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Student teachers perceptions and knowledge of school psychology

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Student Teachers' Perceptions and Knowledge of School Psychology

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JAMES MADISON UNIVERSITY

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Dedication

I dedicate this thesis to my mother, father, and Kate, who have encouraged and supported me throughout the process. Without your love and support, I would not be where I am today.

Acknowledgements

I would like to acknowledge my family and friends for the support and encouragement throughout my graduate education. I would like to thank my thesis committee, Dr. Deborah Kipps-Vaugh, Dr. Laura Desportes, and especially to my thesis committee chair, Dr. Ashton Trice for all of their hard work and dedication to my education and research interests.

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Abstract

In the years following the passage of Public Law 94-142, school psychologists' main role was to facilitate the placement of children into different educational programs (Fagan & Wise, 2000). The role of the school psychologist has shifted since that time, and today school psychology training programs produce practitioners who are equipped to handle much more. A continuation in the departure from the assessment and eligibility determination role of the school psychologist allows for a more proactive approach to problematic childhood and adolescent behaviors. A barrier that stands in the way of this role transformation are teachers' perceptions, knowledge, and reactions toward school psychologists. Teachers' perceptions and knowledge are particularly influential in determining the diversity, variability, and usefulness of school psychological services, as they are the main source of referrals (Merrell, Ervin, & Peacock, 2011). Therefore, it is important to understand teachers' perceptions of the role of the school psychologist because their perceptions influence how school psychologists are utilized to address student needs. Previous research in this area was conducted prior to the passage of Public Law 94-142 and does not reflect the changes mentioned above. The purpose of this study was to add updated research to this area and to understand the connection between teachers' perceptions and the role of the school psychologist. Forty preservice teachers from three teacher training programs completed a survey with different scenarios and were their perceptions about school psychologist would be equipped to handle the situation. Results indicated that the preservice teachers recognized the assessment role of the school psychologist but had less recognition of other roles. This finding suggests that

teacher orientation presentations should communicate the breadth and depth of the role of the school psychologist so that they may be used to their full capabilities.

Student Teachers' Perceptions and Knowledge of School Psychology

In today's schools, school psychologists are broadly trained and are uniquely positioned to help children and youth succeed academically, socially, behaviorally, and emotionally (Merrell, Ervin, & Peacock, 2011). School psychologists are trained in mental health and educational interventions, normal and abnormal child development, assessment, consultation, learning, behavior, motivation, curriculum and instruction, collaboration, school law, and systems. With this extensive skill set, school psychologists have the ability to expand beyond the traditional assessment-related activities to a comprehensive role of supporting students, parents, and teachers.

In the years following the passage of Public Law 94-142, school psychologists' main role was to facilitate the placement of children into different educational programs (Fagan & Wise, 2000). The role of the school psychologist has shifted since that time, but many school psychologists still long for a role that reflects their extensive training and expertise (Merrell, Ervin, & Peacock, 2011). Today, school psychology training programs produce practitioners who are equipped to handle much more than placement. The field of school psychology appears ready to move toward utilizing school psychologists to their full capabilities. A continuation of the departure from the assessment and eligibility determination role of the school psychologist allows for a more proactive approach to problematic childhood and adolescent behaviors. School psychologists working at a more universal level of intervention would decrease referrals and help adolescents without having them enter the special education process. A barrier that stands in the way of this role transformation are the perceptions, knowledge, and reactions towards school psychologists by teachers. While administrators and support

staff also influence referrals to school psychologists for broader services, teachers' perceptions and knowledge are particularly influential in determining the diversity, variability, and usefulness of school psychological services as they are the main source of referrals (Merrell, Ervin, & Peacock, 2011). Therefore, it is important to understand teachers' perceptions of the role of the school psychologist because teachers' perceptions influence not only the direction of the role of the school psychologist as a profession, but also how the school psychologists are utilized to address student needs.

Of particular value in determining the role of school psychologists are the perceptions of preservice teachers (i.e. future educators preparing for their first teaching experience). Understanding the knowledge and perceptions possessed by preservice teachers about the role of the school psychologist would allow researchers to understand what educational training programs emphasize about the role of the school psychologist. Preservice teachers represent a relatively unique population of educators that deserve the school psychologist's attention. School psychologists' extensive training could help these teachers avoid burnout, learn effective classroom management techniques, and implement evidence-based academic interventions. It would benefit these preservice teachers to understand the diverse skill set held by school psychologists because their expertise and knowledge base can be an accessible and helpful service at their disposal.

The purpose of this paper is twofold: to investigate the empirical research that has examined teachers' perceptions of the role of the school psychologist and to introduce a research study that surveyed preservice teachers on their perceptions of the role and functions of school psychologists. The study focused on uncovering what preservice teachers correctly know about the role of the school psychologist, what they know

erroneously about the role of the school psychologists, and what they don't know about the role of the school psychologist.

The following literature review is grouped into four sections. These sections include: teachers' perceptions of school psychologists' allocation of time; teachers' perceptions of school psychologists' helpfulness; teachers' perceptions of the knowledge held by school psychologists; and an evaluation of a school psychologist led intervention for early career teachers.

Teachers' Perceptions of School Psychologists' Allocation of Time

Medway (1977) examined teachers' knowledge of school psychologists' involvement in seven professional activities prior to the influence of PL 94-142. Participants in the study were 15 school psychology interns and 30 teachers. Activity log data of professional activities kept by the interns were compared to the judged frequencies of these activities by teachers who were either highly familiar or slightly familiar with the psychologists. High-contact teachers were defined as having five or more professional encounters with a school psychologist, while low-contact teachers were defined as having between one and three professional encounters with a school psychologist. All teachers completed a questionnaire that evaluated their perception of professional activities engaged in by the school psychology interns over a six-week period. The seven professional activities included in the study were: administration and scoring of psychological tests, report writing, classroom observation, interviewing school personnel about a student, consultation with principals or school counselors, consultation with teachers, and leading individual or group counseling sessions with students.

Results indicated that high-contact teachers reported less psychologist participation in report writing than did low-contact teachers, with both groups underestimating psychologists' actual involvement. High-, but not low-, contact teachers saw the psychologists as more likely to counsel students than psychologists' logs indicated. No differences were found among the three groups with regard to involvement in classroom observation and consultation with principals and school counselors. Low-contact teachers were accurate in their estimate the amount of time which their psychologist spent counseling students. High-contact teachers were reliable in their estimate of the amount of time their psychologist spent writing reports and consulting with teachers. These findings indicated that teachers were unfamiliar with both the priorities of school psychologists in general and the priorities of the school psychologist assigned to their school.

Abel and Burke (1985) examined how staff in an elementary school district perceived their school psychologists and how their views differed across school psychological services. The researchers developed and utilized the School Psychological Service Questionnaire to examine perceptions of allocation of time by school psychologists, knowledge possessed by school psychologists, and overall helpfulness of school psychologists.

The questionnaire was completed by 337 total school personnel, including 170 regular education teachers and 115 special education teachers. The School Psychological Service Questionnaire utilized proportion assignments and a 5-point Likert scale to investigate the teacher's perceptions of the school psychologists' allocation of time. The study included two levels of school psychologists – psychological assistants (fully

certified school psychologists with a master's degree) and PhD psychologists. In this elementary school district, learning disability referrals and intellectual disability referrals were generally sent to the psychological assistants, while the PhD psychologists were the main destination for emotional disability referrals and preventive mental health services. The school psychologists (N=13) also completed the School Psychological Service Questionnaire.

The teachers were asked to assign proportions to represent how much time they perceived school psychologists spend in different activities and how much time they believed school psychologists should spend in each activity. For diagnostic, evaluative, and report-writing activities, teachers underestimated the proportion of time spent by both levels of school psychologists. Teachers perceived that psychological assistants spent 50% of their time in diagnostic, evaluative, and report writing activities, while the actual proportion of time spent engaged in these activities by psychological assistants was 60%. Future time allocations were also investigated. Whereas psychological assistants and PhD-level psychologists suggested a reduction in their diagnosis and evaluative responsibilities of 18% and 12%, respectively, the average change proposed by teachers for the same activities was 3% reduction. Psychological assistants described an increase in the amount of time consulting with parents and teachers, while PhD-level psychologists preferred an increase in the amount of time working with clients through individual or group counseling activities. Teachers believed that PhD-level psychologists should spend more time in consultative roles with classroom teachers.

The time allocation portion of the questionnaire showed that teachers believed that diagnostic, evaluative, and report writing activities should continue to be the primary

responsibilities of the school psychologist. On the other hand, school psychologists conveyed a desire to move away from the conventional psychometrician role and move toward a role that includes more consultative and counseling services. Teachers also recommended hiring more school psychologists to increase consultative and direct intervention services in their school instead of expanding the roles of the school psychologists already employed by their school district. This indicates that school psychologists envision an expanded role, while the teachers see the need for the expansion of roles, but that it can't happen without the addition of personnel.

Farrell, Jimerson, Kalambouka, and Benoit (2005) were interested in understanding teachers' perceptions of school psychologists from a more global perspective. A total of 1,105 teachers from eight countries completed a questionnaire aimed at evaluating their perceptions of the role of school psychologists. The eight countries included in the study were: Cyprus, Denmark, England, Estonia, Greece, South Africa, Turkey, and the United States.

The teachers in the study ranked the perceived frequency of activities undertaken by school psychologists. In Turkey, Estonia, Greece, Cyprus, South Africa, and Denmark, the teachers perceived their school psychologists' main role was to see individual children for counseling and therapy. Teachers from England and the United States ranked school psychologist as providing less individual counseling and therapy. Teachers from all eight countries believed that school psychologists dedicated most of their time to assessment activities and that school psychologists do not spend their time working with teachers via teacher training programs, or advising teachers on how to work with a child displaying disruptive behaviors or a child with learning problems.

Next, teachers from these eight countries had the chance to express which activities they would like their school psychologists to engage in. The results indicated that in most countries, the teachers wanted the school psychologists to spend time working with parents and training or advising teachers on the development of new curriculum materials and spend less time working with individual children. Many of the tasks the teachers in the study wished school psychologists to undertake involved working with teachers in the schools on consultation related activities, for example, providing training for teachers, advising teachers on the development of curriculum materials, and working with teachers on school-wide development. Results from this study indicated that teachers around the globe would welcome a move away from assessment-related activities toward a more school-based consultative role for school psychologists.

Gilman and Gabriel (2004) surveyed educational professionals' (i.e. teachers and administrators) perceptions of school psychology across multiple geographic regions across the United States. The researchers were interested in uncovering the level of knowledge, satisfaction, and perceived helpfulness of school psychological services, the perceptions regarding the roles and functions of school psychologists, and future desired roles and functions of school psychologists. To assess these areas, the researchers created the School Psychology Perceptions Survey. The participants that completed the survey were 1,710 educational professionals and school psychologists. The participants represented eight separate school districts from four states: Georgia (5), Nebraska (1), Arizona (1), and Florida (1). Specifically, the participants included 87 school psychologists, 1,533 teachers, and 90 administrators.

The School Psychology Perceptions Survey evaluated educational professionals' desired levels of involvement of school psychologists across ten specific functions. The roles and functions of the school psychologists included in the survey were: assessment, individual counseling, group counseling, work with regular education students, crisis intervention, teacher consultation, parent workshops, and curriculum development. As a whole, teachers reported a desire for school psychologists to increase the amount of time spend engaging in the following activities: individual counseling, group counseling, work with regular education students, crisis intervention, teacher consultation, parent consultation, and parent workshops. Teachers generally believed that school psychologists' level of involvement in curriculum development, in-service training, and special education assessment should remain the same. The researchers concluded that involving important stakeholders is important for future reform efforts in the field of school psychology. The data reported in this study showed overlap between what teachers wish school psychologists would do and what school psychologists could do if given the chance.

Teachers' Perceptions of School Psychologists' Helpfulness

Kahl and Fine (1978) wanted to examine teachers' perceptions of the roles, functions, and helpfulness of school psychologists. Specifically, they set out to answer the question: how do teachers view the roles of the school psychologists, and their helpfulness? To answer this question, the researchers administered a questionnaire to 54 teachers from eight elementary schools in a Midwestern metropolitan school district. The questionnaire contained three scales: a scale measuring general attitudes towards school psychologists, a scale dealing with school psychologists' role and functions, and a scale

measuring the perceived helpfulness of psychologists to various types of children. Teachers were grouped on number of years of teaching experience (four or fewer years: inexperienced; five to nine years: moderately experienced; 10 or more years: experienced) and the degree to which they reported the use of school psychological services (one of fewer times per year: low contact; two to three times per year: moderate contact; four or more times per year: high contact). Schools were grouped according to socioeconomic status (upper income and lower income). Participants in the study included 30 teachers from upper income schools and 24 teachers from lower income schools.

Analysis of the results indicated that as years of teaching experience increased, the following were found: teachers viewed the school psychologist as less knowledgeable about children's abilities, teachers saw psychologists as providing enough services in general, the school psychologist was perceived as serving primarily as a consultant to teachers with classroom management needs and a knowledgeable person about community resources for families, and the psychologist was viewed as helpful to underachievers and students with learning disabilities. For the "degree of contact" independent variable, the results indicated that as contact with the school psychologist increased, teachers' perceptions of school psychologists' helpfulness increased when working with the following types of children: underachievers, students with learning disabilities, students with emotional maladjustment, and children with home-problems. No significant correlations were found for the "school socioeconomic status" independent variable with the three dependent measures. A significant two-way interaction (Degree of Contact x Socioeconomic Status) was obtained on the dependent measure scale for

helpfulness. The High Contact-Upper Income teachers viewed the school psychologist as more helpful to more types of children than any other group. They were viewed as most helpful to six groups of children: delinquents, children with behavior problems, emotionally maladjusted children, socially withdrawn children, children with learning disabilities, and children with home problems. The study found that as teaching experience increased, teachers viewed the school psychologists as more of a consultant with teachers. This suggests that inexperienced teachers that lack awareness of the school psychologists' skills in consultative practices may miss out on evidence-based interventions and effective classroom management techniques, and may be at increased risk for burnout.

Dean (1980) saw problems in the methodology of previous studies investigating experienced and novice teachers' perceptions of school psychologists. He believed that these studies did not allow researchers to separate the effect of training experience from frequency of contact with school psychologists. This led him to conduct a research study that controlled for contact with school psychologists while comparing novice and experienced teachers' perceptions of school psychologists' role and functions.

The study employed 64 graduate and undergraduate education majors attending an educational seminar. Half the subjects were randomly selected from a pool of elementary school teachers that reported three to five years of teaching experience and five to eight interactions with a school psychologist over their teaching career. The other half of the subjects were considered preservice teachers, which were second semester juniors preparing for their first student teaching experience. The preservice teachers were

matched with an experienced teacher based on age, sex, and undergraduate institution attended.

To compare the experienced and preservice teachers' perceptions of school psychologists, the two groups completed a questionnaire that investigated the perceived importance of the school psychologists to the educational process, appropriate areas for psychological referral, and different dimensions of perceived competency. The questionnaire asked each participant to rank several different types of school personnel on their importance, assign a number of common referral problems to the school staff member best equipped to handle the referral, and rate school psychologists on 11 dimensions using a five-point Likert scale.

The results of the study indicated that both preservice teachers and experienced teachers agreed that the school psychologist was the proper referral agent for the evaluation of emotional disabilities and learning problems. Experienced teachers were split between seeing the school psychologist or the principal as the appropriate referral source for classroom behavior problems. Preservice teachers leaned more towards the belief that it is the school psychologist's responsibility to deal with classroom behavior problems. Social issues in the classroom were seen by the preservice teachers as being within the roles and responsibilities of the school counselor, school psychologist, and school social worker equally. Experienced teachers believed social issues in the classroom fell under the school psychologist's expertise.

The participants were asked to rank specialists in the school based on their perceived importance. The results indicated that both teacher groups tended to rank the principal as most important, then the nurse, and then the school psychologist. Overall,

there was agreement of more than half the total participants that the school psychologist ranked third in importance in any given school, which indicates that both preservice and experienced teachers believed school psychologists were an important member of the school service delivery team.

Next, the researchers asked the participants to rate school psychologists on 11 dimensions using a five-point Likert scale. The dimensions included: warm-friendly, helpful information concerning learning problems, intelligence, trustworthy, knowledge of teachers' classroom problems, knowledge of how social groups function, productivity, school-related knowledge, provides useful information when consulted, and helpful in dealing with emotional/behavioral problems. Results from this portion of the questionnaire indicated that experienced teachers have a significantly more negative view of the school psychologist's knowledge of classroom problems, social groups, and school-related knowledge in general. Also, the experienced teachers saw the school psychologist as providing less helpful information when consulted in general, when consulted about learning problems, and when explaining results from psychological testing.

Overall, the results from the study showed that experienced teachers and preservice teachers agreed on the importance of the school psychologist and the types of referrals to send to the school psychologist. Disagreement between the two groups arose regarding the effectiveness and competence of school psychologists. Experienced teachers held a more negative view of school psychologists on all eleven dimensions except on the warm-friendly dimension.

Abel and Burke's (1985) School Psychological Service Questionnaire asked general education and special education teachers to rate situations in which school psychologists should become involved on a 5-point Likert scale which ranged from "psychologists never should be involved" to "psychologists always should be involved". Factor analysis of data from the 21 items relating to recommended involvement outlined three factors: special education placement factor, school climate and interpersonal dimension, and administrative responsibilities. Results indicated that principals believed that school psychologists should be involved in the preservation of interpersonal relationships between school personnel and between parents and school personnel. General education teachers and special education teachers did not share the same view as the principals. They believed that school psychologists should be less involved in interpersonal conflicts among school personnel and between parents and school personnel. Also, principals were more motivated to include school psychologist in administrative duties than general education teachers. Special education teachers recommended significantly less participation by school psychologists in special education process activities than did the school psychologists, regular education teachers, or principals.

School personnel rated the general helpfulness of school psychologists. Responses were rated on a Likert scale rating from "detrimental" to "very helpful". Principals rated the school psychologists' helpfulness higher than the general education teachers. Special education teacher's ratings did not differ significantly from ratings by principals or by general education teachers. The entire sample of school personnel rated PhD psychologists as significantly more helpful than psychological assistants.

Teachers' Perceptions of the Knowledge Held by School Psychologists

Abel and Burke's (1985) School Psychological Service Questionnaire asked general education and special education teachers to rate school psychologists' knowledge compared to an average teacher. School psychologists were rated as less knowledgeable than regular education teachers when it came to knowledge of teaching strategies, behavior management techniques, how to respond to a child's academic problems, and school disciplinary problems. School psychologists were rated favorably compared to the average general education teacher by all groups in the knowledge areas of collaborating with parents handling crises, practical classroom interventions, special education placement regulations, and children's emotional, cognitive, and social functioning. Teachers rated PhD-level school psychologists as more knowledgeable than psychological assistants in all areas except classroom management, school disciplinary procedures, and practical classroom interventions. For these three knowledge areas, there were no differences found between PhD-level school psychologists and psychological assistants.

Gilman and Gabriel's (2004) School Psychological Perceptions Survey investigated teachers and administrators' knowledge of school psychological services. The results from the survey indicated that teachers' and administrators' perceptions differed significantly from each other in all areas assessed by the questionnaire. Specifically, teachers reported significantly less knowledge of school psychological services than administrators, significantly less satisfaction with school psychological services than administrators, and teachers perceived school psychologists as significantly less helpful to both children and educators than administrators. Also, teachers reported

that a child's problem should reach a moderate level of severity before referral, while administrators believed a child should be referred when a problem is less serious, but noticeable.

The researchers conducted a separate statistical analysis to investigate the effect of teaching experience. The three levels of the teaching experience independent variable were: beginner (i.e. less than five years of teaching experience), experienced (i.e. between five years and 16 years of teaching experience), and advanced (i.e. more than 16 years of teaching experience). Results indicate that the advanced group reported significantly greater knowledge of school psychological services than the other two groups of teachers.

Overall, Abel and Burke's (1985) study highlighted three interesting findings. First, the time allocation portion of the questionnaire showed that school staff personnel believe that diagnostic, evaluative, and report writing activities should continue to be the primary responsibilities of the school psychologist. As noted earlier on (page 6), school psychologists conveyed a desire to move away from the conventional psychometrician role and move toward a role that includes more consultative and counseling services. Second, school staff personnel also recommended hiring more school psychologists to increase consultative and direct intervention services in their school instead of expanding the roles of the school psychologists already employed by their school district. Third, special education teachers were the least certain of all the groups of school personnel that a school psychologists' involvement was necessary for a child's entrance into the special education process. Future research is needed, therefore, to determine if this is a broadly held perception of special education teachers.

School Psychologist Led Intervention for Early Career Teachers

Shernoff et al., 2016 recognized that early career teachers (i.e. teachers with fewer than five years of teaching experience) often face an uphill battle trying to effectively prevent and manage classroom behavior concerns, while simultaneously trying to foster positive relationships with colleagues and fellow teachers. These obstacles are a substantial factor that contributes to the high rates of turnover of early career teachers working in communities of urban poverty. Early career teachers in low-income communities tend to leave the profession or migrate to other schools within their first three to five years (Guarino, Sabitbanaz, & Daley, 2006). School psychologists are uniquely positioned within schools to help support early career teachers and reverse this trend. With their training in teacher consultation and evidenced-based academic and behavioral interventions, school psychologists can help increase early career teachers' effectiveness and connectedness, which will simultaneously satisfy the desire to expand the school psychologists' role held by many practitioners. The researchers set out to address early career teachers' classroom challenges and isolation by testing an intervention designed for early career teachers in high-poverty, urban schools that can be directly supported and overseen by a school psychologist.

The intervention was implemented by the school psychologists in three prekindergarten (pre-K) through eighth-grade elementary schools located in a large, urban city. The demographics of the schools were 94% African American and 97% of students received free or reduced-priced lunch. Early career teachers were recruited at informational meetings and fifteen of the seventeen eligible early career teachers consented to be a part of the study. The early career teachers were approximately equally

distributed across grades and specific subjects (pre-K to third, $N = 5$; fourth to eighth, $N = 4$; special education, $N = 2$; and art or physical education, $N = 2$). The participants were predominately women ($N = 13$) with 2.4 years of teaching experience ($SD=1.37$).

The 2-year intervention included group seminars, professional learning communities (PLCs), and coaching. Group seminars were after-school meetings set up by the school psychologists designed to acquaint early career teachers with evidence-based classroom management approaches and to decrease early career teachers' isolation to one another. PLCs were monthly, one-hour meetings open to all school personnel. All teachers, seasoned veterans and early career teachers, were invited to foster early career teachers' connectedness with other teachers and to promote shared norms around managing behavior and engaging learners in the classroom. Coaching involved retired educators with significant experience in teaching and administration in high-poverty schools. The coaches co-taught with early career teachers during weekly classroom visits and provided modeling opportunities for the early career teachers. School psychologists oversaw each aspect of the intervention over the two-year implementation stage.

The results focused on the fidelity of the intervention and trends in the early career teachers' effectiveness and connectedness. Average attendance at the group seminars was 70% and the average attendance at PLCs was 80%. Early career teachers met with their coaches for 1.5 hours per week in Year 1 and 1.2 hours per week in Year 2. The majority of early career teachers who participated in the intervention showed meaningful improvements in classroom organization (i.e., behavior management, management of instructional routines, and maximizing engagement) by the end of Year 2. Participants in the study shared that the multi-tiered intervention of group seminars,

PLCs, and coaching helped shift their perspective on disruptive behaviors. During the intervention, early career teachers were exposed to, and reminded that, disruptive behaviors are not simply the product of poor instruction, but additionally influenced by circumstances outside the classroom or school (e.g., challenging family circumstances, strained peer relationships). Social network analysis of interviews with the early career teachers evaluated whether they developed new advice relationships over the course of the two-year intervention period. Over time, early career teachers developed new advice relationships with colleagues and their colleagues increased the amount of advice they sought from early career teachers. The researchers believed the intervention was noteworthy because only one early career teacher was lost to turnover, which is considerably lower than turnover rates in this large urban district (50% turnover every three years in the highest poverty schools; Allensworth, Ponisciak, & Maseo, 2009). This multi-tiered intervention appears to be a promising model that can be organized by school psychologists to promote early career teacher retention, effectiveness, and connectedness.

Hypotheses

The purpose of this study was to understand the connections between teachers' perceptions of school psychological services and the role of the school psychologist. The main goal of the study was to present: 1) what part of the role of the school psychologist do teachers understand (i.e., which Likert-style questions were correctly agreed with); and 2) which parts of the role did they not understand (i.e., which scenarios were resolved to other school personnel); and 3) what did they see as the part of the role of the school psychologist that is not part of the role (i.e., what scenarios were resolved to be part of

the role of the school psychologist that are not). The second goal of the study was to evaluate if knowledge and perceptions of preservice teachers differed between three teacher training programs.

Method

Participants

Forty student teachers from three teacher training programs were recruited by the researcher's thesis committee chair. Voluntary participation to complete the survey was requested during the committee chairperson's visit to the preservice teachers' student teaching seminar. The sample included eight participants from University A's Master of Arts in Teaching (MAT) program, 17 participants from University A's Bachelor of Arts program, and 15 participants from University B's Bachelor of Arts program.

These three programs were chosen because of their distinct models of teacher training:

University A's MAT program is a retraining program for students who did not seek certification as an undergraduate and is open to students over the age of 25. The curriculum consists of 10 courses in which disciplinary content (e.g., social sciences) is integrated with pedagogy. A course in Development and Diversity includes some information about the special education process.

University A's BA teacher training program is a 22-semester hour minor that includes a course in Characteristics of Exceptional Individuals. At the time of this study, all of the students were women and traditionally aged.

University B's BA program consists of several majors in education, all of which include a course in Needs of Diverse Learners. Students in this program were traditionally aged university students.

On the survey, the participants indicated which level of school they anticipated to teach after graduation. Thirty-eight percent of the participants ($N = 3$) from University A's MAT program anticipated that they would teach at the high-school level after graduation, 12% indicated that they would teach at the middle-school level ($N = 1$), and 50% indicated that they would teach at the elementary-school level ($N = 4$). Forty-six percent of participants from University B's BA program anticipated that they would teach at the elementary-level ($N = 7$), 27% indicated that they would teach at the middle-school level ($N = 4$), and 27% indicated that they would teach at the high-school level after graduation ($N = 4$). Fifty-nine percent of the participants from University A's BA program anticipated that they would teach at the elementary-school level ($N = 10$), 24% indicated that they would teach at the middle-school level ($N = 4$), and 17% indicated that they would teach at the high-school level after graduation ($N = 3$).

Measures

A 24-item questionnaire was designed by the primary researcher, incorporating traditional and developing roles of school psychologists, as well as roles under the domain of other school professionals. The questions were presented on a Likert-style scale with four options: strongly agree, agree, disagree, and strongly disagree. The traditional roles of the school psychologist included roles like assessment, consultation, and counseling. The developing roles of the school psychologist included roles like parent outreach, academic interventions, and behavioral interventions. The other school

professional's domain included roles attributed to the school nurse, school social worker, and school principal. Table 1 presents the items that corresponded with each domain category.

Table 1

Domain Categories and Corresponding Items

Domain	Item Number	Item
Traditional Roles	3	School psychologists conduct counseling groups to promote pro-social behaviors.
	4	School psychologists offer school-based counseling services after a natural disaster or traumatic event.
	5	School psychologists offer individual counseling services to students who suffer from anxiety.
	6	School psychologists administer one-on-one intelligence testing to determine special education eligibility.
	7	School psychologists makes systematic observations to determine the function of student behavioral problems.
	14	School psychologists are trained to communicate results of intellectual assessments to teachers to help them develop compensatory instruction.
Developing Roles	1	School psychologists work with students who display truant behaviors.
	2	School psychologists help teachers develop token economies to promote positive classroom behaviors.
	8	School psychologists consult with parents about student mental health concerns.
	9	School psychologists are trained in research-based academic interventions.
	10	School psychologists implement school-wide anti-bullying programs.
	13	School psychologists deliver professional development to teachers about classroom management techniques.
	15	School psychologists conduct support groups to help students cope with parental divorce situations.
	16	School psychologists work with students to implement interventions to control test and performance anxiety.
	21	School psychologists deliver after-school informational workshops for parents.

Roles of Other Professionals	11	School psychologists diagnose and treat dehydration and heat exhaustion.
	12	School psychologists are the go-to professional in cases of suspected child abuse and/or neglect.
	17	School psychologists implement the school's safety protocols and emergency response procedures.
	18	School psychologists are knowledgeable of community resources and communicate these resources to parents in need.
	19	School psychologists implement Social and Emotional Learning (SEL) curriculum via classroom outreach presentations.
	20	School psychologists dispense daily ADHD medication to students during the school day.

Additionally, demographic questions were included that asked what level of school they planned to teach at (i.e., elementary, middle, or high school), and which of the three training programs they were currently enrolled at.

Procedures

The survey was administered in January and February of 2019. A brief introduction to the research study with a request to complete the survey was made by the researcher's committee chairperson during a visit to the institution. The survey was administered on paper and responses were later entered into Qualtrics software. The participants were ensured that their information would remain anonymous and only the final analysis of data would be shared with the appropriate personnel. The surveys contained no identifying information.

Analysis

Descriptive statistics were collected for each item grouped by training program. Means and standard deviations were computed for each item based on the institution attended. The Likert-style responses were coded as +3 (strongly agree), +1 (agree), -1

(disagree), and -3 (strongly disagree). This allowed for easy comparisons between roles and the three training programs. Questions with positive means indicated agreement, while questions with negative means indicated disagreement. Questions with large standard deviations indicated greater variability among participants from the same institution, and questions with small standard deviations indicated less variability among participants from the same institution.

Results

Table 2 shows the results grouped by institution and report the roles that had +1.00 mean agreement or above, roles that had -1.00 mean disagreement or below, and the roles that received between +1.00 and -1.00 ratings.

University A's BA Program

For University A's BA participants ($N = 17$), the six roles in which the agreement level was at +1.00 or above were assessment ($M = 2.76$, $SD = 0.66$), connector to community resources ($M = 2.65$, $SD = 1.06$), classroom behavior observer ($M = 2.53$, $SD = 1.75$), communicator of assessment results ($M = 2.06$, $SD = 1.75$), parent consultation ($M = 1.24$, $SD = 1.75$), and token economy consultant ($M = 1.12$, $SD = 1.11$). The five roles these students disagreed with (indicated by agreement rates below -1.00) were: medication distributor ($M = -2.41$, $SD = 0.94$), treater of heat exhaustion ($M = -2.29$, $SD = 0.99$), individual counselor ($M = -1.24$, $SD = 1.39$), child abuse and neglect contact person ($M = -1.24$, $SD = 1.71$), and school safety protocol manager ($M = -1.00$, $SD = 1.22$).

The mean agreement by these same participants was between +1.00 and -1.00 for the following roles: truancy counselor ($M = 0.18$, $SD = 1.42$), academic interventionist

($M = .05$, $SD = 1.62$), group counselor ($M = -0.53$, $SD = 1.50$), crisis responder ($M = -0.53$, $SD = 1.50$), mental health interventionist ($M = -0.18$, $SD = 1.24$), universal classroom outreach ($M = -0.18$, $SD = 1.24$), bullying prevention ($M = -0.65$, $SD = 1.27$), and leader of parental divorce support group ($M = -0.88$, $SD = 1.32$).

University B's Bachelor of Arts Program

The preservice teacher participants from University B ($N = 15$) most strongly agreed that the following seven roles fell under the school psychologist's domain: communicator of assessment results ($M = 2.20$, $SD = 1.26$), assessment ($M = 2.07$, $SD = 1.28$), classroom behavior observer ($M = 2.07$, $SD = 1.03$), connector to community resources ($M = 2.07$, $SD = 1.03$), parent consultation ($M = 1.40$, $SD = 1.35$), developer of token economies ($M = 1.27$, $SD = 0.70$), and parent outreach ($M = 1.00$, $SD = 1.31$). They strongly disagreed that three roles should be attributed to the school psychologist: treater of heat exhaustion ($M = -1.93$, $SD = 1.03$), medication distributor ($M = -1.80$, $SD = 1.26$), and school safety protocol manager ($M = -1.00$, $SD = 1.07$).

These students' ratings of the following roles fell between +1.00 and -1.00: individual counselor ($M = -0.47$, $SD = 1.19$), leader of parental divorce support groups ($M = -0.33$, $SD = 0.98$), group counselor ($M = 0.07$, $SD = 1.49$), child abuse or neglect contact person ($M = 0.07$, $SD = 1.49$), universal classroom outreach ($M = 0.33$, $SD = 1.63$), crisis responder ($M = 0.47$, $SD = 1.19$), truancy counselor ($M = 0.60$, $SD = 1.12$), bullying prevention ($M = -0.07$, $SD = 1.49$), mental health interventionist ($M = -0.07$, $SD = 1.28$), classroom management expert ($M = 0.87$, $SD = 0.92$), and academic interventionist ($M = 0.73$, $SD = 1.03$).

University A's Master of Arts in Teaching Program

The preservice teacher participants from the MAT program at University A ($N = 8$) most strongly agree that the following roles fell under the school psychologist's domain: classroom behavior observer ($M = 3.00, SD = 0.00$), assessment ($M = 2.75, SD = 0.71$), communicator of assessment results ($M = 2.75, SD = 0.71$), connector to community resources ($M = 2.75, SD = 0.71$), parent consolation ($M = 1.25, SD = 1.67$), and classroom management expert ($M = 1.00, SD = 1.51$). They strongly disagreed that the following roles should be attributed to the school psychologist: treater of heat exhaustion ($M = -2.25, SD = 1.04$), medication distributor ($M = -2.00, SD = 1.07$), bullying prevention ($M = -1.25, SD = 1.67$), school safety protocol manager ($M = -1.25, SD = 1.67$), and leader of parental divorce support group ($M = -1.00, SD = 1.51$). These students' ratings of the following roles fell between +1.00 and -1.00: truancy counselor ($M = 0.25, SD = 1.49$), crisis responder ($M = 0.50, SD = 1.41$), parent outreach ($M = 0.25, SD = 1.49$), child abuse or neglect contact person ($M = -0.25, SD = 2.12$), universal classroom outreach ($M = -0.25, SD = 2.12$), mental health interventionist ($M = -0.50, SD = 1.77$), group counselor ($M = -0.50, SD = 1.77$), developer of token economies ($M = 0.75, SD = 1.67$), academic interventionist ($M = 0.75, SD = 1.67$), and individual counselor ($M = 0.75, SD = 1.98$). Below are two tables that depict positive and negative agreement for the three types of roles across institutions.

Table 2

Roles with Positive Agreement Across Institutions

Traditional Roles				
Institution		A-BA	A-MAT	B-BA
3	Prosocial Behavior			
4	Disaster Counseling			
5	Anxiety Counseling			
6	Psychoed Assessment	+	+	+
7	Classroom Observation	+	+	+
14	Compensatory Interventions	+	+	+
Developing Roles				
1	Truancy			
2	Token Economies	+		+
8	Parent Mental Health Consultation			+
9	Academic Interventions	+	+	+
10	Bullying Prevention			
13	Classroom Management		+	
15	Divorce Groups			
16	Performance Anxiety			
21	Parent Workshops			
Other Professional's Roles				
11	Heat Exhaustion			
12	Abuse/Neglect			
17	Emergency Response			
18	Parent Resources	+		+
19	Social Emotional Learning			
20	Administer Meds			

Table 3

Roles with Negative Agreement Across Institutions

Traditional Roles				
Institution		A-BA	A-MAT	B-BA
3	Prosocial Behavior			
4	Disaster Counseling			
5	Anxiety Counseling	-		
6	Psychoed Assessment			
7	Classroom Observation			
14	Compensatory Interventions			
Developing Roles				
1	Truancy			
2	Token Economies			
8	Parent Mental Health Consultation			
9	Academic Interventions			
10	Bullying Prevention		-	
13	Classroom Management			
15	Divorce Groups		-	
16	Performance Anxiety			
21	Parent Workshops			
Other Professional's Roles				
11	Heat Exhaustion	-	-	-
12	Abuse/Neglect	-		
17	Emergency Response	-	-	-
18	Parent Resources			
19	Social Emotional Learning			
20	Administer Meds	-	-	-

Discussion

Overall, participants across institutions recognized that assessment and interpretation and communication of assessments results are major roles attributed to school psychologists. This implies that the traditional assessment and eligibility determination role continues to be communicated to preservice teachers in teacher training programs. The participants also recognized that school psychologists often observe student behaviors in the classroom. Behavioral observations are often required during the evaluation process, which supports the idea that the participant's main

perception of the role of the school psychologist revolves around assessment-related activities.

University A's Bachelor of Arts Program

The participants from the University A's Bachelor of Arts program understood that one of the major roles that is attributed to school psychologists are assessment-related activities. They also recognized that school psychologists do not play the role of the school nurse or the principal, due to their negative responses on questions about medication, heat exhaustion, and school safety. The preservice teacher participants from this institution disagreed with the notions that school psychologists have a hand in individual and group counseling, bullying prevention, and would be an appropriate contact person in cases of suspected child abuse and/or neglect. It is promising that these participants envision school psychologists as having a role in parent consultation and outreach, academic and behavioral interventions, and that they are knowledgeable about community resources. They did not see crisis response as a role of the school psychologist; crisis response continues to be a growing role for school psychologists (Roth & Fernandez, 2018). It would be important to communicate the role of the school psychologist in crisis situations to preservice teachers so that they understand that they are a school professional that teachers can reach out to when their students are in crisis. In addition, developing roles of the school psychologist, like truancy counselor, mental health interventionist, and classroom outreach, were neither agreed with nor disagreed with. More conversations with preservice teachers are needed to bring these roles more into the forefront.

University B's Bachelor of Arts in Education

The University B's preservice teachers also understood assessment activities and the roles of the school nurse and principal. They did not recognize that school psychologists often have a hand in bullying prevention, mental health support, and individual counseling. These roles are developing into more traditional roles, and it is important to communicate these roles to teachers so that all school personnel are on the same page when it comes to school psychological services. It is promising that they, like the participants from the University A's Bachelor of Arts program, recognized lesser known roles of the school psychologist like truancy counselor, parent outreach, and classroom behavior management. Teacher orientation programming that includes these roles would help increase the knowledge and trust teachers hold towards school psychologists.

University A's Master of Arts in Teaching

The participants from University A's Master of Arts in Teaching program had very high agreement with the assessment roles of the school psychologist. All three groups of preservice teachers believed that school psychologists are a go-to professional for community resources available to parents and students. They did not see the school psychologists' role in mental health counseling, group counseling, or individual counseling. They did recognize, however, that crisis response is a growing role of school psychologists. The increased emphasis of the crisis response role in school psychology training programs needs to be communicated to preservice teachers in teacher training programs so that those students in crisis receive the support they need.

Implications for School Psychologists and Teacher Training Programs

The information collected for the study can be used by school psychologists and administrators in planning and implementation of teacher orientation programming. Informing new teachers and providing a refresher course to seasoned teachers would ensure that all teaching professionals would be on the same page when it comes to school psychological services. Describing the breadth and depth of the role of the school psychologist would help teachers understand the circumstances or situations in which they should consult with a school psychologist. Including a teacher professional development presentation during teacher orientation would be an efficient way to educate teachers on a professional who could be useful to them when difficult classroom situations arise. As the role of the school psychologist evolves, the teacher orientation programming should reflect these developments. Teacher training programs could also incorporate additional discussions about the role of the school psychologist. The combined efforts of the teacher training programs and individual schools or school districts would ensure that teachers would be knowledgeable about the variability and impact of school psychological services. Practicing school psychologists should not assume that teacher training programs have covered the role of the school psychologist in great detail. In order to orient new teachers to school psychological services, school psychologists should develop introductory material that reflect the wide variability of the school psychologists' role, which can vary between different states, school districts, school buildings, and individual school psychologists.

Limitations

This study was limited by the number of participants. Only three teacher training programs were included in the study. Additionally, all three training programs were located in the same area in Virginia. Therefore, the information collected for this study is not generalizable to the general population. The study was also administered at one point during the school year, which limits the window in which the participants could have received education on the roles of the school psychologist.

Future Research

Future research may wish to further investigate the amount of time and information communicated to preservice teachers and how preservice teachers from different areas of the country differ in their perceptions and knowledge of school psychological services. Additionally, researchers may be interested in comparing the knowledge of preservice teachers and early-career teachers to understand the amount of information about school psychologist early-career teachers learn while on the job. Expanding the breadth of responsibilities of school psychologists to determine the alignment between their responsibilities and teachers' perceptions is also warranted.

Appendix A: Questionnaire

1) School psychologists work with students who display truant behaviors.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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2) School psychologists help teachers develop token economies to promote positive classroom behaviors.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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3) School psychologists conduct counseling groups to promote pro-social behaviors.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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4) School psychologists offer school-based counseling services after a natural disaster or traumatic event.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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5) School psychologists offer individual counseling services to students who suffer from anxiety.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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6) School psychologists administer one-on-one intelligence testing to determine special education eligibility.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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7) School psychologists makes systematic observations to determine the function of student behavioral problems.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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8) School psychologists consult with parents about student mental health concerns.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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9) School psychologists are trained in research-based academic interventions.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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10) School psychologists implement school-wide anti-bullying programs.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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11) School psychologists diagnose and treat dehydration and heat exhaustion.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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12) School psychologists are the go-to professional in cases of suspected child abuse and/or neglect.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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13) School psychologists deliver professional development to teachers about classroom management techniques.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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14) School psychologists are trained to communicate results of intellectual assessments to teachers to help them develop compensatory instruction.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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15) School psychologists conduct support groups to help students cope with parental divorce situations.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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16) School psychologists work with students to implement interventions to control test and performance anxiety.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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17) School psychologists implement the school's safety protocols and emergency response procedures.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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18) School psychologists are knowledgeable of community resources and communicate these resources to parents in need.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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19) School psychologists implement Social and Emotional Learning (SEL) curriculum via classroom outreach presentations.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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20) School psychologists dispense daily ADHD medication to students during the school day.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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21) School psychologists deliver after-school informational workshops for parents.

1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
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Demographic information:

1. What level do you plan to teach (elementary, middle, high)?
2. Which institution do you currently attend?

Appendix B: Descriptive Statistics

University A's Bachelor of Arts

Question Number	Mean	Standard Deviation
Q1	0.18	1.42
Q2	1.12	1.11
Q3	-0.53	1.50
Q4	-0.53	1.50
Q5	-1.24	1.39
Q6	2.76	0.66
Q7	2.53	0.87
Q8	1.24	1.86
Q9	0.53	1.33
Q10	-0.65	1.27
Q11	-2.29	0.99
Q12	-1.24	1.71
Q13	0.53	0.87
Q14	2.06	1.75
Q15	-0.88	1.32
Q16	-0.18	1.24
Q17	-1.00	1.22
Q18	2.65	1.06
Q19	-0.18	1.24
Q20	-2.41	0.94
Q21	0.65	1.62

University A's Master of Fine Arts

Question Number	Mean	Standard Deviation
Q1	0.25	1.49
Q2	0.75	1.67
Q3	-0.50	1.77
Q4	0.50	1.41
Q5	-0.75	1.98
Q6	2.75	0.71
Q7	3.00	0.00
Q8	1.25	1.67
Q9	0.75	1.67
Q10	-1.25	1.67
Q11	-2.25	1.04
Q12	-0.25	2.12
Q13	1.00	1.51
Q14	2.75	0.71
Q15	-1.00	1.51
Q16	-0.50	1.77
Q17	-1.25	1.67
Q18	2.75	0.71
Q19	-0.25	2.12
Q20	-2.00	1.07
Q21	0.25	1.49

University B's Bachelor of Arts

Question Number	Mean	Standard Deviation
Q1	0.60	1.12
Q2	1.27	0.70
Q3	0.07	1.49
Q4	0.47	1.19
Q5	-0.47	1.19
Q6	2.07	1.28
Q7	2.07	1.03
Q8	1.40	1.35
Q9	0.73	1.03
Q10	-0.07	1.03
Q11	-1.93	1.03
Q12	0.07	1.49
Q13	0.87	0.92
Q14	2.20	1.26
Q15	-0.33	0.98
Q16	-0.07	1.28
Q17	-1.00	1.07
Q18	2.07	1.03
Q19	0.33	1.63
Q20	-1.80	1.26
Q21	1.00	1.31

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