

                                Intercept                4.54922     2.98377     7.78669
0.00000
                                OrganizationalSup       -0.21173    -0.40545    -0.09823
0.00015
                                RoleAmbiguity           -0.12785    -0.38425     0.07607
0.24857
                                RoleConflict             0.00974    -0.19826     0.29528
0.88431
                                SelfEfficacy            -0.05714    -0.28037     0.12148
0.53771
                                SupervisorySup           0.01444    -0.39649     0.32424
0.96486

       ------------------------------------------- Model=14 Outcome=NEW_FACTOR_4 ---------------
------------------------------

                                                                      Lower       Upper
```

Variable	Estimate	95% CI	95% CI	P-Value
Intercept	4.15541	2.26245	8.25200	0.00000
OrganizationalSup	-0.27808	-0.53553	-0.10428	0.00176
RoleAmbiguity	-0.12021	-0.44226	0.17168	0.46247
RoleConflict	-0.03374	-0.31040	0.31814	0.83710
SelfEfficacy	-0.21039	-0.50476	0.02079	0.07994
SupervisorySup	0.41746	-0.08780	0.84352	0.09999