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SUPERVISORY DYADS IN SCHOOL PSYCHOLOGY INTERNSHIPS: DOES PERSONALITY DIFFERENCE AFFECT RATINGS OF SUPERVISORY WORKING ALLIANCE, SUPERVISION SATISFACTION, AND WORK READINESS?

A Dissertation Presented

by

SHEILA P. DESAI

Submitted to the Office of Graduate Studies,
University of Massachusetts Boston
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2016

Counseling and School Psychology Program

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SUPERVISORY DYADS IN SCHOOL PSYCHOLOGY INTERNSHIPS: DOES PERSONALITY DIFFERENCE AFFECT RATINGS OF SUPERVISORY WORKING ALLIANCE, SUPERVISION SATISFACTION, AND WORK READINESS?

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ABSTRACT

SUPERVISORY DYADS IN SCHOOL PSYCHOLOGY INTERNSHIPS: DOES PERSONALITY DIFFERENCE AFFECT RATINGS OF SUPERVISORY WORKING ALLIANCE, SUPERVISION SATISFACTION, AND WORK READINESS?

August 2016

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The internship is a critical part of graduate training and often the only opportunity to receive on-site clinical supervision during school psychology practice. Nonetheless, the process of pairing interns with field supervisors is not standardized and sometimes relies on factors such as logistics and supervisor credentials rather than a consideration of interpersonal variables that could optimize the internship experience. Related fields have found mixed evidence for a relationship between personality similarity within a supervisory dyad and outcomes such as a strong supervisory relationship, satisfaction with supervision, and supervisee effectiveness. This study examined the influence of personality similarity on ratings of supervisory working alliance, supervision satisfaction, and intern work readiness. This study also evaluated the predictive power of personality,

supervisory working alliance, and systemic factors on intern work readiness and supervision satisfaction. Lastly, this study assessed the development of the supervisory working alliance and intern work readiness over time.

Twenty-six dyads were recruited for participation in this study, including 24 practicing school psychologists serving as field supervisors and 26 school psychology interns. Data collection occurred at the midpoint and end of the internship year. Participants completed a demographic questionnaire, personality inventory, and measures of supervisory working alliance, supervision satisfaction, supervisee work readiness, and systemic factors.

Results indicated that personality similarity among supervisors and interns is not related to supervisory working alliance, supervision satisfaction, or supervisee work readiness. However, supervisor ratings of supervisory working alliance were predictive of intern work readiness, and intern ratings of supervisory working alliance were predictive of supervision satisfaction. Systemic factors were not predictive of intern work readiness or supervision satisfaction. For supervisors, the supervisory working alliance significantly decreased over time, while intern ratings remained consistent from midyear to the end of the year. Intern development from midyear to the end of year could not be determined due to low scale reliability. Future studies should further examine factors that contribute to the supervisory working alliance and validate measures specific to the school context. More research is needed to establish the conditions and interpersonal characteristics that enable an optimal internship experience for both supervisors and supervisees in school psychology.

DEDICATION

This dissertation is dedicated to my parents, Jyoti and Praful Desai, who have always supported and inspired my educational pursuits. Thank you for everything.

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To my incredible group of friends who have remained in my life through these grad school years, I thank you. I cannot wait to see you all more. I would like to give a special nod to my best friend since childhood, Prema Chaudhari, who concurrently went through the dissertation process at the University of Pittsburgh. This endeavor can be quite isolating and our daily check-ins served as a reminder that I am not stranded alone on Dissertation Island.

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years. My mother, who was one of few women to acquire a Bachelor of Science degree in India at the time, put her professional ambitions aside to move to the other side of the world and later give all her efforts to raising my brother and I. My father left India at age 19 and immigrated to the U.S. with $200 and admission to the University of Texas. He ended up with a Bachelors Degree and two Masters Degrees, working multiple jobs and late hours to put himself through school. It was my parents' dream that I would be granted the opportunity to surpass my father's level of education; it is with humility and honor that I can soon consider that wish fulfilled.

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CHAPTER 1

INTRODUCTION

The supervision of psychological services involves a senior member of a profession providing interventions to a more junior member of the same profession through a relationship that is evaluative and extends over time (Bernard & Goodyear, 2004). The purposes of supervision are to enhance professional functioning of the more junior person, monitor the quality of professional services offered by the junior person, and function as a gatekeeping mechanism for those entering the particular profession (Bernard & Goodyear). Harvey and Struzzerio (2008) explained that, "clinical (professional) supervision involves the oversight of professional practice and requires discipline-specific training and knowledge" while the role of administrative supervisors is to "provide leadership, recruit and hire, delegate assignments, conduct formal personnel evaluations, design corrective actions, and take ultimate responsibility for services provided by supervisees" (p. 4). Several authors agree that clinical supervision is an essential component of professional training and development for supervisees in school and clinical mental health professions during the initial years of practice (Bernard & Goodyear, 2004; Crespi & Dube, 2006; Fischetti & Crespi, 1999; Harvey & Sturzziero, 2008; Ross & Goh, 1993). Despite the known importance of clinical supervision in educational and psychological settings, research on supervision practices at the pre-

service level in school psychology is lacking (Ward, 2001; Sullivan, Svenkerud & Conoley, 2014).

The National Association of School Psychologists (NASP) requires that school psychology graduate students complete a 1200-hour internship under the supervision of a credentialed school psychologist to meet requirements for graduation and licensure (NASP, 2010). Supervision provided during internship is often the only opportunity to receive individual, clinical supervision on-site (Flanagan & Grehan, 2011). Although the American Psychological Association (APA) standards (APA, 2009) indicate that non-doctoral school psychologists should receive face-to-face supervision throughout their careers, only 28.5% of working school psychologists receive clinical supervision that is organized and provided by the school district in the form of professional support, mentoring, and/or peer supervision (Curtis, Castillo, & Gelley, 2012). Therefore, the internship experience and supervision provided throughout the internship is critical in school psychology training and professional development (NASP, 2010).

Unfortunately, less than 20% of practicing school psychologists providing supervision reported having graduate-level coursework related to supervision, and fewer than 20% reported having post-graduate coursework, workshops, or in-service presentations on supervision (Flanagan & Grehan, 2011). Most school psychology interns have received clinical supervision from specialist-level school psychologists who were not required to complete supervision training (Harvey & Struzzerio, 2008). Supervisors have been found to have variable levels of work experience, skills, and training in effective supervision techniques as well as varying levels of motivation and

interest in supervision (Flanagan & Grehan, 2011; Crespi & Dube, 2006). Consequently, supervision provided during internship is not standard across sites and supervisors, and this has likely led to inconsistencies in training, the supervisory relationship, supervision satisfaction, and work readiness for supervisees.

The supervisory relationship has been identified as a pillar of supervision (Falender & Shafranske, 2007) but little emphasis has been placed on matching school psychology interns with supervisors to optimize this relationship. Instead of selecting supervisors in a systematic way, training programs "rely on factors including logistics, availability, reputation credentials (as school psychologists or licensed psychologists), and willingness to provide supervision consistent with the philosophy of the training program that is in keeping with ethical and professional standards" (Flanagan & Grehan, 2011, p. 22). With limited research on the supervisory relationship in school psychology, it is unclear whether matching supervisors and supervisees on particular characteristics could lead to desired outcomes such as the development of a strong supervisory working alliance, supervision satisfaction, and work readiness.

Bordin (1983) defined the supervisory working alliance as the agreement of goals, assignment of tasks, and the development of bonds. The supervisory working alliance has been shown to have a relationship with self-efficacy in school psychology interns (Trangucci, 2013), supervisee satisfaction (Ladany, Ellis, & Friedlander, 1999), supervisees' perception of relationship quality (Kennard, Stewart & Gluck, 1987), as well as other factors in counseling and clinical relationships. Perrotto (2005) established that the bond factor of supervisory working alliance was correlated with school psychology

intern perceptions of success based on measures of working alliance and student success at the beginning and end stages of internship, with the supervisory bond was more highly correlated with success at the end stage of internship. The bond factor has been defined as the complex network of positive attachments between supervisor and intern, including issues such as trust, acceptance, and confidence (Bordin, 1983). Perrotto (2005) also concluded that interns who rated the supervisory working alliance more positively reported having a more successful internship. Nevertheless, further research is needed on outcomes connected to the supervisory working alliance in school psychology and the present study contributes to this gap in the literature.

There has been some support for a relationship between personality variables and the supervisory relationship (Kitzrow, 2001; Dettlaff, 2005). McKenzie (2001) surveyed supervisory pairs providing psychodynamic psychotherapy and found that similarity or difference in interpersonal style and personality factors impacted supervisors' satisfaction with the supervisory experience. Social work students and field instructors that matched on personality dimensions rated the overall quality of their relationship significantly higher than individuals who did not share personality preferences (Dettlaff, 2005). In counseling education, supervisory dyads with similar personality preferences reported higher levels of satisfaction than pairs that were mismatched on these dimensions (Steen, 1998). Handley (1982) found that counseling practicum students and supervising counseling psychology doctoral students that matched on a personality preference reported more positive perceptions of the supervisory relationship and student satisfaction with supervision. Similarly, when personality preferences of faculty practicum

instructors and their counseling trainees were compared, pairings with a similar personality preference on one personality dichotomy resulted in higher supervisor rating of supervisee effectiveness (Praul, 1969).

In contrast, Corbin (2011) concluded that there were no significant differences in supervisory working alliance ratings or measures of basic skills competency amongst counseling supervisory dyads that matched or differed on the introverted/extraverted personality dimension. Garretson (1992) found no support for a relationship between personality type match and ratings of supervisory working alliance in the counseling supervisory relationship, and similarly, Colburn, Neale-McFall, Michel, and Bayne (2012) looked at the effect of temperament, as measured by the Myers Briggs Type Indicator, on ratings of supervision satisfaction and found no relationship. The consideration of personality type in pairing supervisors and counseling trainees has yielded mixed conclusions and warrants further exploration. One potential explanation for these varied results is the notion that personality is a socially constructed phenomenon and can look different across cultures (Burr, 2003). To date, there are no known studies that have examined this topic within the field of school psychology.

There is some evidence that personality matching contributes to supervision satisfaction (Steen, 1998; Handley, 1982) and research that identifies other factors that facilitate supervision satisfaction. Supervisor practices such as building a positive relationship and providing direct and immediate feedback contributed to overall satisfaction for school psychology practicum students (Tarquin & Truscott, 2006). Additionally, supervision satisfaction was influenced by the supervisee's perspective on

supervisory style (Friedlander & Ward, 1984), negative reactions to supervisors (Ladany, Hill, Corbett, & Nutt, 1996) and supervisory working alliance (Ladany et al., 1999). Only one known study (Klee, 2011) researched school psychology intern satisfaction and found a positive correlation between total internship satisfaction and perceived support from supervisors. To date, the effect of personality difference on supervision satisfaction in school psychology internships has not been explored.

Palmer (1996) called for empirical research to investigate the relationship between supervision and professional outcomes for school psychologists. As such, the present study on supervisory relationships used intern work readiness as an outcome measure. Work readiness is defined as the attainment of skills and attributes that prepare an individual for success in the workplace (Caballero and Walker, 2010), and in the context of this study, work readiness included autonomy within the supervisory relationship (Stoltenberg, 1981) and the development of professional skills that signified readiness for independent practice.

There is a growing literature base indicating supervisees exhibit different characteristics and abilities based on accumulated experience (Harvey & Struzzerio, 2008; Stoltenberg & McNeill, 2010; Rønnestad & Skovholt, 2013), which is often referred to in supervision literature as the developmental hypothesis. Stoltenberg (1981) proposed four developmental levels for supervisees: Level 1 is represented by a supervisee who is highly dependent on the supervisor; Level 2 is characterized by a conflict between dependency and autonomy; Level 3 emphasizes conditional dependency; and Level 4 is the final stage, described as a "master counselor." To address

the evolving needs of trainees, Stoltenberg (1981) suggested that supervisors might need to continually adjust their role within the supervisory relationship. Harvey, Struzzerio, and Desai (2014) explained that effective supervisors give more structure and support to novice trainees and provide a more reflective, conceptual, and systemic approach for more advanced supervisees. However, Ladany, Mori, and Mehr (2013) found some support that supervisee needs remain constant over time. Their study reported that counseling, clinical, school psychology and other mental health supervisees identified similar supervision techniques that were deemed to be effective (e.g. encouraged autonomy, strengthened the supervisory relationship, and facilitated open discussion) and ineffective (e.g. depreciated supervision, performed ineffective client conceptualization and treatment, and weakened the supervisory relationship) regardless of supervisee developmental level. Nonetheless, since there is broad support for the developmental hypothesis, the present study considered ratings from supervisors and supervisees at two time points to account for potential developmental differences.

The Present Study

The present study examined personality difference within school psychology supervisory dyads and assessed its impact on ratings of supervisory working alliance, supervision satisfaction, and work readiness. This study focused on specialist-level training in school psychology since there are significantly more specialist programs than doctoral programs, and consequently a higher number of specialist level students than doctoral students. As of September 2015, NASP listed 146 specialist-level and 56 doctorate-level programs spread across 165 institutions that were approved in full or with

conditions (E. Rossen, personal communication, February 22, 2016). APA (2016) listed 63 active accredited doctoral programs in school psychology and 2 accredited doctoral programs that grant a combined counseling and school psychology degree, though both APA and NASP dually accredit approximately 50 programs. Recent estimates from NASP (2013) indicated that during the 2013-2014 academic year, 6,502 students were enrolled in specialist-level programs and 3,161 were enrolled in doctoral programs. Furthermore, approximately two-thirds of school psychologists in the United States have been trained at the specialist level (Crespi, 2010), and the majority (70%) of practicing school psychologists has not acquired a doctoral degree (Curtis, Grier, & Hunley, 2004). Only 16.7% of 1,272 surveyed school psychologists in the United States hold a doctorate in school psychology and work full-time in schools (Curtis et al., 2012). Accordingly, approximately one-third of school psychologists hold a doctoral degree but only one-sixth work in schools full-time.

Problem statement. Presently, factors such as logistics, availability, reputation, credentials, and willingness to provide supervision consistent with the philosophy of the training program and adherence to ethical and professional standards are considered when placing school psychology interns with site supervisors (Flanagan & Grehan, 2011). There has been minimal consideration given to interpersonal variables that could enhance the relationship between school psychology interns and their supervisors. Personality similarity in supervisory dyads of related fields has been linked with higher ratings of the overall quality of the supervisory relationship (Detlaff, 2005; Handley, 1982), perceived supervisory satisfaction (Steen, 1998), and ratings of supervisee

effectiveness (Praul, 1969). Yet other studies did not find a relationship between personality similarity and supervisory working alliance (Corbin, 2011; Garretson, 1992), measures of basic skills competency (Corbin, 2011), or ratings of supervision satisfaction and rapport within the supervisory relationship (Colburn et al., 2012). No studies to date have explored personality similarity between school psychology interns and their supervisors, and previous research is mixed on the impact of personality similarity on the supervisory relationship, supervision satisfaction, and supervisee effectiveness/competency.

Study purpose. The purpose of this study was to examine supervisory dyads during the school psychology internship and determine if personality difference affects ratings of supervisory working alliance, supervision satisfaction, and supervisee work readiness. Since there is not a universal and systematic procedure for placing school psychology interns with site supervisors, this study sought to provide justification for a more thoughtful matching process. If personality similarity or difference increased ratings of supervisory working alliance, supervision satisfaction, and/or supervisee work readiness, it would be worthwhile to consider personality factors before pairing supervisors and school psychology interns.

Study significance. There has been limited published literature and empirical research on supervision in school psychology (Sullivan et al., 2014) despite a growing literature base in the related fields of clinical psychology, counseling psychology, psychotherapy, school counseling, and general professional psychology (Goodyear, Bunch, & Claiborn, 2005). Furthermore, research on supervision practices at the pre-

service level in school psychology is lacking (Ward, 2001) and even less is known about interpersonal factors that contribute to a positive supervisory relationship and working alliance during school psychology internships. This study contributed to this gap in the literature by evaluating one aspect of interpersonal relationships, personality, and determining its impact within the context of internship supervision.

Social justice implications. This study has two major implications in regards to social justice: the equity and quality of school psychology training that leads to positive outcomes for school children, and a consideration of multicultural supervision issues. The goals of social justice in education and school psychology are interconnected as they both facilitate an environment where all can learn (Shriberg, 2012). Additionally, the importance of a quality graduate education is the foundation of the science and practice of psychology (Sheridan, Matarazzo & Nelson, 1995). Therefore, the field of psychology must be conscientious about the training opportunities offered to graduate students through coursework, practica, and internships. By better understanding the factors that lead to an optimal supervisory experience, more equitable and fulfilling internships can be provided to school psychology trainees.

Equity and quality of school psychology training. Unfortunately, there is not a system in place to ensure the quality of internship placements or supervisory experiences. Unlike doctoral internships, specialist-level internships do not have the option of undergoing an accreditation process (i.e. APA) or offering a systematic placement service (i.e. Association of Psychology Postdoctoral and Internship Centers). Moreover, systemic or institutional barriers within school systems can impact a supervisor's ability

to provide adequate supervision to graduate students. Harvey and Struzzerio (2008) indicated that some school psychologists have been trained in the medical model to be assessment experts and have not expanded their practice to understand systems, enable systems change, or deliver intervention and prevention services. Furthermore, field placements in systems that emphasize and value a range of school psychology services are limited and there is also an established shortage in the number of practicing school psychologists in these settings (Harvey & Struzziero, 2008).

After interviewing 26 practitioners who supervise school psychology interns or school psychologists, Harvey and Pearrow (2010) identified eight systemic supervision challenges specific to school psychology: state and federal laws, local school policies, resource availability, uncooperative general education teachers, a substandard general education curriculum, uncooperative administrators, the special education link of school psychologists, and union issues. Beyond hindering the supervision process, these challenges can also create a barrier to providing appropriate services to children. The No Child Left Behind legislation at the federal level led to an era of accountability and high stakes testing. Participants in the Harvey and Pearrow (2010) study articulated that such federal laws impact school psychology supervisees because supervisees may have to complete evaluations on students that have the requisite skills to succeed academically but are unable to pass high stakes tests. State regulations vary a great deal in their interpretation of the Individuals with Disabilities Education Act (IDEA) that passed in 2004. As a result, school psychology supervisors may struggle to help supervisees "comply with current laws and professional standards in the face of state departments of

education that seemingly do not understand them" (Harvey & Pearrow, 2010, p. 575). Policies at the local level can impact resource allocation, administrative structures, and the promotion of evidence-based practice. Limited resources such as poorly designed curricula, ineffective teaching, and insufficient availability of quality interventions impact a supervisee's ability to follow best practices. Teachers who undermine the pre-referral process can interfere with a supervisee's efforts to implement IDEA 2004 and appropriate interventions. An inadequate general education curriculum can also create a barrier to meeting students' needs. When school psychologists are either primarily or exclusively connected to special education and special education eligibility, they are limited in the services they can provide children in the general education setting. Lastly, union policies can create complications when supervisors and supervisees are in the same unit or when policies make it difficult to terminate supervisees who are incompetent or impaired (Harvey & Pearrow, 2010).

Overall, there can be widespread variability in the quality of internships and supervision. Nonetheless, the field of school psychology may be able to provide more equity in training to specialist-level students by matching supervisors and supervisees in a way that leads to better outcomes and training. Ultimately, by providing school psychology students with strong supervisory experiences to enhance their training and skill development, these graduate students will benefit the broader public by becoming more effective service providers.

Multicultural supervision. Based on research done with marriage and family therapy graduate students, the supervisory working alliance is predictive of supervision

satisfaction while the matching of variables such as age, religion, gender, ethnicity, sexual orientation, and theoretical orientation within the supervisory dyad does not impact trainee ratings of satisfaction (Cheon, Blumer, Shih, Murphy, & Sato, 2009). Nonetheless, supervisory dyads that share high levels of racial identity attitudes (Ladany, Brittany, Powell & Pannu, 1997), racial identity development (Bhat & Davis, 2007) and engage in frank discussions about the similarities and differences in their ethnicity (Gatmon et al., 2001) had stronger supervisory working alliances than those who do not. Similarly, Mori, Inman and Caskie (2009) concluded that international students with lower levels of acculturation but greater levels of cultural discussion showed more satisfaction with supervision. Open discussions about gender or sexual orientation did not predict a strong supervisory working alliance, but it did predict satisfaction with supervision whereas open dialogue about ethnicity differences did not (Gatmon et al., 2001). Overall, these findings indicate that matching supervisors and supervisees on multicultural factors is less important in the supervisory relationship than being able to speak freely about cultural matters and differences.

Harvey and Struzzerio (2008) stated that supervisors of school psychology students and practitioners are responsible for developing their own multicultural awareness, sensitivity, and responsivity as well as their supervisees'. As part of this process, supervisors should engage in culturally competent supervision practices. McPhatter (2004) described the key attributes of culturally competent supervision as: (a) the capacity to achieve clarity about the supervisor's own belief systems, (b) knowledge about the strength of diversity, (c) comfort with cultural differences, (d) commitment to

an environment of equality, justice, and a sense of fairness, (e) a nature that seeks, plans, and welcomes learning opportunities, and (f) commitment to develop a culturally competent organization. Hansen and colleagues (2006) found that psychologists are more likely to acquire multicultural competencies as a result of professional or personal experiences rather than in response to professional guidelines or codes of ethics. Consequently, supervised practice has been identified as the primary way for practitioners to attain multicultural competencies (Ladany, Inman, Constantine, & Hofheinz, 1997) and learn how to effectively work with diverse populations.

Definition of Terms

Supervision in this study refers to clinical supervision in school psychology, and is defined as sharing knowledge, assessing professional competencies, and providing objective feedback with the terminal goals of developing new competencies, facilitating effective delivery of psychological services, and maintaining professional competencies (McIntosh & Phelps, 2000, p. 33-34) to improve performance by all concerned including the school psychologist, supervisor, students, and the entire school community (NASP, 2011, p.1). Supervisors will be referred to as supervisors, trainers, or school psychologists while supervisees will be referred to as supervisees, trainees, or interns.

Personality was measured by the NEO-Five Factor Inventory-3 scales (NEO-FFI-3, McCrae & Costa, 2010) including: openness to experience (openness), agreeableness, conscientiousness, extraversion, and neuroticism. This study only considered the extraversion, conscientiousness, and openness factors. Extraversion is the quantity and intensity of energy directed outwards into the social world, while

conscientiousness is the degree of organization, persistence, control and motivation in goal directed behavior that a person has. Openness involves the active seeking and appreciation of experiences for their own sake (McCrae & Costa, 2010).

Personality difference or **personality similarity** refers to the difference in NEO-FFI-3 scores between supervisors and trainees on the extraversion, conscientiousness, and openness factors. Personality difference and personality similarity will be used interchangeably and will not reflect the degree of personality difference or similarity between supervisors and supervisees.

Supervisory working alliance is defined as the agreement of goals, assignment of tasks, and the development of bonds and will be measured by the Supervisory Working Alliance Inventory (SWAI, Efstation, Patton & Kardash, 1990). Goals may include mastery of skills, growing understanding of clients, increased awareness of process issues, and deepening understanding of concepts and theory. Tasks may involve oral or written reports of sessions, observation of the supervisee, or the selection of issues to discuss. The bond consists of trust and shared experiences, evaluation processes, and the relational connection that develops through the work toward mutual goals and tasks (Bordin, 1983).

Work readiness is the extent to which graduates are perceived to possess the skills and attributes that render them prepared for success in the workplace (Caballero and Walker, 2010). For the purposes of this study, work readiness in school psychology involves the attainment of professional skills that can be demonstrated through the development of independence in the supervisory relationship (Stoltenberg, 1981). Work

readiness has been measured by a modified version of the Supervision Level Scale (SLS) Person subscale (Wiley & Ray, 1986), which allowed supervisors to rate the level of supervisee development. Specifically, the SLS Person-subscale measured the degree to which the trainee independently has confidence in their school psychology skills, insight about his/her impact on students, the ability to utilize a variety of frameworks to approach their work with students, integration of his/her professional identity, and the awareness of school psychology's limitations.

Supervision satisfaction in this study refers to the perception that supervision has quality, is desired, meets needs, would be recommended, and is generally satisfying. Supervision satisfaction was measured by the Supervision Satisfaction Questionnaire (SSQ, Ladany et al., 1996).

Research Questions

No studies to date have investigated personality similarity between school psychology interns and their supervisors. Since previous research is mixed on the impact of personality similarity on the supervisory relationship and supervisee effectiveness/competency, no directional hypotheses were developed for the following research questions posed in this study:

1) Do similar personality scores between supervisor and supervisee on the extraversion or conscientiousness scale predict supervision satisfaction, supervisory working alliance and/or supervisee work readiness?

2) To what extent do supervisory working alliance, personality, and systemic factors contribute to variance in supervision satisfaction and supervisee work readiness?

3) Does supervisory working alliance and work readiness evolve over the duration of a specialist-level internship in school psychology?

CHAPTER 2

LITERATURE REVIEW

This chapter presents literature related to supervision guidelines and practices, the supervisory relationship, personality factors, and intern development. First, the importance of supervision is explained with an emphasis on supervision in the field of school psychology. The second section reviews supervision practices that supervisees find to be effective, ineffective, and facilitative of satisfaction. The third section focuses on the supervisory working alliance made up of tasks, goals, and bonds. The fourth section introduces personality, summarizes studies that have examined personality similarity in supervisory relationships, and gives an explanation of the extraversion, conscientiousness, and openness personality factors. The last section defines work readiness in school psychology as a reflection of training standards and job demands and also describes the phases of supervisee development that enable professional competence.

Supervision in Psychology

In 2002, the Association of Psychology Postdoctoral and Internship Centers (APPIC), American Psychological Association (APA), and other professional organizations cosponsored the Competencies Conference: Future Directions in Education and Credentialing (Kaslow et al., 2004) to clarify issues related to "the identification, education and training, and assessment competencies within professional psychology"

(Fouad et al., 2009, p. 6). From this conference, the "Cube model" (Rodolfa et al., 2005) emerged and gained acceptance across psychology training groups. This model proposed 12 core competencies that are either foundational (knowledge, skills, attitudes, and values needed to perform duties) or functional (major functions psychologists are expected to perform). Supervision/teaching was deemed to be one of six functional competency domains in the cube model, along with assessment/diagnosis/conceptualization, intervention, consultation, research/evaluation, and management/administration.

Many authors agree that supervision is a critical part of training and professional growth for school and mental health professionals, especially in the initial years of practice (Bernard & Goodyear, 2004; Crespi & Dube, 2006; Fischetti & Crespi, 1999; Harvey & Sturzziero, 2008; Ross & Goh, 1993). Bernard and Goodyear (2004) provided a formal definition of supervision of psychological services:

> an intervention provided by a senior member of a profession to a more junior member or members of the same profession. This relationship is evaluative, extends over time, and has the simultaneous purposes of enhancing the professional functioning of the more junior person(s), monitoring the quality of professional services offered to the clients that she, he, or they see, and serving as a gatekeeper for those who are to enter the particular profession (p. 8).

More specifically, supervision of psychological services in schools has been defined as, "an interpersonal interaction between two or more individuals for the purpose of sharing knowledge, assessing professional competencies, and providing objective feedback with the terminal goals of developing new competencies, facilitating effective delivery of

psychological services, and maintaining professional competencies" (McIntosh & Phelps, 2000, p. 33-34). Finally, the National Association of School Psychologists (NASP) expanded on this definition, emphasizing that supervision should lead to "improved performance by all concerned including the school psychologist, supervisor, students, and the entire school community" (NASP, 2011, p.1).

Research supports that supervision in the fields of psychology and education enables skill maintenance, skill improvement and expansion, stress reduction, increased self-reflection, and enhanced accountability for supervisees (Harvey & Struzzerio, 2008). Skill maintenance is supported through direct instruction, corrective feedback, appropriate rewards, and opportunities to receive supervision on the use of specific techniques (Beck, 1986; Dodenhoff, 1981; Kavanagh et al., 2003; Shapiro & Lentz, 1985). Carrington (2004) determined that supervision mitigates professional isolation and fosters self-reflection in educational psychology practice. Lastly, Harvey and Struzzerio (2008) emphasized that trained school psychologists who serve as supervisors promote adherence to high professional and ethical standards.

As a requirement for graduation and licensure at the specialist level, school psychology trainees must engage in a 1200-hour internship with supervision from a credentialed school psychologist (NASP, 2010). The internship experience affords students a chance to apply knowledge attained through coursework in a real world setting and improve their skills under the guidance of an experienced practitioner. Beyond being the culmination of graduate training, Flanagan and Grehan (2011) affirmed that the internship year is often the only opportunity to receive one-to-one, on-site supervision

from a school psychologist because there are no regulations or laws that ensure clinical supervision during years of professional practice. Unlike administrative supervision, Harvey and Struzzerio (2008) clarified that clinical supervision requires discipline-specific training and knowledge in order to provide guidance on practice. As such, the internship is a critical part of training and offers the necessary foundation for a career in school psychology at both the specialist and licensed psychologist levels.

Supervision Practices

The National Association of School Psychologists (2010) presently requires that site supervisors hold the appropriate credential to practice school psychology in their state, provide at least two hours of supervision each week that is predominantly face-to-face, and conduct supervision that is structured, consistently scheduled, and focused on skill development. NASP (2010) further recommends that intern supervisors have three years of work experience and participate in professional organizations in school psychology. A survey completed by Ward (2001) with 239 school psychology field supervisors found that an average of 4.7 hours of direct, face-to-face supervision was conducted per week. Unfortunately, Harvey and Struzzerio (2008) reported that school psychology training programs frequently identified inadequate and inappropriate supervision of interns as a significant problem. Some school psychologists have been trained in the medical model to be assessment experts and have not expanded their practice to understand systems, enable systems change, or deliver intervention and prevention services. Moreover, Harvey & Struzziero indicated that field placements in systems that emphasize and value a range of school psychology services are limited and

there is a shortage of practicing school psychologists in these settings. According to a survey done by Hunley et al. (2000), 90% of supervising school psychologists had not completed coursework in supervision, and 83% had not taken part in substantial additional training in supervision. A more recent survey with supervising school psychologist practitioners conducted by Flanagan and Grehan (2011) concluded that fewer than 20% of respondents reported having a class dedicated to supervision or discussing the topic during their graduate training. The majority of survey respondents relied on self-study to guide their supervision training by reading articles (63%) or sought peer supervision from others in the supervisory role (73%), and less than 20% indicated that they had postgraduate coursework, workshops, or in-service presentations on supervision (Flanagan & Grehan). Crespi and Dube (2006) asserted that supervisors can have varying levels of motivation and interest in supervision. Additionally, Flanagan and Grehan (2011) reported that school-based supervisors have varying levels of work experience and skills. Consequently, internships may differ significantly across sites and supervisors, and this may cause variation in supervisee satisfaction, work readiness, and the quality of the supervisory relationship.

Supervisory skills. Sullivan et al. (2014) compiled a list of core competencies of supervision based on work done by Campbell (2006), Kaslow, Falender, and Grus (2012), and Sullivan and Conoley (2008). Sullivan et al. (2014) suggested that to prepare for the supervisory role, supervisors should conduct a self-assessment of the following core competencies: (a) comfort in an authority role, (b) appreciation for the importance of the supervisory relationship, (c) ability to provide honest and constructive feedback, (d)

communication and rapport building, (e) ability to present information clearly, (f) ability to model professional skills and behaviors, (g) facilitation of self-reflection by the intern, (h) awareness of cultural and other diversity factors that may have an impact on supervision, (i) ability to provide multiple perspectives, (j) knowledge of problem-solving models, (k) knowledge of ethical and legal standards, (l) skills in applying ethics to complex situations, (m) knowledge of supervision methods and theoretical models, (n) competence in all areas of service delivery provided by supervisees, (o) ability to be flexible, and (p) ability to motivate and challenge interns to reach their goals. In addition, Sullivan and colleagues recommended that supervisors engage in formative and summative assessment of their own skills by eliciting feedback from interns, and incorporating student feedback into their practice and development as supervisors.

Systemic barriers to supervision. In addition to the supervisor, the internship site itself plays a role in training interns. The internship site broadly includes the school district, campus, special education directors, teachers and school staff, parents, and students that the intern provides services to (Sullivan et al., 2014). Sullivan and colleagues explained that the internship site is invested in the intern's supervision and training because the intern can have an impact on student outcomes within the school. However, the internship site may also be a barrier to supervision. Harvey and Pearrow (2010) identified eight systemic barriers that can impact school psychology supervision: state and federal laws, local school policies, resource availability, uncooperative general education teachers, a substandard general education curriculum, uncooperative administrators, the special education link of school psychologists, and union issues. The

presence of one or more of these barriers in an internship setting could affect the role of both the school psychologist providing supervision and the intern receiving training.

Effective and ineffective supervision. Ladany et al. (2013) conducted a mixed methods study with 128 clinical, counseling, school psychology and other mental health supervisees to understand what was considered to be effective and ineffective supervision from the supervisee perspective. The results indicated that effective supervisors developed a strong supervisory alliance through mutually agreed upon goals and tasks, used basic counseling skills to develop an emotional bond, used self-disclosure cautiously, and offered a balance of collegial interactions, interpersonal attentiveness, and task-oriented structures. Effective supervisors also facilitated valuable evaluation procedures by setting up supervisory goals and providing both formative and summative feedback.

Ineffective supervision was characterized as ineffective client conceptualization and treatment, depreciation for supervision, and weakening of the supervisory relationship (Ladany, et al., 2013). Ineffective supervision was likely to impact skill development, self-efficacy, and a commitment to the field (O'Donovan, Halfrod, & Walters, 2011). In one study, Magnuson, Wilcoxon and Norem (2000) interviewed counselors with various professional experiences to explore what might constitute as "lousy" supervision. Their qualitative study with 11 participants yielded six overarching principles of lousy supervision: unbalanced (overemphasizing some parts of supervision and leaving out others), developmentally inappropriate, intolerant of differences, poor model of professional/personal attributes, untrained, and professionally apathetic.

Supervision satisfaction. Klee (2011) declared that it is essential to understand which aspects of internships are satisfying because internship stress can lead to dissatisfaction and burnout. Klee's study established that school psychology interns' perception of supervisor support was related to satisfaction with the internship. Supervisor characteristics and the perceived supervisory process have been found to affect supervisee satisfaction with supervision (Mori et al., 2009). Supervision satisfaction is also impacted by the supervisee's perspective on supervisory style (Friedlander & Ward, 1984), supervisor's multicultural competence (Inman, 2006), supervisors' unethical behaviors (Ladany, Lerman-Waterman, Moliaro, & Wolgast, 1999), and negative reactions to supervisors (Ladany et al., 1996).

There is some support that the relationship between supervisors and supervisees can influence supervisee satisfaction. Ladany and colleagues (1999) found a relationship between the emotional bond aspect of the supervisory working alliance and supervisee satisfaction with supervision. A study done by Tarquin and Truscott (2006) with 139 school psychology practicum students found that supervisor practices such as the development of a positive relationship and delivery of direct and immediate feedback contributed to overall satisfaction for the student. Ramos-Sanchez et al. (2002) surveyed 126 counseling and clinical doctoral students to evaluate negative events in supervision, satisfaction with supervision, attachment style, supervisory working alliance, and supervisee developmental level. They concluded that negative supervisory experiences often involved personality style and the interpersonal relationship, which led to dissatisfaction.

Supervisory Working Alliance

Interns have identified the supervisory relationship as the most critical element in supervision, with a strong supervisory relationship involving active collaboration between the supervisor and intern (Ellis, 1991). This collaboration, or working alliance, sets the stage for a myriad of activities that occur during the supervision process (Chen & Bernstein, 2000). One theory that has guided understanding of the relationship between a supervisor and supervisee in clinical psychology is the *supervisory working alliance* developed by Bordin (1983). This alliance includes three factors: agreement of goals, assignment of tasks, and the development of bonds. Within the supervisory alliance, goals may include mastery of skills, growing understanding of clients, increased awareness of process issues, and deepening understanding of concepts and theory. Tasks in the supervisory alliance may involve oral or written reports of sessions, observation of the supervisee, or the selection of issues to discuss. The bond in the supervisory working alliance consists of trust and shared experiences, evaluation processes, and the relational connection that develops through the work toward mutual goals and tasks (Bordin).

Several researchers have suggested that the supervisory working alliance plays a significant role in the learning process of supervision (Bordin, 1983; Efstation et al., 1990). Harvey and colleagues (2014) identified that focusing on collaboration, competencies, inclusion of supervisor and supervisee perspectives, an optimal learning environment, developmental factors, and diversity enables a strong supervisory working alliance. The supervisory working alliance has been related to the likelihood that the supervisee will adhere to supervisor recommendations (Bernard & Goodyear, 2004), an

increase of work satisfaction and decrease of work-related stress in counselors (Sterner, 2009), self-efficacy in school psychology interns (Trangucci, 2013) and self-efficacy expectations in counseling trainees (Friedlander, Keller, Peca-Baker, & Olk, 1986), supervisee satisfaction for counseling trainees (Ladany et al., 1999), supervision satisfaction and perceived success in the school psychology internship (Perrotto, 2005), higher degree of complementary interaction in counseling supervision dyads (Chen & Bernstein, 2000), and supervisees' perception of the quality of the relationship (Kennard et al., 1987). In contrast, weaker supervisory working alliances have been associated with more frequent negative experiences in supervision and subsequent adverse impacts on relationships with clients and future career goals (Ramos-Sanchez et al., 2002).

Ladany, Walker and Melincoff (2001) suggested that the supervisory relationship is the key component of the supervisory working alliance. With a sample of 132 Marriage and Family Therapy supervisees, Cheon and colleagues (2009) considered the match of age, religion, gender, ethnicity, sexual orientation, and theoretical orientation of the participants and their supervisors to determine effects on satisfaction. The authors concluded that supervisory working alliance was predictive of satisfaction while the matching of the selected contextual and methodological variables did not influence satisfaction.

Presently, the school psychology supervisory relationship during internship has garnered limited attention or research. One exception is Perrotto (2005), who found a relationship between the bond factor of supervisory working alliance and school psychology intern perceptions of success. The bond factor is defined as the complex

network of positive attachments between supervisor and intern, including issues such as trust, acceptance, and confidence (Bordin, 1983). Perrotto (2005) collected measures of working alliance and student success at the beginning and end stages of internship. The supervisory bond was more highly correlated with success at the end stage of internship than at the beginning stage, suggesting that the supervisory working alliance and perceptions of success may change over time. Perrotto also concluded that interns who perceived the supervisory working alliance to be more positive reported having a more successful internship.

Personality

Ellis and Ladany (1997) stated that variables such as cognitive style, gender, race, ethnicity, and personality characteristics might impact supervision. These indicators are consistent with suggestions by other researchers that personality variables may impact the supervisory relationship (Kitzrow, 2001; Dettlaff, 2005). Lawrence (2009) suggested that understanding personality type and mental processing is helpful in explaining why some approaches to instruction or supervision are effective with some people and not others. Given that supervision is an interactive process, it would be useful to gain a better understanding of how school psychology trainees typically process information within the context of personality. This knowledge could inform how trainees learn within the supervisory relationship and could potentially enhance the supervisory working alliance and development of skills.

Five-factor model (FFM). McCrae and Costa (2008) asserted that personality factors or traits are basic tendencies based in biology, and are therefore considered to be

stable components of an individual. Historically, many independent researchers (Fiske, 1949; Tupes & Christal, 1992; Norman, 1963; Borgatta, 1964; Smith, 1967) concluded that the domain of personality contained five constructs. While the name and meaning of each construct has evolved over time, the five factors, or "Big Five" are presently known as: Conscientiousness, Agreeableness, Neuroticism, Openness to Experience (Openness), and Extroversion. According to Newgent, Higgins, and Mulvenon (2005), "the FFM model of personality is thought to account for most of the common variance in virtually all personality traits" (p. 6).

According to McCrae and Costa (2002), conscientiousness is a dimension of organization and achievement. The Conscientiousness domain includes six facets: competence, order, dutifulness, achievement striving, self-discipline, and deliberation. Highly conscientious people are ambitious and hardworking while individuals who are low in Conscientiousness are more easygoing, lackadaisical, and less exacting with themselves or others. Agreeableness involves having selfless concern for others, being trusting, and displaying generous sentiments. A person with low agreeableness may be tough minded and hardheaded. The six facets of Agreeableness are: trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness (McCrae & Costa, 2002). Neuroticism is a trait characterized by the degree one experiences negative emotion such as depression, guilt, self-consciousness, embarrassment, and fear (McCrae & Costa, 2010). The facets of Neuroticism include: anxiety, angry hostility, depression, self-consciousness, impulsiveness, and vulnerability. High scores on the Neuroticism factor may indicate a person is worrisome, emotional, self-pitying, and temperamental.

Someone with low Neuroticism would likely be calm, self-satisfied, even-tempered, and unemotional (McCrae & Costa, 2002). Openness involves the active seeking and appreciation of experiences for their own sake. As outlined by McCrae and Costa (2010), the Openness facets are: fantasy (i.e. receptivity to the inner world of imagination), aesthetics (i.e. appreciation of art and beauty), feelings (i.e.. openness to inner feelings and emotions), actions (i.e. openness to new experiences on a practical level), ideas (i.e. intellectual curiosity), and values (i.e. readiness to re-examine values of self and others). Extraversion is the quantity and intensity of energy directed outwards into the social world. Individuals who are extraverted are affectionate, talkative, active, and fun loving. The Extraversion facets include warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotions (McCrae & Costa, 2010).

Extraversion. As summarized by Dettlaff (2005), extraverts prefer collaborative approaches to learning, learn best through talking and interacting with others, and are often dependent on feedback and suggestions when undertaking new tasks. They also prefer action to reflection and learn best through active engagement and experimentation. Extraverts enjoy involvement with others and are energetic and enthusiastic about meeting new people and engaging in new experiences. Lastly, they communicate freely and enjoy sharing ideas and opinions with others.

A few studies have looked at the personality construct of Extraversion within the context of working alliance and the supervisory relationship. Chapman, Talbot, Tatmon, and Britton (2009) looked at working alliance of psychotherapy trainees and their clients, and found no relationship between trainees who had higher Extraversion scores and

ratings of the working alliance by both trainees and clients. Similarly, Colburn et al. (2012) investigated both introversion and extraversion as related to supervisory working alliance, and found no significant results. Conversely, Detlaff (2005) found that social work students and their field instructors who matched one another rated the overall quality of their relationship significantly higher than individuals who did not match on either Extraversion-Introversion or Sensing-Intuition dichotomies on the MBTI. Given these mixed findings, extraversion was considered in this study.

Conscientiousness. Elements of Conscientiousness include a tendency to be careful, cautious, responsible, and persevering (Feist, 1998). This trait is found in individuals who can demonstrate self-control, plan, organize, and direct activities towards clear goals (John & Srivastava, 1999). Christopher, Zabel, and Jones (2008) concluded that aspects of work ethic are rooted in facets of the Conscientiousness personality construct. Previous studies have found Conscientiousness to be correlated with personal accomplishment (Piedmont, 1993; Wylie, 2003), motivation to learn both initially and after performance feedback (Colquitt & Simmering, 1998), and predictive of achievement at the high school and college levels independent of cognitive ability (Noftle & Robins, 2007). Conscientiousness has also been linked to numerous positive work outcomes and was found to be a predictor of job performance across several occupations (Barrick & Mount, 1996). Some authors have suggested that it is one of the most reliable predictors of work outcomes such as job performance, leadership, income, and occupational attainment (Dudley, Orvis, Lebiecki, & Cortina, 2006; Judge, Bono, Ilies, & Gerhardt, 2002; Moffitt et al., 2012; Roberts, Jackson, Fayard, Edmonds, & Meints, 2009).

Chapman et al. (2009) looked at working alliance of psychotherapy trainees and their clients, and found no relationship between trainees who had higher Conscientiousness scores and ratings of the working alliance by both trainees and clients. Another study explored the effect of interpersonal style and personality factors on the supervisory relationship between psychotherapists and graduate-level psychotherapy trainees. Interestingly, during difficult times in supervision, McKenzie (2001) determined that trainees were less satisfied with supervisors who were more conscientious. In contrast, McKenzie concluded that in general, supervisors tended to be more satisfied with trainees who were conscientious. A study by Grehan, Flanagan and Malgady (2011) with 63 school psychology graduate students found that high Conscientiousness levels could predict high ratings of student performance at internship. No studies to date have examined if school psychology supervisory dyads that have similar levels of Conscientiousness may lead to a stronger working alliance, higher supervision satisfaction, or intern work readiness.

Openness. In a review on Openness to Experience, Connelly, Ones, and Chernyshenko (2014) established six traits that uniquely align with Openness to Experience: intellectual efficiency, nontraditionalism, curiosity, introspection/depth, aesthetics, and openness to sensations. Intellectual efficiency involves a person's ability to process complex information while nontraditionalism describes a likelihood of endorsing liberal political attitudes and unconventional moral values. Within the Openness to Experience construct, curiosity is defined as an interest in exploring and understanding novel information, whereas introspection/depth involves an individual's

tendency to reflection on philosophy, the causes of one's behavior, and opportunities for personal growth. Aesthetics considers an interest and responsiveness to art and natural beauty while openness to sensations involves a tendency to savor a variety of sensory experiences (Connelley et al., 2014).

In considering the value of Openness to Experience in the supervisory relationship, the facets of intellectual efficiency, curiosity, and introspection/depth are of most salience, or within McRae and Costa's (2010) framework, the facets of feelings, actions, ideas, and values. Openness to Experience predicts success in education and in workplace training even beyond general intelligence (Barrick, Mount, & Judge, 2001; Poropat, 2009). To date, there has been some research on the role of openness in supervision, though the definition of openness varies across studies. Therefore, Openness to Experience will be used in reference to the Five-Factor Model personality trait, and openness (lower-cased) will be used to describe other interpretations. Norem, Magnuson, Wilcoxon, and Arbel (2006) conducted interviews with professional counselors who had supervised counselors-in-training, pre-licensed counselors and doctoral students to determine the characteristics of highly successful supervisees. Openness was consistently mentioned as characteristic of stellar supervisees. In the context of Norem and colleagues' study, openness was defined as risk taking, considering different perspectives, welcoming feedback, and willingness to try new techniques and strategies. Foote (2005) investigated the relationship between evaluation and supervisee openness in psychotherapy supervision. In this qualitative study, openness in supervision was defined by participants and was conceived as "openness to feedback and learning clinical

material, vulnerability, tendency for self-reflection, self-disclosure" as well as "supervisee's personality and internal thoughts and feelings as they affect openness" (p. 63). Supervisees reported being more open when they perceived their supervisor to be open, supportive, and eager to provide supervision and feedback that contributed to the supervisee's professional development. Furthermore, in Foote's study, supervisee openness was associated with the supervisory relationship and the quality of the interaction between supervisor and supervisee. In a study with supervisors at university counseling centers, Hoffman, Hill, Holmes, and Freitas (2005) found that supervisee openness enabled supervisors to give easy feedback, while a lack of supervisee openness hindered supervisor ability to give difficult feedback. In the Hoffman et al. study, some descriptions of supervisee openness included being "willing to hear feedback, eager to learn, committed to doing good therapy, interested in how others think, wanting both positive and critical feedback, willing to be vulnerable, willing to talk openly, interested in learning, nondefensive […] committed to growth and development, and psychologically healthy" (p. 11). To date, there are no studies that have explored if school psychology supervisory dyads with similar levels of Openness to Experience may have a stronger working alliance, higher supervision satisfaction, or intern work readiness.

Personality similarity. Several studies in related fields have explored the similarity between supervisor and supervisee personalities and the subsequent impact on variables such as supervisee satisfaction, the supervisory relationship, acquisition of skills, and ratings of supervisee effectiveness. Findings have been mixed, so it is unclear

if personality matching may lead to positive outcomes. Colburn and colleagues (2012) explored the impact of temperament on supervisee satisfaction in clinical mental health, college, and school counseling tracks at one university. Temperament, as determined by results on the Myers-Briggs Type Indicator (MBTI) and defined by Berens (2006) fell into four types: catalyst (MBTI types that include N and F), stabilizer (MBTI types that include S and J), theorist (MBTI types that include N and T), and improviser (MBTI types that include S and P). Temperament was not found to significantly impact ratings of supervision satisfaction as measured by rapport for supervisors or supervisees, rapport rating between supervisors or supervisees, and supervisee ratings of the percentage of supervision interventions that were both desired and provided.

Corbin (2011) investigated the match of introvert and extravert personality characteristics in supervisors and counseling trainees and its impact on the perception of supervisory alliance and acquisition of basic counseling skills. The study concluded that there were no significant differences in rating of supervisory working alliance or measures of basic skills competency between dyads that matched and mismatched on Introversion/Extraversion personality type. However, the findings were limited to participants from one university. Garretson (1992) used the MBTI to assess if personality similarity between 42 masters-level trainees and their supervisors was related to satisfaction with the counseling supervisory relationship, but did not find a relationship between the two variables.

Dettlaff (2005) conducted a study with 84 social work student-field instructor pairs using the MBTI to determine personality type of each individual. Results showed

that students and field instructors who matched personality type on the Extraversion-Introversion scale or Sensing-Intuition scale rated the overall quality of their relationship significantly higher than individuals who did not share one of these personality types with their student or field instructor. The implication for this study was not to match students and instructors on personality type, but to promote awareness of personal personality type and the ability to respond and adapt to students of all personality types. This study also recruited participants from one university and this limits the generalizability of results.

Interestingly, some older studies garnered stronger support for personality matching between counseling students and supervisees. Steen (1998) found supervisory dyads with similar personality types had higher levels of perceived satisfaction than dyads with dissimilar personality types. Handley (1982) determined that similar personality type in the supervisory dyad was significantly related to positive ratings of the supervisory relationship and student ratings of supervision satisfaction. Praul (1969) evaluated the relationship between personality and supervisor evaluation of the student and concluded that a similar personality type was correlated with increased supervisor ratings of supervisee effectiveness.

Overall, personality matching in supervisory dyads has led to mixed results. There has been some evidence to support that personality similarity is related to higher ratings of the overall quality of the supervisory relationship (Detlaff, 2005; Handley, 1982), perceived supervisory satisfaction (Steen, 1998), and ratings of supervisee effectiveness (Praul, 1969). Conversely,-other studies have found no relationship

between personality matching and supervisory working alliance (Corbin, 2011; Garretson, 1992), supervisee satisfaction with supervision (Robbins, 1992), measures of basic skills competency (Corbin, 2011), ratings of rapport, or ratings of supervision interventions received within the supervisory relationship (Colburn et al., 2012). One possible explanation for these varied results is the conceptualization of personality as a culture bound phenomenon. Burr (2003) argued that we cannot prove or disprove the presence of personality traits and that personality, as we know it, is not the same across cultures. From a social constructionist standpoint, Burr questioned if personality really exists as a part of our mental structures or genetic material and posited that personal qualities are a function of the cultural, historical, and relational context in which a person is located.

Work Readiness

The ultimate goal of pairing interns and supervisors in a strategic manner is to ensure that interns receive supervision that prepares them for the workforce. Work readiness is defined as the extent to which graduates are perceived to possess the skills and attributes that render them prepared for success in the workplace (Caballero and Walker, 2010). NASP (2010) has outlined 10 domains of school psychology training and practice in their practice model: (a) data-based decision making and accountability, (b) consultation and collaboration, (c) interventions and instructional support to develop academic skills, (d) interventions and mental health services to develop social and life skills, (e) school-wide practices to promote learning, (f) preventive and responsive services, (g) family-school collaboration services, (h) diversity in development and

learning, (i) research and program evaluation, and (j) legal, ethical, and professional practice.

In addition to the NASP standards, a series of interconnected *Blueprint* documents have identified competencies of training and experience that graduate programs and practica/internship placements must provide in order to produce competent professionals in school psychology (Ysseldyke, Reynolds, & Weinberg, 1989; Ysseldyke et al., 1997; Ysseldyke et al., 2006; Ysseldyke, Burns, & Rosenfield, 2009). The most recent version, *A Blueprint for Training and Practice III* (Ysseldyke et al., 2006), established a continuum of skill development that includes novice, competent, and expert levels for eight domains of practice. These domains include: (a) interpersonal and collaborative skills, (b) diversity awareness and sensitive service delivery, (c) technological applications, (d) professional, legal, ethical, and social responsibility, (e) data-based decision making and accountability, (f) systems-based service delivery, (g) enhancing the development of cognitive and academic skills, and (h) enhancing the development of wellness, social skills, mental health, and life competencies. The *Blueprint* expectation is that students should be at the novice level after completing coursework and should have areas of competence after internship.

When evaluating work readiness, it is important to consider both the standards for school psychology training and what school psychologists are actually doing in practice. According to Larson and Choi's (2010) survey on the role and function of school psychologists after the Individuals With Disabilities Education Act (IDEA) was passed in 2004, on average, 47% of a school psychologist's time was allocated to assessment, 7%

to counseling, 10% to intervention, 5% to prevention services, 12% to consultation, 11% to team collaboration, 1% to applied research or program evaluation, 3% to systems/organizational consultation, and 4% to other. These training domains and work roles illustrate the breadth of skills that both students and practitioners need in school psychology. These findings also reflect that there may be some gaps between training and practice expectations that could be bridged during the internship year. Site supervisors are in a unique position to assess supervisee work readiness because they are familiar with both the intern's graduate training requirements and the demands of the profession in practice.

Supervisee development. In addition to the acquisition of professional skills, Stoltenberg (1981) argued that supervisee development could also be demonstrated through autonomy in the supervisory relationship. It has been proposed that trainees demonstrate evolving characteristics and skills as they gain experience (Harvey & Struzzerio, 2008; Stoltenberg & McNeill, 2010; Rønnestad & Skovholt, 2013). Stoltenberg and McNeil (2010) asserted that as supervisees develop skills and competence, reliance on the supervisor changes and the supervisory relationship evolves. It has been suggested that supervisees with more experience demonstrate higher levels of development (Bernard & Goodyear, 2004) and more autonomy (Stoltenberg, 1981). Similarly, Ramos-Sanchez and colleagues claimed that the trainee's year in school or hours of experience could impact the amount of support and structure needed in a supervisory relationship. Accordingly, supervisors may have to adapt to their supervisee's needs and modify their role within the supervisory relationship.

Several researchers (Harvey & Struzzerio, 2008; Stoltenberg & McNeill, 2010; Rønnestad & Skovholt, 2013) have described novice supervisees as rule bound, simplistic, anxious, motivated, and highly dependent on their supervisor. Novice trainees are described as potentially having difficulty with integration, partial understanding of concepts, and difficulty with context. To meet these needs, it has been recommended that supervisors provide structure, supervise closely, assign simple problems and cases, focus on strengths and mention positive qualities before offering feedback, and provide opportunities for role-play, interpretation of dynamics, readings, shadowing, and collaborative work (Harvey & Struzzerio, 2008; Stoltenberg & McNeill, 2010; Rønnestad & Skovholt, 2013).

Competent trainees are described as being better able to see relationships and match patterns, balance skills and empathy, plan and think ahead, analyze themselves well, intensely engage in practice and feel responsible for client outcomes, and recognize the deficiencies in their training. At this stage, it is recommended that supervisors encourage supervisees to structure supervision sessions themselves, continue using direct observation when possible, focus on challenging cases, use peer and group supervision, encourage systematic thinking, and support acquisition of additional models, methods, and techniques needed to work effectively (Harvey & Struzzerio, 2008; Stoltenberg & McNeill, 2010; Rønnestad & Skovholt, 2013).

Gross (2005) asserted that negative supervision experiences could result from "supervision mismatches." Harvey and Struzzerio (2008) affirmed that these supervision mismatches might transpire when supervision does not meet the developmental level of

the supervisee. Mismatches could also occur when individuals in the supervisory dyad have differences in:

> desired supervision structure, time allocation, privacy of supervisory communication, theoretical orientations, or reliance on empirically based decisions, because the supervisee has multiple supervisors with conflicting expectations; or because supervisees are unhappy with workloads (perhaps they feel exploited relative to other practitioners or because they feel they are given the least desirable assignments, or because they feel underutilized). (p. 21-22)

Harvey and Struzzerio further suggested that these mismatches may be avoided by fostering values, knowledge, and skills necessary for effective supervision. However, a secondary finding from the study done by Ladany et al. (2013) was that supervisees at different developmental levels identified similar supervisor skills, techniques, and behaviors that were deemed effective and ineffective supervision. Participants reported that effective supervisors encouraged autonomy, strengthened the supervisory relationship, and facilitated open discussion while ineffective supervisors depreciated supervision, performed ineffective client conceptualization and treatment, and weakened the supervisory relationship. This brought into question the developmental hypothesis and assumption that supervisors should make changes in their approach as the supervisory relationship progresses over time.

Study Purpose

Presently, there is not a standardized method for pairing school psychology interns at the specialist level with field supervisors working in the school setting. This

study considered one part of the supervisory relationship, personality, to determine if personality similarity within the supervisory dyad predicts positive outcomes for the intern. Specifically, this study examined if personality difference affected dyad ratings of supervisory working alliance, intern ratings of supervision satisfaction, and supervisor ratings of supervisee work readiness. This study also considered the development of the supervisory working alliance and intern work readiness between the midpoint and end of the internship year.

CHAPTER 3

METHODS

This study recruited 26 supervisory dyads that consisted of 50 participants. Study participants primarily worked or interned in the Northeastern region of the United States. This descriptive study involved administering the NEO-Five Factor Inventory-3, Supervisory Working Alliance Inventory, Supervisory Levels Scale, Supervision Satisfaction Questionnaire, Demographic Questionnaire and Systemic Factors Questionnaire over two phases of data collection. Two measures, the Supervisory Working Alliance Inventory and Supervisory Levels Scale, were administered during both phases of data collection to evaluate change over time. The independent variable in this study was dyad personality difference on one factor (extraversion or conscientiousness) as measured by the NEO-Five Factor Inventory-3, and dependent variables included ratings of supervisory working alliance, supervision satisfaction, and supervisee work readiness. The first research question employed standard multiple regression, the second research question utilized sequential multiple regression, and the final research question used t-tests to compare differences between pre and post measures.

Recruitment

As outlined in Table 1, a convenience sample was used for the present study and recruitment of supervisors and their interns consisted of seven phases spanning local, statewide, regional, and national geographic regions. First, I explained the purpose and procedures of the study and collected contact information during the annual Massachusetts Supervision Institute, which attracts 60-70 site supervisors in the field of school psychology. Second, I contacted three local districts that I previously worked or interned for. Third, I attended an internship meeting in September of 2014 held by the UMass Boston school psychology cohort completing internship during the 2014-2015 academic year. I then followed up with these students during internship seminar sessions with each of three sections of the seminar class. Fourth, Dr. Terry Bontrager, the Program Director of the UMass Boston School Psychology Ed.S. program at the time, emailed current and former supervisors with recruitment materials and my contact information.

Fifth, regional training programs (Northeastern University, Tufts University, Massachusetts School of Professional Psychology, University of Albany – State University of New York, and Rhode Island College) were contacted to recruit additional supervisors and school psychology interns at the specialist level. This process involved emailing program directors with recruitment materials and asking them to forward the information on to their internship cohorts. Northeastern University invited me to attend two internship seminar classes to do recruitment in person.

Sixth, professional state associations (Massachusetts School Psychologists Association, New Hampshire School Psychologists Association, and New York School Psychologists Association) were contacted in an attempt to recruit at board meetings or via membership lists. The Massachusetts School Psychologists Association (MSPA) invited me to attend a board meeting to recruit participants.

Last, Dr. Virginia Harvey, an expert in school psychology supervision research, facilitated recruitment at Illinois State University, University of Wisconsin – Milwaukee, and Plymouth State through fellow school psychology trainers interested in supervision research. I sent recruitment materials to these school psychology trainers and the trainers agreed to forward study information to their students and encourage participation. This outreach effort yielded an additional four participants.

Table 1

Recruitment Process

Source	Interested and eligible participants (N = 74)	Total participants obtained (N = 50)
Supervision institute	15	7
Local districts	12	8
UMB interns	14	8
Email to UMB supervisors	4	4
Regional university programs	19	13
State associations	6	6
Supervision researchers	4	4

Participants

This study sought to enroll 110 participants within 55 supervisory dyads, based on an initial power analysis (Cohen, 1992). However, since the first data collection period needed to occur approximately halfway through the academic year, recruitment stopped at midyear after 26 supervisor-supervisee pairs agreed to participate in the study (N = 50).

This sample size is representative of previous research that has examined student trainees and supervisors in the fields of social work, clinical psychology, marriage and family therapy, and counseling psychology. The sample size in related studies has ranged from 15 (*N* = 23) to 78 (*N* =101) dyads for counseling psychology studies (Corbin, 2011; Bilodeau, Savard, & Lecomte, 2010; Bernard, Clingerman, & Gilbride, 2011) and up to 90 dyads (*N* = 180) when the sample represented multiple disciplines (Foster, Lichtenberg, & Peyton, 2007).

Dyads. The 26 supervisory dyads in this study consisted of 26 specialist-level interns and 24 site supervisors. Two supervisors who participated in the study each had two supervisees, creating four unique dyads. The remaining 22 dyads were unique supervisor-supervisee pairs. Thirty-six participants worked or interned in Massachusetts (72%), four in Rhode Island (8%), two in New Hampshire (4%), two in Connecticut (4%), two in Arkansas (4%), two in South Carolina (4%) and two in North Carolina (4%). Nineteen (73%) of the 26 dyads consisted of female supervisors and female supervisees, three (12%) dyads consisted of male supervisors and female supervisees, two (8%) dyads contained female supervisors and male supervisees, and two (8%) dyads consisted of male supervisors and male supervisees. The mean age difference between supervisors and supervisees was 19 years (*SD* = 11.92), and in all dyads the supervisor was older than the supervisee.

The time that supervisees were on-site with their supervisors ranged from zero to five full days per week. Seven students (27%) were with their supervisors four days per week, seven students (27%) were with their supervisors three days a week, three

supervisees (12%) were with their supervisors five days per week, three supervisees (12%) were with their supervisors 2.5 days per week, two students (8%) were with their supervisors 4.5 days per week, two supervisees (8%) were with their supervisors two days a week, and one supervisee did not spend any days with their supervisor (4%) because they were assigned to a different school than their supervisor.

Supervisors. Supervisors ($N = 24$) included 5 males (21%) and 19 females (79%) whose ages ranged from 29 to 67 ($M = 45.25$, $SD = 12.83$). All supervisors (100%) identified their race as White. A recent national survey reported that the field of school psychology is 76.6% female and 90.7% Caucasian (Fagan, 2014) so the study sample was fairly representative of the broader profession. Two supervisors (8%) had obtained a Masters Degree, 16 supervisors (67%) had acquired a specialist degree (e.g. Certificate of Advanced Graduate Studies, Education Specialist), and six supervisors (25%) had a doctoral degree. Twenty-one supervisors (88%) reported that their highest graduate degree is in school psychology and three supervisors (13%) indicated that their highest graduate degree is in other specializations, including educational leadership, clinical psychology, and counseling psychology. Thirteen supervisors (54%) attended graduate school in Massachusetts, three supervisors attended graduate school in Rhode Island, two supervisors (8%) attended graduate school in Ohio, one supervisor (4%) attended graduate school in South Carolina, one (4%) in Illinois, one (4%) in Arkansas, one (4%) in Connecticut, one (4%) in New York, and one (4%) in Florida. Thirteen supervisors (54%) were assigned to one school, eight supervisors (33%) were assigned to

two schools, two supervisors (8%) were assigned to three schools, and one supervisor (4%) was assigned to four schools.

Descriptive information for the supervisors is provided in Table 2. Supervisors completed their highest degree between 2 and 34 years prior to this study. They had been practicing as school psychologists for 5 to 34 years, and working in schools for 5 to 36 years. Supervisors had varied experience with providing supervision to practicum students and interns in the past. Including the academic year of the study, supervisors had supervised between 0 and 20 practicum students. Prior to the academic year of the study, supervisors had supervised between 0 and 25 interns. They had been supervising interns for between 1 and 24 years, including the academic year of the study.

Table 2

Supervisor Demographic Information

Demographic variable	N	M	SD
Years since highest degree completed	23	13.2	8.3
Years practicing as a school psychologist	24	12.3	8.8
Years working in schools	24	16	9.9
Number of practicum students supervised	23	4.4	6
Number of interns supervised	24	6.2	7.2
Years supervising interns	24	6.3	6.7

Supervisors responded to seven items regarding school context on a 6-point Likert-scale ranging from 0 (*not at all/minimum resources*) to 5 (*fully implemented/very receptive/very supported/very involved/maximum resources)* that I created, with higher numbers reflecting a higher level of implementation or support. Supervisors reported on the moderate levels implementation of an academic multi-tiered system of support (MTSS) at their school(s) (M = 2.87, SD = 1.62) and the low levels of implementation of Positive Behavioral Interventions and Supports (PBIS) at their school(s) (M = 2.04, SD =

1.63). Supervisors reported that their respective school administration was highly receptive to feedback (*M* = 3.83, *SD* = 1.13) and highly supportive of the school psychologist's role (*M* = 4.17, *SD* = 1. 01). Supervisors also indicated the moderate to high extent that their school(s) have the resources to meet the needs of their student population (*M* = 3.58, *SD* = 0.93). Finally, supervisors reported on the high involvement they had in selecting their intern for the current school year (*M* = 3.71, *SD* = 1.92) and indicated that training school psychology interns is a moderate priority in their school/district (*M* = 3.12, *SD* = 1.39).

Supervisees. Supervisees (*N* = 26) included 4 males (15%) and 22 females (85%), whose ages ranged from 24 to 40 (*M* = 26.38, *SD* = 3.25). Twenty-two supervisees (85%) identified themselves as White, one identified themselves as Asian (4%), and two as more than one race (8%). All supervisees were completing a one-year, full-time, 1200-hour internship as part of their graduate training in school psychology, and were scheduled to graduate in Spring of 2015. Nineteen students (73%) were attending graduate school in Massachusetts, three students (12%) were attending graduate school in Rhode Island, two students (12%) were attending graduate school in South Carolina, one student (4%) attended graduate school in New York, and one student (4%) attended graduate school in Illinois. Supervisees indicated that they perceived training school psychology interns to be a moderate to high priority in their school/district (*M* = 3.54, *SD* = 1.07).

Table 3 provides descriptive information on supervisee experiences. Supervisees had reportedly completed between 160 and 900 practicum hours prior to beginning

internship, and had previously worked full-time in a school setting between zero and five years. Supervisees were assigned between 1 and 10 schools, with 12 supervisees (46%) assigned to two schools, six supervisees (23%) assigned to one school, four supervisees (15%) assigned to three schools, two supervisees (8%) assigned to four schools, and one supervisee (4%) assigned to ten schools. One supervisee (4%) did not report the number of schools they were assigned to for internship.

Table 3

Supervisee Demographic Information

Demographic variable	N	M	SD
Practicum hours completed	25	462.80	211.80
Years worked in schools full time	26	0.98	1.65
Schools assigned during internship	25	2.40	1.80

Instruments

The NEO-Five Factor Inventory-3 was used with all participants and measured the personality factors of Conscientiousness, Agreeableness, Neuroticism, Openness, and Extraversion. The Supervisory Working Alliance Inventory (SWAI) was used to measure supervisory working alliance with both supervisors and supervisees. Supervisors completed the Supervisory Working Alliance Inventory – Supervisor Version that contains three scales: Client Focus, Rapport, and Identification. Interns completed the Supervisory Working Alliance – Trainee Version that included two scales: Client Focus and Rapport. Supervisors completed the Supervision Levels Scale (SLS) Person Subscale to evaluate intern work readiness and supervisees completed the Supervision Satisfaction Questionnaire (SSQ) to report their satisfaction with the supervision they received throughout the academic year. The Demographic

Questionnaire and Systemic Factors Questionnaire were created and administered to all participants to collect demographic information about the participants and allow participants to report on systemic barriers that impact their work as school psychologists and interns.

NEO-Five Factor Inventory-3 (NEO-FFI-3). To measure personality factors, school psychology interns and their supervisors all completed the NEO-FFI-3 during the first phase of data collection. Both the paper version and online administration of the NEO-FFI-3 were utilized with participants. This brief but comprehensive self-report measure contained 60 items that originated from the 240 items in the NEO-Personality Inventory-3 (NEO-PPI-3). While the NEO-PPI-3 boasted higher internal consistency estimates than the NEO-FFI-3, the NEO-PPI-3 takes 30-45 minutes to complete while the NEO-FFI-3 takes only 10-15 minutes to fill out. The five factors of personality are each addressed by 12 items in the NEO-FFI-3 (McCrae & Costa, 2010). Factor analysis conducted on the 60 items support the five factor model and found that 12 items loaded on each of the five factors (McCrae & Costa, 2007). Items were rated on a 5-point Likert scale ranging from *strongly disagree* to *strongly agree.* Raw scores were computed for each personality factor by adding the Likert scale responses for the 12 items associated with the factor, and then converted to a *T*-score based on gender norms. *T*-scores 44 and below were considered to be in the *low* range, scores between 44 and 55 were in the *average* range, and scores at 56 or higher qualified as *high* in the domain (McCrae & Costa, 2010). Sample items included "I like having people around" and "I have no sympathy for beggars." McCrae and Costa (2007) evaluated the internal consistency and

cross-observer validity of the NEO-FFI-3. Cronbach's alpha scores on each factor ranged from .78 to .86 demonstrating internal consistency and strong cross-observer validity reflected by correlation coefficients ranging from .94-.97.

Supervisory Working Alliance Inventory (SWAI). Working alliance was assessed with the SWAI, which has a supervisor and trainee version (Efstation et al., 1990). The SWAI was modified by changing all instances of the word "client" to "student" as permitted by the scale's first author (J. Efstation, personal communication, August 31, 2014). The SWAI required respondents to select answers on a 7-point Likert scale ranging from 1 *(almost never)* to 7 *(almost always)*. Mean factor scores were computed by adding the scores of each item within a factor and dividing by the number of items; high scores reflected increased strength in alliance (Steen, 1998). However, the scale authors noted that the emphasis placed on each factor of the supervisory working alliance may differ depending on the supervisor's theoretical orientation or the trainee's developmental needs (Efstation et al., 1990). Accordingly, an increase or decrease in factor scores did not necessarily represent the quality of the supervisory working alliance. The supervisor version (SWAI-S) contained 23 items and three scales (Client Focus, Rapport, and Identification). The Client Focus factor measured the emphasis that the supervisor placed on the supervisee's understanding of the client, the Rapport factor reflected the supervisor's attempt to build rapport with the supervisee and be supportive, and the Identification factor represented the supervisor's perception of mutual identification between supervisor and supervisee. Sample items included, "I help my supervisee stay on track during our meetings" and "My style is to carefully and

systematically consider the material that my supervisee brings to supervision." The trainee version (SWAI-T) had 19 items and contained two scales (Client Focus and Rapport). The Client Focus factor involved the trainee's perception of the emphasis the supervisor placed on promoting the trainee's understanding of the client, while the Rapport factor measured the extent to which the trainee perceived support from the supervisor. Examples of items included, "I feel comfortable working with my supervisor" and "My supervisor is tactful when commenting about my performance" (Efstation et al., 1990).

As reported by Efstation and colleagues (1990), the supervisor form had estimates of .71 for Client Focus, .73 for Rapport, and .77 for Identification subscales while the trainee version had internal consistency reliability estimates of .77 for Client Focus and .90 for the Rapport subscales as measured by Cronbach's alpha. Some more recent studies computed higher reliability estimates for the trainee form. McCarthy (2013) calculated internal reliability on the SWAI-T as $\alpha = .97$ for Rapport and $\alpha = .94$ for Client Focus. Sterner (2009) reported internal consistency reliabilities to be .97 overall for the SWAI-T (.88 for the Client Focus subscale and .97 for the Rapport subscale). Despite varying reliability estimates, the SWAI has been used in many studies on the supervisory working alliance (Lynch, 1995; Sterner, 2009; McCarthy, 2013; Livni, Crowe, & Gonsalvez, 2012) and has been found to be suitable for use with participants of varying backgrounds and expertise (Patton, Brossart, Gehlert, Gold & Jackson, 1992). Item-scale correlations on the supervisor form ranged from .29 to .54 for the Client Focus scale, .29 to .56 for the Rapport scale, and from .38 to .57 for the Identification scale. Item-scale

correlations on the trainee form ranged from .37 to .53 for the Client Focus scale and from .44 to .77 for the Rapport scale (Efstation et al., 1990). Friedlander and Snyder (1983) noted that convergent and discriminant validity for the SWAI-T was found in statistically significant correlations with scales of the Supervisory Styles Inventory, and Holloway and Wampold (1983) found convergent and discriminant validity to range between .23 and .47 in correlation with scales on the Personal Reactions Scale-Revised.

In the current study, the Cronbach alpha coefficient was .80 for the SWAI-S Client Focus subscale (9 items), .60 for the SWAI-S Rapport subscale (7 items), .68 for the SWAI-S Identification subscale (7 items), .88 for the SWAI-T Client Focus subscale (7 items), and .92 for the SWAI-T Rapport subscale (12 items) during the first administration. For the second administration, the Cronbach alpha coefficient was .81 for the SWAI-S Client Focus subscale, .48 for the SWAI-S Rapport subscale, .74 for the SWAI-S Identification subscale, .86 for the SWAI-T Client Focus subscale and .93 for the SWAI-T Rapport subscale. Reliability estimates for the SWAI-S Rapport and Identification subscales were below the acceptable value (<.70, DeVillis, 2012), which could in part be explained by the low number of items within each subscale. However, when looking at all 23-items on the SWAI-S together, the Cronbach alpha coefficient was .74 at pre-test and .78 at post-test. When considering all 19 items of the SWAI-T, the Cronbach alpha coefficient is .92 at pre-test and .91 at post-test. For both supervisor and trainee measures of supervisory working alliance, there were strong internal consistency estimates when considering all scale items together. Accordingly, a composite score for both the SWAI-S and SWAI-T was calculated by computing the mean of the item

responses on each measure. SWAI composite scores have been utilized in previous research (McCarthy, 2013) and in this study the composite was used rather than the subscale scores.

Supervision Level Scale (SLS). Work readiness was measured by a modified version of the SLS Person subscale (Wiley & Ray, 1986). The Supervision Level Scale was modified by replacing "counselor" or "therapist" with the words "school psychologist", changing the word "counseling" or "therapy" with the words "school psychology", and also changing the word "client" to the word "student" as permitted by the scale's first author (M. Wiley, personal communication, August 31, 2014). The SLS Person subscale is a 20-item, Likert-type scale instrument used to measure supervisee development as rated by the supervisor. Respondents selected answers on a scale ranging from 1 *(absolutely untrue)* to 7 *(absolutely true)*. Scores were computed by totaling ratings over five items that correspond to each of four levels; the subscale with the highest value indicated the predominant developmental level of the supervisee. Level 1 supervisees have fewer skills, need a high level of structure, and benefit from supervisor stability. Level 2 supervisees waiver between autonomy and dependence and benefit from supervisor flexibility. Level 3 supervisees have a higher level of knowledge and no longer need close observation. At Level 4, supervisees are essentially independent practitioners with a secure professional identity, and supervision is consultative if is continues (Wiley & Ray, 1986). Foster et al. (2007) used an alternate scoring method to allow for a continuous measurement of development. In their study, Foster and colleagues used the total score yielded from Level 4 items only and determined that this

was a valid measure of development. This method will also be used in the present study. Accordingly, SLS Level 4 scores will range from 5-35.

The SLS Person scale contained items such as "My supervisee has a consistent and firm sense of confidence about his/her counseling skills even when challenged by clients, supervisors, and colleagues" and "My supervisee has essentially completed his/her sense of self as a counselor and integrated it with his/her sense of self as a person." The SLS has demonstrated high test-retest validity (.86) over a two-week period (Foster et al., 2007). Construct validity has also been established in several studies (Wiley & Ray, 1986; Chagnon & Russell, 1995).

In the current study, the Cronbach alpha coefficient for Level 4 items were .69 at pre-test and .71 at post-test. For the entirety of the SLS measure, the Cronbach alpha coefficient was .66 for the first administration, and .80 for the second administration. It is hypothesized that this discrepancy is due to some participants' initial confusion about the structure of the SLS, because items are grouped by skill and developmental level but this is not clearly indicated in the scale. The first few participants in the first phase of data collection had several questions as they completed the SLS, so I began to provide more clarification on this measure as data collection continued. Accordingly, during the second phase of data collection all participants understood how to complete the SLS in accordance with how the scale was designed. Items are presented in groups of four, with each item in the grouping representing the same skill but at a developmental level of 1, 2, 3, or 4 in increasing order. Therefore, in most cases one of the four items should have had a high rating and the remaining three items should have had a lower rating to reflect

the trainee's developmental level on a given skill. For example, on the first set of items (1-4), if the supervisor perceived item 2 to best capture the trainee's skills and knowledge, then item 2 should have a high rating while items 1, 3, and 4 should have a lower rating. A high rating on item 2 would indicate that the trainee's development level is also at Level 2 for that skill.

Supervision Satisfaction Questionnaire (SSQ). Supervision satisfaction was evaluated by the SSQ (Ladany et al., 1996). The SSQ was modified by changing all instances of the word "counselor" or "therapist" with the words "school psychologist" as permitted by the scale's first author (N. Ladany, personal communication, August, 30, 2014). The SSQ is a one-factor, 8-item self-report inventory that requires supervisees to select answers on a Likert-scale ranging from 1 *(quite dissatisfied)* to 4 *(very satisfied)*. Total scores ranged from 8 to 32, with higher scores reflecting greater satisfaction. This measure had items such as "Did you get the supervision you wanted?" and "If you were to seek supervision again, would you come back to this supervisor?" The SSQ was derived from the Client Satisfaction Questionnaire (Larsen, Attisson, Hargreaves, & Nguyen, 1979), and researchers have related the SSQ to supervisee nondisclosure (Ladany et al., 1996). The internal consistency (alpha) of the SSQ has been reported to be .97 (Ladany et al., 1999). In the current study, the Cronbach alpha coefficient was .72, which is sufficient (Nunnally & Bernstein, 1994) but is lower than what the scale authors had established. This could be in part due to the adaptation of the measure from a counseling application to a school psychology focus. The reduced internal consistency could also be a result of the small sample size in this study.

Demographic Questionnaire (DQ). I created a Demographic Questionnaire that was administered to all participants. For supervisors, items included 15 open ended questions for date of birth, race, ethnicity, gender, degrees awarded, university where graduate training was completed, district of employment, assigned schools, years of experience, years providing supervision to graduate students, number of supervisees trained to date, days per week spent with supervisee, weekly hours of supervision given to supervisee, reason for becoming an intern supervisor, and description of how interns are selected and placed within their school or district. There was one forced-choice item that asked if supervision occurred at a set day and time during the week. The supervisor Demographic Questionnaire also included two questions that asked respondents to check all types of supervision training they received in professional practice and graduate school from a list of five options, and one question that asked supervisors to report if they received continuous supervision support while providing supervision and if so, what that support includes from a list of three choices. Finally, supervisors were asked to respond to seven questions about school context that were answered on a 6-point Likert scale. These items addressed support received from school administration, school resources, extent of multi-tiered intervention implementation for academics and behavior, school administration's receptiveness to feedback, involvement in the intern selection process, and the extent to which training interns is a priority in their school/district (Appendix A).

For supervisees, items included 14 open ended questions for date of birth, race, ethnicity, gender, degrees awarded, current university of attendance, year of planned graduation, internship school district, assigned schools, years of experience working full-

time in a school setting, practicum hours completed prior to internship, days per week spent with supervisor, and weekly hours of individual and group supervision received from primary and secondary supervisor. There was one forced-choice item that asked if supervision occurred at a set day and time during the week with their primary and secondary supervisor. There was one item that was answered on a 6-point Likert scale regarding the extent to which training interns was a priority in their internship school/district. Finally, there was one question that asked the types of orientation provided for internship, and respondents were asked to check all types that applied from a list of six options (Appendix A).

Systemic Factors Questionnaire (SFQ). Harvey and Pearrow (2010) identified eight unique systemic challenges that impact the supervision of school psychologists and interns: state and federal laws, local school policies, resource availability, general education teachers who are uncooperative, general education curriculum, administrators who are uncooperative, the special education link of school psychologists, and union issues. I created the Systemic Factors Questionnaire to have participants report the extent to which they encountered these eight barriers in their role as either school psychologists/supervisors or school psychology interns (Appendix B). This measure included nine items, with eight Likert-scale items and one open-ended item. The first eight items were on a 7-point Likert-scale ranging from 1 (*strongly disagree)* to 7 (*strongly agree)*. Total scores ranged from 8 to 56, with higher scores reflecting more significant systemic barriers. Specific items included "State and/or federal laws and policy (such as No Child Left Behind) are a barrier in my role as a school psychologist

and supervisor" and "Uncooperative administrators are a barrier in my role as a school psychologist and supervisor." The open-ended item was "Please briefly describe any other systemic factors that create a barrier in your role as a school psychologist and supervisor not captured in the items above." The Cronbach alpha coefficient was .85 when administered to supervisors, and .89 when administered to supervisees. When considering both versions together, the Cronbach alpha coefficient for the overall SFQ is .86.

Procedures

Two rounds of data collection were conducted. The data collection sequence is outlined in Table 4. Each participant was offered a $5 gift card after each round of data collection, with an extra $5 reward for those participants who successfully complete both phases of the study. Three participants declined the gift card during the first phase of data collection and two participants declined the gift card during the second phase of data collection.

Table 4

Instruments Administered During Data Collection

	Phase 1: Nov. 2014-March 2015		Phase 2: April 2015-June 2015	
Measure	Supervisor	Supervisee	Supervisor	Supervisee
DQ	X	X		
NEO-FFI-3	X	X		
SWAI	X	X	X	X
SLS	X		X	
SSQ				X
SFQ			X	X

In the first data collection phase spanning November 2014 to March 2015, supervisors and school psychology interns completed the Demographic Questionnaire,

SWAI and NEO-FFI-3. Supervisors also completed the SLS at this time. Completion time ranged from approximately 25 to 40 minutes for both supervisors and supervisees. I was the sole data collector and administered the measures in person with 34 participants at their place of work/internship. During each meeting, participants were instructed to complete the measures independently and were assured that responses are kept confidential. Once participants read and signed the consent form, I reviewed the instructions for completing each measure and remained in the room to answer any questions that arose as participants completed each measure. When data collection could not be completed in person due to geographic distance or logistical issues (e.g. snow storm, inability to meet in person), participants were asked to complete the measures in an online format. Sixteen participants completed the measures online. The NEO-FFI-3 was also distributed through an online platform (PARiConnect) and the remaining measures were inserted into Survey Monkey with permission from the authors of the SWAI, SSQ, and SLS scales (J. Efstation, personal communication, November 3, 2014; N. Ladany, personal communication, October, 4, 2014; M. Wiley, personal communication, October 4, 2014). Online participants were given my contact information so they could ask any questions as they completed measures.

After data collection for Phase 1 was completed, a coding sheet (Appendix C) was created and used to code participant responses into numerical values. Open-ended items and select demographic items (e.g. date of birth, school district name, school names) were not coded and entered into a Microsoft Excel workbook verbatim. Coded numerical participant responses were also entered into the same Microsoft Excel workbook. For all

measures completed during Phase 1 in person and online, the author independently coded and entered responses into the Microsoft Excel workbook.

An effort was made to keep the time span between Phase 1 and Phase 2 as consistent as possible for all participants. At minimum, three months and one day passed between Phase 1 and Phase 2 for a supervisory dyad, and at maximum, four months and 26 days passed between Phase 1 and Phase 2 for a supervisory dyad. Recruitment, participant availability, snow cancellations, and the flexibility for online participants to complete measures days or weeks after they were made available all contributed to the varied lengths of time between Phase 1 and Phase 2. Participants were contacted via email approximately 3 months after they completed Phase 1 to schedule in person data collection or complete Phase 2 online. The attrition rate for Phase 2 was 2%, reflecting 1 participant who was unresponsive to three invitations to complete Phase 2 measures.

During the second phase of data collection spanning April to June 2015, both interns and supervisors completed the Systemic Factors Questionnaire and once again evaluated working alliance via the SWAI. Supervisors rated intern work readiness via the SLS, and interns rated satisfaction with supervision using the SSQ. This final round of data collection required approximately 15-20 minutes for all participants.

After data collection for Phase 2 was completed, a research assistant entered all Phase 2 responses into the Microsoft Excel workbook. A coding sheet was not needed for Phase 2 since all items on Phase 2 measures required numerical responses. There was only one open-ended item on the SFQ and it was entered into the workbook verbatim. Once both Phase 1 and Phase 2 data was entered and inter-observer agreement had been

computed and resolved, quantitative data from both phases were copied and pasted into IBM Statistical Package for the Social Sciences (SPSS) for data analysis.

To mitigate order effects, instruments were administered in two different sequences for each phase of data collection for both supervisors and supervisees, represented as Supervisor A, Supervisor B, Supervisee A and Supervisee B. Each member of the supervisory pair completed measures in the same order. However, supervisors completed one additional measure in Phase 1. During Phase 1, all online participants completed the NEO-FFI-3 last. This was necessary because the consent form was sent first with the remaining measures through a survey monkey link, and the NEO was sent separately as a direct link from the publisher's online portal. The sequencing during both phases of data collection is outlined in Tables 5-7.

Table 5

Order of Measures for Phase 1: In Person Administration

Supervisor A (N = 8)	Supervisee A (N = 9)	Supervisor B (N =7)	Supervisee B (N = 8)
NEO-FFI-3	NEO-FFI-3	SWAI-S	SWAI-T
SLS	DQ	DQ	DQ
DQ	SWAI-T	NEO-FFI-3	NEO-FFI-3
SWAI-S		SLS	

Table 6

Order of Measures for Phase 1: Online Administration

Supervisor A (N = 5)	Supervisee A (N = 4)	Supervisor B (N = 4)	Supervisee B (N = 5)
SLS	DQ	SWAI-S	SWAI-T
DQ	SWAI-T	DQ	DQ
SWAI-S	NEO-FFI-3	SLS	NEO-FFI-3
NEO-FFI-3		NEO-FFI-3	

Table 7

Order of Measures for Phase 2 for All Participants

Supervisor A (N = 13)	Supervisee A (N = 13)	Supervisor B (N = 11)	Supervisee B (N = 12)
SLS	SSQ	SFQ	SFQ
SWAI-S	SWAI-T	SLS	SSQ
SFQ	SFQ	SWAI-S	SWAI-T

Procedural Fidelity

I trained two research assistants to complete data entry and inter-observer agreement during individual thirty-minute trainings. For one research assistant, this involved additional training on the coding sheet used for data entry after Phase 1. Follow-up guidance was provided to both research assistants over email as needed. I completed data entry for all measures administered during Phase 1, and a research assistant separately entered data for 20% of the sample. Inter-observer agreement (IOA) was calculated by comparing the 20% of data entered by myself and the research assistant and dividing the number of identical values entered over the total number of values entered and then multiplying by 100 to calculate IOA percentage. For Phase 1, IOA was 99%, and disagreements were resolved collaboratively by checking the raw data. For Phase 2, the second research assistant completed all data entry and I separately entered data for 20% of the sample. For Phase 2, IOA was 100%.

The paper version of the NEO-FFI-3 was hand scored for the 34 participants who completed the measure in person. I completed the scoring for all NEO-FFI-3 protocols, and the Phase 1 research assistant separately rescored 20% of the protocols. IOA for the

paper version of the NEO-FFI-3 was 100%. The online NEO-FFI-3 was automatically computer scored with the use of PARiConnect score reports.

Data Analysis

Impact of personality difference on supervision satisfaction, supervisory working alliance, and work readiness. Standard multiple regressions were planned to determine if personality difference scores on the Extraversion or Conscientiousness scale predicted intern ratings of supervision satisfaction, supervisory working alliance and/or supervisor ratings supervisee work readiness. Standard multiple regressions were selected because all predictor variables could be entered simultaneously into the regression model and the amount of variance each predictor uniquely contributed to the prediction of the criterion variable could be determined (Heppner, Wampold, & Kivlighan, 2008). Personality difference scores were determined for each dyad by calculating the difference between the supervisor and supervisee's T-score on each personality factor. Instead of categorizing dyads by personality match or mismatch, difference scores were used for analysis due to the small sample size and statistical support for using continuous variables (Dawson & Weiss, 2012). Furthermore, personality scores have been used as a continuous variable rather than a dichotomous categorization in previous research (Ream, 1995; Nelson & Stake, 1994; Handley, 1982). In addition to the Extraversion and Conscientiousness personality factors, Openness was also considered as an exploratory analysis. For each multiple regression, the predictor variables were personality difference scores for extraversion, conscientiousness, and openness. The total score from the SSQ was used as the measure supervision

satisfaction, the composite scores from the SWAI-T and SWAI-S at post-test were used as a measure of supervisory working alliance, and the total score on Level 4 of the SLS at post-test was used as a measure for work readiness.

Supervisory working alliance, personality, and systemic factors' contribution to variance in supervision satisfaction and work readiness. A series of four sequential multiple regressions were planned because in a sequential regression, variables are entered in a predetermined order to statistically control for the variable(s) entered first (Tabachnick & Fidell, 2013). The variables entered next in sequence could then be evaluated on the extent to which they explain some of the remaining variance in the dependent variable (Tabachnick & Fidell). This was desirable because the literature supported that the supervisory working alliance was related to a number of positive outcomes, including supervisee satisfaction (Ladany et al., 1999) and self-efficacy in school psychology interns (Trangucci, 2013). Therefore, the supervisory working alliance ratings at post-test were entered first in each sequential multiple regression. The second and third variables entered into the sequential multiple regression were intended to be alternated because while some research has been done in related fields, there have not been any known studies that have examined the impact of personality or systemic factors on supervision satisfaction or work readiness for school psychology interns. Without literature to guide which of these two variables could have more influence on the outcome variables, it was determined both should be considered in the second and third stage of the sequential regression (Heppner et al., 2008). SWAI-T or SWAI-S composite scores at post-test represented supervisory working alliance ratings and the total score

from the trainee and supervisor versions of the Systemic Factors Questionnaire (SFQ) represented systemic factors. The total score from the SSQ signified trainee ratings of supervision satisfaction and the Level 4 score on the SLS at post-test represented supervisor ratings of intern work readiness. For the sequential regression examining intern work readiness, only supervisor measures were considered in the model, and for the analysis of variables that predict intern ratings of supervision satisfaction, only trainee measures were entered.

Change in supervisory working alliance and work readiness from mid-year to end of year. Paired sample t-tests were conducted to compare pre and post ratings of working alliance and work readiness. Composite scores for the SWAI-T and SWAI-S were used to measure supervisory working alliance and the total score produced by Level 4 items on the SLS represented work readiness.

CHAPTER 4

RESULTS

This chapter summarizes selected participant demographics, comparisons among key variables, and the statistical analyses employed to address the three research questions central to this study. After reviewing the data screening process first, preliminary analyses on variables of interest, order effects, demographic variables, and systemic factors will be presented. Then, the relationships between personality difference within supervisory dyads and supervision satisfaction, supervisory working alliance, and supervisee work readiness will be reported. Next, findings from two sequential multiple regressions will be described to demonstrate the predictive power of systemic factors on supervision satisfaction and supervisee work readiness when supervisory working alliance is controlled for. Finally, the change in supervisor and trainee ratings of supervisory working alliance ratings over time will be presented.

Data Screening

All variables of interest were examined with the IBM Statistical Package for the Social Sciences (SPSS) 22.0 for missing values, normality of distributions, and outliers prior to main analyses. Two supervisors and three supervisees omitted an item on the demographic questionnaire, two supervisors at pre-test and one supervisee at post-test omitted an item on the Supervisory Working Alliance Inventory (SWAI), and one

supervisee omitted an item on the Systemic Factors Questionnaire (SFQ). One supervisee did not complete any measures at post-test, therefore all missing values were excluded from analyses.

For the majority of study variables, the Z-score values for skewness and kurtosis were below the absolute value of 2 at $p < 0.05$, supporting normal distributions (Field, 2009). However, one study variable, the supervision satisfaction measure (SSQ), violated assumptions of normality based on *Z*-scores for both skewness (-4.94) and kurtosis (6.72). Accordingly, the distribution of Supervision Satisfaction Questionnaire (SSQ) scores created a negatively skewed and peaked distribution of scores, representing that many supervisees reported high supervision satisfaction. For this type of distribution, Tabachnick and Fidell (2013) recommend utilizing a reflection and log transformation to enable the use of parametric statistical tests. After SSQ scores were transformed, the absolute value of *Z*-scores reduced for both skewness (1.75), and kurtosis (-0.41) to a level indicative of a normal distribution. However, the interpretation of a reflected variable becomes the opposite of what it was, meaning low SSQ scores indicated high ratings of satisfaction. The SSQ mean and standard deviation reported in Table 9 represent the original SSQ scores, though the correlations listed in Table 9 signify relationships with the transformed SSQ values. The remaining parametric statistics involving SSQ scores also utilized the transformed scores.

SPSS boxplots revealed five outliers across study variables, each observed from a unique case in the data set. The Conscientiousness difference score distribution contained two outliers, the distribution of SWAI-T composite scores at post-test had one

outlier, and the distribution of the supervisor SFQ ratings yielded two outliers. Upon visual examination of the trimmed means for each measure, all cases were retained. Furthermore, no cases were found to have multivariate outliers as measured by Mahalanobis distance statistics with $p < .001$ (Tabachnick & Fidell, 2013). For the main analyses, the number of cases ranged from 24 to 26 depending on the number of missing values.

Preliminary Analyses

Correlations. Table 8 displays the correlations among the variables examined in this study, as measured by Pearson's correlation coefficient. As expected, pre and post-test measures of supervisory working alliance for supervisors and trainees (SWAI-S and SWAI-T) demonstrated large (>.50) positive correlations, and supervisor and trainee ratings of systemic factors (SFQ Supervisor Composite and SFQ Trainee Composite) showed a medium positive correlation (>.30). Supervisor ratings of work readiness (SLS Level 4 Score) had a medium positive correlation with supervisor ratings of supervisory working alliance (SWAI-S) at post-test. Transformed trainee ratings of supervision satisfaction (SSQ) had a large negative correlation with ratings of supervisory working alliance (SWAI-T) at both pre and post-test, signifying a relationship between high trainee ratings of supervisory working alliance and high trainee ratings of supervision satisfaction. Trainee ratings of systemic factors (SFQ Trainee Composite) also had a large positive correlation with transformed trainee ratings of supervision satisfaction (SSQ), and due to the transformation of SSQ scores this reflected that high levels of systemic factors were related to low ratings of supervision satisfaction. Furthermore, the

SFQ Trainee Composite had a medium negative correlation with supervisory working alliance (SWAI-T) ratings at pre-test and a large negative correlation with SWAI-T ratings at post-test. Accordingly, trainee perceptions of increased systemic barriers showed an association with lower ratings of supervisory working alliance over time.

Table 9 reports Pearson's correlation coefficients specifically for participant NEO FFI-3 T-scores on the Extraversion, Conscientiousness, and Openness factors in comparison to outcome variables of interest. T-scores have a mean of 50 and standard deviation of 10. For the study sample, mean T-scores on each personality factor were higher than 50, and the standard deviations for each personality factor ranged from 6.62 to 12.22. A medium positive correlation was found between trainee Extraversion and Conscientiousness scores, demonstrating an association between these two personality factors for interns who participated in this study. There was also a medium negative correlation between trainee Conscientiousness scores and reported levels of systemic factors (SFQ trainee composite). As such, high scores on Conscientiousness factor on the NEO FFI-3 were moderately related to reports of low systemic barriers.

Table 8

Descriptive Statistics and Inter-Correlation Matrices Among Personality Difference Scores and Dependent Variables

Measure	*N*	*M*	*SD*	1	2	3	4	5	6	7	8	9	10
Personality Difference Scores													
1. Extraversion	26	10.04	6.42	-									
2. Conscientiousness	26	13.19	9.31	-0.37	-								
3. Openness	26	9.50	8.24	0.13	-0.21	-							
Supervisory Working Alliance													
4. SWAI-S Composite: Pre-Test	26	5.85	0.37	0.02	-0.22	0.21	-						
5. SWAI-S Composite: Post-Test	26	5.70	0.45	-0.16	0.17	0.17	0.64**	-					
6. SWAI-T Composite: Pre-Test	26	6.08	0.65	-0.05	-0.16	-0.13	0.01	-0.07	-				
7. SWAI-T Composite: Post-Test	25	6.06	0.67	-0.11	-0.25	-0.14	-0.10	-0.08	0.70**	-			
Work Readiness: Post-Test													
8. SLS Level 4 Score	26	26.69	4.82	-0.10	-0.12	0.09	0.14	0.47*	0.08	0.18	-		
Supervision Satisfaction													
9. SSQ	25	27.16	2.84	0.05	0.26	0.16	0.30	0.17	-0.57**	-0.81**	-0.30	-	
Systemic Factors													
10. SFQ Supervisor Composite	24	23.13	10.06	0.24	0.23	-0.05	-0.27	-0.16	-0.53**	-0.19	-0.09	0.38	-
11. SFQ Trainee Composite	25	20.80	9.59	0.07	0.37	0.15	-0.04	0.29	-0.47*	0.50*	-0.20	0.53**	0.38

Note. *p< .05, **p< .01, two-tailed, SWAI-S: Supervisory Working Alliance – Supervisor Version, SWAI-T: Supervisory Working Alliance – Trainee Version, SLS: Supervisory Levels Scale, SSQ: Supervision Satisfaction Scale, SFQ: Systemic Factors Questionnaire.

Table 9

Descriptive Statistics and Inter-Correlation Matrices Among Personality T-Scores and Dependent Variables

Measure	*N*	*M*	*SD*	1	2	3	4	5	6
Supervisor Personality T-Scores									
1. Extraversion	24	56.69	8.93	-					
2. Conscientiousness	24	59.62	6.85	0.10	-				
3. Openness	24	51.92	12.22	-0.14	-0.15	-			
Trainee Personality T-Scores									
4. Extraversion	26	54.88	9.21	0.07	-0.13	-0.31	-		
5. Conscientiousness	26	55.27	10.81	0.21	-0.36	-0.12	0.48*	-	
6. Openness	26	57.12	6.62	0.09	-0.17	0.37	-0.31	-0.09	-
Supervisory Working Alliance									
7. SWAI-S Composite: Post-Test	26	5.70	0.45	0.28	0.01	-0.01	0.16	-0.05	0.09
8. SWAI-T Composite: Post-Test	25	6.06	0.67	0.29	-0.33	0.08	-0.06	0.23	-0.03
Work Readiness									
9. SLS Level 4 Score: Post-Test	26	26.69	4.82	0.07	-0.20	-0.10	0.21	0.07	0.16
Supervision Satisfaction									
10. SSQ	25	27.16	2.84	-0.15	0.23	-0.15	0.26	-0.03	-0.09
Systemic Factors									
11. SFQ Supervisor Composite	24	23.13	10.06	0.06	-0.16	-0.03	-0.03	-0.06	0.03
12. SFQ Trainee Composite	25	20.80	9.59	-0.18	0.33	0.11	-0.25	-0.45*	0.24

Note. *p< .05, **p< .01, two-tailed, SWAI-S: Supervisory Working Alliance – Supervisor Version, SWAI-T: Supervisory Working Alliance – Trainee Version, SLS: Supervisory Levels Scale, SSQ: Supervision Satisfaction Scale, SFQ: Systemic Factors Questionnaire.

Order effects. Participants filled out measures in one of four sequences at pre-test and one of two sequences at post-test. A series of four one-way between-groups multivariate analyses of variance (MANOVAs) were performed to investigate if order effects impacted ratings on measures. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no violations noted.

Supervisor measures at pre-test. In the first MANOVA, supervisor measures at pre-test were examined. Five dependent variables were used: NEO Extraversion score, NEO Conscientiousness score, NEO Openness score, SWAI-S composite score, and SLS Level 4 score. The independent variable was order version (Supervisor A in person, Supervisor B in person, Supervisor A online, or Supervisor B online) for supervisors during pre-test. There were no significant differences between order versions, F (15, 50) = 0.84, p = 0.64; Wilk's Λ = 0.54, partial η^2 = 0.19.

Trainee measures at pre-test. In the second MANOVA, trainee measures at pre-test were explored. Four dependent variables were used: NEO Extraversion score, NEO Conscientiousness score, NEO Openness score and SWAI-T composite score. The independent variable was order version (Supervisee A in person, Supervisee B in person, Supervisee A online, or Supervisee B online) for supervisees during pre-test. There were no significant differences between order versions, F (12, 50) = 0.48, p = 0.92; Wilk's Λ = 0.75, partial η^2 = 0.09.

Supervisor measures at post-test. In the third MANOVA, supervisor measures at post-test were analyzed. Three dependent variables were used: SWAI-S composite score,

SLS Level 4 ratings, and SFQ total scores. The independent variable was order version (Supervisor A or Supervisor B) for supervisors at post-test. There were no significant differences between order versions, F (3, 20) = 0.787, p = 0.52; Wilk's Λ = 0.89, partial η^2 = 0.11.

Trainee measures at post-test. In the last MANOVA, trainee measures at post-test were examined. Three dependent variables were used: SWAI-T composite score, transformed SSQ ratings, and SFQ total scores. The independent variable was order version (Supervisee A or Supervisee B) for supervisees at post-test. There were no significant differences between order versions, F (3, 21) = 0.41, p = 0.75; Wilk's Λ = 0.94, partial η^2 = 0.06.

Demographic Questionnaire

While demographic questions were not directly connected to the research questions for this study, selected demographic items pertaining to supervision and internship settings provide additional context for study results. Tables 10 and 11 present information regarding the supervisors in this study (N = 24) and Table 12 outlines information pertaining to supervisee (N = 26) internship experiences.

Supervisors' supervision training and support. As part of the demographic questionnaire, supervisors were asked to indicate the types of supervision training they had received during graduate school and their years of professional practice. As can be seen in Table 10, the majority of supervisors did not receive supervision training during graduate school. However, four doctoral-level and three specialist-level supervisors did have one or more types of supervision training during graduate school. Approximately

equivalent numbers of supervisors took a course on supervision, attended a conference on supervision, or received other professional development on supervision. Only one supervisor received professional development provided by a school district, and four supervisors received other professional development on supervision (e.g. Supervision Institute).

During professional practice, most supervisors received one or more types of supervision training. The majority of supervisors received training through peer supervision. The next most endorsed vehicle for supervision training was "other" professional development activities offered through a local Supervision Institute or attending a conference on supervision. A small number of supervisors attended professional development on supervision provided by their school district or took a graduate-level course on supervision during professional practice.

Half of all supervisors indicated that they received continuous supervision support while training graduate students, and this included peer supervision, other sources of professional development such as attending a Supervision Institute or professional development provided by the school district.

Table 10

Supervisors' Supervision Training and Continuous Support While Supervising Students

Type of supervision training	*N*	Percentage who received training
Training during graduate school		
Graduate-level university course	3	13%
Professional development at a conference	3	13%
Professional development provided by school district	1	4%
Other professional development	4	17%
No training	17	71%
Training during professional practice		
Graduate-level university course	2	8%
Professional development at a conference	8	33%
Professional development provided by school district	3	13%
Other professional development	12	50%
Peer supervision	16	67%
No training	3	12%
Continuous supervision support while training students		
Professional development provided by school district	2	8%
Other professional development	6	25%
Peer supervision	11	46%
No continuous support	12	50%

Supervisors' supervision practices. In regards to the amount of individual supervision given to interns, a third of supervisors reported providing between one and two hours each week. It was lesson common for supervisors to provide two or more hours and rare for supervisors to provide an hour or less of weekly individual supervision. Five supervisors did not give a numeric response when asked how many hours of weekly individual supervision they provide to their intern(s). These alternate responses included, "as needed", "daily because we share an office and it is informal rather than weekly scheduled meetings", "we don't keep track but I would estimate at least five hours per week", "at least two hours, we have set times scheduled but supervision occurs more frequently", and "a few hours per week or on an as needed

basis." Many primary supervisors did not provide group supervision. Out of those that did, the majority gave one or less hours of group supervision per week. The next most endorsed time interval was between one and two hours of group supervision per week, followed by giving more than three hours of weekly group supervision and giving between two and three hours. The majority of supervisors indicated that they do not have a set day and time for weekly supervision. While five supervisors did report having a set day and time for supervision with their intern, one reported that they tried for Friday mornings but often could not meet at the scheduled time.

Table 11

Supervisors' Reported Supervision Practices

Demographic item	*N*	Percentage that endorsed item
Amount of weekly individual supervision provided		
Up to one hour	2	8%
Between one and two hours	8	33%
Between two and three hours	5	21%
More than three hours	4	17%
Other response	5	21%
Amount of weekly group supervision provided		
Up to one hour	7	29%
Between one and two hours	3	13%
Between two and three hours	1	4%
More than three hours	2	8%
None	11	46%
Set day and time for weekly supervision		
Yes	5	21%
No	18	75%
Other response	1	4%

Supervisees' internship orientation and supervision. As part of the Demographic Questionnaire, supervisees were asked to indicate the orientation materials or activities that were part of their introduction to internship. The majority of supervisees visited their internship site and/or met their supervisor and members of the school staff

prior to starting the internship. Half of the supervisees attended an orientation prior to or during the first week of internship while only three supervisees attended an orientation held after the first week of school. Almost half of the supervisees received an internship handbook. Supervisees were also asked how much individual and group supervision they received each week from their primary and secondary supervisors. An equal number of supervisees received between one and two hours or more than three hours of individual supervision from their primary supervisors. It was less common for supervisees to receive between two and three hours of supervision and even less frequent for supervisees to receive one or less hours of supervision from their primary supervisors. Two supervisees reported that they did not receive any individual supervision from their primary supervisor. Half of the supervisees reported that they did not participate in weekly group supervision with their primary supervisor. The next most endorsed time interval was receiving up to an hour of group supervision, followed by one to two hours, and lastly between two and three hours per week.

The majority of supervisees received up to one hour of individual supervision from a secondary supervisor, did not have individual supervision with a secondary supervisor, or did not have a secondary supervisor at all. A small percentage of supervisees reported having two to three hours, while one supervisee had between one and two hours and one supervisee had more than three hours of individual supervision with their secondary supervisor. Most supervisees reported that they did not have weekly group supervision with their secondary supervisor. However, those that did reported that they had up to one hour per week.

It was much more common for supervisees to not have a set day and time for supervision with their primary and/or secondary supervisors. Only five supervisees reported that they had a set day and time with their primary supervisor while seven supervisees indicated that they met with their secondary supervisor at a consistent day and time.

Table 12

Supervisees' Reported Internship Orientation and Supervision Received

Demographic item	*N*	Percentage that endorsed item
Internship orientation materials or activities		
Received internship handbook	12	46%
Attended orientation before or during first week of school	13	50%
Attended orientation after first week of school	3	12%
Visited school site(s) before start of internship	22	85%
Met with supervisor before start of internship	20	77%
Met other school staff before start of internship	19	73%
Weekly individual supervision from primary supervisor		
Up to one hour	4	15%
Between one and two hours	7	27%
Between two and three hours	6	23%
More than three hours	7	27%
None	2	8%
Weekly group supervision from primary supervisor		
Up to one hour	7	27%
Between one and two hours	4	15%
Between two and three hours	0	0%
More than three hours	2	8%
None	13	50%
Weekly individual supervision from secondary supervisor		
Up to one hour	*10*	39%
Between one and two hours	*1*	4%
Between two and three hours	*2*	8%
More than three hours	*1*	4%
None or no secondary supervisor	*10*	39%
No information provided	*2*	8%

Table 12 Continued

Demographic item	*N*	Percentage that endorsed item
Weekly group supervision from secondary supervisor		
Up to one hour	*4*	15%
Between one and two hours	*0*	0%
Between two and three hours	*0*	0%
More than three hours	*0*	0%
None	*20*	77%
No information provided	*2*	8%
Set day and time for supervision with primary supervisor		
Yes	*5*	19%
No	*21*	81%
Set day and time for supervision with secondary supervisor		
Yes	*7*	27%
No or no secondary supervisor	*19*	73%

Demographic variables' impact on dependent variables. Exploratory analyses were conducted to examine the relationship between selected demographic variables and post-test ratings of supervisory working alliance, supervision satisfaction, and work readiness. The selected demographic variables included: the number of practicum hours the intern completed prior to internship, the number of completed years the supervisor worked as a school psychologist, the number of years the supervisor had supervised interns (including the current year), the number of days per week the intern was on site with their primary supervisor, and the total number of supervision hours provided individually or in group by the primary supervisor. For each of these demographic variables, the median value was calculated and then two groups were formed to include either all values below or above the median. Independent-samples t-tests were then conducted to determine if the demographic variable impacted the values of study outcome measures.

Practicum hours completed. Interns completed a median of 450 practicum hours prior to starting the internship year, with 14 interns completing fewer hours and 11 interns completing 451 or more hours. A series of independent-samples t-tests were conducted to compare ratings of supervision satisfaction, supervisory working alliance, and work readiness for interns who completed 450 or less practicum hours and interns that completed more than 450 practicum hours. There was no significant difference in transformed supervision satisfaction ratings for interns with fewer practicum hours (M = 0.28, SD = 0.32) than interns with a higher number of practicum hours (M = 0.26, SD = 0.26; t (22) = 0.16, p = .88, two-tailed). There was no significant difference in trainee ratings of supervisory working alliance for interns with fewer practicum hours (M = 6.11, SD = 0.55) and interns with a higher number of practicum hours (M = 6.14, SD = 0.67; t (22) = -0.12, p = .91, two-tailed) or for supervisor ratings of supervisory working alliance for interns with less hours (M = 5.68, SD = 0.53) and more hours (M = 5.71, SD = 0.38; t (23) = -0.16, p = .87, two-tailed). Finally, there was no significant difference in ratings of work readiness for interns with fewer practicum hours (M = 27.29, SD = 4.16) and interns with a higher number of practicum hours (M = 26.18, SD = 5.85; t (23) = 0.55, p = .59, two-tailed).

Years working as a school psychologist. Supervisors had completed a median of 11 years working as a school psychologist, with 12 supervisors having 11 or fewer years of experience as a school psychologist and 12 supervisors having more than 11 years of experience in the role. Four independent-samples t-tests were conducted to compare ratings of supervision satisfaction, supervisory working alliance, and work readiness for

supervisors who completed 11 or fewer years as a school psychologist and supervisors who had more than 11 years of experience. There was no significant difference in transformed supervision satisfaction ratings for supervisors with less school psychology experience (M = 0.27, SD = 0.26) and supervisors with more experience (M = 0.30, SD = 0.40; t (22) = -0.28, p = .79, two-tailed). There was no significant difference in trainee ratings of supervisory working alliance when supervisors had 11 or fewer years of school psychology experience (M = 6.23, SD = 0.63) or at least 12 years of experience (M = 5.91, SD = 0.72; t (22) = 1.16, p = .26, two-tailed) nor for supervisor ratings of supervisory working alliance from less experienced supervisors (M = 5.67, SD = 0.45) or more experienced supervisors (M = 5.71, SD = 0.43; t (22) = -0.20, p = .84, two-tailed). Lastly, there was no significant difference in ratings of intern work readiness between supervisors who had practiced as a school psychologist for 11 or fewer years (M = 27.50, SD = 4.70) and supervisors with more experience (M = 26.33, SD = 5.35; t (22) = 0.57, p = .58, two-tailed).

Years supervising interns. Supervisors had supervised interns for a median of three years, including the year of study participation. Fourteen supervisors had supervised interns for three or fewer years, and ten supervisors had supervised interns for four or more years. Independent-samples t-tests were conducted to compare ratings of supervision satisfaction, supervisory working alliance, and work readiness for supervisors who had supervised interns for three or fewer years and supervisors who had supervised interns for four or more years. There was no significant difference in transformed supervision satisfaction ratings for supervisors who supervised interns for fewer years (M

= 0.26, *SD* = 0.34) and supervisors who supervised interns for more years (*M* = 0.31, *SD* = 0.33; *t* (22) = -0.35, *p* = .73, two-tailed). There was no significant difference in trainee ratings of supervisory working alliance when supervisors had supervised interns for three or fewer years (*M* = 6.07, *SD* = 0.73) or four or more years (*M* = 6.07, *SD* = 0.66; *t* (22) = 0.01, *p* = .96, two-tailed) nor for supervisor ratings of supervisory working alliance from supervisors who supervised interns for fewer years (*M* = 5.75, *SD* = 0.45) or more years (*M* = 5.61, *SD* = 0.42; *t* (22) = 0.76, *p* = .45, two-tailed). However, there was a significant difference in ratings of intern work readiness between supervisors who had supervised interns for three or fewer years (*M* = 28.64, *SD* = 4.52) and supervisors who had supervised interns for four or more years (*M* = 24.50, *SD* = 4.72; *t* (22) = 2.16, *p* = .04, two-tailed). Supervisors who had trained interns for fewer years rated intern work readiness higher than supervisors who had provided supervision to interns for four or more years.

Days per week spent on-site with supervisor. Interns reported that they spent a median of 3.5 days per week on-site with their supervisor. There were 13 dyads that spent less than 3.5 days on-site together and 12 dyads that were on-site together for more than 3.5 days per week. Four independent-samples t-tests were conducted to compare ratings of supervision satisfaction, supervisory working alliance, and work readiness for dyads that spent less than 3.5 days on-site together and dyads that spent more than 3.5 days on-site together each week. There was no significant difference in transformed supervision satisfaction ratings for dyads that were on-site together less than 3.5 days each week (*M* = 0.31, *SD* = 0.28) and those together more than 3.5 days (*M* = 0.33, *SD* =

0.41; t (22) = -0.12, p = .90, two-tailed). There was no significant difference in trainee ratings of supervisory working alliance for dyads on-site together for less than 3.5 days per week (M = 6.01, SD = 0.45) and dyads together for more than 3.5 days (M = 6.08, SD = 0.87; t (16.38) = -0.26, p = .80, two-tailed) nor for supervisor ratings of supervisory working alliance for dyads spending less than 3.5 days on-site together each week (M = 5.83, SD = 0.49) or more than 3.5 days per week (M = 5.58, SD = 0.40; t (23) = 1.41, p = .17, two-tailed). Lastly, there was no significant difference in ratings of intern work readiness for dyads that spent less time together on-site each week (M = 27.77, SD = 4.80) and dyads who spent more than 3.5 days together on-site each week (M = 25.67, SD = 5.00; t (23) = 1.07, p = .29, two-tailed).

Weekly supervision hours provided. Interns reported that their primary supervisor provided a median of 2.88 total hours of weekly supervision via individual and/or group supervision. Thirteen supervisors provided less than 2.88 total hours of supervision and 12 supervisors provided more than 2.88 total hours of supervision each week. Independent-samples t-tests were conducted to compare ratings of supervision satisfaction, supervisory working alliance, and work readiness for interns who received less than 2.88 total hours of weekly supervision from their primary supervisor and interns that received more than 2.88 total hours of weekly supervision. There was no significant difference in transformed supervision satisfaction ratings for interns who received fewer hours of supervision (M = 0.37, SD = 0.37) than interns who received more hours of supervision from their primary supervisor each week (M = 0.24, SD = 0.30; t (23) = 1.01, p = .33, two-tailed). There was no significant difference in trainee ratings of supervisory

working alliance for interns who received less than 2.88 hours of weekly supervision (*M* = 5.91*, SD* = 0.72) and interns who received more than 2.88 hours (*M* = 6.22*, SD* = 0.60; *t* (23) = -1.15, *p* = .26, two-tailed) or for supervisor ratings of supervisory working alliance for interns with less than 2.88 hours (*M* = 5.86*, SD* = 0.49) and more than 2.88 hours (*M* = 5.53*, SD* = 0.36; *t* (24) = 1.96, *p* = .06, two-tailed). Nonetheless, there was a significant difference in ratings of work readiness for interns with fewer total supervision hours (*M* = 28.62*, SD* = 3.60) and interns who reported receiving more than 2.88 hours of supervision from their primary supervisor (*M* = 24.77*, SD* = 5.25; *t* (24) = 2.18, *p* = .04, two-tailed). Interns that reported fewer hours of weekly supervision were rated as having more work readiness than interns who received more than 2.88 hours of weekly supervision from their primary supervisor.

Systemic Factors Questionnaire

The Systemic Factors Questionnaire (SFQ) was created to determine the extent to which study participants encountered identified systemic challenges to supervision. These systemic challenges include: state and federal laws, local school policies, resource availability, general education teachers who are uncooperative, general education curriculum, administrators who are uncooperative, the special education link of school psychologists, and union issues (Harvey & Pearrow, 2010). Table 13 presents the results as indicated by site supervisors and trainees, with a rating of 1 reflecting that the respondent *strongly disagreed* that the factor was a barrier to their role, a rating of 7 meaning that the respondent *strongly agreed,* and a rating of 4 representing a neutral response. Tables 14 and 15 display results to one open-ended item on the supervisor and

trainee versions of the SFQ. On the supervisor version, the open-ended item stated, "Please briefly describe any other systemic factors that create a barrier in your role as a school psychologist and supervisor not captured in the items above." On the trainee version, "school psychologist and supervisor" was replaced with "school psychology intern." Paired-sample t-tests were conducted to examine possible differences between supervisor and trainee responses on each SFQ item. The paired-sample t-tests yielded no significant differences, and the corresponding *p* values are also listed in Table 13.

Table 13

Responses to Systemic Factors Questionnaire

	Supervisors		Supervisees		
Factor	*M*	*SD*	*M*	*SD*	*p*
State and/or federal laws and policy	2.96	1.60	2.16	1.28	0.18
Local policies of school or school district	2.96	1.60	2.48	1.48	0.12
Availability of educational resources	3.38	2.16	3.16	2.19	0.84
Uncooperative general education teachers	3.58	1.61	3.64	1.73	0.78
General education curriculum*	2.46	1.62	2.33	1.47	0.92
Uncooperative administration	2.67	1.71	2.80	1.73	0.84
Primary or exclusive connection to special education and special education eligibility	2.92	1.86	2.36	1.35	0.41
Union issues	2.21	1.64	1.88	1.45	0.78

Note. $N = 24$ for supervisors. $N = 25$ for supervisees. *$N = 24$ for supervisee respondents to item.

Supervisors. As displayed in Table 13, supervisors' mean ratings on most items fell between 2 and 3, reflecting that the survey items did not represent significant barriers for their school practices. Availability of educational resources and uncooperative general education teachers were rated the highest, suggesting that these two factors may pose more of a challenge than other factors. Twelve supervisors (50%) provided seventeen responses to the open-ended item that did not overlap with previous items. The themes identified from the open-ended responses are outlined in Table 14 and

sample responses are provided when more than one participant commented on a theme. The most common systemic barrier identified was meeting role expectations within time constraints.

Table 14

Supervisors' Open-Ended Responses Regarding Additional Systemic Factors

Theme	*N*	Sample Response
Meeting role expectations within time constraints	5	"Schedule constraints"
Willingness/awareness to broaden school psychologist's role	2	"Willingness to explore what the role of a psychologist is in each school"
Funding	2	"Financial concerns"
Poorly developed pre-referral systems	1	
Vague language directing the diagnosis of disabilities	1	
Number of mental health professionals in schools	1	
Parental involvement	1	
Lack of English proficiency	1	
Politics surrounding school district	1	
Interventions are not delivered in a best practice model	1	
Paperwork	1	

Note. N = 24.

Supervisees. Trainees also endorsed a mean rating between 2 and 3 for several items. These data suggest that systemic challenges to supervision impact supervisees in a similar manner as their supervisors. Nine supervisees (36%) gave ten responses to the open-ended item that did not have overlap with other SFQ items. Supervisee responses to this item are summarized in Table 15, with sample responses provided when more than one supervisee remarked on the same systemic barrier. Similar to the supervisors, trainees identified that meeting expectations within time constraints was a notable systemic barrier to their role as school psychology interns.

Table 15

Supervisees' Open-Ended Responses Regarding Additional Systemic Factors

Theme	*N*	Sample Response
Meeting role expectations within time constraints	2	"Time split between two schools"
Cannot disagree with staff as an intern	1	
Standardized state testing	1	
University demands	1	
Not enough staff trained to manage student behavior challenges	1	
Limited programs for students with specialized needs	1	
Funding	1	
Teacher resistance to RTI	1	
Lack of set district expectations for supervisors/supervisees	1	

Note. $N = 25$.

Research Question 1*:* Does personality difference score on the extraversion or conscientiousness scale predict intern ratings of supervision satisfaction, dyad ratings of supervisory working alliance and supervisor ratings of supervisee work readiness?

Preliminary correlation analyses determined no significant relationship between personality difference scores and intern ratings of supervision satisfaction (SSQ), dyad ratings of supervisory working alliance (SWAI-S and SWAI-T), or supervisor ratings of intern work readiness (SLS). Accordingly, personality difference scores could not be entered into the standard multiple regression models. Correlations between the personality differences scores and each dependent variable are listed in Table 8.

Research Question 2: To what extent do working alliance, personality, and systemic factors contribute to variance in supervision satisfaction and supervisee work readiness?

Two sequential multiple regressions were conducted to evaluate the predictive power of systemic factors on the criterion variables of supervision satisfaction and supervisee work readiness when supervisory working alliance was controlled for. Preliminary analyses were conducted to ensure no violations of the assumption of normality, linearity, multicollinearity and homoscedasticity. Due to the low correlation between the three personality T-scores and the criterion variables of supervision satisfaction and supervisee work readiness, personality scores were not entered into the sequential regression models.

Preliminary correlation analyses outlined in Table 8 determined that supervisor ratings of supervisory working alliance (SWAI-S) had a medium positive correlation with supervisor ratings of intern work readiness (SLS Level 4 score). Therefore, one sequential regression was conducted with SWAI-S scores at stage one, supervisor ratings of systemic factors (SFQ) at stage two, and SLS Level 4 scores as the criterion variable. Trainee ratings of supervisory working alliance (SWAI-T) had a medium negative correlation with trainee ratings of systemic factors (SFQ Trainee Composite) and a high negative correlation with ratings of supervision satisfaction (SSQ). Accordingly, a second sequential regression was conducted with SWAI-T scores at stage one, trainee SFQ ratings at stage two, and SSQ as the criterion variable. The results and sequencing of each sequential multiple regressions are presented in Tables 16-17.

Supervisee work readiness. One sequential multiple regression was conducted to determine the predictive power of supervisor ratings of supervisory working alliance and systemic factors on supervisee work readiness. Supervisor rating of supervisory

working alliance (SWAI-S composite) at post-test was entered at stage one and ratings of systemic factors (SFQ supervisor composite score) were entered at stage two of the sequential regression model. As shown in Table 16, this analysis enabled the assessment of the extent to which a control variable (supervisor SFQ composite) predicted supervisee work readiness (SLS Level 4 score), after controlling for the influence of supervisor ratings of supervisory working alliance. SWAI-S composite score at post-test was entered at Step 1, explaining 22.3% of the variance in supervisee work readiness and contributing significantly to the regression model, F (1, 22) = 6.31, p = 0.02. The addition of SFQ at Step 2 did not explain any additional variance in supervisee work readiness, F change (1, 21) = 0.007, p = 0.93. Therefore, in the final model, only the SWAI-S (working alliance) was a significant predictor of supervisee work readiness, and both predictors together accounted for 22.3% of the variance in supervisor ratings of intern work readiness.

Table 16

Sequential Regression Analysis for Supervisor Variables Predicting Work Readiness

Predictor	*B*	*SE*	β	R^2	ΔR^2
Step 1				0.223	0.223
SWAI-S Composite: Post-Test	5.027	2.002	0.472		
Step 2				0.223	<0.001
SWAI-S Composite: Post-Test	5.000	2.074	0.469		
SFQ Supervisor Composite	-0.008	0.093	-0.016		

Note. N = 26. SWAI-S = Supervisory Working Alliance Inventory – Supervisor Version, SFQ = Systemic Factors Questionnaire.

Supervision satisfaction. Two sequential multiple regressions were employed to evaluate the predictive power of two variables on supervision satisfaction. For the first sequential multiple regression, trainee ratings of supervisory working alliance (SWAI-T

composite) at post-test were entered at stage one and trainee ratings of systemic factors (SFQ trainee composite) were entered at stage two. Sequential multiple regression was used to assess the ability of the control measure (SFQ trainee composite) to predict supervision satisfaction (SSQ), after controlling for the influence of trainee ratings of supervisory working alliance (SWAI-T). Results are detailed in Table 17. The SWAI-T composite score at post-test was entered at Step 1, explaining 65% of the variance in trainee ratings of supervision satisfaction and contributing significantly to the regression model, F (1, 23) = 42.76, p <0.001. The addition of trainee SFQ ratings at Step 2 explained an additional 2.3% of the variance in supervision satisfaction, but was not significant, F change (1, 22) = 1.54 p = 0.23. In the final model, only the SWAI-T (working alliance) was a significant predictor of trainee ratings of supervision satisfaction. Together, both predictor variables accounted for 67.3% of the variance in ratings of supervision satisfaction.

Table 17

Sequential Regression Analysis for Trainee Variables Predicting Supervision Satisfaction

Predictor	*B*	*SE*	β	R^2	ΔR^2
Step 1				0.650	0.650
SWAI-T Composite: Post-Test	-0.410	0.063	-0.806		
Step 2				0.673	0.023
SWAI-T Composite: Post-Test	-0.365	0.071	-0.719		
SFQ Trainee Composite	0.006	0.005	0.175		

Note. N = 25. SWAI-T = Supervisory Working Alliance Inventory – Trainee Version, SFQ = Systemic Factors Questionnaire.

Research Question 3: Does supervisory working alliance and job readiness evolve over the duration of a specialist-level internship in school psychology?

Reliability for the work readiness measure (SLS) was below the acceptable range at pre-test (Cronbach's alpha <.70) and therefore excluded from analysis. Accordingly, paired sample t-tests could only be completed on the SWAI-T and SWAI-S to assess how aspects of the supervisory working alliance changed over time. There was a significant difference (t (25) = 2.16, p = 0.04) in supervisor ratings of supervisory working alliance (SWAI-S composite) at pre-test (M = 5.85, SD = 0.37) and post-test (M = 5.70, SD = 0.45). This difference represents a mean decrease in SWAI-S composite scores by 0.15 with a 95% confidence interval ranging from 0.01 to 0.29. The eta squared statistic (0.18) indicated a large effect size (Cohen, 1988). However, a decrease in the SWAI-S composite does not equate to a decrease in the quality of the supervisory working alliance. Instead, it could simply support that when the rating was completed, some aspects of the supervisory working alliance were being less emphasized than others and this could be represented be a lower score (Efstation et al., 1990). There was not a significant difference in the scores for the SWAI-T composite at pre-test (M = 6.13, SD = 0.62) and post-test (M = 6.06, SD = 0.67), t (24) = 0.68, p = 0.50.

CHAPTER 5

DISCUSSION

This chapter will present the discussion of the study results detailed in the previous chapter. First, the findings of the main analyses will be discussed in reference to possible explanations and alignment with previous research. Next, study limitations will be reviewed. Finally, implications of the study will be presented in relation to practice and recommendations will be made for future research on supervisory dyads.

This study contributes to a significant gap in school psychology supervision research at large (Sullivan, Svenkerud, & Conoley, 2014), and to the paucity of research on supervision practices at the pre-service level in particular (Ward, 2001). At the specialist-level of graduate training in school psychology there is no standardized system for pairing interns with supervisors or field sites. Therefore, this study aimed to provide a potential rationale for an internship placement process that optimizes positive training outcomes. Specifically, this study sought to establish if personality similarity within a supervisory pair impacted dyad ratings of supervisory working alliance, intern ratings of supervision satisfaction, and supervisor ratings of intern work readiness. In addition, this study examined the predictive power of personality, supervisory working alliance, and systemic factors on supervision satisfaction and intern work readiness. Finally, this study

explored the evolution of the supervisory working alliance and intern work readiness from the midpoint of the internship to the end of the internship.

Review and Discussion of Findings

Impact of personality difference on supervision satisfaction, supervisory working alliance, and work readiness. For the supervisory dyads in this study, initial correlations indicated that personality differences between supervisees and supervisors were not related to intern ratings of supervision satisfaction, dyad ratings of supervisory working alliance at mid-year and end of school year, or supervisor ratings of intern work readiness. These findings contradict some research that links personality similarity to supervision satisfaction in counselor education (Steen, 1998) and counseling practicums (Handley, 1982) but is consistent with Colburn and colleagues' (2012) finding that there is no relationship between personality similarity and supervision satisfaction in mental health, college and school counseling trainees. Results from the current study also coincide with Corbin's (2011) finding of no significant differences in ratings of supervisory working alliance or measures of basic skills competency between dyads that matched or mismatched on Introversion/Extroversion personality type.

Though existent literature in related fields provides some context for current study findings, it is noteworthy that no direct comparison can be made to previous research for two main reasons. Firstly, studies on personality and supervisory dyads have almost exclusively used the Myers-Briggs Type Indicator (MBTI) and no known studies on this topic have utilized the NEO-FFI-3 to measure personality. Secondly, no previous studies have included school psychology students or supervisors as participants when examining

personality in supervisory dyads. Nonetheless, it is apparent when considering the related studies (Colburn et al., 2012; Corbin, 2011; Steen, 1998; & Handley, 1982) that current study results coincide with recent research but do not align with older studies. One possible explanation for the divergence in results over time could be revisions made in 1998 to the MBTI form and introduction of computer scoring. Another possible explanation for differences between current study findings and the four related studies are that supervisor participants in Colburn et al. (2012), Corbin (2011), Steen (1998), and Handley's (1982) research were either partially or entirely advanced graduate students rather than seasoned practitioners.

Supervisory working alliance, personality, and systemic factors' contribution to variance in supervision satisfaction and work readiness. Preliminary correlation analyses determined there was no relationship between trainee or supervisor personality T-scores on the NEO-FFI-3 and ratings of supervisory working alliance, systemic factors, supervision satisfaction, or work readiness. Consequently, personality was not included in further analyses. These findings are consistent with a study done by Chapman and Talbot (2009), who found no relationship between trainees with high Extraversion and/or Conscientiousness scores and ratings of the therapeutic working alliance by the trainee or client. Current study results are inconsistent with Grehan, Flanagan and Malgady's (2011) finding that high Conscientiousness levels in school psychology graduate students were predictive of high ratings of student performance at internship. However, this difference may be explained by the differences in the student performance measure used in Grehan et al.'s (2011) study as compared to the work readiness measure used in the

present study. Grehan and colleagues measured student performance at internship by ratings on 56 items regarding skill areas such as consultation, assessment, and intervention activities based on a university evaluation form for school psychology interns. In the present study, work readiness is a reflection of the student's development and autonomy, as measured by the Supervision Levels Scale (Wiley & Ray, 1986).

Significant correlations were present between other study variables. There was a high positive correlation between trainee ratings of systemic factors and transformed ratings of supervision satisfaction, indicating a relationship between the trainee's perception of higher levels of systemic barriers and lower ratings of trainee supervision satisfaction. There was a medium positive correlation between supervisor ratings of supervisory working alliance and supervisor ratings of intern work readiness, supporting that higher supervisor ratings of working alliance were associated with higher supervisor ratings of the trainee's development. There was a high negative correlation between trainee ratings of supervisory working alliance and transformed supervision satisfaction, signifying that from the trainee's viewpoint, higher ratings of the supervisory working alliance were associated with higher levels of supervision satisfaction. There was also a medium negative correlation between trainee ratings of supervisory working alliance and trainee ratings of systemic factors, which suggests that trainee reports of lower levels of systemic barriers were associated with higher trainee ratings of supervisory working alliance.

Supervisor ratings of supervisory working alliance significantly contributed to the variance in supervisor ratings of intern work readiness, but supervisor ratings of systemic

factors did not. The final regression model showed that supervisor ratings of supervisory working alliance explained 22.3% of the variance in supervisor ratings of intern work readiness, while supervisor ratings of systemic factors did not have any additional contribution to the variance in work readiness ratings. When considering the low levels of barriers endorsed by this sample of supervisors these results are not surprising. It is possible that these results may differ for supervisors operating in school environments who face a larger number of constraints such as an uncooperative administration, a primary or exclusive connection to special education eligibility, or the unavailability of educational resources. That being said, school psychologists operating in such environments may not engage in supervision of interns. Trainee ratings of systemic factors do not make a significant contribution to the variance in supervision satisfaction ratings when trainee ratings of supervisory working alliance are controlled for. However, trainee ratings of supervisory working alliance did contribute significantly to the regression model, accounting for 65% of the variance in ratings of supervision satisfaction.

Overall, these results contribute to a breadth of literature that supports the relationship between supervisory working alliance and positive outcomes. High ratings of supervisory working alliance is related to self-efficacy in school psychology interns (Trangucci, 2013, Perrotto, 2006), school psychology supervisor and intern perceptions that the internship is more successful (Perrotto, 2006), supervision satisfaction in counselor trainees (Ladany, et al., 1999; Ladany et al., 1992), and clinical psychology supervisees' perception of the quality of the relationship (Kennard et al., 1987). This

study uniquely contributes to the existing literature by providing initial evidence for the relationship between school psychology trainee ratings of supervisory working alliance and supervision satisfaction. Additionally, this study's establishment of a relationship between supervisor ratings of supervisory working alliance and supervisor ratings of intern work readiness builds on Perrotto's (2006) previous work on ratings of supervisory working alliance and success in the school psychology internship. Finally, the present study is the first to offer evidence that the presence of systemic barriers is correlated with lower levels of supervision satisfaction and supervisory working alliance ratings, though no causal relationship can be established.

Change in supervisory working alliance and work readiness from mid-year to end of year. Change in work readiness could not be assessed due to poor reliability of the measure at pre-test. It is possible that the modification of the Supervisory Levels Scale (SLS) from a counseling framework to a school psychology application may have contributed to the lower internal consistency. Furthermore, during the first phase of data collection a few participants expressed some confusion regarding the structure of the scale items, and this may have also affected reliability. I then began to provide additional directions for completing the SLS appropriately and this may have enabled the adequate level of reliability during the second phase of data collection. Although statistical comparisons could not be made, it is hypothesized that intern work readiness would have increased from the mid-year to the end of the internship experience. Based on previous research (Bernard & Goodyear, 2004; Harvey & Struzzerio, 2008; Stoltenber & McNeil, 2010; Ronnestad & Skovholt, 2013), it is expected that students at the completion of their

internship would have gained more skills and independence through accrued experience.

Trainee ratings of supervisory working alliance did not change significantly over time, but supervisor ratings of supervisory working alliance were significantly lower at post-test than at pre-test. Bordin (1983) indicated that the working alliance is dynamic and goes through "building and repair", and the increase of working alliance over time may not be identical across the factors of goals, tasks, and bonds. This may explain why trainee ratings did not change significantly from pre-test to post-test but supervisor ratings of supervisory working alliance did. It is unclear why supervisor ratings decreased at the end of the year, though one hypothesis could be connected to more specific analysis of the working alliance subscales. The Client Focus subscale on the Supervisory Working Alliance Inventory (SWAI) measures the emphasis that the supervisor places on the supervisee's understanding of the client/student. Perhaps as the trainee develops professionally and gains independence from mid-year to the end of the year, the supervisor no longer needs to emphasize this skill. This could be reflected as a lower rating on SWAI-Supervisor items such as "I teach my trainee through direct suggestion" or "I help my trainee work within a specific treatment plan with his/her student." The authors of the SWAI, Efstation et al. (1990), suggested that supervisor orientation or trainee level of experience could impact what dimensions of the supervisory working alliance are stressed at different times. Ladany, Ellis, Friedlander and Steen (1992) found that ratings of the supervisory working alliance did change over time for counseling dyads, and an increase in ratings were related to a more positive judgment of intern performance. Relatedly, in the present study only supervisor ratings

of supervisory working alliance at post-test were significantly correlated with ratings of intern work readiness (0.47) at the end of the year. Supervisor ratings of supervisory working alliance at pre-test had a low correlation with intern work readiness at the end of the year (0.14)

Limitations

The current study has a number of limitations that could be addressed in future research.

Convenience sample. The ability to generalize study findings to all supervisory relationships in school psychology is limited by a convenience sample that narrowed the geographic spread of study participants and number of training institutions associated with study participants. This sample included participants from the Northeast and Southern geographic regions and seven states. Furthermore, the data collected from study participants could be biased, given that participants in strong supervisory relationships may have been more likely to participate. One organization did not grant access to their listserv due to concerns that this study was too invasive in asking for ratings of intern work readiness. A few eligible students declined participation after expressing that they were not comfortable asking their supervisor to participate with them, they did not want to ask their supervisor to participate when they seemed overwhelmed, or they were enduring a difficult time with their supervisor and worried that study participation would bring issues to the surface. In addition, because this study required both members of a supervisory dyad to participate, recruitment efforts were sometimes hindered when one individual was willing to enroll in the study but the other individual was uninterested or

non-responsive to participation requests. Given these recruitment challenges, future research on supervisory dyads may benefit from recruiting separate groups of supervisors and trainees rather than matched pairs. However, research on personality and other interpersonal variables may continue to require dyad participation in order to capture characteristics of both parties.

Sample size and participant demographics. Initial power estimates necessitated 110 participants (Cohen, 1992) to conduct data analyses but recruitment concluded at the mid-year point since the study design required the first phase of data collection to begin. A larger sample size may have enabled more variance in personality scores and better accounted for personality differences in supervisory dyads. In addition, increased variance in personality scores would allow for comparisons across demographic groups. For example, supervisors with low and high levels of extraversion could have been compared for possible differences in the number of supervision hours provided. Nonetheless, having 26 supervisory pairs consisting of 50 participants is comparable to other studies on supervisory dyads (Corbin, 2011; Bilodeau, Savard, & Lecomte, 2010; Bernard, Clingerman, & Gilbride, 2011).

Supervisors that participated in this study had supervision training that exceeds estimates from a recent survey conducted with school psychologist practitioners providing supervision. Flanagan and Grehan (2011) concluded that fewer than 20% of respondents reported having training in supervision during graduate school. Survey participants instead relied on self-study (63%) or peer supervision (73%), and less than 20% had postgraduate coursework, workshops, or in-service presentations on supervision

(Flanagan & Grehan). In the present study, 87% of supervisors had not taken coursework on supervision but 34% did engage in some type of supervision professional development during graduate training. Furthermore, 88% of supervisors in this study engaged in supervision training during their years of professional practice (e.g. university course, professional development, peer supervision) and 50% of supervisors reported having continuous supervision support (e.g. professional development or peer supervision) while training graduate students. Nonetheless, supervisor competency was not measured or considered beyond the amount and type of supervision training received. Future research could also examine if supervisory competency as both a supervisor and school psychologist contributes to outcomes such as supervision satisfaction, supervisory working alliance, and intern work readiness.

NASP (2010) requires that school psychologists providing supervision hold the necessary credential to practice in their state, provide at least two hours of weekly supervision that is predominantly face-to-face, and engage in supervision that is structured, consistently scheduled, and focused on skill development. The current sample of supervisors met most of these requirements, though it was uncommon for supervision to occur at a set day and time. This may suggest that supervision for study participants took place at different days and times depending on the week, or may indicate that supervision occurs in a less predictable manner. If supervisors followed NASP supervision requirements fully and consistently, study outcomes could have differed.

Similar to findings from a recent national survey (Fagan, 2014), study participants were predominantly White and female. While this is representative of the school

psychology field, the lack of diversity in this sample limits the generalizability of findings in addition to the small sample size. Moreover, the lack of diversity in school psychology research and practice is a broader problem that excludes the experiences of culturally and linguistically diverse individuals.

Instruments. This study relied entirely on self-report measures, which have well-known limitations regarding vulnerability to distortion and the assumption that participants have sufficient insight into their experience and can convey that information (Heppner et al., 2008). Additionally, specific school psychology scales related to supervisory working alliance, supervision satisfaction, or intern work readiness were not found in the literature. Therefore, several study instruments were modified from counseling psychology scales and may not have covered the breadth of school psychology supervision and practice. As noted previously, this may have contributed to the low internal consistency on the SLS measure. Accordingly, the SLS was not able to capture the developmental process of the intern as intended and conclusions could not be drawn regarding intern autonomy and skill development throughout the year. Moreover, reliable measures that assess work readiness and supervision satisfaction from the perspective of both the supervisor and supervisee were not found in previous research. This limited the ratings on these constructs to only one member of the dyad.

Despite there being complimentary measures on the supervisory working alliance inventory, correlations between supervisor and trainee ratings were not significant and very low, ranging from 0.01 at pre-test to -0.08 at post-test. This suggests that within this sample there were differing perceptions of the supervisory relationship, but it is unclear

why these substantial differences exist. Efstation et al. (1990), the authors of the Supervisory Working Alliance Inventory, note that supervisors and trainees do not have identical perceptions of their relationship in supervision. In their initial analyses, Efstation and colleagues (1990) found that correlations between the SWAI Supervisor scales and Trainee scales ranged from 0.03 to 0.36 within each dyad, with only some of those correlations having significance. Furthermore, the correlations between the two versions of the subscales ranged from 0.21 (Client Focus scale) to 0.23 (Rapport scale). As such, it is expected that differences between trainee and supervisor perceptions of the supervisory working alliance will occur when using the SWAI. Nonetheless, exit interviews with participants may help to better understand the trainee and supervisor perspective on the supervisory working alliance. It is possible that measurement error, the use of composite scores, or power dynamics within the supervisory relationship (Harvey & Struzzerio, 2008) contributed to score differences.

In-person and online data collection. This study was originally designed for in-person data collection only, but online measures were incorporated to increase the recruitment of participants outside the New England area. Participants who completed data collection in-person were able to ask questions while completing the measures and while online participants were encouraged to email questions, only one did so. Online participants also received measures in a two-step process because the NEO-FFI-3 had to be sent from the publisher's online portal while the remaining questionnaires were sent via Survey Monkey. It is unclear whether the variations of in-person and online presentations of the measures interfered with study results. This study was also limited

by the amount of time between data collection periods. Changes in work readiness and supervisory working alliance may have been more apparent if pre and post-test occurred six or more months apart.

Procedural fidelity. I was the only researcher collecting data and while I made an effort to be consistent across participants, this was not monitored by an independent observer. Ideally, a procedural fidelity checklist would have been created and an observer would have joined me for data collection when possible to identify deviations from the protocol. In the absence of an observer, I could have relied on a procedural checklist or script to ensure I provided identical instructions across participants. Without any of these systems in place, the study findings are limited by possible variations in the instructions and data collection procedures across supervisory dyads.

Implications for Practice and Future Research

This study concluded that for school psychology supervisory dyads, personality similarity is not related to desirable training outcomes such as a strong supervisory working alliance, high levels of supervision satisfaction, or intern work readiness. Accordingly, there is no evidence to suggest that personality should be considered when matching interns and supervisors. Since personality is believed to be stable and based in biology (McCrae & Costa, 2006), this outcome is desirable so that the modification of personality factors is not necessary to optimize supervisory pairings. Future research could seek to identify factors that do contribute to an optimal internship experience for both supervisors and supervisees.

This study also presents some evidence to suggest that systemic factors are an

important consideration for internship training. Trainee ratings of increased systemic barriers were correlated with lower trainee ratings of supervision satisfaction and supervisory working alliance in this sample. Harvey and Pearrow (2010) assert that systemic challenges unique to school settings must be addressed in order for supervisees to function successfully. It could be beneficial to assess the extent to which systemic factors create a barrier to school psychology roles and supervision prior to selecting an internship site. In the present study, when compared to other systemic factors, the highest rated barriers for both supervisors and trainees were uncooperative general education teachers and the availability of educational resources. Supervisors and trainees also expressed that their ability to manage role expectations within time constraints impacted their role. There were no significant differences between supervisor and trainee ratings of systemic factors. Consequently, university training programs could rely on site supervisors to assess and report on the systemic barriers present at their site(s) and use this information to determine the most appropriate sites for interns to apply to. Future research could compare training sites that have high and low levels of systemic barriers and examine the impact on the school psychology role and supervision satisfaction.

This study found strong indications that the supervisory working alliance in school psychology training is predictive of work readiness and supervision satisfaction. To enable positive training outcomes, it may also be advantageous to promote the establishment of supervisory working alliances based on tasks, goals, and bonds. Goals may include mastery of skills, growing understanding of school-aged students, increased awareness of process issues, and deepening understanding of concepts and theory. Tasks

may involve oral or written reports, observation of the supervisee, or the selection of issues to discuss. The bond consists of trust and shared experiences, evaluation processes, and the relational connection that develops through the work toward mutual goals and tasks (Bordin, 1983). These elements of the supervisory working alliance could be emphasized in school psychology coursework and practicum placements to give interns the prerequisite knowledge to build a strong working alliance with their internship supervisor. Similarly, supervisors could be trained on effective teaching and mentoring methods that enable intern skill development and be given resources to assist with intern evaluations and supervision activities (e.g. reviewing intern reports, processing counseling sessions, building trust).

Furthermore, a consideration of factors that are predictive of a strong supervisory working alliance may help to thoughtfully match supervisors and supervisees. Some of these factors include collaboration, focusing on competencies, addressing perspectives of both members of the supervisory dyad, fostering an optimal learning environment, considering developmental factors, and attending to diversity (Harvey et al., 2014). Future studies in school psychology could examine which of these factors are most predictive of supervisory working alliance and use this information to train both interns and supervisors prior to the internship year.

To closely examine supervision and supervisory relationships in school psychology, future research should focus on the creation and validation of instruments that are specific to the school context. This could include, but is not limited to, measures for supervisory working alliance, supervision satisfaction, and intern autonomy or work

readiness. In particular, a work readiness measure that considers both training standards and field site expectations would be beneficial for additional research focused on school psychology interns. Additional research with the Systemic Factors Questionnaire used in the current study is also needed. It is also recommended that qualitative studies be conducted to better understand supervision practices and intern experiences, especially given the paucity of supervision research in school psychology. Finally, future studies could examine the continued development of school psychology interns throughout their initial years of practice.

Conclusion

Results of this study support that personality similarity in school psychology supervisory dyads is not related to supervisory working alliance, supervision satisfaction, or intern work readiness. However, this research also indicates that supervisory working alliance is predictive of supervisor ratings of work readiness and intern ratings of supervision satisfaction. Though studies in related fields have found a relationship between supervisory working alliance and desired outcomes, this is the first study to establish that supervisory working alliance has a significant relationship with intern work readiness and systemic barriers to the role of school psychology interns. This study also demonstrates that the supervisory working alliance can change over time and a decrease in supervisor ratings were observed from mid-year to the end of the internship year. Replication of these findings in future studies is important to better understand and facilitate effective supervisory relationships for school psychology trainees.

APPENDIX A

DEMOGRAPHIC QUESTIONAIRRES

Demographic Questionnaire: Supervisors

DOB: _____ Sex:_____ Race:_____ Ethnicity:_____

1) Where did you earn your graduate degree(s) in school psychology? _____

2) Please list your other degrees (both undergraduate and graduate) and date of completion:

Degree:_____ Year Awarded:_____ Major/Specialization: _____
Degree:_____ Year Awarded:_____ Major/Specialization: _____
Degree:_____ Year Awarded:_____ Major/Specialization: _____
Degree:_____ Year Awarded:_____ Major/Specialization: _____

3) School District of Employment: _____

4) Assigned School Name(s):_____

5) How many years (prior to this one) have you worked as a school psychologist in a school setting?_____ How many years total have you worked full-time in a school, in any position? _____

6) How many years (including the current year) have you provided supervision to a: school psychology practicum student? _____ school psychology intern?_____

7) How many school psychology interns have you supervised to date (excluding current intern)? _____

8) Have you had any of the following types of supervision training in your years of professional school psychology practice (check all that apply)?

- ☐ Graduate-level university course
- ☐ Professional development at a conference (e.g. NASP, MSPA)
- ☐ Professional development provided by school district
- ☐ Other professional development (e.g. Supervision Institute)
- ☐ Peer supervision (e.g. meetings with other supervisors to discuss supervision issues)

9) Did you have any of the following types of supervision training in graduate school (check all that apply)?

- ☐ Graduate-level university course
- ☐ Professional Development at a Conference (e.g. NASP, MSPA)
- ☐ Professional Development Provided by School District during Practicum or internship
- ☐ Other Professional Development (e.g. Supervision Institute)

10) Do you receive any continuous supervision support while providing supervision to graduate students?

Please circle: Yes No

If yes, does it include:

- ☐ Professional development provided by school district
- ☐ Other professional development (e.g. Supervision Institute)
- ☐ Peer supervision (e.g. meetings with other supervisors to discuss supervision issues)

11) Why did you become an intern supervisor? (Please describe briefly):

_____

12) Approximately how many days per week are you on site with your intern?____

13) Approximately how many hours of weekly supervision are provided one-on-one?_____
In a group?_____

14) Do you have a set day and time for supervision each week (circle one)? Y N

15) In your professional opinion, to what extent has a multi-tiered system of academic support (i.e. RTI/ Response to Intervention) been implemented in your school(s)?

0	1	2	3	4	5
Not at all					Fully Implemented

16) In your professional opinion, to what extent has a multi-tiered system of behavioral support (i.e. PBIS/ Positive Behavior Interventions and Supports) been implemented in your school(s)?

0	1	2	3	4	5
Not at all					Fully Implemented

17) In your opinion, to what extent do you feel that your school administration is receptive to feedback?

0	1	2	3	4	5
Not at all receptive					Very Receptive

18) In your opinion, to what extent do you feel that your role as a school psychologist is supported by the school administration?

0	1	2	3	4	5
Not at all supported					Very Supported

19) In your opinion, to what extent do you feel that your school has the resources to meet the needs of your student population?

0	1	2	3	4	5
Minimum Resources					Maximum Resources

20) To what extent were you involved in selecting your intern for this year?

0	1	2	3	4	5
Not at all (Intern was assigned without my input)					I was very involved and had a lot of say in who my intern would be

21) Please briefly describe how interns are selected and placed in your school/district:

_____

_____

_____

_____

22) In your opinion, to what extent is training school psychology interns a priority in your school/district?

0	1	2	3	4	5
Not at all a priority					A top priority

Demographic Questionnaire: Supervisees

DOB: _____ Sex:_____ Race:_____ Ethnicity:_____

1) Where are you currently enrolled in a school psychology graduate program?

_____

2) What year will you graduate?_____

3) Please list your other degrees (both undergraduate and graduate) and date of completion:

Degree:_____ Year Awarded:_____ Major/Specialization: _____
Degree:_____ Year Awarded:_____ Major/Specialization: _____
Degree:_____ Year Awarded:_____ Major/Specialization: _____

4) Internship School District: _____

5) Assigned School Name(s):_____

6) How many years (prior to this one) have you worked full-time in a school setting?_____

7) How many practicum hours did you complete prior to starting internship? _____

8) Approximately how many days per week are you on site with your primary internship site supervisor (on average)? ____

9) How many hours of weekly supervision are provided by your **primary** supervisor one-on-one?_____ In a group?_____

10) How many hours of weekly supervision are provided by your **secondary** supervisor(s) one-on-one?____ In a group?_____

11) Do you have a set day and time for supervision each week with your (circle Y or N):
a) **primary** supervisor? Y N b) **secondary** supervisor(s)? Y N

12) In your opinion, to what extent is training school psychology interns a priority in your school/district?

0	1	2	3	4	5
Not at all a priority					A top priority

13) Did you participate in any type of orientation for this internship (check all that apply)?

- ☐ Received an internship handbook
- ☐ Attended an orientation prior to school year or during first week of school
- ☐ Attended an orientation after the first week of school
- ☐ Was able to visit school site(s) prior to starting internship
- ☐ Was able to meet with supervisor after accepting the position but prior to school year starting
- ☐ Was able to meet other school staff after accepting the position but prior to school year starting (Please describe role(s) of other school staff you met: _____ _____)

APPENDIX B

SYSTEMIC FACTORS QUESTIONAIRRES

Systemic Factors Questionnaire: Supervisor Form

Directions: Beside each item, circle one number corresponding to the appropriate point on the following seven-point scale.

1	2	3	4	5	6	7
Strongly Disagree						**Strongly Agree**

1.	State and/or federal laws and policy (such as No Child Left Behind) are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
2.	The local policies of my school or school district are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
3.	The availability of educational resources (e.g. quality intervention services, well-designed curricula, effective teaching) is a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
4.	Uncooperative general education teachers are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
5.	The general education curriculum is a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
6.	Uncooperative administrators are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
7.	My primary or exclusive connection to special education and special education eligibility are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
8.	School district union policies are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7

9) Please briefly describe any other systemic factors that create a barrier in your role as a school psychologist and supervisor not captured in the items above: _____

_____

_____

Systemic Factors Questionnaire: Supervisor Form

Directions: Beside each item, circle one number corresponding to the appropriate point on the following seven-point scale.

1	2	3	4	5	6	7
Strongly Disagree						**Strongly Agree**

1.	State and/or federal laws and policy (such as No Child Left Behind) are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
2.	The local policies of my school or school district are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
3.	The availability of educational resources (e.g. quality intervention services, well-designed curricula, effective teaching) is a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
4.	Uncooperative general education teachers are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
5.	The general education curriculum is a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
6.	Uncooperative administrators are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
7.	My primary or exclusive connection to special education and special education eligibility are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7
8.	School district union policies are a barrier in my role as a school psychologist and supervisor.	1	2	3	4	5	6	7

9) Please briefly describe any other systemic factors that create a barrier in your role as a school psychologist and supervisor not captured in the items above: _____

_____

_____

APPENDIX C

CODING SHEET

Coding Sheet – Data Collection 1
Supervisor Data (Sequence of measures below follows Order A. Order B packets should be entered into the spreadsheet in the Order A sequence)

Cover Sheet

1) Name
2) ID Number (**Enter value)**
3) Pair Number **(Enter value)**
4) Order Version: **A=1; B=2**

*Student Level Survey (SLS) – **enter numeric value (1-7) circled/endorsed**:*

SLS 1: Usually lacks confidence in present school psychology skills
and is overwhelmed by own weaknesses

SLS 2: Characteristically fluctuates between feeling confident and feeling very inadequate about present school psychology skills

SLS 3: Usually has a firm sense of confidence about his/her school psychology skills, although he/she is shaken when challenged by students, supervisors and/or colleagues

SLS 4: Has a consistent and firm sense of confidence about his/her school psychology skills even when challenged by students, supervisors, and colleagues

SLS 5: Has very little awareness of his/her strengths, weaknesses, motivations and their impact on students

SLS 6: Is inconsistent in awareness of his/her strengths, weaknesses, motivations, and their impact on students

SLS 7:Is consistently aware of his/her strengths, weaknesses, motivations, and their impact on students, but is **only beginning** the capacity to apply these skills during work with students

SLS 8: Is consistently aware of his/her strengths, weaknesses, and motivations, and is able to apply these skills during work with students/counseling sessions

SLS 9: Is prone to readily identify with a theoretical orientation or individual practitioner without thorough consideration

SLS 10: Is **beginning** to view students from a variety of perspectives and is becoming aware of a need to develop services accordingly

SLS 11: Views students from a variety of perspectives and develops services accordingly

SLS 12: Is committed to a theoretical framework or composite and develops services accordingly

SLS 13: Nearly always looks to others for ideas about how he/she should behave as a school psychologist

SLS 14: Is developing an inner sense of self as a school psychologist but frequently looks to others for ideas about how he/she should behave as a school psychologist

SLS 15: Has a well developed sense of self as a school psychologist, but is **only beginning** to integrate it with his/her sense of self as a person

SLS 16: Has essentially completed his/her sense of self as a school psychologist and integrated it with his/her sense of self as a person

SLS 17: Tends to regard school psychology as a solution to all problems

SLS 18: Sees school psychology as a very powerful instrument but is becoming vaguely aware and uneasy about a few limitations of school psychology, such as the inappropriateness of school psychological intervention for some students and/or problems

SLS 19: Is clearly aware of a broad range of limitations of school psychology, including the limits of school psychology, and is struggling to integrate this with his/her sense of self as a professional

SLS 20: Clearly understands a broad range of limitations of school psychology, including its limits, and has essentially completed integrating this knowledge into a firm sense of professional identity

Demographic Questionnaire for Supervisors (DQ)

DOB (**Enter date into Excel, omit from SPSS)**

Age (**Calculate and enter value in whole years)**

Sex: **Male = 1; Female = 2**

Race: **White = 1; Black/African American = 2; American Indian/Alaska Native = 3; Asian = 4; Native Hawaiian and Other Pacific Islander = 5; Two or More Races = 6**

Ethnicity: OMIT; will not be using for analyses

DQ 1: List university name. **OMIT FROM SPSS, KEEP IN EXCEL**
***Instead, put university location in SPSS >>1=in Massachusetts, 2 =Rhode Island, 3=Other**

DQ 2A: (List highest awarded) **Bachelors – 1; Masters – 2; Eds./CAGS – 3**; **Ph.D/PsyD = 4**

DQ 2B: Year Awarded (list most recent)

DQ 2C: Major/Specialization – **School Psychology = 1; Other = 2**

DQ 3: School District name. OMIT FROM SPSS, KEEP IN EXCEL

DQ 4A: Assigned School name. OMIT FROM SPSS, KEEP IN EXCEL.

DQ 4B: **#** of schools assigned.

DQ 5A: **Number of years** worked as school psych previous to current year.

DQ 5B: **Number of years** worked full-time in a school prior to current year.

DQ 6A: **Number of years** including this one that supervision has been provided to prac student(s).

DQ 6B: **Number of years** including this one that supervision has been provided to intern(s).

DQ 7: **Number of interns** supervised, not including current intern.

DQ 8A: During years of professional school psychology practice, have you had supervision training through a graduate-level university course? **Checked = 1**; **Unchecked = 0**.

DQ 8B: During years of professional school psychology practice, have you had supervision training through professional development at a conference (e.g. NASP, MSPA)? **Checked = 1**; **Unchecked = 0**.

DQ 8C: During years of professional school psychology practice, have you had supervision training through professional development provided by the school district? **Checked = 1**; **Unchecked = 0**.

DQ 8D: During years of professional school psychology practice, have you had supervision training through other professional development (e.g. Supervision Institute)? **Checked = 1**; **Unchecked = 0**.

DQ 8E: During years of professional school psychology practice, have you had supervision training through peer supervision? **Checked = 1; Unchecked = 0**.

DQ 8F: If none of the above (8A-8E) are marked, **insert 1 for 8F to indicate "none"**, **else enter 0**

DQ 9A: During graduate school, have you had supervision training through a graduate-level university course? **Checked = 1; Unchecked = 0**.

DQ 9B: During graduate school, have you had supervision training through professional development at a conference (e.g. NASP, MSPA)? **Checked = 1; Unchecked = 0**.

DQ 9C: During graduate school, have you had supervision training through professional development provided by school district during practicum or internship? **Checked = 1; Unchecked = 0**.

DQ 9D: During graduate school, have you had supervision training through other professional development (e.g. Supervision Institute)? **Checked = 1; Unchecked = 0**.

DQ 9E: If none of the above (DQ 9A-9D) are marked, **insert 1 for 9E to indicate "none" else enter 0**.

DQ 10A: "Do you receive any continuous supervision support while providing supervision to graduate students?" **Yes= 1; No =0**

DQ 10B: If yes, included professional development provided by school district. **Checked = 1; Unchecked = 0**.

DQ 10C: If yes, included other professional development (e.g. Supervision Institute) **Checked = 1; Unchecked = 0**.

DQ 10D: If yes, included peer supervision (e.g. meetings with other supervisors to discuss supervision issues) **Checked = 1; Unchecked = 0**.

DQ 11: Why did you become an intern supervisor (Please describe briefly): **Enter word-for-word into Excel sheet, omit from SPSS**

DQ 12: Approximately how many days per week are you on site with your intern? **Enter value.**

DQ 13A: Approximately how many hours of weekly supervision are provided one-on-one? **More than 0, up to 1 hour = 1; more than 1 hour, up to 2 hours = 2; more than 2 hours, up to 3 hours = 3; more than 3 hours = 4. If participant marks "N/A" or 0, record as 0.**

DQ 13B: Approximately how many hours of weekly supervision are provided in a group? **More than 0, up to 1 hour = 1; more than 1 hour, up to 2 hours = 2; more than 2 hours, up to 3 hours = 3; more than 3 hours = 4. If participant marks "N/A" or 0, record as 0.**

DQ 14: Do you have a set day and time for supervision each week (circle one)? **Yes = 1; No = 0**

DQ 15: In your professional opinion, to what extent has a multi-tiered system of academic support (i.e. RTI/ Response to Intervention) been implemented in your school(s)? **Enter value (0-5).**

DQ 16: In your professional opinion, to what extent has a multi-tiered system of behavioral support (i.e. PBIS/ Positive Behavior Interventions and Supports) been implemented in your school(s)? **Enter value (0-5).**

DQ 17: In your opinion, to what extent do you feel that your school administration is receptive to feedback? **Enter value (0-5).**

DQ 18: In your opinion, to what extent do you feel that your role as a school psychologist is supported by the school administration? **Enter value (0-5).**

DQ 19: In your opinion, to what extent do you feel that your school has the resources to meet the needs of your student population? **Enter value (0-5).**

DQ 20: To what extent were you involved in selecting your intern for this year? **Enter value (0-5).**

DQ 21: Please briefly describe how interns are selected and placed in your school/district. **Enter word-for-word into Excel file, omit from SPSS**

DQ 22: In your opinion, to what extent is training school psychology interns a priority in your school/district? **Enter value (0-5).**

Supervisory Working Alliance Inventory – Supervisor Form (SWAI-S); ***Enter value circled/endorsed (1-7)***

SWAI-S1: I help my trainee work within a specific treatment plan with his/her student.

SWAI-S2: I help my trainee stay on track during our meetings.

SWAI-S3: My style is to carefully and systematically consider the material that my trainee brings to supervision.

SWAI-S4: My trainee works with me on specific goals in the supervisory session.

SWAI-S5: In supervision, I expect my trainee to think about or reflect on my comments to him or her.

SWAI-S6: I teach my trainee through direct suggestion.

SWAI-S7: In supervision, I place a high priority on our understanding the student's perspective.

SWAI-S8: I encourage my trainee to take time to understand what the student is saying and doing.

SWAI-S9: When correcting my trainee's errors with a student, I offer alternative ways of intervening.

SWAI-S10: I encourage my trainee to formulate his/her own interventions with his/her student.

SWAI-S11: I encourage my trainee to talk about the work in ways that are comfortable for him/her.

SWAI-S12: I welcome my trainee's explanations about his/her student's behavior.

SWAI-S13: During supervision, my trainee talks more than I do.

SWAI-S14: I make an effort to understand my trainee.

SWAI-S15: I am tactful when commenting about my trainee's performance.

SWAI-S16: I facilitate my trainee's talking in our session.

SWAI-S17: In supervision, my trainee is more curious than anxious when discussing his/her difficulties with me.

SWAI-S18: My trainee appears to be comfortable working with me.

SWAI-S19: My trainee understands student behavior and treatment techniques similar to the way I do.

SWAI-S20: During supervision, my trainee seems able to stand back and reflect on what I am saying to him/her.

SWAI-S21: I stay in tune with my trainee during supervision.

SWAI-S22: My trainee identifies with me in the way he/she thinks and talks about his/her clients.

SWAI-S23: My trainee consistently implements suggestions made in supervision.

*NEO-FFI (**Enter T-Score, NOT RAW SCORE; You will know if you entered the raw score by mistake because both gender and combined scores will be identical for each scale**)*

N – Gender Specific T-Score (**enter value)**
N – Combined T-Score (**enter value)**
E – Gender Specific T-Score (**enter value)**
E – Combined T-Score (**enter value)**
O – Gender Specific T-Score (**enter value)**
O – Combined T-Score (**enter value)**
A – Gender Specific T-Score (**enter value)**
A – Combined T-Score (**enter value)**
C – Gender Specific T-Score (**enter value)**
C – Combined T-Score (**enter value)**

- - - - - - - - - - - - - - - - - - - -

Supervisee Data (Sequence below follows Order A. Order B packets should be entered into the spreadsheet in the Order A sequence)

Cover Sheet

1) Name
2) ID Number (**Enter value)**
3) Pair Number **(Enter value)**
4) Order Version: **A=1; B=2**

Demographic Questionnaire for Supervisees (DQ)

DOB (**Enter date into Excel, enter calculated AGE at time of data collection 1 into Excel & SPSS)**

Age (**Calculate and enter value in whole years)**

Sex: **Male = 1; Female = 2**

Race: **White = 1; Black/African American = 2; American Indian/Alaska Native = 3; Asian = 4; Native Hawaiian and Other Pacific Islander = 5; Two or More Races = 6**

Ethnicity: OMIT; will not be using for analyses

DQ 1: Where are you currently enrolled in a school psychology graduate program?
1 = In MA, 2 = In RI, 3=Other

DQ 2: What year will you graduate? (**Enter year)**

DQ 3A: (List highest awarded) **Bachelors – 1; Masters – 2; Eds./CAGS** – **3**; **Ph.D/PsyD = 4**
***omitted from SPSS**

DQ 3B: Year Awarded (list most recent)
*omitted from SPSS

DQ 3C: Major/Specialization – **School Psychology = 1; Other = 2**

DQ 4: School District name. OMIT FROM SPSS, KEEP IN EXCEL

DQ 5A: Assigned School name. OMIT FROM SPSS, KEEP IN EXCEL.

DQ 5B: **Number** of schools assigned. (**Count school names and enter value)**

DQ 6: **Number of years** worked full time in a school setting.

DQ 7: **Number of practicum hours** completed before internship.

DQ 8: **Number of days** per week, on average intern is on site with primary internship supervisor.

DQ 9A: Number of hours of weekly supervision provided by primary supervisor one-on-one. **More than 0, up to 1 hour = 1; more than 1 hour, up to 2 hours = 2; more than 2 hours, up to 3 hours = 3; more than 3 hours = 4. If participant marks "N/A" or 0, record as 0.**

DQ 9B: Number of hours of weekly supervision provided by primary supervisor in a group. **More than 0, up to 1 hour = 1; more than 1 hour, up to 2 hours = 2; more than 2 hours, up to 3 hours = 3; more than 3 hours = 4. If participant marks "N/A" or 0, record as 0.**

DQ 10A: Number of hours of weekly supervision provided by secondary supervisor one-on-one. **More than 0, and up to 1 hour = 1; more than 1 hour, up to 2 hours = 2; more than 2 hours, up to 3 hours = 3; more than 3 hours = 4. If participant marks "N/A" or 0, record as 0.**

DQ 10B: Number of hours of weekly supervision provided by secondary supervisor in a group. **More than 0, up to 1 hour = 1; more than 1 hour, up to 2 hours = 2; more than 2 hours, up to 3 hours = 3; more than 3 hours = 4. If participant marks "N/A" or 0, record as 0.**

DQ 11A: Do you have a set day and time for supervision each week with your primary supervisor? **Yes = 1; No = 0**

DQ 11B: Do you have a set day and time for supervision each week with your secondary supervisor(s)? **Yes = 1; No = 0**

DQ 12: In your opinion, to what extent is training school psychology interns a priority in your school/district? **Enter value (0-5).**

DQ 13A: Received an internship handbook as part of orientation for this internship. **Checked = 1; Unchecked = 0**.

DQ 13B: Attended an orientation prior to school year or during first week of school. **Checked = 1; Unchecked = 0**.

DQ 13C: Attended an orientation after the first week of school. **Checked = 1; Unchecked = 0**.

DQ 13D: Was able to visit school site(s) prior to starting internship as part of orientation. **Checked = 1; Unchecked = 0**.

DQ 13E: Was able to meet with supervisor after accepting the position but prior to school year starting as part of orientation to internship. **Checked = 1; Unchecked = 0**.

DQ 13F: Was able to meet other school staff after accepting the position but prior to school year starting. **Unchecked = 0; Checked = 1**

DQ 13 Staff: List roles of school staff met (OMIT from SPSS, keep in Excel)

Supervisory Working Alliance Inventory – Trainee Form (SWAI-T); ***Enter value circled/endorsed (1-7)***

SWAI-T1: I feel comfortable with my supervisor.

SWAI-T2: My supervisor welcomes my explanations about student behavior.

SWAI-T3: My supervisor makes the effort to understand me.

SWAI-T4: My supervisor encourages me to talk about my work with students in ways that are comfortable for me.

SWAI-T5: My supervisor is tactful when commenting about my performance.

SWAI-T6: My supervisor encourages me to formulate my own interventions with students.

SWAI-T7: My supervisor helps me talk freely in our sessions.

SWAI-T8: My supervisor stays in tune with me during supervision.

SWAI-T9: I understand student behavior and treatment technique similar to the way my supervisor does.

SWAI-T10: I feel free to mention to my supervisor any troublesome feelings I might have about him/her.

SWAI-T11: My supervisor treats me like a colleague in our supervisory sessions.

SWAI-T12: In supervision, I am more curious than anxious when discussing my difficulties with students.

SWAI-T13: In supervision, my supervisor places a high priority on our understanding the student's perspective.

SWAI-T14: My supervisor encourages me to take time to understand what the student is saying and doing.

SWAI-T15: My supervisor's style is to carefully and systematically consider the material I bring to supervision.
SWAI-T16: When correcting my errors with a student, my supervisor offers alternative ways of intervening with that student.

SWAI-T17: My supervisor helps me work within a specific treatment plan with my students.

SWAI-T18: My supervisor helps me stay on track during our meetings.

SWAI-T19: I work with my supervisor on specific goals in the supervisory session.

*NEO-FFI (**Enter T-Score, NOT RAW SCORE; You will know if you entered the raw score by mistake because both gender and combined scores will be identical for each scale**)*

N – Gender Specific T-Score (**enter value)**
N – Combined T-Score (**enter value)**
E – Gender Specific T-Score (**enter value)**
E – Combined T-Score (**enter value)**
O – Gender Specific T-Score (**enter value)**
O – Combined T-Score (**enter value)**
A – Gender Specific T-Score (**enter value)**
A – Combined T-Score (**enter value)**
C – Gender Specific T-Score (**enter value)**
C – Combined T-Score (**enter value)**

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