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# School-Based Mental Health Services: A National Survey of School Psychologists' Practices and Perceptions

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School-Based Mental Health Services:  
A National Survey of School Psychologists' Practices and Perceptions

by

Allison Friedrich

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
Department of Psychological and Social Foundations  
College of Education  
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## Dedication

This manuscript is dedicated to all the individuals who provided me with love, encouragement, and support during the writing of this work. To my father, James Friedrich, who provided me with the strength, determination, and humor to complete this process. To my mother, Leslie Friedrich, for always inspiring and encouraging me to do my best. To my sister, Lindsey Lowe, for providing the companionship, support, and enthusiasm that enabled me to persevere and complete this work. To my brother-in-law, Tim Lowe, who provided me with unwavering support through this process. And to my dear grandmother, Marjorie Caddy, whose unfailing love and support never made me doubt my ability to achieve my dream of earning my doctoral degree. I love and thank you all from the bottom of my heart. Special thanks to my mentor, Dr. Shannon Suldo. Without her guidance, leadership, motivation, and continual efforts, this work would not have been possible. In addition, I would like to thank all my dissertation committee members for providing direction and encouragement during this process.

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School-Based Mental Health Services:  
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Allison A. Friedrich

Abstract

This study explored the current role of school psychologists in the provision of school-based mental health services, including factors that relate to their provision of such services, by surveying a national sample of practicing school psychologists. Despite an extensive knowledge base regarding which professional services school psychologists provide in general, few studies have focused exclusively on specific modalities of mental health services. Previous lines of research also have not fully identified why school psychologists do not spend as much of their professional time in the provision of mental health services as they would desire. Therefore, a central purpose of this study was to determine the extent to which specific factors are perceived as facilitating or prohibiting practitioners from providing psychotherapeutic interventions, including content/knowledge areas and training experiences that are tied to high perceptions of competence to provide mental health services in the schools.

Mail out survey methodology was utilized to allow for data collection from a large, national sample of school psychologists in a timely and cost efficient manner. In total, surveys were completed and returned by 226 out of a possible 600 respondents,

representing a 37.7% response rate. School psychologists reported receiving referrals for a variety of student issues (although primarily externalizing student behaviors, academic problems, and interpersonal problems) and providing a wide array of mental health services (e.g., consultation, social-emotional-behavioral assessment, individual counseling). Factors identified as posing significant to moderate potential barriers included caseload constraints, role strain, school-level factors (e.g., inconsistent treatment), and systems-level factors (e.g., insufficient funds for services from district administration). The highest rated facilitators to school-based mental health service provision involved personal characteristics (e.g., personal desire to provide mental health services), having adequate training and confidence, and school-related factors (e.g., availability consult with other mental health professionals). Important training preparation included a variety of didactic content areas (e.g., social-emotional behavioral assessment, consultation with teachers and parents) and many of the applied graduate training activities and professional development activities included in the current survey. Implications for future research and practice are presented, specifically related to the training and professional development needs of school psychologists.

## Chapter One

### Introduction

#### *Statement of the Problem*

Mental health in childhood and adolescence is defined by the achievement of expected developmental, cognitive, social, and emotional milestones and by establishing effective coping skills, secure attachments, and positive social relationships (US Department of Health and Human Services [US DHHS], 1999). Mentally healthy children and adolescents enjoy a positive quality of life; function well at home, in school and in their communities; and are free of disabling symptoms of psychopathology (Hoagwood, Jensen, Petti, & Burns, 1996; National Association of School Psychologists, 2006). As summarized in the Surgeon General's Report (US DHHS, 1999), psychopathology in childhood arises from:

...the complex interactions of specific characteristics of the child (including biological, psychological, and genetic factors), his or her environment (including parent, sibling, and family relations, peer and neighborhood factors, school and community factors, and the larger social-cultural context), and the specific manner in which these factors interact with and shape each other over the course of development. (p. 7)

Many children have mental health problems that interfere with normal development and functioning. Recent epidemiological studies have found that anywhere from 17% to

almost 40% of U.S. children meet criteria for a diagnosable mental or addictive disorder associated with some level of impairment (Brown, Riley, & Wissow, 2007; Roberts, Roberts, & Xing, 2007; US DHHS, 1999). In order to prevent and reduce symptoms of psychopathology, mental health services should be provided (Ollendick, King, & Chorpita, 2005). Support for the use of mental health services for children has been evidenced through countless individual studies and major meta-analyses that have examined the effects of child therapy (Ollendick et al., 2005). The task force established by the Division of Clinical Psychology recently updated and expanded their initial meta-analysis of empirically supported treatment (originally published in 1997) in the *Journal of Clinical Child and Adolescent Psychology*. This meta-analysis included evidence-based psychosocial treatments for youth who have experienced trauma, as well as children and adolescents with autism, eating disorders, depression, anxiety, substance abuse disorders, attention-deficit/hyperactivity disorder, and disruptive behavior disorders (Silverman & Hinshaw, 2008). Using the criteria for empirically-based treatments (EBTs) developed by the task force on promotion and dissemination of psychological procedures (Chambless et al., 1996), the number of EBTs identified for specific disorders numbered as many as 16. These studies support the value of providing mental health services to youth in need.

A number of societal problems (Crocket, 2004) and legislative initiatives (e.g., Individuals with Disabilities Education Improvement Act) have resulted in more children in need of mental health services and, unfortunately, more children who go without treatment. Studies across the decades illustrate that the majority of children and adolescents with a psychological disorder never receive mental health services (Farmer,

Burns, Philip, Angold, & Costello, 2003; Hazden, Hough, & Landsverk, 2004; Kataoka, Zhang, & Wells, 2002; Pandiani, Banks, Simon, Van Vleck, & Pomeroy, 2005).

The provision of mental health services to children and adolescents is dispersed across multiple systems and professions: schools, primary care, the juvenile justice system, child welfare, and substance abuse treatment centers (Satcher, 2000). Over the years, a complex system for providing mental health services to children has evolved, driven by the multiple government initiatives (e.g., President's New Freedom Commission on Mental Health, 2002) and advocates for more comprehensive mental health services for children (Brown, 2002). Within this complex system, the education (i.e., school-based) system has emerged as the foremost provider of mental health services to children (Farmer et al., 2003; Hazden et al., 2004). Several lines of research have elucidated the educational system's role in mental health, including discovering: the most common reasons why students are referred for mental health services (Cohen & Angeles, 2006), the types of mental health services that are provided to students (Repie, 2005), and the school personnel who provide such services (Brenner, Weist, Adelman, Taylor, & Vernon-Smiley, 2007). Despite the fact that several studies have found school psychologists to be a common provider of school-based mental health (SBMH) services, very few studies have specifically addressed the role of the school psychologist in SBMH service provision.

An original intent of the school psychologist role within the school system was to conduct psychoeducational assessments for placement in special education (Fagan & Wise, 2007). Although this assessment role has been the primary function of school psychologists for decades, leaders in the field have advocated for role expansion and

respecialization (cf. Crespi & Politikos, 2004) to include additional roles such as the provision of mental health services. While the assessment role has persisted across the twenty-first century, two additional major roles for school psychologists have emerged: intervention and consultation.

Assessment, as defined by the National Association of School Psychologists (NASP), is "the process of gathering information from a variety of sources, using a variety of methods that best address the reason for evaluation; and is contrasted to *testing* which is limited to administration and scoring of tests" (NASP, 2003a, ¶ 1). The definition used by NASP places an emphasis on the difference between assessment and testing. Interventions may be directed toward promoting well being and preventing the onset of problems (i.e., primary prevention), minimizing difficulties once they occur (i.e., secondary prevention), and stabilizing disabilities and working to ensure basic and needed services are provided to those who can be expected to manifest one or more disabling conditions over some years (i.e., tertiary prevention; NASP, 2003a).

Consultation generally refers to the provision of school psychological services using indirect methods to deliver services. Consultation services may be offered to teachers and other educational personnel, other professionals, religious and other community leaders, parents, and government officials; consultation often involves school psychologists participating as members of a team. Consultation services also may be directed toward enhancing the understanding and ability of teachers, administrators, and parents to promote development (NASP, 2008).

School psychologists should receive graduate training that provides the knowledge and skills necessary to perform the aforementioned functions, as well as less-

frequently provided roles such as research and supervision (American Psychological Association, 2005; NASP, 2000a). NASP, a not-for-profit association whose mission is to represent and support school psychology with leadership to enhance the mental health and educational competence of all children, has adopted and promoted an integrated set of comprehensive standards for preparation, credentialing, and professional practice in school psychology. The *Standards for Training and Field Placement Programs in School Psychology* (NASP, 2000a), its most recent training guideline, contributes to the development of effective services through the identification of critical training experiences and competencies needed by individuals preparing for careers in school psychology. The procedural standards supporting the comprehensive training of school psychologists identified within the *Standards* include providing school psychology candidates with the knowledge and skills needed to demonstrate entry-level competency in a number of domains of professional practice. Within the domain of Prevention, Crisis Intervention, and Mental Health, school psychologists should be trained to provide or contribute to prevention and intervention programs that promote the mental health and overall well-being of students (NASP, 2000a). In addition to the identification of mental health training standards within the *Standards*, NASP has published a position statement on the provision of mental health services in the schools. Within this position paper, NASP advocates for the implementation of school-based comprehensive mental health services in order to help students overcome barriers to learning (NASP, 2003b). Given the standings of NASP within the field of school psychology and its influence on school psychology training programs, school psychologists should be providing mental health services within the schools in an adequately trained and competent manner.

Due to these broad training requirements specified by NASP as well as the applied experiences they gain in the field, school psychologists are well-qualified to provide comprehensive and effective mental health services. In recent years, the school psychology literature has published calls for school psychologists to respond proactively with respect to providing mental health services to children in schools (Herman, Merrell, Reinke, & Tucker, 2004; Phelps & Power, 2008; Sheridan & Gutkin, 2000). Despite compelling factors, such as (a) the need for mental health services in the schools, (b) school psychologists' expertise in mental health and education, and (c) calls for the expansion of school psychologists' professional roles into additional involvement in mental health services, school psychologists currently spend less than one-quarter of their time in the provision of mental health services (Agresta, 2004; Curtis et al., 2008; Hosp & Reschly, 2002; Yates, 2003). However, the majority of school psychologists desire to provide more mental health services within their roles in the school system (Agresta, 2004; Luis, 2005; Yates, 2003).

Given school psychologists' desire to spend more time in the provision of mental health services and the still unmet need for treatment of children's mental health problems, barriers must exist that prohibit school psychologists from intervening with these children. Through a survey response form, Yates (2003) provided one of the first studies to examine barriers to the provision of one type of mental health service, counseling, by school psychologists. Yates found that respondents perceived a heavy emphasis on assessment (endorsed by 68.2% of participants), the notion that counseling was not part of their roles in the school (52.5%), and that counseling was not part of their identified/written job responsibilities (26.4%). Barriers elicited through an "other"



choice category included insufficient training in counseling, other job responsibilities, and the perception that one's school district does not view counseling as a necessity. In contrast, using a similar survey response form, Luis (2005) found that school psychologists perceived slightly more than average support for mental health services by school administration, district administration, and staff.

More recently, Suldo, Friedrich, and Michalowski (2010) used qualitative focus group methodology to identify a comprehensive list of systemic and individual-level barriers to SBMH service delivery. The most commonly cited barriers by participants involved problems inherent to using schools as the site for service delivery (e.g., the exclusive focus on academic performance in educational accountability, difficulties securing space and a consistent schedule, challenges maintaining privacy), followed by insufficient support from the department and district administration (e.g., frustration with department's conceptualization of school psychologists' professional practices, fear of liability and legal issues). Participants also discussed problems with school personnel as a barrier, as well as insufficient time and integration into a school site. Also noted were barriers relevant to the psychologists themselves (i.e., factors they brought to the work site), including perceiving themselves as insufficiently trained, desiring to provide traditional services, feeling burned out, and experiencing personal mental health issues. Other barriers discussed by participants included an overwhelming caseload at one's school, role strain, and dealing with challenging students.

All three of these studies (Luis, 2005; Suldo et al., 2010; Yates, 2003) also explored factors that practitioners perceived enabled them to provide additional mental health services. Commonly identified facilitators included the following: a personal

desire to provide SBMH services; adequate graduate training; maintenance of a manageable assessment and mental health caseload; support from department, district, and school administration; support from families; and access to community resources. Of note, two of these studies have yet to be published in peer-reviewed journals.

Although each of these studies contributes unique findings in regards to the types of individual and systems-level barriers and facilitators that influence school psychologists' involvement in providing mental health services, methodological limitations inherent to each study limits the extent to which the factors identified can be generalized with confidence to a national sample of school psychologists. Specifically, no study has both (a) identified an exhaustive list of potential barriers and facilitators empirically (i.e., via lengthy interviews with field-based practitioners in which participants discuss all perceived barriers), and (b) administered a survey that includes the empirically-derived list to a nationally representative sample of practitioners.

#### *Purpose of the Current Study*

The purpose of the current study was to explore the current role of school psychologists in the provision of SBMH services and factors that relate to their provision of mental health services by sampling a national sample of practicing school psychologists. Specifically, this study aimed to determine the frequency with which children with specific mental health symptoms (also known as “referral concerns”) are referred to school psychologists for mental health services, as well as the frequency with which school psychologists currently provide a variety of mental health services (e.g., individual and/or group counseling, crisis intervention, consultation) to respond to students' referral concerns. Despite the extensive knowledge base regarding which

professional services school psychologists provide in general (e.g., Agresta, 2004; Curtis et al., 2004; Curtis et al., 2008; Hosp & Reschly, 2002), few studies have focused exclusively on specific modalities of mental health services.

The second purpose of this study was to determine the extent to which specific factors are perceived as facilitating or prohibiting school psychologists from providing additional mental health interventions. This study built upon the findings from Suldo et al. (2010) in an effort to generalize the empirically-identified barriers and facilitators to a national sample of school psychologists. Finally, this study aimed to further explore the content/knowledge areas and training experiences that would allow practitioners to feel sufficiently prepared to provide mental health services in the schools. Specifically, this study determined the extent to which the list of didactic and hands-on experiences identified by Suldo, Friedrich, Shaffer, and Michalowski (2007) could be generalized to a national sample of school psychologists.

Importantly, the current study involved an examination of the delivery of clinical services in schools rather than an investigation of other important issues germane to school-based mental health, namely systems-level change efforts such as positive behavior support (PBS), response to intervention (RTI), and systems of care (SOC). Although there are alternative avenues of inquiry (e.g., systems-level efforts, the paucity of evidence-based practices implemented in schools) that also warrant further attention, this study specifically focuses on the level of individual practice for a number of reasons. First, systems-level change efforts take a long time to come to fruition whereas individual clinical practice must continue (Hall & Hord, 2001). Additionally, alternative avenues of inquiry germane to school-based mental health encompass the individual practice of

mental health services (e.g., PBS incorporates secondary and tertiary prevention services); hence, the findings from this study specific to individual clinical practice will have significant implications for these important issues. For example, addressing barriers to SBMH provision can increase the capacity of school psychologists to be involved in the provision of comprehensive mental health programming.

### *Research Questions*

To generate information regarding the current role of school psychologists in the provision of SBMH services and factors related to the delivery of such services, the following research questions were addressed through collecting and analyzing data from mail-out surveys that current practicing school psychologists were asked to complete.

*Research Question 1:* What are the most frequently identified student problems (e.g., anxiety, depression) that are referred to school psychologists for mental health assessment and intervention?

*Research Question 2:* What is the frequency with which practicing school psychologists currently provide various mental health assessment and intervention services?

*Research Question 3:* To what extent do school psychologists perceive various factors to serve as barriers to their provision of SBMH services?

*Research Question 4:* To what extent do school psychologists perceive various factors to serve as enablers to their provision of SBMH services?

*Research Question 5:* To what extent do school psychologists perceive various content areas (i.e., topics taught didactically) as important for preparation to provide SBMH services?

*Research Question 6:* To what extent do school psychologists perceive various types of applied experiences as important for preparation to provide SBMH services?

#### *Educational Significance*

This study is significant to the field of school psychology as it contributes to the literature pertinent to school-based mental health service delivery. Findings provide a current and comprehensive overview of SBMH service provision by school psychologists, including the determination of the problems that are referred for SBMH services most often, as well as the types of mental health services provided by practitioners most frequently. Such information aids national and state professional associations, training programs, and psychological service departments in determining the types of mental health issues and services that need to be addressed with regard to training, research, and professional development. Understanding which factors most inhibit as well as enable school psychologists' ability to provide additional mental health interventions inform policy changes at the school, district, and state level that support the maximum delivery of mental health services to students in school settings. Finally, because of the study's focus on the training needs of current practitioners, this study aids university graduate-level trainers as well as district supervisors who arrange professional development inservices by determining the current need for additional education in mental health service assessment and intervention.

#### *Organization of Remaining Chapters*

The remaining chapters are organized to provide information pertaining to the proposed study as well as previous research regarding mental health service needs and the provision of such services. Chapter 2 includes a review of the current literature

relevant to this research study. Chapter 3 includes a description of the design and procedures used in this study. Chapter 4 presents the results of statistical analyses conducted to answer the research questions. Chapter 5 presents a summary of the key findings, integrates the results of the current study with findings from previous studies, and discusses implications of the research.

## Chapter Two

### Review of the Literature

This chapter provides a review of the frequency of mental health problems in children and adolescents and the insufficient mental health services available to address children's social and emotional concerns. The provision of mental health services to children and adolescents is dispersed across multiple systems and professions: schools, primary care, the juvenile justice system, child welfare, and substance abuse treatment. In recent years, a growing school-based mental health movement has emerged, largely to overcome barriers to access to children's services. To this end, a comprehensive review of the mental health services provided through the school system is presented in the chapter. This chapter also contains a discussion of the expansion of the school psychologist's role and function, barriers to the provision of mental health services in the schools, factors that facilitate the provision of such services, and a summary of the current status of school psychology graduate training. A review of the history of survey research within the field of school psychology is provided to illustrate a specific method to gather additional information on the status of school psychologists' current involvement in school-based mental health services. A summary concludes this chapter.

#### *Prevalence of Mental Health Problems in Children and Adolescents*

Fostering social and emotional health in children is a critical element in healthy child development. Many children have mental health problems that interfere with

normal development and functioning. In the United States, 1 in 10 children and adolescents suffer from mental illness severe enough to cause some level of impairment (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Roberts et al., 2007). Both the treatment of mental disorders and the promotion of mental health in children are therefore essential pieces of providing comprehensive services to children. Recent data that illustrate the alarming prevalence of mental disorders in youth support the need for increased attention to children's mental health.

### *Prevalence of Mental Disorders in Youth*

With a growing awareness in the United States regarding the immense burden of disability associated with mental illnesses, government agencies have become advocates of mental health awareness, research, and interventions. The Surgeon General's Report on Mental Health (US DHHS, 1999) provided a ground-breaking government summary of the extensive scientific literature review of the prevalence of mental health problems and mental illnesses. The authors of the literature review indicated that almost 21% of U.S. children aged 9 to 17 years had a diagnosable mental or addictive disorder associated with at least minimum impairment.

More current information regarding the prevalence of mental health problems in youth can be gleaned from the annual Youth Risk Behavior Surveillance System (YRBSS), a national school-based survey conducted by the Center for Disease Control (CDC). The YRBSS involves state and local school-based surveys conducted by state and local education and health services, designed to produce a national sample for data analysis and a local sample for further analyses by counties and states (CDC, 2008). In an effort to obtain a representative sample of students in grades 9-12 who are enrolled in



public and private school, researchers use a three-stage cluster design (i.e., data collected from different schools in three separate waves) to obtain YRBSS study participants. The YRBSS monitors categories of priority health-risk behaviors, including behaviors associated with mental health problems, such as suicidality and substance abuse. The 2007 YRBSS report indicated that approximately 7% of students enrolled in grades 9-12 had attempted suicide in the past 12 months and 15% of students had seriously considered attempting suicide. During the 30 days before the survey, approximately half of high school students had tried alcohol one or more times and 20% of high school students reported using marijuana. Nationwide, 4.4% of students reporting using methamphetamines, 13.3% reported using inhalants, and 7.8% of students reported using hallucinogens one or more times during their life.

Prevalence rates can also be gleaned from studies that have focused on smaller geographical areas within the United States and within specific mental health service modalities. For instance, Roberts, Roberts, and Xing (2007) sampled 4,175 youth between the ages of 11 and 17 using data from a large community-based study (the Teen Health 2000 study) conducted in the Houston metropolitan area. The prevalence of DSM-IV diagnoses were identified using the Diagnostic Interview Schedule for Children IV (DISC-IV; Shaffer et al., 1996), a structured interview that queries youth about the level of distress and impairment caused by their specific symptoms of mental health disorders. Additionally, the Child Global Assessment Scale (CGAS; Shaffer et al., 1983), a global measure of social and psychiatric functioning using a rating scale of 1 to 100, was administered to one caregiver of each child interviewed. Roberts and

colleagues found that 17.1% of children had one or more diagnosable mental health impairments.

The Great Smoky Mountain Study of Youth (GSMS; Costello et al., 2003) used a multistage, overlapping cohorts design, in which 4,067 of 20,000 children aged 9, 11, and 13 years in an 11-county area of the Southern Appalachian mountain region of North Carolina were randomly selected for screening for psychiatric symptoms using the Child Behavior Checklist Parent Report (CBCL; Achenbach & Edelbrock, 1983). Three waves of data collection yielded a final sample of 3,896 participants who completed the Child and Adolescent Psychiatric Assessment (CAPA; Angold et al., 1995), a structured diagnostic interview that elicits information about symptoms that contribute to a wide range of DSM-IV diagnoses, in order to determine the prevalence of psychiatric disorders and mental health impairment. The researchers found that 13.3% of children 9, 11, and 13 years of age exhibited a diagnosable mental health condition in the previous 3 months. When estimating the cumulative prevalence rate of diagnoses, the researchers predicted that approximately 36.7% of youth will have met DSM-IV criteria for at least one disorder by the age of 16.

Several studies of childhood mental health problems have relied on reports from primary care physicians in the pediatric setting, particularly studies that focus on children younger than 5 years of age. For example, Brown, Riley, and Wissow (2006) sampled 13 primary care offices and hospital affiliates in the Baltimore, MD, Washington, D.C., and upstate New York regions. Sites were chosen to represent both the diverse demographic characteristics (e.g., type of insurance) and pediatric setting characteristics (e.g., practice structure, such as a group practice or clinic) that have been identified as influential

factors in the variation of the prevalence of children's mental health problems. All families with a child between the age of 5 and 16 and who reported a pain level of four or above (on a scale of 1-10, with 1 representing no pain) were originally approached by an interviewer, yielding a final sample of 774 families who consented to participate in the study. Participants with mental health problems were identified using a commonly used question in pediatric-site prevalence studies (Is there a new, ongoing, or recurrent psychosocial problem present?). In addition, parents ( $n=774$ ), children 11-16 years old ( $n=342$ ), and teachers of the identified child ( $n=220$ ), completed the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1999), a brief psychometrically validated screening questionnaire that queries about 25 attributes and produces scores that can be used to determine the prevalence of mental health impairments. The proportion of pediatric patients with at least one possible or probable diagnosis of an affective disorder, conduct disorder, and/or hyperactivity as determined by the SDQ was 42.3%. Furthermore, approximately three quarters of the family visits included a discussion about at least one psychosocial topic, such as problems about the child's mood (65.6% of target children) and/or behavior (55.1% of target children). Briggs-Gowan et al. (2003) conducted a similar study of 5- to 9-year-old children ( $N = 1060$ ) seen in pediatric settings in the greater New Haven, Connecticut area. In this sample, the weighted estimate for any child psychiatric disorder was 16.8%.

Taken together, the aforementioned studies have indicated that between 13.3% and 42.3% of youth have mental health problems. As pointed out by Robert, Attkisson, and Rosenblatt (1998), the body of literature on the prevalence of mental health problems is limited by differences in sampling (representativeness, sample size), data analyses,

case ascertainment, case definition, and presentation. Representativeness is problematic because the samples studied often do not represent the diversity of the child and adolescent populations. In addition, most prevalence studies focus on either a narrow age range (middle school, high school) or a specific age (e.g., age 3, age 8, age 11). Finally, prevalence studies use a range of assessment methods to determine the prevalence of mental disorders (e.g., syndrome scales such as the CBCL, diagnostic interviews such as the DISC-IV, one item indicators of psychosocial problems). For example, the prevalence rates yielded in the Brown et al. (2007) study were much higher when compared to other rates, which the authors suggest is due to the inclusion of youth that demonstrated sub-threshold DSM-III disorders (not just those that meet criteria for a clinically-diagnosable disorder) as identified by the SDQ. Estimates of the prevalence of the most common mental health problems and specific disorders in youth from the two government-funded large-scale sources of information (CDC, 2008; US DHHS, 1999), as well as independent studies that are characterized by stringent design and sample selection methods, are summarized in the following sections.

*Anxiety disorders.* According to research in the Surgeon General's Report on Mental Health (US DHHS, 1999), the combined prevalence of the group of disorders known as anxiety disorders is higher than that of virtually all other mental disorders of childhood and adolescence. The 1-year prevalence of anxiety disorders in children aged 9 to 17 years was estimated to be 13% (US DHHS, 1999). More recent studies conducted by independent researchers yielded more conservative estimates. For instance, approximately 2.4% of youth 9 to 16 years in the GSMS (Costello et al., 2003) exhibited an anxiety disorder during a three month period, whereas 6.9% of youth 11 to 17 years in

Houston, TX were identified as exhibiting an anxiety disorder by Roberts et al. (2007). One of the most common anxiety disorders is separation anxiety disorder, which occurs in approximately 4% of children and young adolescents (APA, 1994). Social phobia is another commonly diagnosed anxiety disorder, with lifetime prevalence rates ranging from 3% to 13%, depending on how many different situations induce anxiety and the level of fear (APA, 1994).

*Mood disorders.* The synthesis of literature indicates that the most frequently diagnosed mood disorders in youth are major depressive disorder, dysthymic disorder, and bipolar disorder (US DHHS, 1999). Recent epidemiological studies have identified prevalence rates of any mood disorder among children aged 11 to 17 to be approximately 3.0% (Roberts et al., 2007) and for children 9 to 17 approximately 2.2% (Costello et al., 2003). Estimates of 1-year prevalence in children range between 0.4% and 2.5%; in adolescents, prevalence rates may be as high as 8.3% (Garrison et al., 1997; Kessler & Walters, 1998). The prevalence of dysthymic disorder in adolescents is around 3% (Garrison et al., 1997).

Mood disorders substantially increase the risk of suicide, which is a matter of serious concern for professionals who provide mental health services to children and adolescents. The YRBSS indicated that 15% of students in grades 9-12 had seriously considered attempting suicide during the 12 months preceding the survey (CDC, 2008). Regarding suicidal behaviors, 6.9% of students reported actually attempting to commit suicide one or more times during the 12 months preceding the survey. Approximately 11.3% of students sampled had developed a plan for how they would commit suicide. Some states and cities conducted a school-based Youth Risk Behavior Survey (YRBS)

among middle school students (Whalen et al., 2005). In 2003, the proportion of middle school students who reported suicidal ideation ranged from 8.5% to 11.8% for sixth-grade students, 10.0% to 15.9% for seventh-grade students, and 14.0% to 19.8% for eighth-grade students. Of note, this study was conducted on a much smaller scale than the nationwide YRBSS survey. Although the statewide samples were relatively large (1,179 to 7,709), the states and cities selected were not necessarily representative of the population.

*Behavior disorders.* As summarized in the Surgeon General's Report (US DHHS, 1999), prevalence rates of oppositional defiant disorder range from 1% to 6%, depending on the population sampled and the way the disorder is evaluated; rates are lower when impairment criteria are more strict and when information is obtained from teachers and parents rather than from the children alone (Shaffer et al., 1996). Similarly, the prevalence of conduct disorder in 9- to 17- year-olds varies from 1% to 4%, depending on how the disorder is defined (Shaffer et al., 1996). Recent studies have yielded prevalence rates for behavioral/conduct problems of 4.4% (Kelleher et al., 2000) and 6.5% (Roberts et al., 2007) among youth ages 4 to 15 and 11 to 17, respectively. Regarding specific behavior disorders, the GSMS found the prevalence rates of conduct disorders and oppositional defiant disorder to be each at 2.7% (Costello et al., 2003).

*Eating disorders.* As summarized in the Surgeon General's Report (US DHHS, 1999), eating disorders are serious, at times life-threatening, conditions that arise most often in adolescence and disproportionately affect the female population. Approximately 3% of young women have one of the three main eating disorders: anorexia nervosa, bulimia nervosa, or binge-eating disorder (Becker, Grinspoon, Klibanski, & Herzog,

1999). Anorexia nervosa has the most severe consequence, with one meta-analysis indicating a mortality rate as high as 5% per year for patients diagnosed with the disorder (Steinhausen, 2002). A recent epidemiological study of 4,746 middle and high school youth identified the prevalence rates of eating disorders to be quite low, especially anorexia which was identified in only 0.04% of females and 0% of males (Ackard, Fulkerson, & Neumar-Sztainer, 2007). Ackard and colleagues reported the prevalence rate for bulimia nervosa was 0.34% for females and 0.17% for males, whereas binge eating disorder was identified in 1.91% of females and 0.34% of males.

*Substance use disorders.* Substance abuse disorders are of particular concern because of their link with other mental disorders. Approximately 51% of adolescents and adults with one or more lifetime mental disorders also have a lifetime history of at least one substance use disorder (US DHHS, 1999). According to the National Survey on Drug Use and Health (SAMHSA, 2007), in 2006 youth aged 12 to 17 years had a rate of substance dependence or abuse of 9.2%. Approximately 8.3% of youth aged 12 to 17 years were current illicit drug users: 6.0% used marijuana, 2.8% used prescription-type drugs nonmedically, 1.2% used inhalants, 0.4% used hallucinogens, and 0.6% used cocaine. The rate of alcohol dependence or abuse for youth aged 12 to 17 years was approximately 5.5% (SAMHSA, 2007).

In sum, a sizeable number of children are diagnosed with mental health problems and disorders. Numerous studies have estimated the prevalence of mental health problems in children and adolescents at approximately 20%, and have identified specific mental disorders related to anxiety, depression, disruptive behavior, and substance use to affect a sizeable minority of youth. These findings support the essential need for mental

health treatment for youth. Therefore, important lines of research are those that examine the proportion of children receiving mental health services and the common modalities for treatment.

### *Child and Adolescent Mental Health Services*

Evidence supports the efficaciousness of providing mental health services to children with mental health problems. Support for the use of child psychotherapy has been evidenced through countless studies and four major meta-analyses that examined the effects of child therapy (Ollendick et al., 2005). A thorough review of the literature consistently shows that therapy for children results in beneficial impacts on the lives of children and their families. In recent years a shift has occurred towards identifying efficacious treatments for children who present with specific behavioral, emotional, and social problems.

The movement towards evidence-based practice in child psychotherapy led to the publishing of a comprehensive review of empirically validated psychological treatments in 1995 (Task Force on Promotion and Dissemination of Psychological Procedures, 1995). In this report, three categories of treatment efficacy were defined: 1) well-established treatments, 2) probably efficacious treatments, and 3) experimental treatments. The criteria for classification as a well-established treatment specified that the treatment should be shown to be superior to a psychological placebo, pill, or other treatment. Additionally, effects supporting a well-established treatment should be demonstrated by at least two different investigatory teams. To be classified within the probably efficacious treatment category, the specified treatment should be shown to be superior to a wait-list or no-treatment control condition. For both of these categories,



characteristics of the clients should be well specified and the clinical trials were to be conducted with treatment manuals. The final requirement was that the outcomes of treatment should be demonstrated in “good” group design studies (i.e., reasonable to conclude benefits observed were due to effects of treatment and not due to chance) or a series of controlled single-case design studies. The third category, experimental treatments, included treatments not yet shown to be at least probably efficacious. The purpose of this category was to include treatments frequently used in clinical practice or newly developed treatments that had not yet been fully evaluated (Ollendick et al., 2005).

Using the aforementioned criteria for the three categories of treatment, the 1995 Task Force Report identified three well-established treatments and one probably efficacious treatment for children. Since this original published report on EST’s, the Task Force on Promotion and Dissemination of Psychological Procedures has gone through many changes, including a change in name to the Task Force on Psychological Interventions and the release of a second updated version of their report on EST’s in 1997. Inspired by the release of this publication, Section 1 of the Division of Clinical Psychology established a task force to compile a more exhaustive list of EST’s that was published in a special issue of the *Journal of Clinical Child Psychology* in 1998 (Lonigan, Johnson, & Elbert, 1998). The first special issue identified effective psychosocial treatments for high-frequency problems encountered in clinical and other settings serving children with mental health problems. The special issue included a review of empirically supported treatments for children with autism, anxiety disorders, attention-deficit/hyperactivity disorder (ADHD), depression, and oppositional and conduct problem disorders.

The task force established by Section 1 of the Division of Clinical Psychology updated and expanded their review in the *Journal of Clinical Child and Adolescent Psychology* (formerly the *Journal of Clinical Child Psychology*) to include evidence-based psychosocial treatments for youth who have experienced trauma, as well as children and adolescents with autism, eating disorders, depression, anxiety, substance abuse disorders, attention-deficit/hyperactivity disorder, and disruptive behavior disorders (Silverman & Hinshaw, 2008). Using the criteria for empirically-based treatments (EBTs) developed by the task force on promotion and dissemination of psychological procedures (Chambless et al., 1996), researchers identified 16 EBTs and 12 “possibly efficacious” treatments for disruptive behavior disorders (Eyberg, Nelson, & Boggs, 2008). David-Ferdone and Kaslow (2008) identified two EBTs and three “probably efficacious” treatments for adolescent depression; two EBTs and two “probably efficacious” treatments were also identified for childhood depression. Similarly, three EBTs and three “probably efficacious” treatments were identified in the treatment of substance abuse in adolescence (Waldron & Turner, 2008). One EBT and one “probably efficacious” treatment were identified for children exposed to traumatic events (Silverman et al., 2008a). Due to a number of methodological limitations present in studies of adolescents with eating disorders, only one EBT could be identified as efficacious in the treatment of eating disorders in adolescence (Keel & Haedt, 2008). Finally, four “probably efficacious” psychosocial treatments were identified by Silverman, Pita, and Viswesvaran (2008b) in the treatment of phobic and anxiety disorders. Taken together, the movement towards evidence-based practice has led to the identification of a number of empirically-validated psychological treatments that can be

utilized across the multiple systems that currently provide mental health services to children and adolescents.

### *Proportion of Children Receiving Services from Various Sectors*

The provision of mental health services to children and adolescents is dispersed across multiple systems and professions: schools, primary care, the juvenile justice system, child welfare, and substance abuse treatment centers (Satcher, 2000). Prior to the 1980's, the traditional model of mental health services for children and adolescents consisted of office-based outpatient therapy and psychiatric residential placement, which were handled primarily through the medical and mental health systems (Satcher, 2000). Over the years, a much more complex system for providing services has evolved, driven by the multiple government initiatives and advocates for more comprehensive mental health services for children (Brown, 2002). Several studies published in the past decade have attempted to estimate the proportion of children receiving mental health services. This body of literature yields a complex picture of the status of those children in need of receiving mental health service.

Kataoka et al. (2002) examined the rates of mental health services in three cross-sectional nationally representative samples of more than 11,500 households with 3- to 17-year-old children. The most knowledgeable adult in the household (95% were parents) provided information about the sampled child. Between 6.0% and 7.5% of youth across data sets reportedly received some type of mental health service; rates were consistently lower for preschool children (2%–3% for children 3–5 years old). The percentages of 6- to 17-year-olds with mental health problems ranged from 15.2% to 20.8% across datasets. Thus, only 29% to 49% of children with mental health problems receive any

treatment. Greater levels of mental health need were associated with higher rates of receiving any mental health care among children, suggesting that children do not receive care until they are very symptomatic. Controlling for other factors, the authors concluded that the rate of unmet need was greater among Latino than White children and among uninsured than publicly insured children. Caution should be used when interpreting the data for children under age 6, because the sample size was relatively small ( $n = 131$  children).

Data from the first wave of the GSMS were utilized to examine the number of children receiving mental health services and the role of other child service sectors in providing mental health care to children (Farmer et al., 2003). The diagnosis/no impairment category (9.1%) included children who met diagnostic criteria for at least one DSM-III-R condition but did not display impaired functioning. Children with both a diagnosis and impairment (11.1%) constituted the most severely affected category. Five sectors of mental health service use were included in this study: mental health (e.g., psychiatric hospital, residential treatment center, group home, detoxification unit, and private mental health professional); education (e.g., guidance counselor/ school psychologist, and special class); health (e.g., medical inpatient unit, family doctor/ other nonpsychiatric physician); child welfare (e.g., social services counseling); and juvenile justice (e.g., detention center/ jail). Of children without a diagnosis or impairment (63.7% of the sample), only 1.6% reported using specialty mental health services during the three months prior to the interview, compared with 3.3% with a diagnosis but no impairment, 6.0% of children with an impairment but no diagnosis, and 21.6% with both a diagnosis and impairment. Among the 16% of children in the sample who reported

receiving mental health care in any sector, 13% (81% of those served) received care in only one sector, and 3% (19% of those served) received care in more than one sector. Between 70% and 80% of children who received services for a mental health problem were seen by providers working within the education sector (mostly guidance counselors and school psychologists). For the majority of children who received any mental health care, the education sector was the sole source of care. Approximately 11% to 13% of children receiving any mental health services reported use of the general medical sector for these services, with little differentiation by clinical status. The child welfare and juvenile justice sectors provided mental health services to relatively few children in the sample. Because the Smoky Mountain and Blue Ridge Area Programs are recognized throughout the state for their well-developed, up-to-date services for children and their families, the proportion of children receiving services may be higher in this sample than in other regions.

Hazden et al. (2004) conducted a similar study with data collected from high-risk children and adolescents participating in the Patterns of Care Study completed in San Diego, California. The study consisted of 1,706 youth ages 6 to 17 year old randomly drawn from a sample of 12,662 youth that had accessed services via one of five publically funded sectors of care in the past year, including mental health services, alcohol/drug services, child welfare services, juvenile justice services, and special education services for seriously emotionally disturbed (SED) youths. To identify those youth with a diagnosable mental health impairment, parents and youth over the age of 11 were administered modules of the computer-assisted version of the DISC-IV. Lifetime use of mental health services were identified using a structured interview, the Service

Assessment for Children and Adolescents (SACA; Horowitz et al., 2001), administered to parents and older youth. Mental health services were grouped into eight specific categories that were then collapsed into the following four broad categories: outpatient services (e.g., community mental health center, day treatment program, emergency room, pediatrician/other physician, faith healer), school-based services (e.g., counseling or therapy in school setting), inpatient services (e.g., psychiatric hospital, residential treatment center, summer treatment program), and other mental health related services (e.g., foster home, detention center). The most commonly utilized group of mental health services was outpatient mental health services (87.1%), followed by school-based services (71.0%), inpatient services (44.4%), and other services (38.1%). Of those youth with a diagnosis (57%), approximately 94.5% reported receiving outpatient services, 82.7% received school-based services, 51.3% received inpatient services, and 31.6% received other services. In regards to school-based services, youth reported receiving counseling or therapy in school most often (40.2% entire sample; 52.4% of only diagnosed youth). Probation or juvenile correction officers (38.1% entire sample; 39.8% of only diagnosed youth) were the most commonly identified service received in the “other services” category. Of note, prior research brings in to question the accuracy of obtaining rates of lifetime use of mental health service utilization via retrospective self-report given that factors such as salience of services received may influence participants’ reporting accuracy (e.g., Roberts, Bergstrahl, Schmidt, & Jacobsen, 1996).

Pandiani et al. (2005) conducted a comprehensive study of the utilization of mental health services within Vermont. Results reported in the study were based entirely on analysis of existing administrative databases, such as the state Department of

Education (DOE). Eight special populations were examined, including three groups defined by school program participation or performance: students with an Individualized Education Plan (IEP) for an emotional/behavioral disorder, students with an IEP due to another disability, and students with poor school performance. Data for these groups were obtained from the state DOE. Two groups were defined by participation in economic programs, specifically the state Medicaid and welfare programs, with data being obtained from the relevant state agency. Two groups were defined by indication of social or emotional trauma with data obtained from state child protection agency and the state Office of Child Support. One group was defined by criminal/juvenile justice involvement, with data obtained from state juvenile justice agency, courts, and the Departments of Public Safety and Corrections. Measures of utilization rates for young people in the eight special populations were based on information from additional public education and social service agencies. For each of these eight special groups, the proportion of children in the special population who received community mental health services was determined by probabilistic population estimation (Banks & Pandiani, 2001). Overall, more than 1 in 20 children and adolescents were served by a public mental health children's services program during 2002. Among the eight special populations, young people with an IEP for an emotional/behavioral disorder had the highest community mental health utilization rate (44%), followed by youth with a history of abuse/neglect (30%), and youth involved in the criminal/juvenile justice system (28%). Children with poor school performance and children enrolled in the state Medicaid program had the lowest community mental health utilization rates (6% and 8%). In the combined sample, mental health service utilization by young people increased with

increasing age from 2% of children under 7 years of age, to 6% in the 7–12 age group, and 8% in the 13–17 age group. Of note, due to Vermont’s progressive system of care for young people with emotional or behavioral disorders, results presented in this study may overestimate the utilization rate of children in other geographic locations. Nevertheless, this study’s findings that only 44% of children who receive special education services due to severe emotional or behavior problems actually receive treatment is remarkable because, by definition, 100% of this group needs mental health services. A similar argument for the extensive need for services could be made for most of the other seven special populations studied in this research.

In conclusion, the studies reviewed above support the notion that a minority of children who have a mental health need actually receive psychological treatment. Studies across the decades illustrate that the majority of children and adolescents with a psychological disorder never receive mental health services (Farmer et al., 2003; Hazden et al., 2004; Kataoka et al., 2002; Pandiani et al., 2005). Variability in the methods used to identify (a) youth with mental health problems and (b) types of mental health services provided, prohibits comparisons across similar research. Nevertheless, the studies are consistent in the finding that of those children who do receive treatment, the majority receive services through the education system (Farmer et al., 2003; Hazden et al., 2004). The following section provides a review of mental health services provided within the education system.

#### *Mental Health Services in the Schools*

In recent years, a growing school-based mental health movement has emerged, essentially to overcome access barriers to children’s services (Flaherty, Weist, & Warner,



1999; Hunter, 2004). A survey of school-based health clinics in 1998–1999 indicated that 57% offered mental health services as compared to only 30% seven years earlier (Brindis, Klein, Santelli, Juszczak, & Nystrom, 2003). In fact, in recent years schools have been come to be regarded as the de facto providers of mental health services for children and youth (Farmer et al., 2003), providing an estimated 70% to 80% of psychosocial services to those children who receive them (Rones & Hoagwood, 2000).

### *Mental Health Problems Referred for Treatment in Schools*

Mental Health Services in the United States (Foster et al., 2005) is one of the most comprehensive examinations of the provision of mental health services within the educational system. A representative random sample of 1,147 schools in 1,064 districts across the country responded to a survey about the problems most frequently presented by students in their schools. Respondents ranked the three most frequently seen problems for male and for female students out of a broad list of 14 psychosocial or mental health problems. For both male and female students, the mental health problem category most frequently endorsed was social, interpersonal, or family problems (73% for male, 80% for female). The second and third most frequently cited concerns differed for males and females. Anxiety (41%) and adjustment issues (36%) were cited as the second and third most frequent problems, respectively, for females. Aggression or disruptive behavior (63%) and behavior problems associated with neurological disorders (42%) were cited as the second and third most frequent problems for males. For both boys and girls, depression and substance use/abuse were reported more frequently as school level increased. The frequency of citing substance abuse as a major problem jumped sharply from middle school to high school for both males and females (for males, from 4% of

middle schools to 34% of high schools; for females, from 3% of middle schools to 19% of high schools).

Repie (2005) examined the perceptions of regular and special education teachers, school counselors, and school psychologists on presenting problems of students. The School Mental Health Issue Survey (Weist, Myers, Danforth, McNeil, Ollendick, & Hawkins, 2000) was mailed to a random sample of school counselors, school psychologists, regular teachers, and special education teachers, yielding a final sample of 413 respondents from all 50 states; the school level (i.e., elementary, middle, high) of participants was not specified. Respondents rated the types of problems that were most critical in their schools, or most in need of services to be provided. Respondents rated impaired self-esteem, attention deficit/hyperactivity, and peer relationship problems as the most critical emotional and behavioral problems of students in their schools. They viewed suicidal thoughts and/or behaviors, inappropriate sexual behaviors, and alcohol/drug abuse as least critical. Consistent with previous research (US DHHS, 1999), high school respondents rated depression significantly higher than did their elementary school counterparts. In addition, high school and multiple grade level respondents rated suicidal thoughts and alcohol/drug abuse significantly higher than elementary persons.

Whitmore (2004) surveyed a random sample of 241 school psychologists on the types of referral problems that they encounter in the schools. The problems identified as occurring most frequently across all grade levels included academic problems, externalizing issues (e.g., ADHD, anger, conduct), peer problems, and self-esteem issues. Respondents serving students in grade levels 6-12 reported a high occurrence of problems also related to depression, motivation, school phobia, substance abuse, and truancy.

Cohen and Angeles (2006) surveyed the teachers of a convenience sample of 1,958 elementary and middle school children enrolled in seven California schools about the problems most frequently presented in their schools. Teachers from 85 classrooms completed the School Sites Needs Assessment, a multidimensional survey designed to assess the potential need for mental health services in schools. The survey consisted of a number of items describing commonly referred problems (e.g., disruptive in class) that were categorized into one of eight general referral domains (e.g., behavioral, academic). For each item, teachers were asked to write the number of students in the classroom that exhibited the specific problem or who may require further assessment for the problem. Overall, teachers endorsed one or more problems for 43% of the students in the sample. Regarding the referral domains, teachers endorsed academic problems most often (e.g., failing grades, truancy;  $n = 1,199$  students), followed by family social adjustment problems (e.g., income or housing concerns, acculturation issues;  $n = 811$ ), mental health problems (e.g., depressed, hyperactive;  $n = 697$ ), family relational problems (e.g., divorce, family violence;  $n = 560$ ), behavioral problems (e.g., disruptive in class, defiant;  $n = 516$ ), medical problems (e.g., traumatic injury, disabled physically;  $n = 483$ ), community safety problems (e.g., gang affiliation, brought weapon to school;  $n = 86$ ), and substance use problems (e.g., suspected alcohol and/or drug abuse;  $n = 15$ ). Teachers most frequently endorsed the referral problem of disruptive behavior in class ( $n = 270$ ; 52% of category) within the behavioral problems category. The most commonly endorsed item within the mental health category was hyperactive behavior ( $n = 187$ ; 27% of category). Divorce ( $n = 221$ ; 39% of category) was the most common item endorsed within the family relational problems category whereas parental stress ( $n = 156$ ; 19% of

category) was the most common item endorsed within the family adjustment problems category.

A more extensive list of mental health problems referred for SBMH services can be gleaned from results of a study conducted by Suldo et al. (2007). A convenience sample of 39 school psychologists serving elementary, middle, and high schools in a southeastern state participated in focus groups examining school psychologists' provision of psychotherapeutic services in the schools. Participants responded to a question regarding the types of problems for which students are referred for mental health assessment and intervention in schools. The student problems mentioned most frequently by participants involved an isolated behavioral or emotional symptom, including students' externalizing and internalizing symptoms, lack of empathy, cutting, and low self-esteem. DSM-disorders was the second most frequently discussed category of mental health problems referred for treatment, including anxiety, depression, externalizing problems, and ADHD. The third most frequently cited category of referral problems dealt with crisis situations, including suicidality, grief and loss, threat to harm others, or a school-wide tragedy. Student anger and aggression, as well as family problems (e.g., divorce, foster care situations, conflict with parents, and parent absence from the home) were also frequently mentioned by participants. Other student problems referred for treatment included learning problems (i.e., problems with motivation, work completion, or study skills) and issues pertinent to adolescence (e.g., gender/sexual identity issues, romantic relationship problems, and teenage sexuality). Although not as frequently, participants also discussed receiving referrals for atypical/bizarre student behaviors and trauma.

In conclusion, the most commonly referred mental health problems within schools include disruptive behavior and emotional problems (ranging from isolated symptoms of clinical disorders to students displaying sufficient symptoms to meet diagnostic criteria), interpersonal problems, family problems, and crisis situations. Because of the varying categories used to define the types of mental health problems referred, it is difficult to compare studies with similar intent. Preliminary findings support differences in referral concerns across school level. With such a breadth of mental health problems being referred for intervention within schools, it is important to know which school personnel provide the appropriate mental health services.

#### *Personnel in Schools Providing Mental Health Services*

In the Mental Health Services in the United States study (Foster et al., 2005), about one-third of school districts reported that they exclusively utilized school- or district-based staff to provide mental health services, which the researchers defined as those services and supports delivered to individual students who have been referred and identified as having psychosocial or mental health problems. Approximately one-quarter of school districts only contracted with outside providers for mental health services provided through the district, and approximately one-third of schools combined school- and district-based staff with outside providers. Approximately one-half of all districts (49%) used contracts or other formal agreements with community-based organizations and/or individuals to provide mental health services to students. The most common types of district-based staff providing mental health services in schools were school counselors (77%), followed by nurses (69%), school psychologists (68%), and social workers (44%). Three-quarters of schools had at least one school counselor on staff, more than two-thirds

had a school psychologist and/or nurse, and 44% had a school social worker. School counselors reported spending 52% of their time providing mental health services, compared to 48% for school psychologists. School social workers reported spending 57% of their time providing mental health services and school nurses reported spending 32% of their time providing mental health services. Most schools had between two and five staff providing mental health services, but the distribution was broad, from no staff (3%) to 10 or more staff (6%). The most commonly reported number of staff was three (20% of schools). Of note, detailed information on which specific services each staff member (e.g., school psychologist) provided was not sought. Therefore, it is impossible to determine whether school psychologists were providing mental health services in the form of emotional/behavioral assessment, for example, or group counseling.

The School Health Policies and Programs Study (SHPPS) 2006 assessed mental health and social services at the state, district, and school levels (Brener, Weist, Adelman, Taylor, & Vernon-Smiley, 2007). State-level data were collected from all 50 states plus the District of Columbia. District-level data were collected from a nationally representative sample of public school districts and from dioceses of Catholic schools included in the school sample (445 of 702 districts). School-level data were collected from a nationally representative sample of public and private elementary, middle/junior high, and senior high schools. State- and district-level data were collected by self-administered questionnaires completed by designated respondents for each of seven school health program components (e.g., coordination and evaluation of school mental health services, direct provision of mental health and social services, universal promotion of a healthy and safe school environment, direct provision of physical health services).

School-level data were collected by computer-assisted personal interviews with respondents from 873 schools. District level respondents indicated that approximately 62.2% of districts had a formal agreement with a school-linked health center to provide mental health services to students off of school property. Districts mainly had contracts with local mental health or social service agencies (55.8%), followed by the local health department (34.2%) or a community health clinic (28.7%). National results indicated that 84.1% of states had at least one school that served as Medicaid providers by providing mental health services to qualified students and 76.8% of schools had at least one part-time or full-time counselor who provided mental health services to students at school. Schools were less likely to report having at least one part-time or full-time school psychologist who provided mental health services to students (61.4%). Only 41.7% of schools had a part-time or full-time social worker who provided services to students.

In conclusion, the majority of school districts in the U.S. utilize school- or district-based staff to provide mental health services, in addition to approximately half contracting with outside providers for mental health services. The most common types of district-based staff providing mental health services in schools include school counselors, nurses, school psychologists, and social workers. The majority of schools have at least one staff member providing mental health services, although the numbers have been found to range from as low as zero to as high as six.

#### *Types of Mental Health Services in the Schools*

Significant variation exists in the nature and types of mental health services (e.g., parent training, individual counseling, group counseling) delivered within the school system and by organizations closely affiliated with schools. This diversity of services is

partially because of the multiple objectives of mental health services provided across the entire continuum of prevention, education, and treatment (Adelman & Taylor, 2000).

Individual school sites also have unique features, such as the socioeconomic background of their students, that have to be considered when planning and evaluating mental health services (Ringeisen, Henderson, & Hoagwood, 2003).

In the School Mental Health Services in Foster et al.'s (2005) study, respondents reported the types of services provided to students in their schools, either directly by the school or district or through community-based organizations with which the school or district had formal arrangements. A high percentage of schools provided assessment for mental health problems (87%), behavior management consultation (87%), and crisis intervention (87%), as well as referrals to specialized programs (84%). Individual counseling, case management, and group counseling also were frequently provided (by 76%, 71%, and 68% of schools, respectively). In general, short-term interventions were more commonly provided than were services that tended to be longer term (e.g., counseling). Less than one-half of all schools reported that they provided substance abuse counseling (43%), and medication/medication management was the least likely of all services to be provided (34%). Schools also indicated that some services were more difficult to deliver than others. The service most frequently ranked as "difficult" or "very difficult" to deliver was family support services, followed by medication management, substance abuse counseling, and referral to specialized program or services. The services most frequently ranked as "not difficult" or only "somewhat difficult" to deliver were individual and group counseling, followed by behavior management and crisis intervention.



Part of the SHPPS 2006 assessment required respondents to report the types of services provided to students in their schools directly by school personnel, including school counselors and school psychologists (Brener et al., 2007). The three most common forms of mental health service delivery reported were individual counseling (92.9%), case management (83.7%), and group counseling (78.6%), followed by peer counseling or mediation (67.9%) and mental health assessments or intake evaluations (65.1%). Around half (57.4%) of schools offered a student assistance program (SAP), which provides services designed to assist students experiencing personal or social problems that can affect school performance, physical health, or overall well-being. More than three-fourths of schools provided each of the following services: crisis intervention for personal problems or after a natural disaster; identification of or counseling for mental or emotional disorders; identification of or referral for physical, sexual or emotional abuse and family problems; and stress management services. In addition, more than three-fourths of schools provided suicide prevention and violence prevention. Approximately 1 in 10 schools (13.6%) had a school-based health center (SBHC) that provided mental health and social services to students.

In a survey of a nationally representative sample of school psychologists, special and regular education teachers, and school counselors, Repie (2005) found that the most commonly cited services available as part of the school program were evaluation of emotional/behavioral problems (91%), individual counseling services (84%), and crisis intervention services (81%). The most infrequently available services were family counseling services (28%), substance abuse services (38%), and educational presentations to students on mental health (51%).

The infrequency of family counseling services was further illustrated in Whitmore's (2004) comprehensive study of the family counseling practices of school counselors, school psychologists, and school social workers. A random sample ( $N = 538$ ) was obtained through each profession's national organization; the overall response rate was 62.9%. Only 10.9% to 12.7% of the three groups of school practitioners reported providing school-based family counseling. Eighteen percent of respondents reported that family counseling was offered as a school-based service in their school districts. In the school districts providing family counseling, 34.9% of respondents reported that the service was provided by school counselors, 28.6% reported that the service was provided by school psychologists, and 44.4% reported that the service was provided by social workers.

Results from these studies suggest that although significant variation exists in the nature and types of mental health services delivered within the school system, the following mental health services are more commonly provided to students: assessment for mental health problems, crisis intervention, individual counseling, and case management (Brener et al., 2007; Foster et al., 2007; Repie, 2005). Contrastingly, services such as family counseling, substance abuse treatment, and referring students to specialized programs appear to be less commonly provided within the school system (Repie, 2005; Whitmore, 2005).

In addition to the provision of mental health services within a school by individual personnel, comprehensive mental health programs, such as student assistance programs (SAP), and school based health centers (SBHC) are becoming common modes of providing mental health services in the school. With the recent increase in the number

of SBHCs within the U.S., the system in which mental health services are being provided has broadened. To this end, a discussion of school-based health centers and the types of services provided within these programs is provided.

*School-based health centers (SBHC).* Over the past two decades, the number of SBHCs has grown rapidly. The movement towards more comprehensive school-based health and mental health services began in the 1980's and was driven by several national policy initiatives. According to Flaherty et al. (1999), in 1987 there were approximately 2,150 SBHCs nationwide. In 1993, the number had more than doubled to 5,000 SBHCs nationwide. Although the SBHCs were initially developed to provide primary health services, the provision of mental health services quickly became an essential component of these clinics. In a national survey of school-based health centers in 1998, mental health issues were reported as the second most frequently cited reason for visits to a SBHC (Flaherty et al., 1999). Given the prevalence of mental health needs among children, many school districts began to implement SBHCs. In the most recent SHPPS, Brener et al. (2007) found that 29.9% of districts had at least one SBHC that offered mental health and social services to students.

SBHCs provide some type of treatment and assessment to all children within a school. Assessment may include mental health evaluations, diagnostic interviews, classroom behavior observation, and screening for emotional or behavioral problems. SBHC programs often may offer individual therapy, group therapy, crisis intervention, or prevention-oriented services. One of the primary goals of a SBHC includes increasing access to mental health services and improving psychosocial functioning (Hunter, 2004).

The 2004-2005 Census of School Health Centers provided information about the types of mental health services provided in SBHCs (National Assembly on School-Based Health Care, 2006). Data were collected through a questionnaire that was mailed to health centers; 1235 SBHCs that were located in a school or on a school campus responded, representing a 72% response rate. Thirty four percent of the SBHCs employed a combination of primary care providers (i.e., physicians, physicians' assistants, or nurse practitioners) and mental health professionals (i.e., clinical social worker, psychologist, or substance abuse counselor) whereas thirty one percent of the health centers employed only primary care providers. Thirty one percent of the health centers employed primary care providers, mental health professionals, and professionals from other disciplines (e.g., health educator, social services manager). Primary care staff collectively averaged 28 hours per week and mental health professionals averaged 33 hours per week on-site. Mental health and counseling services provided by SBHCs with mental health staff included crisis intervention (91%), grief and loss therapy (91%), referrals (91%), and screening (87%). For those SBHCs with only primary care providers, the most common mental health and counseling services provided were comprehensive mental health diagnosis (63%), referrals (63%), screening (62%), and crisis intervention (53%). Additionally, many health centers were involved in prevention activities, including small group social skills building (47%) and violence/conflict resolution (42%).

Taken together, the aforementioned studies have found that schools often offer a breadth of mental health services to their students, ranging from individual counseling to crisis intervention. These studies suggest that individual counseling, crisis intervention,

case management, and general mental health service referrals are the most common modalities of mental health services provided to students (Brenner et al., 2007; Flaherty et al., 1999; Foster et al., 2007; Repie et al., 2005). Services such as family counseling, referrals to specialized programs, and other specialized mental health services (e.g., substance abuse counseling, violence/conflict resolution) are provided less frequently. The body of literature on the types of mental health services provided in schools is limited by differences in the definition of mental health services utilized in each study. In particular, studies vary across the types of mental health services included and the degree to which each service is detailed into a comprehensive list (i.e., counseling: substance abuse vs. family). A consistent finding across studies is that school psychologists often have a role in the provision of mental health services in the schools. However, a more thorough review of the professional practices of school psychologists within the schools reveals they spend relatively little time in the role of interventionist (Curtis et al., 2004).

#### *School Psychologists Role and Function*

With the recognition of the importance of providing mental health services to children, including studies portraying a vast discrepancy between the number of children with mental health problems and those actually receiving services, schools increasingly have become the most common means by which children are provided mental health services. Accordingly, the field of school psychology has recognized the importance of the provision of mental health services in the schools as well as the major role that school psychologists can play in providing these services. To this end, a review of school psychologists' role in the schools is provided, particularly in the provision of mental

health services, as well as the amount of time currently spent and desired to be spent in the provision of mental health services.

### *Expectations for School Psychologists' Involvement in Mental Health Services*

Several sources provide direction regarding the present and future courses of the field of school psychology, including the potential and essential roles that should be performed by school psychologists. Professional organizations and the school psychology literature are two such sources of direction. Professional organizations provide practitioners with a framework of their roles within the school system through position statements. School psychology literature commonly provides the field with a research-based synthesis of how school psychologists can expand their roles within the school system.

*National Association of School Psychologists.* The National Association of School Psychologists (NASP) is an international organization with more than 22,000 members that has been influential in setting the standards for school psychology programs and practice in the United States (NASP, 2000b). NASP publishes position statements that describe the ideal functions and roles of school psychologists, including a statement on providing mental health services in the schools. As summarized in this statement, NASP acknowledges the importance of such factors in students' lives as psychological health, supportive social relationships, positive health behaviors, and schools free of drugs and violence in facilitating success in school (NASP, 2003). NASP advocates for the implementation of comprehensive mental health services in the schools in order to help students overcome barriers to learning, often stemming from poverty,

family difficulties, and/or emotional and social needs. Regarding the professional role of the school psychologist, NASP (2003) states the following:

School psychologists are at the forefront of mental health service delivery in the schools. School psychologists are uniquely trained to integrate the knowledge and skill base of psychology with their specific training in learning, child development, and educational systems. Given this broad training and experience, school psychologists are well-qualified to provide comprehensive, cost-effective mental health services. (p. 1)

Regarding specific activities provided through comprehensive mental health services, NASP notes school psychologists currently provide such services as assessment, counseling, implementation of prevention programs, behavioral consultation services, and crisis intervention. NASP states that “school psychologists serve students directly through individual and group counseling/therapy services, and as members of comprehensive school based mental health programs” (2003, p. 1). Of note, out of NASP, the American Psychological Association Division of School Psychology, and the Florida Association of School Psychologists (FASP), NASP was the only professional organization to provide a position statement on the provision of mental health services.

*School psychology literature.* Similarly, calls for the expansion of the role of the school psychologist through the delivery of mental health services have been made in the school psychology literature. For instance, Ehrhardt-Padgett, Hatzichristou, Kitson, and Meyer (2004) argued that no matter what role a school psychologist currently has—practitioner, trainer, or student—they must begin to conceptualize their roles in service delivery differently. They call for school psychologists to take action by promoting the

need for comprehensive mental health services in the schools and to offer opportunities for professional development related to consultation, intervention, and mental health.

Moreover, because school psychologists possess expertise and experience in mental health and education, they have been recognized as being uniquely qualified to fill the position of school-based mental health specialists (Nastasi, 2000; NASP, 2006). For example, Nastasi (2004) highlights school psychologists' intervention skills as a facilitator in developing and implementing classroom-based programs, and small-group and individual interventions, and in developing educational programs for teachers, parents, students, and community members. NASP (2006) cites that school psychologists have the training and skills to implement prevention, intervention, and outcomes evaluation that link mental health to education and behavior. In addition to possessing the skills required to provide mental health services, school psychologists have consistently voiced a desire to spend more time providing these services and less time in their current major functions, as discussed in the following sections.

#### *School Psychologists' Major Functions*

Despite calls to spend increased time in activities relevant to mental health intervention, the typical school psychologist spends more than one-half of his or her time in assessment activities related to special education eligibility decisions (Curtis et al., 2004; Curtis et al., 2008). Indeed, the establishment of the school psychologist as a practitioner within the school system was founded on the function of psychoeducational assessment for special education placement (Fagan & Wise, 2007). Although this has been the primary function of a school psychologist, for the past few decades leaders in the field have advocated for role expansion and respecialization (Crespi & Politikos,



2004). Even with repeated calls for increased services over the past decades, the foundation of the assessment role has continued across the century but also has yielded to two other major roles for school psychologists: direct intervention and consultation, with the earliest mentions of intervention occurring in the 1930's (Fagan & Wise, 2007). Across the decades, these three roles have accounted for most of the school psychologist's time (Crespi & Politikos, 2004). In addition, the traditional assessment role itself has broadened in scope as additional factors, such as environmental (e.g., home environment, classroom environment), have been acknowledged to contribute to the problems of children and their education (Fagan & Wise, 2007).

Since 1970, social and educational movements have strengthened the school psychologist's identity and supported more expanded services and functions. For example, since the 1970s, practice has been largely defined by special education legislation and funding (Fagan, 1992). During this time period, a number of legal challenges to special education occurred and a number of legislative acts were passed, the most important being PL 94-142 (Education for All Handicapped Children Act) in 1975 (United States Senate and House of Representatives, 1975). Most recently the Individuals with Disabilities Education Improvement Act (United States Senate and House of Representatives, 2004) was issued, which may change the assessment role of the school psychologist (Worrell, Skags, & Brown, 2006). In the field of special education, towards the end of the 1980's the focus shifted to another target group, "children at risk." With this shift, changes occurred in the provision of related services and instruction, and more recently toward functional assessment. A shift in the school psychologist's role towards pre-referral assessment, intervention, and secondary

prevention for at-risk groups are additional potential indicators of changes in role and function (Furlong, Morrison, & Pavelski, 2000). More recently, there has been a resurgence of interest in consultation and an ecological approach to family assessment and intervention, including communication and collaboration between the home and the school (Fagan & Wise, 2007). Due to these various external forces (i.e., legislation, social changes), a greater potential for school psychologists to broaden their roles within the school system has emerged. Importantly, job-site characteristics (e.g., school psychologist: student ratio; school system expectations) and what the person brings to the job (e.g., professional skills and personal characteristics) also are influential factors in determining the role of each individual school psychologist (Curtis et al., 2002; Curtis et al., 2004; Hosp & Reschly, 2002).

*Time school psychologists spend in each major function.* In general, school psychologists spend more than half of their time in activities related to students who have identified disabilities and are part of the special education system (Curtis et al., 2008; Hosp & Reschly, 2002). The services that school psychologists deliver are significantly oriented toward assessment, with an average of 52% to 55% of their time spent in psychoeducational assessment, 21% to 26% in direct interventions (e.g., counseling), 19% to 22% in consultation, and 1% to 2% in research and evaluation (Bramlett, Murphy, Johnson, Wallingsford, & Hall, 2002; Curtis et al., 1999; Hosp & Reschly, 2002). For example, a 1991-1992 survey of 1,089 NASP members and practitioners showed that school psychologists devoted more than one-half of their time to psychoeducational assessment (55%), with considerably less time devoted to direct

intervention (20%), problem-solving consultation (16%), and systems-organizational consultation and research-evaluation (5% or less) (Reschly & Wilson, 1995).

Studies published in recent years show a similar allocation of time across the school psychologist's professional roles, although many recent surveys have provided means for psychologists to indicate their involvement in more professional roles and functions in line with the change in the field toward an expanded role of service delivery modalities. Curtis et al. (2008) solicited participation from a random sample of NASP members during the summer of 2005, obtaining a final sample of 1,748 school psychologists. Respondents indicated spending the majority of their time in special education activities (80.4% of time in activities such as evaluations for special education eligibility and development of 504 plans). The majority (96.4%) of participants indicated that they provided consultative services, with the largest percentage of practitioners (47.9%) consulting for 1 to 25 cases. More than half of participants (53.7%) indicated that they provided individual counseling for 1 to 15 students and an additional 17.7% of participants indicated that they provided individual counseling for 15 or more students; however, 28.6% of participants indicated that they did not provide individual counseling for any students. Far more school psychologists (60.1% of participants) indicated that they did not provide any group counseling services. Contrastingly, 22.7% of participants reported providing group counseling services to ten or more students. Almost three fourths (67.1%) of participants provided in-service programs in their schools.

Agresta (2004) solicited participation from 400 randomly-selected members of NASP, as well as members of the School Social Work Association of America and the American School Counselor Association. The final sample included 137 school

psychologists. Respondents indicated spending the majority of their time in assessment and report writing (41%), followed by consultation (15%), individual counseling (7%), and staff meetings (5%). Similar results were obtained in survey research by Bramlett et al. (2002), in which a random sample of 370 school psychologists indicated spending 46% of their time in assessment, followed by consultation (16%), direct interventions (13%), and counseling (8%). Of note, definitions of “direct interventions” and “counseling” were not provided in the article, precluding a clear understanding of the differences between these two types of activities.

Collectively, a consistent pattern with respect to the school psychologist’s role within the school system has sustained over the last 20 years (Bramlett et al., 2002; Curtis et al., 1999; Curtis et al., 2008; Hosp & Reschly, 2002; Reschly & Wilson, 1995). School psychologists spend the majority of their time in assessment-related duties, and substantially less of their time involved in counseling and consultation. Studies are limited by designs that preclude making statements specific to the provision of various and specific mental health services.

#### *Trends in School Psychologists’ Roles Specific to Mental Health Services*

School psychologists have been concerned with the mental health of school children since the beginning of the field, evidenced by the efforts of early school psychologists to establish comprehensive services for children (Fagan & Wise, 2007). Federal law has mandated school psychologists’ involvement. Specifically, in PL 94-142, counseling is specified as a related service that must be provided by a qualified social worker, school psychologist, or guidance counselor when deemed necessary by a student’s IEP (United States Senate and House of Representatives, 2004). According to

IDEA, such services may be necessary to assist a child with a disability to benefit from special education. In addition to government policies, increased societal stressors have been identified that impact children's mental health and subsequently the learning environment of children. Crocket (2004) summarized the critical issues facing children in the 21st century, which included poverty, violence, and serious behavioral and emotional issues. School psychology literature has continually published calls for school psychologists to respond proactively with respect to providing mental health services to children in schools (Herman, Merrell, Reinke, & Tucker, 2004; Nastasi, Varjas, Bernstein, & Pluymert, 1998; Sheridan & Gutkin, 2000) and to provide a continuum of mental health services in schools, addressing primary prevention as well as implementation of secondary and tertiary services that treat mental health needs in school children.

Surveys suggest that whereas school psychologists have been providing a breadth of services for many years, there does not appear to be a positive trend in practitioners' provision of mental health services. A 1994-1995 survey of NASP-member school psychologists revealed that the majority of the sample of 1,414 school-based practitioners provided a range of services, including psychoeducational assessment (97% of respondents), consultation (97%), individual and group counseling (82% and 53%, respectively), and educational programs for parents, teachers, and others (78%; Curtis et al., 1999). The most recent national survey of 1,748 school-based school psychologists in 2004-2005 indicated that most of the practitioners provided an array of services, including special education activities (80%; includes special education evaluations and development of 504 plans), consultation (96%), individual and group counseling (71%

and 40%, respectively), and inservice programs (67%; Curtis et al., 2008). These results suggest that the number of practitioners providing mental health services, specifically individual and group counseling, decreased by approximately 10% of practitioners in the latest ten year period surveyed.

Despite this trend towards continuation of the assessment role without expanding professional services to include direct intervention, the paradigm shift occurring within the field (i.e., movement away from the test and place model) has allowed many school psychologists to carve out their own roles as a mental health provider within the school system. Nastasi et al. (1998) surveyed school psychologists who were engaged in a mental health program that had been identified as exemplary by NASP. Surveys were returned by 87 programs (representing 36 states), with 90% of the 87 mental health programs providing services in public schools. With regard to responsibilities in general, the 87 school psychologists spent 21% of their time in assessment, 20% in counseling, 27% in consultation, 16% in prevention, and 6% in research. These school psychologists devoted almost one-half (48%) of their total work time to the specific mental health program. Of note, the difference in amount of time spent in providing mental health services in this study compared to previous studies mentioned may be due to the school environment and attitude towards the provision of mental health services. Despite small movements within the field towards an expanded role for the school psychologist, research suggests that school-based practice continues to involve primarily psychoeducational assessment and, to a lesser extent, consultation-focused service provision. However, a review of the literature demonstrates that most school

psychologists are not content with the limited time they spend providing mental health services in their professional roles.

#### *Discrepancy between Actual and Desired Involvement in Mental Health Services*

Early studies showed that a majority of school psychologists provided at least some direct mental health services, and that most wished to increase their time spent in such activities. Smith (1984) found that practitioners spent approximately 11% of their time providing counseling services (7.3% of services provided to students and 3.8% to parents), but desired to spend approximately 18% of their time providing counseling services. Yoshida, Maher, and Hawryluk (1984) found that 60% of school psychologists that they surveyed reported providing individual counseling services (37% for 1-5 hours per week, 16% for 6-10 hours, and 7% for 11 hours or more per week) and 46% of the school psychologists reported provided parent counseling (41% for 1-5 hours per week, 4% for 6-10 hours, and 2% spent for 11 hours or more). When participants were asked to indicate to which of several activities they wished to devote more time, the two highest rated were counseling pupils (66%) and counseling parents (43%).

A 1993 survey of 178 NASP members and practitioners focused on their role specific to counseling (Prout et al., 1993). In regards to their professional roles, 70% of the respondents indicated that counseling/therapy services were specifically included in their job description. Respondents spent an average of 17% of their time providing counseling/psychotherapy services; 100% of respondents indicated provision of at least some services in this area. Respondents reported seeing an average of 6.4 students weekly for individual counseling and 10.3 students weekly in group sessions. Of note, 53.9% of the respondents indicated that they would like to undertake more counseling,

whereas 43.7% indicated that they would like to undertake about the same amount of counseling.

More recently, Yates (2003) surveyed a final sample of 242 randomly selected NASP members. Approximately 72% of respondents indicated that they provided counseling. Respondents indicated spending 17.2% of their time in counseling (vs. 49.8% in assessment, 9.4% prevention, 18.5% consultation, 17.7% administration, and 4.6% research). Respondents indicated a desire to spend 22.0% of their time providing counseling services. As aforementioned, the 137 NASP members who responded to Agresta's (2004) survey reported spending 7.4% of their time providing individual counseling services; 2.6% of their time was spent providing group counseling services. Respondents indicated a desire to spend 11.9% of their time providing individual counseling services and 3.1% of their time providing group counseling services. Respondents also reported a desire to increase their time spent providing staff trainings (from 2.6% to 4.7%, respectively) and to decrease their time spent in assessment and report writing (from 41% to 24%, respectively).

The most recent study identified in the literature that addressed the discrepancy in mental health service provision was conducted by Luis (2005), who solicited participation from 977 randomly-selected NASP members and obtained a final sample of 463 school psychologists (response rate = 47.4%). The majority of participants (74.3%) indicated that they would like to be involved in providing more mental health services whereas less than a quarter of participants (23%) indicated that they would not like to provide more mental health services. Themes were generated from participants' responses to an open-ended question regarding why they would like to spend more or less



time providing mental health services. Themes included: mental health needs are increasing (reported by 11.9% of the sample of participants who indicated that they would like to be providing more mental health services), many problems (academic and behavioral) stem from mental health problems (8.2%), a personal belief in prevention and early intervention (6.9%), and feeling like too much time is currently spent in assessment (6.3%). Among those participants who indicated that they did not desire to spend more time providing mental health services, respondents indicated that it was not the responsibility of the school and/or the community already provided such services (5%), there was not enough time (4.1%), too much time was already devoted to mental health services (2.6%), and that they had a nice balance already in their professional roles (2%).

In conclusion, the majority of researchers over the decades have found that most school psychologists wish to spend more time in the provision of mental health services. Results from Luis' (2005) research suggest that many practitioners are aware that mental health needs are increasing in youth and, in turn, may be providing more direct intervention services to meet this need. To this end, the type of mental health services currently being provided by school psychologists is an important area of research.

#### *Specific Mental Health Services Provided by School Psychologists*

Recent research sheds light on the details of the types of mental health services provided by school psychologists. In Luis' (2005) previously-described survey of school-based mental health services, participants were provided with a list of 18 mental health services and asked to check each service that they provide and estimate the number of hours per week that they spend providing each service. Over half of respondents reported providing assessment and diagnosis (93.5%), behavior management consultation

(86.8%), academic consultation (82.5%), individual therapy/counseling (59.8%), and crisis intervention (58.1%). Other mental health services provided by practitioners included designing/administering individual service plans (46.2%), social skills training (38.2%), staff development (37.8%), and group therapy/counseling (30.7%). The least frequently reported mental health services were substance abuse counseling (4.3%), vocational counseling (5.4%), and research and evaluation (13%). Similarly, the mental health services that comprised the most time in practitioners' 40 hour work week included assessment and diagnosis (31.5% of time in a 40 hour work week), academic consultation (9.4%), behavior management and consultation (8.4%), and individual therapy/counseling (7%). Although many participants indicated providing interventions such as social skills training and group therapy/counseling, only a small amount of time in the work week was spent providing such services (2.2% and 2.1%, respectively). Because this study relied solely on survey methodology, forced-choice answers were the mode by which participants gave information and therefore limited researchers in obtaining in-depth information in regards to the breadth of services provided. Furthermore, the large amount of time respondents reported providing assessment and diagnosis services (i.e., 31.5%) suggest that participants may not have limited their responses to activities specific to mental health services (e.g., social-emotional behavioral assessment to determine the clinical needs of students with mental health problems vs. psychoeducational assessment completed to determine eligibility for special education).

A comprehensive list of mental health services can be gleaned from the qualitative study of SBMH services conducted by Suldo et al. (2010). The 39 participants were provided with a definition of mental health services and a list of

examples and non-examples, then asked to describe each mental health services they provided in the schools. The activities discussed most frequently during the focus groups included group counseling (frequency count [fc] of times mentioned = 39), individual counseling ( $fc = 32$ ), and crisis intervention services ( $fc = 30$ ). Of note, participants described providing group counseling to address a variety of issues, including social skills, anger management, study skills, and anxiety management groups. Crisis intervention services included suicide assessment and intervention, threat assessment, and de-escalation of individual/classroom problems. Other mental health services participants reported providing included consultation with school staff (e.g., individual teachers, support personnel, or participation on problem-solving teams;  $fc = 15$ ), behavioral interventions ( $fc = 15$ ), case management ( $fc = 10$ ), family services ( $fc = 10$ ), and social-emotional behavioral assessment ( $fc = 9$ ). Although not discussed as often, some participants also reported providing inservices ( $fc = 4$ ) and prevention-related activities ( $fc = 3$ ). Although this qualitative study allowed for the thorough identification of the range of services school psychologists provide under the umbrella of SBMH activities, results cannot be generalized beyond the small and geographically-limited sample that participated in the study.

Some research has clarified the specific ways in which some mental health services (e.g., counseling, crisis intervention) are provided by school psychologists. Of the 72% of school psychologists in Yates' (2003) survey who indicated providing counseling services, the most commonly cited theoretical orientations used in treatment were behavioral/cognitive behavioral therapy (36.5%) and solution-focused behavior therapy (18.6%). The use of Adlerian (1.2%), gestalt (1.2%), and psychodynamic (3.3%)

approaches were least common. Regarding frequency of mental health services, approximately 62% reported providing individual counseling on a regular basis whereas 34.7% provided it at least on an occasional basis. Most individual sessions occurred weekly (54.4%), lasted from 30-45 minutes (73.3%), and involved five or more sessions (39.6%). Approximately 41.1% of the subset who endorsed individual counseling reported that they provided group counseling for students on a regular basis and 32.9% indicated providing group counseling at least on an occasional basis. Most student group sessions occurred weekly (79.5%), with 1-5 groups (77.5%), and involved 5-16 sessions (54.2%). Approximately 18.2% provided classroom counseling (e.g., social skills training) and 19.1% provided family counseling.

An in-depth examination of services relevant to a specific form of crisis intervention (i.e., suicide prevention and intervention) was conducted by Debski, Spadafore, Jacob, Poole, and Hixson (2007). These researchers distributed a survey on suicide intervention in schools to a random sample of 400 NASP members and obtained a final sample size of 162 respondents employed by a school district. The majority of respondents (93%) reported participating in some suicide prevention and postvention activities. The most common services reported included serving on a crisis intervention team (75%), assessments of suicidal risk (68%), coordination of referrals of at-risk students and their families to community agencies (65%), providing counseling/support for students identified as potentially suicidal (59%), and providing professional development training for staff on recognizing warning signs and action steps (38%). The most common postvention services reported included providing grief counseling to students (84%), referring students at risk to community agencies (69%), responding to

concerns of parents of other students (67%), assessment of suicidal risk of other students (62%), providing debriefing to the staff (61%), and helping the school and community understand the grief process (51%). This study is unique in that it yielded a clear picture of school psychologists' roles within a specific type of mental health service (i.e., crisis intervention relevant to suicide). Similar research exploring other types of mental health activities (e.g., group counseling, parent consultation, social-emotional-behavioral assessment) is needed to shed additional light on practitioners' activities during their provision of SBMH services.

In sum, the majority of studies conducted on the provision of SBMH services indicate that practitioners commonly provide individual and group therapy, crisis intervention, and consultation services to students. However, comparisons between studies are limited due to the lack of a consistent definition of mental health services and the varying types of mental health services offered as response options in forced-choice studies (e.g., survey research). Although research conducted by Suldo et al. (2010) provided participants with an open-ended question that was more likely to elucidate the full range of mental health services provided by school psychologists, the results need to be generalized to a larger, more representative sample of practicing school psychologists.

#### *Barriers to the Provision of Mental Health Services in Schools*

A review of the existing literature identified only a handful of studies that have examined barriers that prevent school psychologists from providing the range and frequency of mental health services they desire to provide. Many of the studies provide an examination of barriers to the provision of a specific type of mental health service (e.g., suicide intervention, counseling). Out of those studies identified in the literature,

only one directly addressed school psychologists' perceived barriers to a broader, more encompassing definition of mental health services. A synthesis of the perceived external and internal barriers to SBMH service provision identified in each of the studies is presented below.

Meyers and Swerdlik (2003) discussed a number of external and internal barriers school psychologists may face in working in a school-based health center (SBHC). General barriers that were hypothesized to limit the potential utility of SBHCs include the following: confusion over the various terminology used to refer to SBHCs; cultural and attitudinal factors, such as the stigma associated with mental health problems; cultural, religious, or political climate of a given community that may limit preventive interventions that address sensitive issues (e.g., adolescent sexuality, substance abuse); insufficient funding to provide adequate resources for the large number of students with mental health problems; and a lack of integration and coordination within current school-based programs. Finally, two barriers were identified in relation to the school psychologist's role within the school: (a) narrow role of the school psychologist as the sole provider of assessment, and (b) role strain stemming from practitioners' efforts to provide comprehensive services to all students. For any school psychologist, the expanded role opportunities in SBHCs provide an avenue for professional development, but may also be overwhelming, leading to feelings of stress and exhaustion.

In the SAMHSA survey (US DHHS, 1999), schools ranked the extent to which 10 factors were barriers to their delivery of mental health services, using a scale of 1 ("not a barrier") to 4 ("serious barrier"). The factors most often reported as barriers or serious barriers included: financial constraint of families (58%), insufficient school and

community-based resources (49%), competing priorities for use of funds (46%), difficulties with transportation (45%), and inadequate community mental health services (44%). Least often reported as serious barriers were protection of student confidentiality (8%) and language and cultural barriers (20%). A limitation of this study includes the use of forced-choice in responding to the items pertaining to this topic within the survey. As such, the types of barriers included in the survey may not necessarily represent the entire range of factors that practitioners consider barriers. Of those barriers listed, most reflected external, systems-level barriers (e.g., funding) to the exclusion of internal, within-person barriers (e.g., practitioners' skill level). In addition, because responses from administrators, school counselors, and school psychologists were collapsed, it is impossible to determine which group of professionals viewed which barrier as being the greatest.

Participants in Yates' (2003) survey of school psychologists from preschool, elementary, middle, and high schools responded to a series of statements that listed factors that either facilitated more time spent on counseling or presented barriers to spending more time in the counseling role. The list of barriers included six categories and an "other" choice category which also provided space for additional comments and the words "please elaborate." Participants were asked to check all that they perceived as representing barriers. The barriers rated as most preventing practitioners from spending more time in counseling pertained to role responsibility. Specifically, respondents endorsed a heavy emphasis on assessment (68.2%) and the fact that counseling was not part of their roles in the school (52.5%) as two common barriers. An additional barrier endorsed by a number of respondents was that counseling is not currently part of their

identified/written job responsibilities (26.4%). Relatively few respondents indicated that low interest (6.6%), belief that counseling should be provided outside of school (3.7%), or a low number of referrals (5.4%) were significant reasons preventing them from spending additional time on counseling. Additional barriers elicited through the “other” choice included insufficient training in counseling (e.g., “I don’t feel that I have received adequate training/supervision to provide counseling services in the schools”; “close supervision or training specific to the school setting would have increased my confidence”), other job responsibilities, parent/student issues, and the perception that their school district does not view counseling as a necessity. When asked to elaborate on the “other” barriers participants indicated, respondents replied that (a) “case management and assessment impact my ability to provide counseling” and (b) “I have a large number of assessments that cause counseling to take a back seat.” Regarding district perception of counseling services as a barrier, respondents indicated that (a) “counseling is a huge area of need, but budgets are tight,” (b) “my district is not pro mental health,” and (c) “my state does not encourage school psychologists to provide counseling.” While this is one of the few studies to focus on barriers specific to school psychologists, the questionnaire utilized consisted of only closed-ended and partially closed-ended questions and a minimal list of six barriers. Because so little research has been conducted on this topic, it is difficult to know what are the most common barriers to the provision of mental health services. For example, in this particular study insufficient training was not listed as a barrier, yet it was noted by multiple respondents in the “other” category. Ideally, this type of survey would have been constructed using data from a preliminary



study that used open-ended questions to allow respondents to identify the range of barriers in order to gather information on emerging themes.

More recent survey research that assessed barriers to mental health service provision was conducted by Luis (2005). In this study, participants responded to three forced-choice, likert-style questions regarding the level of support perceived from school administration, district administration, and staff. The five response options ranged from (1) *no support* to (5) *much support*. The mean level of support from administration was 3.22. The greatest proportion of participants indicated that they felt average support from administration (32%), followed by more than average support (21%) and slight support (20%). The mean level of support from staff was 3.33. The greatest number of participants indicated that they felt average support from staff (42%), followed by more than average support (25%) and slight support from staff (13%). The lowest overall mean level of support was reported for the department, with an average of 3.20 reported by participants. The greatest number of participants reported receiving average support from the department (28%) followed by more than average support (21%) and slight support (20%). In sum, participants perceived a relatively similar rate of support for all three areas (range 3.20 to 3.33), that corresponds to slightly more than average support. While this study is commendable in its efforts to address the importance of support from both system- and school-level personnel, it failed to include other important external barriers that have been identified via empirical research (e.g., Suldo et al., 2010), nor did it examine the internal barriers that school psychologists may face during their provision of mental health services. It is also difficult to infer that lack of support from each of these areas is perceived as a barrier by the participants given that the survey did not

directly ask if each of these areas is a barrier to mental health service provision. Some participants may feel a lack of support from one of these areas yet not perceive this as a barrier to service provision. Furthermore, although the majority of participants indicated providing mental health services through a school-based site of service delivery, some were also providing services in other settings (e.g., 7.8% in private practice setting, 4.1% day treatment center). Hence, results may not be representative of those school psychologists who are only providing SBMH services.

Debsksi and colleagues' (2007) survey on suicide intervention in schools required respondents to complete a four-page questionnaire regarding training in suicide intervention, including a question regarding barriers to providing suicide intervention and postvention services. The barriers most frequently cited by respondents included: (a) their job description focused on assessment and remediation (38% of participants), (b) a belief that suicide prevention and response are the job of others (25%), (c) a lack of training in suicide and response (24%), and (c) serving too many schools to be involved (18%). Only 4% of participants indicated that they were not interested in this aspect of services. Participants with doctoral training reported a mean of .86 barriers whereas participants who had nondoctoral training (masters degree, masters degree plus certificate, or specialist degree) reported a mean of 1.22 barriers to suicide intervention and postvention service provision. Limitations of this study involve the inclusion of only five barriers to service provision, and that the perceived barriers identified can only be generalized to the provision of suicide intervention and postvention services.

A more extensive list of barriers to SBMH service provision can be gleaned from results of a study conducted by Suldo et al. (2010). A total of 39 practicing school

psychologists in a southeastern state participated in eleven focus groups examining school psychologists' provision of psychotherapeutic services in the schools. Participants responded to an open-ended question regarding barriers to the provision of SBMH services. The most commonly cited barrier by participants involved problems inherent to using schools as the site for service delivery (i.e., the exclusive focus on academics in educational accountability, difficulty scheduling scheduled meetings with students because of their other work responsibilities, concern regarding students' ability to attend sessions regularly, termination of treatment issues, maintaining privacy, and discomfort in the overlap between services provided by related personnel). Participants also commonly cited insufficient support from the department and district administration as a barrier, which involved frustration with their department's conceptualization of school psychologists' professional practices, vague and/or cumbersome procedures and documentation, fear of liability and legal issues, and insufficient support from district-level administration related to budget decisions that limited funding for SBMH services. Participants also discussed problems with school personnel as a barrier, including experiencing: a lack of support from building-level administration, teachers as unsupportive of counseling or unaware of their ability to provide SBMH services, and isolated problematic teacher behaviors. Insufficient time and integration into a school site was also described as a barrier. Participants also discussed barriers relevant to themselves (i.e., factors they brought to the work site), including perceiving themselves as insufficiently professionally trained, having a personal desire to provide traditional services, feeling burn-out, and having personal mental health issues. Other barriers discussed by participants include an overwhelming caseload at the school, role strain, and

dealing with challenging student factors (e.g., aversive student characteristics, an uninvolved family). Although an exhaustive list of both external and internal barriers to SBMH service provision can be gleaned from this study, findings from this preliminary study need to be explored among a larger, more representative population of practicing school psychologists.

In sum, few studies have examined what prevents school psychologists from providing needed and desired mental health services. Only three studies (Debski et al., 2007; Suldo et al., 2010; Yates, 2003) have examined why the gap between the amount of time school psychologists currently spend providing mental health services and their desired amount of involvement is occurring. Only one of the aforementioned studies (Suldo et al., 2010) allowed for participants to provide responses as to the full range of perceived barriers to SBMH service provision. Although information regarding the types of barriers that school psychologists perceive inhibit them from providing more mental health services within their roles has begun to accrue, the results of these studies cannot yet be generalized to a larger, more representative sample of school psychologists practicing in a school setting.

#### *Facilitators to the Provision of Mental Health Services in Schools*

A review of the existing literature identified only a handful of studies that have examined facilitators to SBMH service provision, often included in the same studies that addressed school psychologists' perceived barriers to mental health services. Drawing from these studies, a wide range of external and internal factors that facilitate the provision of SBMH services by school psychologists can be identified.

Participants in Yates' (2003) survey of school psychologists responded to a series of statements that listed factors that were presumed to facilitate more time spent on counseling. Participants endorsed several facilitators to SBMH provision, including personal interest in counseling (60%), societal changes affecting children and families (50%), crisis at school within the past two years (44%), belief that counseling is an important role (43%), school administration support (35%), graduate training emphasis in counseling (35%), and state mandate (5%). This study is limited by its narrow definition of mental health services (i.e., counseling), as well as its use of a questionnaire that consisted of only closed-ended and partially closed-ended questions and a minimal list of facilitating factors.

Participants in Luis' (2005) survey were asked to rank order a list of nine factors in terms of those that they believed contributed to their success in delivering mental health services. The factor that received the lowest mean ranking by participants was access to /linkages with community resources (8.07), followed by school problem-solving team (6.75), parent/family support (5.55), school psychologist/student ratio (5.36), and funding (4.89). The possible facilitators of staff support (4.01), teacher willingness/acceptance (3.12), administrative support (2.55), and training (1.15) received the highest ranking by participants. While this study is commendable in that it is one of the few studies to focus on facilitators specific to mental health service provision by school psychologists, the questionnaire utilized consisted of only one closed-ended question that included a minimal list of nine facilitators. Furthermore, although the majority of participants indicated providing mental health services through a school-based site of service delivery, some participants were also providing services in other

settings (e.g., private practice, day treatment center). Hence, results may not be representative of those school psychologists who are providing only SBMH services.

A more extensive list of the factors that facilitate the provision of SBMH services by school psychologists can be gleaned from results of the study conducted by Suldo et al. (2010), in which school psychologists also responded to an open-ended question regarding factors that facilitate their provision of SBMH services. Participants described the importance of receiving sufficient support from department and district administration via department level assignments that specified expectations for mental health roles and responsibilities, professional development opportunities, and district level prioritization of mental health in part as evidenced by provision of sufficient funding and resources. Facilitating factors relevant to personal characteristics included having a personal desire to provide direct interventions, the ability to set personal boundaries, and the ability to remain objective with a student client. Participants also noted they were more able to provide mental health services if they had sufficient time and visibility at their school site and had established facilitative relationships with school personnel. Participants discussed the need for sufficient academic preparation and/or resulting confidence in one's skills as enabling them to provide more mental health services. The advantage of working in schools was also identified as an enabling factor, described as having the availability of consulting with other in-house mental health providers and availability of sufficient space. School psychologists' caseload, both in terms of having a manageable number of students in need of mental health services and/or assessment, was also identified as a facilitator. Finally, participants noted that a community environment supportive of SBMH services facilitated their provision of SBMH services. While this

exploratory research study allowed for respondents to identify the range of factors they perceived enable them to provide SBMH services, the study is in need of replication with a representative, national sample of practitioners in order to test the generalizability of findings.

In sum, few studies have examined what prevents or enables school psychologists during their provision of mental health services. Studies by Yates (2003) and Suldo et al. (2010) found that the type and amount of training received by school psychologists can serve as either a barrier or facilitator depending on the extent of one's training. To this end, a review of the mental health training required for accreditation and a review of current research on the amount of mental health training school psychologists currently receive is discussed in an effort to identify variability in training that would support the preliminary findings from previous research.

#### *School Psychology Graduate Training*

There are currently approximately 32,000 school psychologists working nationwide in the field and approximately 200 school psychology training programs (Charvat, 2005). Most school psychologists have been trained at the 60-hour educational specialist level or beyond, with approximately 32% of practitioners attaining the doctoral degree (Curtis et al., 2008). Both NASP and the American Psychological Association Division 16 (School Psychology) provide standards that guide the training and practice of school psychology, with a rigorous accreditation process for program approval.

#### *National Association of School Psychologists*

While it is impossible to list exact courses school psychologists take because programs are permitted great variability, accredited programs do have to address

standards. In order to become a NASP-accredited program in school psychology, a program has to provide knowledge and training in a number of domains of professional practice as indicated in the *NASP Standards for Training and Field Placement Programs in School Psychology* (NASP, 2000a). Programs must ensure that their students have a foundation in the knowledge base for psychology and education, including theories, models, empirical findings, and techniques in each domain. Pertaining to the provision of mental health services, NASP requires programs to provide training in the domains of “prevention, crisis intervention, and mental health” (NASP, 2000a, p. 30). This domain includes the following:

School psychologists have knowledge of current theory and research about child and adolescent development; psychopathology; human diversity; biological, cultural, and social influences on behavior; societal stressors; crises in schools and communities; and other factors. They apply their knowledge of these factors to the identification and recognition of behaviors that are precursors to academic, behavioral, and serious personal difficulties (e.g., conduct disorders, internalizing disorders, drug and alcohol abuse, etc.). They have knowledge of effective prevention strategies and develop, implement, and evaluate programs based on recognition of the precursors that lead to children’s severe learning and behavior problems. School psychologists have knowledge of crisis intervention and collaborate with school personnel, parents, and the community in the aftermath of crises (e.g., suicide, death, natural disasters, murder, bombs or bomb threats, extraordinary violence, sexual harassment, etc.). School psychologists



provide or contribute to prevention and intervention programs that promote the mental health and physical wellbeing of students. (pp. 30-31)

*Division 16 (School Psychology) of the American Psychological Association*

The American Psychological Association (APA) provides accreditation of education and training programs in professional psychology, including school psychology, consistent with their recognized scope of accreditation practice, and their published policies, procedures, and criteria. Similar to NASP program accreditation process, to become an APA-approved program each program must fulfill certain requirements. Because of the breadth of professional psychology, accreditation guidelines are broader than NASP's guidelines. According to the Guidelines and Principles for Accreditation of Programs in Professional Psychology (APA, 2005), programs must provide knowledge and training in the following:

... the breadth of scientific psychology, its history of thought and development, its research methods, and its applications; the scientific, methodological, and theoretical foundations of practice in the substantive area(s) of professional psychology in which the program has its training emphasis; and diagnosing or defining problems through psychological assessment and measurement and formulating and implementing intervention strategies (including training in empirically supported procedures). (p. 14)

In sum, all graduates of NASP or APA-accredited programs should, by definition, receive training in mental health services. However, the amount and intensity of experiences is quite variable. A sample of school psychology training programs' conducted via the Internet on training sequences shows that some programs, for instance,

University of Texas-Austin, require up to eight courses and practica in mental health interventions (University of Texas-Austin, 2008). Other programs, such as the University of Florida, require students to take just one class in direct psychological counseling (University of Florida, 2008). Studies in the school psychology literature provide additional information on the range of mental health intervention training school psychology graduate students receive.

#### *Current Status of School Psychology Training in Mental Health Interventions*

Whitmore (2004) surveyed a national sample of school psychologists, school counselors, and school social workers. Eighty percent of the 74 school psychologist participants indicated they had received university-level training in five topics related to family work and family counseling. Approximately 63.5% of school psychologists indicated that they had received training in family systems intervention. Approximately 30% reported completing of advanced family counseling coursework and 23.8% reported receipt of supervised practica in family counseling. Of those school psychologists practicing family counseling in the schools, nearly 68% reported receiving training from district professional development opportunities, 53.3% reported receiving training from their university program, 40.0% received training from post-degree university coursework in family therapy. Notably, this study is limited by its focus on family therapy and its small sample size (i.e.,  $n = 74$ ).

Yates' (2003) survey of school psychologists required participants to respond to a series of questions concerning the type of training they had received in foundations of mental health problems and in counseling interventions. The greatest proportion (45.0%) of the respondents took between three and five graduate "counseling" courses; the

remaining 27.5% indicated taking one to two courses, 12.7% indicated taking six to eight courses, and 14.8% indicated taking more than eight classes. Courses frequently (more than 70%) noted in the counseling area included: Behavioral Interventions (89.9%), Counseling Children (78.6%), Developmental Psychology (88.2%), Psychological Theories (92.0%), Personality (82.4%), and Psychopathology (70.6%). Much less frequently (less than 50%) did respondents note coursework in Multicultural Counseling (42.0%), Psychotherapy (45.8%), and Counseling Children with Developmental Disabilities (30.3%). Approximately one-half (54.4%) stated that they had enrolled in a continuing education counseling workshop within the last five years. Respondents most often indicated spending 1% to 24% of their time in supervision discussing their counseling cases (57.9%), with 11.1% indicating no time in supervision spent on counseling cases, 19.3% indicating 25% to 49% of their time, 8.2% indicating 50% to 75% of their time, and 3.4% indicating spending more than 75% of their time on counseling cases. Direct supervision most often included audio/video taping (56.4%), with one-way viewing (i.e., supervision through a one-way mirror) being the least common (39.0%) When asked about the satisfaction of the graduate training they had received in counseling, 65.5% indicated that insufficient time was spent on counseling during their training. This finding is of particular importance, because it shows that school psychologists do not feel adequately trained despite the majority of respondents taking four courses or more in foundations of mental health problems and in counseling interventions.

Adamson and Gimpel Peacock (2007) distributed a survey on crisis response in schools to a random sample of 500 NASP members working at least half-time in a school

and obtained a final sample size of 228 respondents. Approximately 25% of participants reported taking one graduate course on crisis intervention and 11% reported receiving crisis intervention training as part of a graduate course. Contrastingly, the majority of respondents indicated that they received crisis intervention training through workshops (78%), inservice training (67%), personal study/reading (65%), and conferences (60%). Only 2% of participants reported that they had received no crisis intervention training. Debski and colleagues' (2007) similar survey of NASP members employed by school districts found that the majority of respondents (99%) received some type of training in assessment of suicide risk, as well as training in appropriate actions to take after a completed suicide (93%). The majority of participants indicated that they received training through professional development opportunities, whereas less than half of participants had received training in assessment (40%) or postvention training (20%) through graduate level coursework. Participants reported receiving professional development training in the form of workshops on suicide assessment (69%) and suicide postvention (54%), self-study (65% for assessment and 57% for postvention), and district in-services (40% for both suicide assessment and postvention). The majority of participants indicated that they were either "somewhat prepared" (50%) or "well prepared" (43%) to handle referrals for students who are potentially suicidal. Similarly, the majority of participants indicated that they were "somewhat prepared" (60%) or "well prepared" (29%) to provide assistance after a completed student suicide; 11% felt that they were "not at all prepared." These results suggest that the majority of participants (50% and 71%) perceived the need for additional training on handling referrals for students who are potentially suicidal and assisting after a completed student suicide,

respectively, somewhat surprising given that over 90% of participants had received some level of training on the topic.

### *The Mental Health Training Needs of School Psychologists*

A paucity of research has investigated the types and amounts of training experiences that are needed to adequately prepare school psychologists to provide mental health services. This is an important area of research given that most studies have indicated that the majority of school psychologists do not feel sufficiently prepared to provide SBMH services and that insufficient training is often a barrier to SBMH service provision (Debski et al., 2007; Suldo et al., 2010; Yates, 2003). Only two recent studies have queried school psychologists as to the areas/types of training that would fill the gaps that were found in mental health training.

Luis' (2005) survey included questions regarding specific mental health areas in which school psychologists would like to receive additional training. Participants were asked to rank order three out of eleven possible areas (e.g., life skills training, individual therapy for children, family therapy models, drug/alcohol treatment) that they felt were the most important to receive additional training. The top three areas identified by participants were social skills training, behavior management in the classroom, and the prevention of emotional and behavioral problems. Although this study was one of the first to explore the topics within which school psychologists would like to receive additional training, participants were limited by the forced choice response nature of the survey, the minimal number of topics/areas included (i.e., 11 total), and the restriction placed on selecting only three areas in which one would like additional training.

Furthermore, the results do not provide a clear picture as to the utility of different types of training experiences.

A more recent exploratory study provides a clearer picture as to the type and amount of coursework and training experiences necessary for school psychologists to feel prepared to provide mental health services (Suldo et al., 2007). Participants were asked which specific content areas that were taught in their graduate school or continuing education and which specific training experiences (beyond class work) most enable them to provide mental health assessment and intervention. Regarding relevant coursework, participants described a variety of specific content and didactic areas that they felt were relevant to their ability to provide SBMH services. Topics mentioned often included psychopathology (discussed 20 times during the focus groups), counseling theories (13 times), the advanced study of a single orientation (12 times), group therapy techniques (10 times), behavioral interventions (10 times), crisis intervention (9 times), and consultation (8 times). Other topics mentioned albeit less frequently included advanced individual psychotherapy (discussed 7 times during focus groups), empirically-supported treatments (6 times), multicultural issues, social work services, social-emotional-behavioral assessment and treatment planning (each 5 times, respectively). Participants also indicated the importance of participating in experiential activities (i.e., activities that require students to actively practice or observe a skill needed for mental health service provision) during graduate training. Such applied training opportunities discussed by participants include supervised practicum, in-class role plays, observing a master therapist, self-review and critique of own counseling, co-leading a group, receiving your own counseling, and working on a multidisciplinary team. Participants also reported the

importance of receiving professional development, or training activities that occur after a school psychologist has graduated from a training program. Professional development opportunities noted as important included inservices on topics relevant to mental health, applied experiences following inservice training, supervision, consultation with peer colleagues, working with interns, and participation in professional organizations.

Taken together, research indicates the amount of training in mental health services varies across training programs and across individual school psychologists, creating practitioners with varying levels of preparation to provide SBMH services. It appears that adequate training is needed not only during graduate school but also through continuing education courses, particularly in light of data illustrating practitioners' reliance on post-graduate seminars to receive additional training in mental health services (e.g., Whitmore, 2004; Yates, 2003). A gap in research involves the variability in training throughout the country and across time in the area of mental health. Research is also limited by a lack of consistency across studies in defining "mental health coursework" and "mental health training." Additional research is needed to determine the extent to which Suldo and colleagues' (2007) findings regarding the specific content areas and experiences that enable school psychologists to feel sufficiently prepared to provide SBMH services generalize to practitioners across the county. Such future investigations may be best accomplished through sample survey research, discussed next.

#### *Survey Research in the Field of School Psychology*

Sample survey research, defined as the selection of a random sample of respondents from a population and the administration of a standardized questionnaire to this sample, is a technique commonly used in the majority of disciplines throughout the

world. Commercial enterprises, government programs, politicians, and private social organizations are just a few of the disciplines that frequently use surveys to evaluate, guide, and gather information for decision making. Surveys have broad appeal within our society, particularly because they are perceived as being capable of capturing the attitudes and opinions of society as a whole. Similarly, survey research has gained both credibility and acceptance within the social sciences and professional disciplines through the establishment of survey research institutes and the application of a rigorous and scientifically sound methodology (Rea & Parker, 2005).

The broad goal behind survey research is to allow researchers to make general statements about a large population by studying only a small sample of that population (Rea & Parker, 2005). This illustrates the economic advantage of using this research technique, considering the cost and time requirements for sampling are significantly less than when one attempts to reach an entire population. Although there are some disadvantages to the use of surveys in collecting information and answering questions (Rea & Parker, 2005), survey research has generally maintained the reputation of being a reliable and accurate method of collecting data when implemented properly. Survey research continues to appeal to many social science researchers with its ability to reveal the characteristics of a community, institution, or organization through studying individuals and other representative components in a scientifically rigorous manner and through a relatively unbiased method.

Sample survey research has long been used within the field of school psychology and is commonly used today as a standard practice to answer proposed research questions and gather information regarding psychologists' attitudes and activities within the field.



In particular, many studies on the professional practices of school psychologists have used survey methodology to gather information (e.g., Curtis, et al., 2008; Hartshorne & Johnson, 1985; Huebner & Mills, 1994; McDaid & Reifman, 1997; Reschly & Wilson, 1995). These studies have all employed a survey methodology as a mechanism to answer questions regarding the characteristics, training, and responsibilities of school psychologists and have aided in the effort to advance knowledge of school psychology in both the U.S. and throughout the world.

Beyond the purpose of informing practitioners and researchers, the capacity to cite data on school psychologists' professional practices has important implications for furthering the field of school psychology. Specifically, such data has been invaluable in efforts to influence legislators and policymakers and other relevant constituencies, as well as to inform the policies, practices, positions, and actions of NASP (Curtis et al., 2008). Furthermore, state school psychology associations, district level school psychological services units, and school psychology graduate training programs use such data to guide practice, policy, and decision-making (e.g., professional development training, training program requirements, training program development, district policies on services provided). In part for these reason, in 1989 NASP committed to completing a study of the demographic characteristics, professional practices, and employment conditions of school psychologists across the United States every 5 years. National studies examining the field have now been completed using data collected during the 1989-1990, 1994-1995, 1999-2000, and the 2004-2005 school years. More recently, international colleagues involved in the International School Psychology Association (ISPA) Research Committee collaborated to develop the International School Psychology Survey (ISPS) to

gather information on the state of the field of school psychology internationally (Jimerson & the ISPA Research Committee, 2002).

In sum, survey research has proven useful in informing and guiding professional organizations, practitioners and researchers throughout the field, legislators and policymakers, state and district-level administrators, and school psychology graduate training programs. Survey research has a rich history within the field of school psychology and has been established as an invaluable and frequently used method of gathering information on the professional practices of school psychologists.

### *Conclusions*

The common path through which children and adolescents receive mental health services is through the education system (Farmer et al., 2003; Hazden et al., 2004). Educational personnel, ranging from counselors to school psychologists, are frequently involved in the provision of SBMH services to address the number of students referred for services (Foster et al., 2005). Mental health issues for which students are commonly referred for SBMH services include disruptive behavior and emotional problems (ranging from isolated symptoms of clinical disorders to students displaying sufficient symptoms to meet diagnostic criteria), interpersonal problems, family problems, and crisis situations (Cohen & Angeles, 2006; Foster et al., 2005; Suldo et al., 2007; Whitmore, 2004). However, methodological limitations of extant research have precluded participants from identifying the full range of mental health issues referred for SBMH services. Although research conducted by Suldo and colleagues (2007) provided participants with an open-ended response format that was more likely to elucidate the full range of mental health issues referred for services, the results are limited by the small sample size used in the

study and results need to be generalized to a larger, more representative sample of practicing school psychologists.

In recent years changes in government policy and societal initiatives have underscored the need for school psychologists to become more involved in the provision of school-based mental health services. Many authors and organizations have articulated specific roles that school psychologists should take in providing mental health services (e.g., school reform efforts, prevention and intervention services), but little empirical research has explored the school psychologist's current role in the provision of such services. A handful of studies indicate that practitioners commonly provide individual and group therapy, crisis intervention, and consultation services to students. However, methodological limitations precluded participants from indicating the full range of SBMH services they provide. Furthermore, some studies were limited by their narrow focus on a specific type of mental health service, such as crisis intervention services (e.g., Debski et al., 2007). Although research conducted by Suldo et al. (2010) provided participants with an open-ended response format that was more likely to elucidate the full range of mental health services provided by school psychologists, the results need to be generalized to a larger, more representative sample of practicing school psychologists.

Although school psychologists report providing an impressive range of SBMH services, they currently spend relatively little time in the provision of such services (Agresta et al., 2004; Curtis et al., 2008; Hosp & Reschly, 2002; Yates, 2003). Across the decades, school psychologists have expressed a desire to spend more time providing direct interventions to children with mental health needs (Luis, 2005; Reschly & Wilson, 1995; Yates, 2003). Although some studies have attempted to answer why school

psychologists are not providing the level of mental health services they desire and what factors have aided those practitioners who have been successful in providing SBMH services (Luis, 2005; Yates, 2003), methodological limitations have precluded participants from identifying the full range of barriers and facilitators. For example, Yates' (2003) survey response options did not appear sufficient given that themes such as knowledge/skill/training deficits emerged following examination of responses to an open-ended "other" option (i.e., barriers other than those listed). More recently, Suldo et al. (2010) used focus group methodology in an effort to identify the full range of barriers and facilitators implicated in school psychologists' mental health service provision. Although the use of qualitative research allowed for the thorough examination of this topic, one of the limitations inherent to this methodology is that results cannot be generalized beyond the case of study (Yin, 1994).

A final gap in the literature pertains to the training that school psychologists receive in SBMH services. The amount of training in mental health service varies across training programs and across individual school psychologists, creating practitioners with varying levels of preparation to provide SBMH services. Studies suggest that adequate training is needed not only during graduate school but also through continuing education courses (e.g., Suldo et al., 2007; Whitmore, 2004; Yates, 2003) in order for school psychologists to provide SBMH services. However, additional research is needed to determine the extent to which Suldo and colleagues' (2007) findings regarding the specific content areas and experiences that enable school psychologists to feel sufficiently prepared to provide SBMH services generalize to practitioners across the county. Given the limitations that currently exist in the literature, the overarching

purpose of this study is to further explore the current role of school psychologists in the provision of school-based mental health services by sampling a national sample of practicing school psychologists.

## Chapter Three

### Method

This study explored the current role of school psychologists in the provision of school-based mental health (SBMH) services. The study aimed to identify the common problems referred to school psychologists for mental health services and the frequency with which school psychologists provide various types/modalities of mental health services. The second purpose of this study was to determine the factors that facilitate and prohibit school psychologists from providing additional mental health interventions. Finally, this study aimed to identify which content/knowledge areas and training experiences would most allow school psychologists to feel sufficiently prepared to provide mental health services in the schools. This chapter includes four sections: (1) a rationale for the chosen research design, (2) a description of the data collection procedures, (3) a description of the procedures for the creation of the database, and (4) data analysis procedures that were employed to answer each research question.

#### *Research Design*

A central purpose of this study was to build on the exploratory research conducted by Suldo et al. (2007; 2010) by determining the extent to which the list of mental health referral problems, mental health services provided, barriers, facilitators, and training needs identified can be generalized to a national sample of school psychologists. In the aforementioned qualitative study, the purpose of using focus group methodology was to

gain an in-depth understanding of school psychologists' perception of SBMH services and to elicit the full range and types of barriers and enablers that impact the provision of SBMH services by school psychologists. Focus groups methodology has been identified as a useful way of securing background information about a subject in order to formulate specific research questions and hypotheses for subsequent use in more quantitatively oriented research (Rea & Parker, 2005). As stated by Krueger and Casey (2000, pp. 83), "The intent of focus groups is not to infer, but to understand, not to generalize, but to determine range, and not to make statements about the population, but to provide insights about how people perceive a situation." Although qualitative research allows for the thorough examination of a particular situation and/or population, one of the inherent limitations of this methodology is that the results of such a study cannot be generalized beyond the case of study (Yin, 1994). As such, one of the main purposes of this study was to generalize the results obtained from prior qualitative research to a larger population in order to gather data on the current conditions of mental health service provision by school psychologists.

Studies designed to describe current conditions are called survey or descriptive research. Survey research involves collecting data to answer questions about the current status of issues or topics (Fowler, 1984). Survey research studies are desirable if the purpose of the study is to generalize findings from a small subpopulation to a larger population, the target respondent population is accessible, and the data to be obtained is of a personal, self-reported nature (Rea & Parker, 2005). Advantages of survey research include the ability to access information about an entire population by accessing a selected portion of the larger population, the collection of data in a timely manner, and

the collection of data amenable to quantification and analysis. Given the intended purpose of the study as well as the ability to access the target population of study, survey research was identified as a suitable and effective method to collect data for this study.

There are five general methods of collecting survey information: (1) mail-out surveys, (2) web-based surveys, (3) telephone, (4) in-person interviews, and (5) intercepts. The mail out survey was utilized for this particular study to allow for data collection from a large sample of participants throughout the country in a timely and cost efficient manner. Advantages of mail surveys over other methods of data collection includes the relatively low cost, the ability to collect data from a larger numbers of respondents in a relatively short time period, the collection of data at times that are convenient to personal time schedules (Rea & Parker, 2005), privacy in participant responding (Nardi, 2003), the ability to have participants provide visual input (i.e., written explanations) rather than auditory responses only, and the reduction and removal of the responder from the expectations and bias of the interviewer (Dillman, 2007).

In determining the survey methodology used in this study, two procedures were consulted: (a) guidelines from prior survey research conducted in the field of school psychology, (b) current recommendations from the survey literature, and, in particular, those from the Tailored Design Method (Dillman, 2007). The Tailored Design Method (TDM) is the development of survey procedures that “create respondent trust and perceptions of increased rewards and reduced costs for being a respondent, that take into account features of the survey situation, and that have as their goal the overall reduction of survey error” (Dillman, pp. 4). Dillman’s TDM has been a highly successful standardized and comprehensive design followed by researchers when conducting survey



research in an effort to increase the return rate of surveys. The TDM consists of two components: (1) identifying aspects of the survey process that seem likely to affect the quality or quantity of responses and to shape each one to achieve optimal responding, and (2) organizing survey efforts so that the design interventions are carried out in complete detail. In Dillman's most recent version of the TDM (2007), he places an emphasis on the use of surveys conducted by self-administration (e.g., mail-out surveys), which was the method used in the current study.

### *Participants*

*Sample size.* To decide on the proportion of the population to sample, (a) guidelines from prior survey research done in the field of school psychology, (b) current recommendations from the survey literature, and (c) precision analyses were utilized.

Guidelines for identifying sample size for survey research can be gleaned from prior studies of the professional practices of school psychologists that have employed a similar survey methodology (e.g., Curtis et al., 2008; Reschly & Wilson, 1995).

Although some studies have resulted in return rates in the range of 70% to 80% (e.g. Curtis et al., 1999; Curtis et al., 2002; Reschly & Wilson, 1995; Zins & Murphy, 2007) others have reported return rates of only 40% to 50% (e.g., Debski et al., 2007; Luis et al., 2005; Smith, 1984). In a prior distribution of a survey on the mental health professional practice of school psychologists (Luis et al., 2005), the response rate was approximately 48%. Given the broad range of response rates from survey research completed in the field of school psychology, specific procedures that have been found to be effective in obtaining some of the larger response rates were utilized in the current

study (e.g., Curtis et al., 2008). However, given the substantial variation in the field, a conservative response rate of 50% was expected.

While in most survey research the goal is to achieve a large enough sample size to obtain accurate and precise findings, it is recognized in the survey literature that as sample size increases in a study, so does the cost. Furthermore, the corresponding improvement of the study can be minimal. For example, Fowler (1983) indicates that while increasing sample size does increase the precision of findings, beyond a sample size of 150 to 200 participants there appear to be much more modest gains to increasing sample size. Similarly, Dillman (2007) suggests that once population sizes get into the thousands, there is virtually no difference in the sample size needed to achieve a given level of precision.

Guidelines for determining the appropriate sample size for the current study were also based on precision analyses conducted prior to data collection. In general, the larger the sample size is in a study, the greater the precision of the researcher's findings (i.e., the narrower the confidence interval). However, increasing the sample size can be weighed against the expected changes in the level of the precision of the findings. Therefore, confidence intervals were calculated around the mean of two specific variables (i.e., question 17, hours per week mental health service item A is provided; question 18, rating for barrier item A) that were expected to have a large amount of variability (e.g.,  $M = 4.7$ ,  $SD = 3$ ). Using proposed sample sizes ranging from 250 to 500 participants, 95% confidence intervals were calculated for the two aforementioned variables from the survey (e.g.,  $n=200$ , CI: 4.28-5.12;  $n=250$ , CI: 4.32-5.08;  $n=300$ , CI: 4.35-5.05;  $n=350$ , CI: 4.38-5.02;  $n=400$ , CI: 4.40-5.00;  $n=500$ , CI: 4.43-4.97). Results were reviewed to

determine whether the increasingly larger sample sizes substantially impacted the precision of the findings, based on changes in the confidence interval size. Precision results suggested that a sample size of 250-300 would be an adequate sample size. Based on these precision analyses, guidelines from prior survey research done in the field of school psychology, and current recommendations from the survey literature, the recruited sample contained 600 participants, given the predicted 50% return rate.

*Sample frame.* Participants in the study were selected from a random sample of school psychologists who met the inclusionary criteria set below and belonged to the National Association of School Psychologists (NASP). Participants were selected from the NASP membership database using a random access software application. Simple random probability sampling was utilized to obtain participants from the study (Gay & Airasian, 2003). The current NASP database of school psychologists consists of over 23,500 individuals (NASP, 2006). The recruited survey population was comprised of 600 school psychologists.

Inclusionary criteria for participation included the following:

- a) “Regular Members” of NASP (Regular NASP members are those individuals who are currently working or credentialed as a school psychologist)
- b) Only those NASP “Regular Members” whose primary employment is reported to be full-time in a public, private, or faith-based preschool, elementary school, middle/junior high school, and/or high school
- c) Only those NASP “Regular Members” whose primary employment is reported to be within the United States

The inclusionary criteria for the study were set to include only NASP Regular members who are identified as school psychologists and who are currently practicing in a school setting. All ethnicities, females and males, and all age participants, were included in this sample in order to adequately represent the population of school psychologists across the United States.

Exclusionary Criteria included:

- a) Student members of NASP (who have not yet entered the field)
- b) Affiliated members (those who are interested in the field, but who are not school psychologists)
- c) Members of NASP through other membership or categories
- d) NASP “Regular” members whose primary employment is not in the schools

Members of NASP that met any of the aforementioned criteria were not included in this study.

### *Ethical Considerations*

Several precautions were taken to protect the participants in the study. First, the Principal Investigator (PI) obtained approval from the Institutional Review Board (IRB) at the University of South Florida (USF) to conduct the research. Prior to conducting any aspect of data collection, IRB approval was obtained. Because most of the information submitted on the survey was retrieved from recall of memory, there was minimal risk to participants. Furthermore, ethical issues such as deception and emotional or physical impact on participants were not relevant in the study.

The PI of the study also submitted an application to receive approval from the NASP Research Committee to obtain participants from the NASP membership database. Approval from the NASP Research Committee was obtained prior to conducting any aspect of data collection. This procedure is followed by NASP to ensure that scholarly research studies are being conducted and that members of NASP are not being solicited for participation in redundant or unimportant research studies.

Protection of participant identity was upheld to the fullest extent throughout the study. Participation in the study was voluntary and no information reported on the survey was used to identify participants. The specific procedures to protect participants' identity followed those that have been completed in prior survey studies of the professional practices of school psychologists (e.g., Curtis et al., 2008). Each participant was assigned a code number that was written on a postage-paid pre-addressed return envelope. A code number was assigned (a) to ensure that the participants who returned surveys were not included in the subsequent mailings; and (b) to provide a means through which participants who completed and returned surveys could be randomly selected to receive the incentive rewards. Each of these steps was taken to ensure the confidentiality and the privacy of participants.

The information gathered about participants' professional mental health practices, demographic characteristics, and employment setting were kept in a confidential database, and no identifying information was included in the database. Only the PI of the study and one research assistant had access to the database. The completed surveys were kept in a locked file cabinet. Only the PI and research assistant had access to the locked

file cabinet that was used to store the documents linking code numbers to participant names and any other personally identifiable information.

### *Instrumentation*

Two instruments, a survey and cover letter, were used in the study to explain to participants the purpose and importance of the study and to obtain information concerning the delivery of school-based mental health services by school psychologists. The specific information pertaining to each instrument is reviewed in this chapter.

*Survey.* The SBMH survey was developed by the author to study the delivery of school-based mental health services by school psychologists across the United States. The survey contains a total of six sections (Appendix C). The content foci of each section was as follows: demographic information, referral concerns, mental health services provided, barriers to mental health service provision, enablers to mental health service provision, and training in school-based mental health. Response options in the last five sections were derived from previous qualitative research (c.f., Suldo et al., 2007; 2010). In total, the six sections of the survey included 170 items that participants were asked to complete. Of note, items 15, 16, and 24 on the survey were included for a different purpose, specifically for another student's research. Because these items are outside the scope of the purposes of the current study, they are not included in Appendix C.

*Development process.* The process by which the survey was developed involved a two-stage review process. The first stage involved incorporating the empirical results from the Suldo et al. (2007; 2010) research into each of the last five sections of the survey (e.g., referral concerns, mental health services provided). Based on these results,

questions were formulated for the survey. The second stage of the development process involved a review of the professional literature specific to results from prior studies that have focused on SBMH and the role of the school psychologist (e.g., Luis, 2005; Yates, 2003). This step was taken to ensure that the content of the five sections of the survey, as formulated through the empirical results of Suldo et al. (2007; 2010), included all items previously identified in research. This step also involved a review of relevant research instruments previously used in survey research in the field of school psychology, such as those used by Curtis et al. (2008). Based on these reviews, two additional response options were formulated for the survey. Specifically, the item “truancy” was added to the referral concern section of the survey and the item “access to/linkage with community resources” was added to the enablers to mental health service provision section of the survey.

The development of each specific question in the SBMH survey incorporated the use of specific principles and tools recommended by Dillman (2007) in addition to the incorporation of survey questions that have been successfully used in prior studies on the professional practices of school psychologists. The majority of questions in the demographic section of the survey were open-ended response questions; for those questions that the survey participants are expected to have an accurate, ready-made answer for the question (e.g., age, highest degree earned) which produces accurate results, an open-ended format was used (Dillman, 2007). For those questions that survey participants may not have a ready-made answer that they can immediately report (e.g., school psychologist: student ratio), a close-ended format was used. Close-ended questions have been identified as a more satisfactory way of creating data because it

increases the reliability of the survey (in both participants' responses and in researchers' interpretation of the data) and it increases the likelihood that there will be enough people in a category to be analytically interesting (Fowler, 1984). For the barriers to mental health service provision, enablers to mental health service provision, and training in SBMH sections, close-ended questions with ordered response categories were used. Close-ended questions with ordered response categories (i.e., carefully ordered categories in scalar form) are most useful when a researcher has a well-defined concept for which an evaluation response is wanted, particularly when alternative or competing ideas are minimal (Dillman, 2007). When a surveyor wants to obtain separate respondent evaluations of many different concepts (e.g., 20) and compare preferences across areas, this is often the recommended approach to question development.

Prior to the pilot study, all the questions' format and length were reviewed following the recommendations of Dillman (2007). In its final form, the survey included the following sections: (1) demographic data, (2) student referral concerns, (3) mental health services practitioners are currently providing, (4) barriers to SBMH service provision, (5) facilitators to SBMH service provision, and (6) mental health training needs. The final survey contained a variety of close-ended questions as well as a few open-ended questions.

*Cover letter.* A cover letter identifying the researcher and affiliated institution accompanied the initial mailing of the survey (Appendix A). The cover letter was designed based upon recommendations from the TDM approach (2000) and cover letters that have previously accompanied surveys of the professional practices of school psychologists (e.g., Curtis et al., 2008). The cover letter explained the purpose and



significance of the study as well as solicited the recipient's participation in the study. The cover letter assured the recipient that his or her participation was voluntary and that he or she was able to withdraw at any time without penalty. In addition, the cover letter provided documentation that all responses would remain confidential and that packets were coded for follow-up mailing purposes only. A statement indicated that the results of the study would be available to participants and that completed surveys would be entered into a drawing to receive a number of incentives being offered to participants. Individuals that the respondents could contact if they had any questions were also identified. Finally, brief return mailing instructions (e.g., timeline) were stated. A modified version of the original cover letter was sent for the second mailing of the surveys (Appendix B). The second cover letter contained a shortened description of the purpose of the study.

### *Pilot Study*

Prior to data collection, a pilot study with eight practicing school psychologists was conducted to assess the developed instruments (i.e., survey and cover letter) for reliability and validity. Participants were recruited through a local school district (i.e., geographically located near the University of South Florida) and the pilot study took approximately 40 minutes after school hours.

*Validity.* The pilot study allowed the PI to assess the newly constructed scale for (a) face validity and (b) content-related validity. The pilot study provided feedback on the clarity, structure, and response options for each question, the ease of completion of the survey, and amount of time required for survey completion. In addition, the cover letter was pilot tested at the same time to elicit feedback regarding the clarity and length of the

letter. During pilot testing, respondents were asked to complete the survey as if they were actually a study participant. Following the completion of the survey, respondents were asked a number of questions (see Appendix D) specifically related to the validity of the survey.

Retrospective interviewing, an effective method for identifying problems with self-administered questionnaires (Dillman, 2007), was used to facilitate the discussion during the pilot study. Retrospective interviewing began by having the PI inform respondents that they are to read the cover letter and complete the survey as if they had received it at home and to complete it as if the PI was not present. As the respondents filled out the survey, the PI noted any wrong answers, skipped questions, confused expressions, erased answers, hesitations, or other behaviors that would seem to indicate a problem with understanding. After the survey had been completed, the PI asked questions about each of the potential problems identified as respondents read the cover letter and completed the survey. The retrospective technique was supplemented by previously formed questions at the end of the interview in an effort to learn about other features of the survey. The PI read from the Pilot Study Questions form (Appendix D), which contained questions designed to identify any potential problems on the survey and cover letter. Feedback was collected and revisions were made accordingly (in collaboration with the PI's major professor) to maximize the content-related validity, criterion-related validity, and construct-related validity. If additional items were suggested for inclusion in the survey, the PI discussed with respondents the breadth and depth of the additional items. If the item were to have appeared warranted by the group

(e.g., a mental health problem that would be identified in the top 5 for 80% of respondents), then the PI planned to add the item to the survey.

After completion of the pilot study, the following changes were made to the cover letter: (1) previously written out numerical items were changed to numbers (e.g., three was changed to 3), and (2) additional information regarding IRB contact information was included. The following changes were made to the survey: (1) one demographic question was removed (number of graduate level courses taken), (2) question 11 was changed from a Yes/No option to a rating scale, (3) item I under Referral Concerns was re-worded from “adult’s mental health issues” to “caregiver’s mental health issues,” (4) the option of “Not Applicable” (N/A) was added to item number 14, and (5) additional directions were added to item 17. Only one additional item was suggested for inclusion in the survey, specifically pertaining to a possible new item for the Referral Concerns section of the survey. When discussed with the participants, it was agreed upon that the suggested item was already encompassed under an option on the survey.

*Reliability.* The same eight practicing school psychologists participating in the pilot study were provided a second copy of the same survey to complete approximately one week later in order to assess for test-retest reliability, in addition to face and content-related validity. Analyses were completed to assess the survey and the specific survey items for test-retest reliability. Correlational analyses were conducted on the survey items that gathered data on barriers to mental health service provision, enablers to mental health service provision, and training in school-based mental health. Specifically, the Spearman correlation was used to calculate the test-retest reliability for each item in these sections of the survey. Due to the nature of some of the items included on the survey,

test-retest reliability was assessed via a review of descriptive analyses. Descriptive analyses were completed on the survey items that gathered data on referral concerns and mental health services provided.

Information regarding the test-retest reliability results for the three aforementioned sections of the survey analyzed using Spearman correlations are presented in Table 1. The test-retest correlation coefficients for the barriers to mental health service provision items over one week were fair to superior, with correlations ranging from 0.65 (e.g., Item 18BB. Other) to 1.0 (e.g., Item 18E. Insufficient space to provide mental health services). Test-retest correlation coefficients for the enablers to mental health service provision items were satisfactory to superior, with correlations ranging from 0.72 (Item 20P. Manageable number of children who require psychoeducational evaluations) to 1.0 (Item 20F. Personal experiences as a parent helps you handle similar problems with students). Similarly, test-retest correlation coefficients for the training in school-based mental health items were satisfactory to superior, with correlations ranging from 0.75 (Item 22C. Social-emotional-behavioral assessment) to 1.0 (22X. Counseling adults ). Finally, the test-retest correlation coefficients for the applied training experiences items were satisfactory to superior, with correlations ranging from 0.69 (Item 25E. Self-study) to 1.0 (Item 24E. Self-review and critique of counseling).

Table 1

*Spearman Correlation Coefficients for the Test-Retest Reliability of the Barriers, Enablers, and Training Items on the Survey*

Section of the Survey	Number of Items in Section	<i>M</i> <i>r<sub>s</sub></i>	Minimum <i>r<sub>s</sub></i>	Maximum <i>r<sub>s</sub></i>
Barriers	28	0.86	0.65	1.00
Enablers	21	0.94	0.72	1.00
Didactic Training Content	24	0.87	0.75	1.00
Applied Activities	14	0.91	0.69	1.00

Information gathered on the test-retest reliability of the referral concern items included a calculation of the amount of overlap, or agreement, of the five items listed at Time 1 and Time 2, in any given order. Results indicated that participants' responses from Time 1 to Time 2 were in agreement an average of 87.5% of the time, with the results for each participant presented in Table 2. With regard to the survey items that gathered data on mental health services provided, analyses included a calculation of the amount of overlap, or agreement, of the services provided (i.e., checked) from Time 1 and Time 2, the number of services identified by the participant that had a difference in the number of hours per week reported from Time 1 to Time 2, and the average time difference for these items. Results indicated that participants' responses on services provided from Time 1 to Time 2 were in agreement an average of 96.41% of the time. The average number of services identified by participants that had a difference in the

number of hours per week reported from Time 1 to Time 2 was 2.25 services. The average time difference for these items from Time 1 to Time 2 was .70 hours (42 minutes). Results for each participant are presented in Table 3. Taken together, these results suggest that this survey exhibits satisfactory reliability. If results had indicated that the survey had low test-retest reliability, the PI would have gathered qualitative feedback from the participants regarding the thought processes that led them to respond differently to an item at the two time points.

Table 2

*Test-Retest Reliability for Items Pertinent to Mental Health Referral Concerns*

	# Items Agreed from Time 1 to Time 2	% Agreed from Time 1 to Time 2
Participant 1	4	80
Participant 2	4	80
Participant 3	5	100
Participant 4	5	100
Participant 5	3	60
Participant 6	5	100
Participant 7	4	80
Participant 8	5	100

Table 3

*Test-Retest Reliability of Items Pertinent to Mental Health Services Provided*

	# of Services Reported		% Agreement	# of Services Reported with a Difference in	<i>M</i> Difference in Hours
	Time 1	Time 2		Hours from Time 1 to Time 2	
	Participant 1	10		10	
Participant 2	11	11	100	3	1.7
Participant 3	15	16	93.75	4	0.5
Participant 4	14	14	100	3	0.75
Participant 5	15	15	100	2	1
Participant 6	9	10	90	1	0.75
Participant 7	7	8	87.5	0	0
Participant 8	17	17	100	3	0.67

*Procedure*

The procedures followed in the current study were based on the recommendations of Dillon's TDM (2007) and previous national studies that surveyed the professional practices of school psychologists (e.g., Curtis et al, 2008). A computerized random selection of potential participants was conducted by the NASP office. The survey was initially mailed to 600 Regular NASP members meeting the inclusionary criteria of the study. For this study, response to the survey was considered consent to participate. Data collection included two complete mailings.

*First mailing.* In the first mailing, all potential participants were mailed the survey, the original cover letter, and a postage paid, pre-addressed return envelope with an assigned code. In order to maintain confidentiality throughout the study, the respondents' names were not requested. Response to the survey was considered consent to participate. The participants were asked to return the survey within three weeks of its receipt and participants were informed that five people who completed and returned the survey would be randomly selected to receive Visa gift cards in the amount of \$50. Of the 600 surveys that were mailed in the first complete mailing, 158 completed surveys were returned. Returned surveys were immediately removed from the return envelope to preserve the anonymity of the respondent. The respondent's name was crossed off the mailing list and the return envelope with the code number was placed in an alternate location for the sole purpose of awarding the incentives for participation. The return rate for the first mailing (i.e., 26.3%) was documented and recorded prior to the beginning of the second mailing. All surveys that were returned up to ten days after the second mailing were included in the response rate for the first mailing.

*Second mailing.* Three weeks following the first mailing, a second mailing was completed to all non-respondents that included the second, modified version of the cover letter and the original survey and a postage paid, pre-addressed return envelope. In response to the second mailing, 68 additional surveys were returned. Returned surveys were immediately removed from the return envelope to preserve the anonymity of the respondent. The respondent's name was crossed off the mailing list and the return envelope with the code number was placed in an alternate location for the sole purpose of awarding the incentives for participation. The return rate for the second mailing (i.e.,



15.4%) was documented and included those surveys completed from 10 days after the original mailing date through the end of the study.

### *Creation of Database*

This study involved analyses of a database created in order to answer the aforementioned research questions presented in Chapter One. In order to provide an understanding of the nature of the data that was analyzed, this section describes the procedures for creating the database.

A database was created to provide information about the delivery of mental health services in schools by school psychologists. A codebook was developed with variable names, variable labels, and values for entry into the database. Data from the coded survey were entered into a database management program, SPSS. All data were entered during the summer and fall of 2009 by the PI and a school psychology graduate research assistant. Given that the number of skipped items was very low (a total of 1.14% of the entire data set), skipped items were coded as missing data and excluded from analyses (Hertel, 1978). After all data was entered, variable values for the survey were checked to ensure that all values were within the expected (i.e., possible) range of response options. The examination of box plots, means, and standard deviations calculated for each survey item was also utilized to identify outliers.

A data entry check was conducted for 10% of randomly selected surveys and an error rate was calculated. The PI reviewed the data entered for every tenth participant starting from the 4<sup>th</sup> survey to check for errors. Additional data were checked (i.e., data entered for participants immediately preceding and following every tenth protocol) when data entry errors were detected. Approximately 13% of the data were reviewed for

accuracy at completion of this process. Of the checked protocols that contained errors, approximately 0.59% of the items were originally entered incorrectly. The few errors in data entry were corrected by hand and re-entered in the database. Survey data were imported into SAS® software, Version 9.2 (SAS Institute, 2008) for data analysis. SAS® is a statistical package and data management system that can be used to produce descriptive research for a variety of statistical analyses (Cody & Smith, 2006). Results of the analyses and values included within the current manuscript were examined by an outside reviewer to ensure accuracy of reported results.

Demographic characteristics from the sample of the study were compared to the 2004-2005 NASP membership data, as presented by Curtis et al. (2008). Chi-square goodness of fit tests were run with a 95% confidence interval to determine if the national database respondents were comparable to the 2004-2005 NASP membership for gender, ethnicity, and highest degree earned. This analysis allowed the PI to determine if a disproportionate numbers of school psychologist demographic characteristics (i.e. gender, ethnicity, highest degree earned) were overly represented in the study sample. Additionally, first mailing and second mailing respondents were compared to assess if there were any significant differences among these two groups.

### *Demographics*

#### *Response Rates*

Initial analyses were conducted to obtain an overall response rate or the overall percentage of returned surveys. Those surveys that were returned but were not usable in the analyses (e.g., participant currently holding an administrative position) were included in the overall response rate. In total, surveys were completed and returned by 226 out of

a possible 600 respondents, representing a 37.7% response rate. Of the 226 surveys that were returned, six surveys were removed from the final analysis because the participant listed holding a position other than a school psychologist. Those roles included: (1) director of autism program, (2) coordinator of Student Services, (3) administrator (3 participants), and (4) mental health consultant. A 50% response rate is generally considered adequate for the analysis of research results (Babbie, 1990). Therefore, the results of this study should be considered preliminary and interpreted with caution.

When applicable, information was compared to the results from the 2004-2005 NASP membership study (Curtis et al., 2008), the most recent membership survey conducted by members of the NASP Research Committee, to ensure that the study sample was representative of the field of school psychology. To further ensure representation of the field of school psychology school-based practitioners, when possible, results were compared to information gathered from the 2004-2005 sample that contained only NASP practitioners. To ensure that responses did not differ significantly based on the mailing in which participants responded, first mailing and second mailing respondents were compared to assess if there were any significant differences among these two groups. Chi-square goodness of fit tests were run with a 95% confidence interval to determine if the national database respondents were comparable to the 2004-2005 NASP membership and if the first mailing and second mailing participants for the current study were comparable for gender, ethnicity, and highest degree earned. Results are presented in Table 4. Overall, results showed that gender composition and educational level did not differ significantly from the 2004-2005 NASP membership database and between participants from the first mailing and the second mailing. Notably,

ethnicity (chi-square with four  $df = 13.44, p = .01$ ) did differ significantly from the NASP 2004-2005 membership. However, due to the relatively small sample size for the various ethnicity categories, these results should be interpreted with caution. In summary, based on the screening of the data, it appeared that the sample from the current study is representative of NASP practitioners. Similarly, it appeared that the sample is representative of all participants, regardless of the mailing to which they responded.

Table 4

*Chi-Square Analyses for Predictor Variable Differences from the NASP 2004-2005 Membership Database and from the First and Second Mailing*

Variable	2004-2005 NASP Membership Database			First and Second Mailing Participants		
	X <sup>2</sup>	df	P	X <sup>2</sup>	df	P
Gender	1.12	1	0.29	0.55	1	0.46
Educational level	0.79	2	0.67	1.90	2	0.39
Ethnicity	13.44	4	0.01*	6.93	4	0.14

\* $p < .05$

*Demographic Information*

Data regarding gender, ethnicity, years of experience, and geographic location are reported in Table 5. As shown, the majority of the participants in the study were female ( $n = 176; 80\%$ ), Caucasian ( $n = 198; 90\%$ ), and had an average of 12.4 years of experience. The percentages of participants reporting being members of a minority group included: Black/African American, 3.2%, Asian American/Pacific Islanders, 2.7%,

Hispanic, 2.3%, American Indian/Alaskan Native, 1.8%, and Other, 0%. In 2004-2005, 74% of all school psychologists and 77% of practitioners were female (Curtis, et al., 2008). Geographically, forty one states were represented in the returned surveys. States with the most participants included: California (9.1%), New York (7.3%), Texas (5.9%), Massachusetts (5.0%), and Pennsylvania (5.0). None of the other states had more than 5% of the total returned surveys.

Table 5

*Demographic Characteristics in Database & NASP Membership 2004-2005*

Variable	Present Study		NASP Membership	
	<i>N</i> = 220		<i>N</i> = 1,748	
	<i>N</i>	%	<i>N</i>	%
Gender				
Male	44	20.0	454	26
Female	176	80.0	1294	74
Ethnicity				
American Indian/Alaskan Native	4	1.8	14	0.8
Asian American/Pacific Islander	6	2.7	16	0.9
Black/African American	7	3.2	34	1.9
Caucasian	198	90.0	1615	92.4
Hispanic	5	2.3	53	3.0
Other	0	0	14	0.8
Years of experience ( <i>n</i> = 219)				
1-10 years	126	57.5	--	--
11-20 years	43	19.6	--	--
21-30 years	35	16.0	--	--
30 + years	15	6.8	--	--

Data for age were consistent with prior findings relating to the “graying” of school psychology (e.g., Curtis et al., 2008). As reported in Table 6, the average age of

practitioners in the sample was 42.7, with a range of 25 to 68 years old. In 2004-2005, school psychology practitioners had a mean age of 45.2 years.

Table 6

*Practitioners' Average Age in Database & NASP Membership Practitioners 2004-2005*

Variable	Present Study	NASP Membership
	<i>N</i> = 220	Practitioners <i>N</i> = 1,405
	<i>M</i>	<i>M</i>
Average age	42.7	45.2

Data regarding educational level and employment conditions are reported in Table 7. With respect to graduate-level preparation and highest degree earned for respondents, 34.5% of participants reported holding a Masters degree, 42.3% a Specialist degree, and 23.2% a Doctorate degree. More than 45% of participants reported working in a school context that is consistent with the NASP recommended ratio of  $1 \leq 1000$  (NASP, 2000b). The majority of participants in the study reported being employed through the public school system (94.5%) and serving one to two school buildings (54.1%). Only 18.8% of the sample reported serving more than four school buildings.

Table 7

*Educational Preparation and Employment Conditions in Database & NASP Practitioner Membership 2004-2005*

Variable	Present Study		NASP Practitioner Membership	
	<i>N</i>	%	<i>N</i>	%
Degree level ( <i>n</i> = 220)				
Masters	76	34.5	502	35.7
Ed.S.	93	42.3	560	39.9
Ph.D./Ed.D.	51	23.2	343	24.4
School psychologist to student ratio ( <i>n</i> =217)				
1: < 500	31	14.3	--	--
1: 500-999	67	30.9	--	--
1:1000-1499	64	29.5	--	--
1: 1500-2000	27	12.4	--	--
1: >2000	28	12.9	--	--
Type of school ( <i>n</i> = 219)				
Private	6	2.7	--	--
Public	207	94.5	--	--
Parochial	2	0.9	--	--
Combination	4	1.8	--	--



Number of school buildings served

(*n* = 218)

1-2	118	54.1	--	--
3-4	59	27.1	--	--
5-6	22	10.1	--	--
>6	19	8.7	--	--

---

Table 8 depicts the number and percentages of participants who reported spending the majority of their time (i.e., more than 50%) at different school level settings. The largest number of respondents (*n* = 96; 43.64%) reported spending more than 50% of their time in an elementary school setting (i.e., primary setting). A total of 24 respondents (10.91%) identified middle/junior high schools as their primary school setting and 19 respondents (8.6%) identified high schools as their primary school level setting. A total of six respondents (2.7%) indicated that they spend more than 50% of their in the preschool setting, whereas 128 respondents indicated that they spent 0% of their time working at the preschool level. Only 0.5 % of respondents reported being primarily assigned to an “other” school setting. In total, 80% of respondents indicated some time assigned to serving an elementary school. Approximately 60% of respondents identified spending at least some of their time assigned to a junior high school, whereas only 47.7% of respondents were assigned at least some time at a high school. For the 6.8% (*n* = 15) of respondents who marked “other” as a school level setting they served, participants reported spending a percent of their work time in alternative settings, district-wide roles, transition/adult programming, early childhood intervention, compliance auditing,

assessment coordinator/data coach, schools for children with severe disabilities, and as an intern coordinator. It should be noted that the percentages reported total less than 100% because the majority of school psychologists work in more than one employment setting and would therefore distribute their time between multiple school level settings.

Table 8

*Primary School Level Settings*

Variable	Primary	
	<i>N</i>	%
Preschool	10	4.5
Elementary	96	43.6
Middle/Junior High School	24	10.9
High School	19	8.6
Other	1	0.5

The majority of participants in the study felt that their graduate school training sufficiently prepared them to provide mental health services. Approximately 35% ( $n = 77$ ) of respondents felt “Satisfactorily Prepared” and 30.5% ( $n = 67$ ) of respondents felt “Well Prepared.” However, only 5.5 % ( $n = 12$ ) of respondents felt “Extremely Prepared.” Contrastingly, 25.0% ( $n = 55$ ) of respondents felt “A Little Prepared” and 3.2% ( $n = 7$ ) of respondents felt “Not at All Prepared” to provide mental health services in schools. Out of 219 respondents, 134 participants (61.2%) indicated that they would like to spend “More time” providing more mental health services, seven participants (3.2%)

indicated that they would like to spend “Less time” providing more mental health services, and 78 participants (35.6%) preferred to spend “The same amount of time” providing mental health services.

### *Data Analyses*

Statistical analyses began by obtaining frequency distributions for responses as well as measures of central tendency and dispersion. Descriptive statistics were used to summarize the patterns in the responses of participants in the sample. The following analyses were used to answer the specific research questions of the study.

*Research Question 1: What are the most frequently identified student problems (e.g., anxiety, depression) that are referred to school psychologists for mental health assessment and intervention?*

The first research question was designed to identify the most frequently identified mental health problems that are referred to school psychologists for mental health services. To answer this research question, responses from question 13 on the survey were analyzed. Analyses included identifying the percentage of respondents that ranked each of the mental health problem items in their top five and the percentage of respondents that did not rank each of the mental health problem items. Finally, the percentage of respondents from the entire sample that ranked each of the mental health problem items as one, two, three, four, and five were identified.

*Research Question 2: What is the frequency with which practicing school psychologists currently provide various mental health assessment and intervention services?*

The second research question was designed to identify the types of mental health services in which school psychologists engage and the number of hours per week they on

average provide these services. To answer this research question, responses from question 17 on the survey were analyzed. Frequencies of participants indicating that they provided these services were tallied and the percentage of the sample was calculated. Then, the average number of hours was analyzed for each service and the percentage of each week devoted to this service were calculated by dividing the average number of hours by the total hours in an average work week (40). Finally, a confidence interval was developed around the average number of hours per week. If a school psychologist did not mark a particular mental health service, a zero was reported for his/her response. Zeros were included in the mean hours per week.

*Research Question 3: To what extent do school psychologists perceive various factors to serve as barriers to their provision of SBMH services?*

The third research question was designed to identify the extent to which school psychologists perceive specific factors as barriers to their provision of mental health services. To answer this research question, responses from question 18 on the survey were analyzed. The numeric rating for each barrier was represented by the following values: 0=*Not a Barrier*, 1=*Slight Barrier*, 2=*Moderate Barrier*, 3=*Significant Barrier*, 4=*Extreme Barrier*, and N/A=*Have not personally experienced this factor*. The percentage of respondents who responded “N/A” for each item and the percentage of respondents that indicated numeric ratings for each item were identified. The minimum and maximum numeric ratings identified by participants were determined. The mean numeric rating and standard deviation for each barrier were then calculated. Finally, a confidence interval was developed around the mean numeric rating for each item. Participants that marked N/A as their answer were not included in the mean numeric

rating analyses for this question, although the percentage of the sample was reported for this response for each item.

*Research Question 4: To what extent do school psychologists perceive various factors to serve as enablers to their provision of SBMH services?*

The fourth research question was designed to identify the extent to which school psychologists' perceived specific factors as enabling them to provide mental health services. To answer this research question, responses from question 20 on the survey were analyzed. The numeric rating for each enabler was represented by the following values: 0= *Not an Enabler*, 1=*Slight Enabler*, 2=*Moderate Enabler*, 3=*Significant Enabler*, 4=*Extreme Enabler*, N/A= *Have not personally experienced this factor*. The percentage of respondents who responded "N/A" for each item and the percentage of respondents that indicated a numeric value for each item were identified. The minimum and maximum numeric values identified by participants were determined. The mean numeric rating and standard deviation for each enabler was then calculated. Finally, a confidence interval was developed around the mean numeric rating for each item. Participants that marked N/A as their answer were not included in the mean numeric rating analyses for this question, although the frequency and percentage of the sample was reported for this response for each item.

*Research Question 5: To what extent do school psychologists perceive various content areas (i.e., topics taught didactically) as important for preparation to provide SBMH services?*

The fifth research question was designed to identify the extent to which school psychologists' perceived specific content areas as important in preparing them to provide

mental health services. To answer this research question, responses from question 22 on the survey were analyzed. The numeric rating for each training content area was represented by the following values: 0= *Not Helpful*, 1=*Somewhat Helpful*, 2=*Moderately Helpful*, 3=*Very Helpful*, 4=*Extremely Helpful*, and N/A= *Did not incur this experience*. The percentage of respondents who responded “N/A” for each item and the percentage of respondents that indicated a numeric rating for each item were identified. The minimum and maximum numeric ratings identified by participants were determined. The mean average rating and standard deviation for each content area was then calculated. Finally, a confidence interval was developed around the mean numeric rating for each item. Participants that marked N/A as their answer were not included in the mean numeric rating analyses for this question, although the frequency and percentage of the sample was reported for this response for each item.

*Research Question 6: To what extent do school psychologists perceive various types of applied experiences as important for preparation to provide SBMH services?*

The sixth research question was designed to identify the most effective instruction for preparing school psychologists to provide SBMH services. To answer this research question, responses from question 24 and 25 on the survey were analyzed. The numeric rating for each applied experience was represented by the following values: 0= *Not Helpful*, 1=*Somewhat Helpful*, 2=*Moderately Helpful*, 3=*Very Helpful*, 4=*Extremely Helpful*, and N/A= *Did not incur this experience*. The percentage of respondents who responded “N/A” for each item and the percentage of respondents that indicated a numeric rating for each item were identified. The minimum and maximum numeric ratings identified by participants were determined. The mean numeric rating and

standard deviation for each content area was then calculated. Finally, a confidence interval was developed around the mean numeric rating for each item. Participants that marked N/A as their answer were not included in the mean numeric rating analyses for this question, although the frequency and percentage of the sample was reported for this response for each item.

### *Delimitations of the Study*

The proposed research design incorporated deliberate limitations. A delimitation of this study was that only school psychologists who are members of NASP were participants in the research. This excluded all other school psychologists who are not affiliated with NASP. Nevertheless, Fagan and Wise (2007) have reported that membership in NASP is very likely the best representation of practitioners in the field of school psychology. Similarly, a national telephone survey conducted to examine potential differences between NASP member and non-members identified that there were no significant differences between the two groups on the following key variables: gender, age, terminal degree, years of experience, and percentage of time spent in special education related-activities (Lewis, Truscott, & Volker, 2008). Significant differences between NASP members and nonmembers were found in ethnicity (94% Caucasian, 6% minority versus 81% Caucasian, 19% minority, respectively); however, the researchers cautioned that these results should be considered tentative given the small number of respondents in the study. A significantly larger percentage of NASP members were also nationally certified (39% vs. 13%) and members of their state association. A second deliberate delimitation of the study was the inclusion of only school psychologists who are currently practicing in a school setting. This delimitation allowed for a more accurate

and current picture of the factors associated with SBMH service provision by school psychologists.

### *Limitations of the Study*

For this study, several potential threats to the validity of the findings exist. Thus, limitations pertinent to this study are presented. A potential threat to external validity relates to population validity (Johnson & Christenson, 2004). The survey used to create the database was only mailed to NASP Regular members that met the aforementioned inclusionary criteria. The use of the NASP database cannot account for the possibility that those practitioners who are members of NASP may differ from those that did not join or who are members of another professional organization. Additionally, sampling error can occur in survey research when the researcher draws a sample from an incomplete list of respondents (Rea & Parker, 2005). Another source of error is coverage error, which can occur when the list from which the sample is drawn does not include all elements of the population (Dillman, 2007).

A number of limitations are also present due to the use of mail survey methodology. Such limitations include measurement error, which can occur when respondents fail to answer questions or when they misunderstand the wording of questions presented. Nonresponse error can also occur when significant number of participants in the survey sample do not respond to a questionnaire and have different characteristics from those who do respond (Dillman, 2007). One of the most common criticisms of mail surveys is the low response rates (Fowler, 1984). Low response rates may highlight differences in the groups who respond to the questionnaire versus those that do not respond. For example, because participation in the study was voluntary, it is



possible that the voices heard by participants reflect the activities and perceptions of a subgroup of practitioners with a particular interest in providing psychotherapeutic services to students. However, in an attempt to counter-balance this limitation in the present study, procedures that have been found to increase response rates of survey research in the field of school psychology were used (e.g., Curtis et al., 2008). In addition, a statement in the cover letter indicating that “both practitioners that do and do not provide mental health services are desired for the study” was included in an effort to obtain a representative sample. Finally, the survey instrument asked school psychologists to recall the mental health services that they had provided since the beginning of the school year. Potentially there is the problem of recall bias (Schweigert, 1994) which may result in participants reporting inaccurate information.

A threat to internal validity is that participants may have been inclined to provide socially desirable responses. Social desirability bias occurs when respondents are unwilling to admit socially undesirable actions, attitudes and behaviors and admit to socially desirable ones (Weisberg, Krosnik, & Bowen, 1996). By providing this survey, researchers may have conveyed to participants that school psychologists should be providing mental health services. Although research suggests that the majority of school psychologists provide some mental health services, there still remains a small number that do not. If a school psychologist does not provide such services at all, he/she may have been inclined to respond falsely.

## Chapter Four

### Results

The purpose of the current study was to explore the current role of school psychologists in the provision of school-based mental health (SBMH) services and factors that relate to their provision of mental health services by sampling a national sample of practicing school psychologists. Specifically, this study aimed to determine the frequency with which children with specific mental health symptoms (also known as “referral concerns”) are referred to school psychologists for mental health services, as well as the frequency with which school psychologists currently provide a variety of mental health services (e.g., individual and/or group counseling, crisis intervention, consultation) to respond to students’ referral concerns. Another purpose of this study was to determine the extent to which specific factors are perceived as facilitating or prohibiting school psychologists from providing additional mental health interventions. Finally, this study aimed to further explore the content/knowledge areas and training experiences that would allow practitioners to feel sufficiently prepared to provide mental health services in the schools. The purpose of this chapter is to address and answer the six research questions previously presented in Chapter 1.

*Research Question 1: What are the most frequently identified student problems (e.g., anxiety, depression) that are referred to school psychologists for mental health assessment and intervention?*

To answer this research question, responses from question 13 on the survey were analyzed. The results for the complete list of 32 items included on the survey are in Table 9. Analyses included identifying the percentage of respondents that ranked each of the mental health problem items in their top five and the percentage of respondents that did not rank each of the mental health problem items. Finally, the percentage of respondents from the entire sample that ranked each of the mental health problem items as one, two, three, four, and five were identified.

As can be seen in Table 9, the majority of items had at least one participant rank it as one of the five types of student problems that are referred to the practitioner most frequently for mental health services (i.e., within their ‘top five’). Only one item, eating problems, was not ranked in the top five by any of the participants. The most commonly ranked items (i.e., highest percentage of respondents ranked it as one of their top five) included Attention Deficit Hyperactivity Disorder (72.27%), academic problems (70.45%) general externalizing concern (47.73%), interpersonal problems (47.73%), Autism/Aspergers (45.91%), and anger/aggression (43.18%). The least frequently ranked items (i.e., lowest percentage of respondents ranked it as one of their top five) included romantic relationship problems (0.91%), obsessive-compulsive disorder (0.91%), specific phobia (0.91%), adolescent sexuality (1.36%), caregivers’ mental health issues (1.82%), and substance use (1.82%). Responses elicited by the “other” item response (5 respondents) included the following: (1) transition to high school, (2) conflict resolution with teacher, (3) issues related to military deployment, (4) general developmental delays, and (5) setting fires.

Table 9

*School-Based Mental Health Referral Concerns*

Referral Problem	% Sample Ranked in Top 5	% Sample Ranked 1	% Sample Ranked 2	% Sample Ranked 3	% Sample Ranked 4	% Sample Ranked 5	% Sample Not Ranked
ADHD	72.27	10.00	32.27	15.00	10.91	4.09	27.73
Academic problems	70.45	51.82	6.82	4.55	4.55	2.73	29.55
General externalizing concern	47.73	8.18	12.27	11.82	10.00	5.45	52.27
Interpersonal problems	47.73	9.09	7.73	5.91	13.64	11.36	52.27
Autism/Aspergers	45.91	6.82	5.91	11.82	11.82	9.55	54.09
Anger/aggression	43.18	7.27	8.64	14.09	6.36	6.82	56.82
Lack of motivation	19.09	0	2.73	5.91	5.45	5.00	80.91
Depression	17.27	1.82	1.36	5.00	4.09	5.00	82.73
General anxiety	16.36	1.36	2.27	3.18	4.55	5.00	83.64
General internalizing concern	15.45	0.45	1.36	2.27	5.45	5.91	84.55
Oppositional Defiant Disorder	15.00	0.91	0.91	3.18	4.09	5.91	85.00
Atypical or odd behavior	12.27	0.91	1.82	2.73	3.64	3.18	87.73
Bullying	10.91	0	1.82	1.36	4.09	3.64	89.09
Threat to harm self	10.45	0.91	0.45	3.18	2.27	3.64	89.55
Grief or loss	7.73	0.45	2.73	0.91	2.27	1.36	92.27
Low self-esteem/self-concept	7.27	0	0.91	2.27	1.82	2.27	92.73
Threat to harm others	6.36	0.45	0	0.91	1.36	3.64	93.64
School-wide tragedy	4.09	0	0.45	0.45	0.45	2.73	95.91

Trauma	3.64	0.45	0.45	0.45	0.91	1.36	96.36
Bipolar Disorder	3.64	0	0.91	0.45	0.91	1.36	96.36
Cutting	2.73	0	0.91	0	1.36	0.45	97.27
Truancy	2.73	0.45	0	0	1.36	0.91	97.27
Conflicts with caregivers	2.73	0.45	0	0.45	0	1.82	97.27
Other	2.27	0.91	0	0.45	0	0.91	97.73
Divorce in family	2.27	0	0.91	0.45	0	0.91	97.73
Substance use	1.82	0	0	0.45	0.45	0.91	98.18
Caregivers' mental health issues	1.82	0	0	0.45	0.45	0.91	98.18
Adolescent sexuality	1.36	0	1.36	0	0	0	98.64
Obsessive Compulsive Disorder	0.91	0	0.45	0	0.45	0	99.09
Romantic relationship problems	0.91	0	0.45	0	0	0.45	99.09
Specific Phobia	0.91	0	0	0.45	0	0.45	99.09
Eating problems	0	0	0	0	0	0	100

*Research Question 2: What is the frequency with which practicing school psychologists currently provide various mental health assessment and intervention services?*

To answer this research question, responses from question 17 on the survey were analyzed. Frequencies of participants indicating that they provided the various services were tallied and the percentage of the sample was calculated. Then, the average number of hours was analyzed for each service and the percentage of each week devoted to this

service was calculated by dividing the average number of hours by the total hours in an average work week (40). Finally, a confidence interval was developed around the average number of hours per week. If a school psychologist did not mark a particular mental health service, a zero was reported for his/her response. Zeros were included in the mean hours per week. Results are presented in Table 10, in order of descending overall mean.

Table 10

*Mental Health Services Provided by School Psychologists*

Service	<i>n</i>	% sample	<i>M</i> hours per week	95% CI	Min	Max	<i>SD</i>	<i>M</i> % of work week
Consultation with school staff	208	94.98	4.10	3.59-4.61	0	20	3.74	10.25
Social-emotional-behavioral assessment	186	84.93	2.93	2.27-3.59	0	35	4.81	7.33
Consultation with problem solving team	179	81.74	2.41	2.04-2.77	0	18	2.68	6.03
Individual counseling	145	66.21	2.16	1.74-2.59	0	15	3.13	5.40
Behavioral interventions	197	89.95	2.00	1.65-2.34	0	20	2.54	5.00
Consultation with parent/caregiver	188	85.84	1.57	1.32-1.82	0	14	1.84	3.93
Group counseling	111	50.68	1.21	0.88-1.53	0	20	2.40	3.03
Brief counseling	124	56.62	0.87	0.61-1.12	0	12	1.87	2.18
Other	17	7.76	0.63	0.20-1.07	0	34.5	3.27	1.58
Consultation w/community service providers	126	57.53	0.39	0.31-0.47	0	3	0.60	0.98
Referral to outside agencies for follow-up care	115	52.51	0.33	0.25-0.42	0	5	0.60	0.83
Prevention programs	51	23.29	0.32	0.18-0.46	0	8	1.04	0.80
School/classwide screening	40	18.35	0.26	0.02-0.49	0	3.5	1.75	0.65
Inservice training for school staff	109	49.77	0.25	0.15-0.34	0	8	0.68	0.63
Threat assessment	77	35.16	0.17	0.07-0.27	0	10	0.74	0.43
Suicide assessment and								

intervention	96	43.84	0.15	0.10-0.19	0	10	0.31	0.38
Counseling adults	37	16.89	0.12	0.07-0.17	0	2	0.38	0.30
Inservice training for								
parents/caregivers	38	17.35	0.08	0.04-0.11	0	2	0.28	0.20
Family counseling	20	9.13	0.05	0.02-0.09	0	2	0.24	0.13
TOTAL	--	--	20.06	--				50.28

As can be seen in Table 10, participants reported that they spend approximately 50% of their 40-hour work week engaging in the provision of mental health services. The vast majority of participants (i.e., 80% or above) indicated that they provide consultation with school staff, behavioral interventions, consultation with parents/caregivers, social-emotional-behavioral assessment, and consultation with problem solving teams. More than half of participants (i.e., 50-79%) reported providing individual counseling, consultation with community service providers, brief counseling, referrals to outside agencies for follow-up care, and group counseling. Very few participants (20% or less) reported providing family counseling, counseling adults, inservice trainings for parents/caregivers, school/classwide screening, and a service in the “other” category.

Respondents reported that the most hours in a work week that were relevant to mental health services were spent providing consultation with school staff (4.10 hours), followed by social-emotional-behavioral assessment (2.93 hours), consultation with problem solving teams (2.41 hours), individual counseling (2.16 hours), and behavioral interventions (2.0 hours). Limited time in an average work week was spent providing



family counseling (0.05 hours), inservice training for parents/caregivers (0.08 hours), counseling adults (0.12 hours), and suicide assessment and intervention (0.15 hours).

Responses elicited through the “Other” item response option included the following: (1) report writing (six participants), (2) special education activities (four participants), (3) crisis response (two participants), (4) cognitive testing (two participants), (5) consultation with other school psychologists (one participant), (6) supervision (one participant), and (7) guidance (one participant).

Of the 111 participants who reported providing group counseling, the types of groups they provided included: social skills (105 participants, 94.6% of subsample of participants who provide group counseling), anger management (61 participants, 54.95%), anxiety (39 participants; 35.14%), study skills (24 participants; 21.62%), grief (15 participants; 13.51%), and divorce (15 participants; 13.51%). An additional 15 participants (13.51%) indicated that they provided an “other” type of group counseling. Responses elicited from the “other” category included: Social-emotional curriculum (e.g., Open Circle, Positive Action; 2 participants), self-esteem (2 participants), organizational skills (2 participants), bullying prevention (1 participant), transition to middle school (1 participant), family (1 participant), social pragmatics (1 participant), dialectical behavioral therapy (1 participant), goals (1 participant), foster care (1 participant), cultural issues (1 participant), and conflict resolution (1 participant).

*Research Question 3: To what extent do school psychologists perceive various factors to serve as barriers to their provision of SBMH services?*

To answer this research question, responses from question 18 on the survey were analyzed. The numeric rating for each factor was represented by the following values:

0=*Not a Barrier*, 1=*Slight Barrier*, 2=*Moderate Barrier*, 3= *Significant Barrier*, 4=*Extreme Barrier*, and N/A=*Have not personally experienced this factor*. The percentage of respondents who responded “N/A” for each item and the percentage of respondents that indicated a numeric rating for each item were calculated and results are presented in Table 11. The minimum and maximum numeric ratings identified by participants were also determined. The mean numeric rating and standard deviation for each item was then calculated. Finally, a confidence interval was developed around the mean numeric rating for each item. Participants that marked N/A as their answer were not included in the mean rating analyses for this question, although the percentage of the sample was reported for this response for each item. Mean numeric ratings, standard deviations, confidence intervals, and minimum and maximum numeric ratings for each factor that was a potential barrier are also presented in Table 11.

Table 11

*Numeric Ratings of Possible Barriers to the Provision of School-Based Mental Health Services*

Possible Barrier	%	%	<i>M</i>	<i>SD</i>	CI	Min	Max
	Sample Reported	Sample Reported					
	N/A	0-4	Rating				
Other	95.87	4.13	2.78	1.64	1.52-4.04	0	4
Too many psychoeducational evaluations to complete	2.74	97.26	2.67	1.28	2.50-2.84	0	4
Role strain	0.91	99.09	2.47	1.33	2.30-2.65	0	4
Too many students in need of mental health services	2.75	97.25	2.08	1.28	1.90-2.25	0	4
Insufficient time & integration into school site	0.91	99.09	1.88	1.43	1.69-2.08	0	4
Difficulty collaborating with teachers to implement interventions	2.29	97.71	1.70	1.11	1.55-1.85	0	4
Insufficient funds for mental health services from district administration	7.34	92.66	1.68	1.43	1.48-1.88	0	4
Inconsistent treatment	11.87	88.13	1.63	1.12	1.47-1.79	0	4
Cumbersome department procedures and requirements	5.02	94.98	1.62	1.40	1.42-1.81	0	4
Problems accessing students during school day	8.68	91.32	1.55	1.09	1.40-1.70	0	4
Narrowly defined department-assigned roles and responsibilities	5.50	94.50	1.49	1.37	1.30-1.67	0	4
Insufficient support from parents during							

mental health intervention efforts	5.94	94.96	1.48	1.18	1.32-1.64	0	4
Teachers unaware of m.h. services that school psychologists can provide	3.20	96.80	1.44	1.27	1.27-1.61	0	4
Overlapping responsibility among mental health professions	5.48	94.52	1.35	1.22	1.18-1.51	0	4
Schools are accountable for students' academic success only	5.48	94.52	1.32	1.25	1.15-1.49	0	4
Insufficient support for m.h. services from building-level administration	5.02	94.98	1.30	1.35	1.12-1.49	0	4
Insufficient space to provide mental health services	5.07	94.93	1.13	1.30	0.95-1.31	0	4
Insufficient knowledge/skills relevant to mental health service provision	2.74	97.26	1.10	1.01	0.97-1.24	0	4
Student attrition	9.63	90.37	1.09	1.04	0.94-1.23	0	4
Burn out	7.34	92.66	1.01	1.08	0.86-1.16	0	4
Concerns with liability and legal problems related to providing mental health services	8.29	91.71	0.98	1.07	0.84-1.13	0	4
Insufficient confidence in ability to provide mental health services	4.11	95.89	0.97	0.99	0.83-1.10	0	4
Insufficient support for mental health services from teachers	6.39	93.61	0.85	0.99	0.71-0.98	0	4
Difficulty maintaining students' privacy due to inquiries from school staff	10.28	89.72	0.79	0.94	0.66-0.93	0	4
Unplanned/premature termination of services due to school calendar	16.06	83.94	0.75	0.87	0.62-0.88	0	3
Personal desire to provide traditional							

services such as assessment	5.48	94.52	0.62	0.98	0.48-0.75	0	4
Off-putting student characteristics	7.34	92.66	0.30	0.62	0.22-0.39	0	3
Personal mental health problems	9.13	90.87	0.17	0.45	0.11-0.23	0	2

As can be seen in Table 11, the majority of participants (i.e., 90% or above) reported having personally experienced each of the potential barriers to school-based mental health service provision. Only four factors, (1) inconsistent treatment, (2) difficulty maintaining students' privacy due to inquiries from school staff, (3) unplanned/premature termination of services due to school calendar, and (4) "other," were reported by 10% or more of participants as having never personally experienced (i.e., N/A). The factors that had the largest number of participants report as having personally experienced included (1) insufficient time and integration into school site, (2) role strain, (3) difficulty collaborating with teachers to implement interventions, (4) too many psychoeducational evaluations to complete, and (5) insufficient knowledge/skills relevant to mental health service provision.

With regard to numeric ratings indicated by participants, the majority of items had a minimum numeric rating of zero and a maximum numeric rating of four. None of the factors' mean numeric rating corresponded to "Extreme Barrier" (i.e., mean rating of 3.51 to 4.0). Only two items received a mean numeric rating that corresponded to "Significant Barrier" (i.e., mean rating of 2.51 to 3.50). Those included the "other" response option and the barrier of having too many psychoeducational evaluations to complete. Eight factors received a mean numeric rating corresponding to "Moderate Barrier" (i.e., mean rating of 1.51 to 2.50). Factors that emerged as a "Moderate Barrier" included role strain, too many students in need of mental health services, insufficient time

and integration into the school site, difficulty collaborating with teachers to implement interventions, insufficient funds for mental health services from district administration, inconsistent treatment, cumbersome department procedures and requirements, and problems accessing students during the school day.

The largest number of items received a mean numeric rating corresponding to “Slight Barrier” (i.e., mean rating of 0.51 to 1.50). Those included the factors of having narrowly defined department-assigned roles and responsibilities, insufficient support from parents during mental health intervention efforts, teachers unaware of mental health services that school psychologists can provide, overlapping responsibility among mental health professionals, schools accountable for students’ academic success only, insufficient support for mental health services from building-level administration, insufficient space to provide mental health services, insufficient knowledge/skills relevant to mental health service provision, student attrition, burn out, concerns with liability and legal problems related to providing mental health services, insufficient confidence in ability to provide mental health services, insufficient support for mental health services from teachers, difficulty maintaining students’ privacy due to inquiries from school staff, unplanned/premature termination of services due to school calendar, and personal desire to provide traditional services such as assessment. Contrastingly, only two items received a mean numeric rating corresponding to “Not a Barrier” (i.e., mean rating of 0.00 to 0.50). Those two factors included personal mental health problems and off-putting student characteristics.

Barriers that were elicited through the “other” response category, and reported by a total of seven participants, included: School hours and agency hours are different, being

expected to serve as principal when administrators are absent from the building, mental health services at preschool/elementary level requires parent involvement, poor training at district level, refusal of student, time to meet all needs, and administrators are unaware of services school psychologists can provide. Each of the barriers that was hand-written into the “other” category was mentioned by one participant only.

*Research Question 4: To what extent do school psychologists perceive various factors to serve as enablers to their provision of SBMH services?*

To answer this research question, responses from question 20 on the survey were analyzed. The numeric rating for each factor was represented by the following values: 0= *Not an Enabler*, 1= *Slight Enabler*, 2= *Moderate Enabler*, 3= *Significant Enabler*, 4= *Extreme Enabler*, N/A= *Have not personally experienced this factor*. The percentage of respondents who responded “N/A” for each item and the percentage of respondents that provided a numeric rating for each item were calculated and results are presented in Table 12. The minimum and maximum numeric ratings identified by participants were also determined. The mean numeric rating and standard deviation for each item was then calculated. Finally, a confidence interval was developed around the mean numeric rating for each item. Participants that marked N/A as their answer were not included in the mean numeric rating analyses for this question, although the frequency and percentage of the sample was reported for this response for each item. Mean numeric ratings, standard deviations, confidence intervals, and minimum and maximum numeric ratings for each factor are presented in Table 12.

Table 12

*Numeric Ratings of Possible Enablers to the Provision of School-Based Mental Health Services*

Possible Enabler	% Sample		M	SD	CI	Min	Max
	N/A	0-4					
Other	96.80	3.20	2.57	1.81	0.90-4.25	0	4
Personal desire to provide m.h. services	2.28	97.72	2.55	1.11	2.40-2.70	0	4
Ability to remain objective with a student	3.65	96.35	2.40	1.06	2.26-2.55	0	4
Availability to consult with other school mental health professionals	3.21	96.79	2.27	1.22	2.10-2.43	0	4
Sufficient knowledge/skills relevant to mental health service provision	1.84	98.16	2.26	1.15	2.10-2.41	0	4
Adequate confidence in abilities to provide mental health services	1.84	98.16	2.25	1.14	2.10-2.41	0	4
Ability to maintain personal boundaries	6.39	93.61	2.22	1.15	2.06-2.38	0	4
Sufficient space to provide m.h. services	2.75	97.75	2.11	1.34	1.93-2.29	0	4
Access to adolescents	30.14	69.86	2.20	1.33	1.98-2.41	0	4
Personal experiences as a parent helps you handle similar problems with students	32.42	67.58	2.01	1.29	1.80-2.22	0	4
Access to/linkages with community resources	3.20	96.80	1.88	1.11	1.73-2.03	0	4
Teachers are supportive of m.h. services	3.20	96.80	1.85	1.03	1.71-1.99	0	4
Sufficient time and integration into school site	4.57	95.43	1.77	1.44	1.57-1.97	0	4
Teachers expect school psychologists' role							



to include mental health services	6.39	93.61	1.77	1.30	1.59-1.95	0	4
Sufficient support for mental health services from building-level administration	6.42	93.58	1.68	1.25	1.51-1.85	0	4
Sufficient support from parents for mental health services	4.59	95.41	1.59	1.07	1.44-1.73	0	4
Department provides relevant professional development	9.59	90.41	1.57	1.18	1.40-1.74	0	4
Dept. gives explicit permission to provide m.h. services and creates assignments consistent with this expectation	14.68	85.32	1.55	1.30	1.37-1.74	0	4
Manageable number of children in need of mental health services	3.20	96.80	1.38	1.28	1.20-1.55	0	4
District support for m.h. service provision	10.96	89.04	1.36	1.25	1.19-1.54	0	4
Manageable number of children who require psychoeducational evaluations	5.48	94.52	1.34	1.39	1.15-1.53	0	4

As can be seen in Table 12, the majority of participants (i.e., 90% or above) reported having personally experienced 16 of the potential enablers to school-based mental health service provision. Five factors, (1) “other,” (2) access to adolescents, (3) personal experiences as a parent helps you handle similar problems with students, (4) department gives explicit permission to provide mental health services and creates assignments consistent with expectations, and (5) district support for mental health service provision, were reported by 10% or more of participants as having never personally experienced (i.e., N/A). The potentially-enabling factors that had the largest number of participants report having personally experienced included (1) sufficient

knowledge/skills relevant to mental health service provision, (2) adequate confidence in abilities to provide mental health services, (3) sufficient space to provide mental health services, (4) personal desire to provide mental health services, (5) access to/linkage with community resources, and (6) teachers are supportive of mental health services.

With regard to numeric ratings indicated by participants, all of the factors received a minimum numeric rating of zero and a maximum numeric rating of four. None of the factors' mean numeric rating corresponded to "Extreme Enabler" (i.e., mean rating of 3.51 to 4.0). Only two factors received a mean numeric rating that corresponded to "Significant Enabler" (i.e., mean rating of 2.51 to 3.50). Those enablers included the "other" response option and the enabler of having the personal desire to provide mental health services. The majority of factors received a mean numeric rating corresponding to "Moderate Enabler" (i.e., mean rating of 1.51 to 2.50). Enablers that were classified as a "Moderate Enabler" included having the ability to remain objective with a student, availability to consult with other school mental health professionals, sufficient knowledge/skills relevant to mental health service provision, adequate confidence in abilities to provide mental health services, ability to maintain personal boundaries, sufficient space to provide mental health services, access to adolescents, personal experiences as a parent helps in handling similar problems with students, access to/linkages with community resource, teachers are supportive of mental health services, sufficient time and integration into school site, teachers expect school psychologists' role to include mental health services, sufficient support for mental health services from building-level administration, sufficient support from parents for mental health services, department provides relevant professional development, and department gives explicit

permission to provide mental health services and creates assignments consistent with this expectation. Contrastingly, only three factors received a mean numeric rating corresponding to “Slight Enabler” (i.e., mean rating of 0.51 to 1.50) and no factors received a mean numeric rating corresponding to “Not an Enabler” (i.e., mean rating of 0.00 to 0.50). The three enablers that were classified as “Slight Enablers” included having a manageable number of children in need of mental health services, district support for mental health service provision, and having a manageable number of children who require psychoeducational evaluations.

Enablers that were elicited through the “other” response category, and reported by a total of six participants, included: across setting support (home/school), dual role of psychologist/counselor, Center for Disease Control school-based health model implementation, access to community resources making service available in the school setting (rural), being the only school psychologist called in for emergencies, and support of mental health by guidance staff. Each of these enablers hand-written into the “other” category was mentioned by one participant only.

*Research Question 5: To what extent do school psychologists perceive various content areas (i.e., topics taught didactically) as important for preparation to provide SBMH services?*

To answer this research question, responses from question 22 on the survey were analyzed. The numeric rating for each content area was represented by the following values: 0= *Not Helpful*, 1=*Somewhat Helpful*, 2=*Moderately Helpful*, 3=*Very Helpful*, 4=*Extremely Helpful*, and N/A= *Did not incur this experience*. The percentage of respondents who responded “N/A” for each item and the percentage of respondents that

indicated a numeric rating for each item were calculated and results are presented in Table 13. The minimum and maximum numeric ratings identified by participants were also determined. The mean numeric rating and standard deviation for each content area was then calculated. Finally, a confidence interval was developed around the mean numeric rating for each item. Participants that marked N/A as their answer were not included in the mean rating analyses for this question, although the percentage of the sample was reported for this response for each item. Mean numeric ratings, standard deviations, confidence intervals, and minimum and maximum numeric ratings for all items are presented in Table 13.

Table 13

*Numeric Ratings of Content Areas in School-Based Mental Health Training*

Content Area	% Reported		M Rating	SD	C.I.	Min	Max
	N/A	0-4					
Social-emotional behavioral assessments	0	100	3.03	0.83	2.92-3.14	0	4
Therapeutic relationship skills	3.65	96.35	2.98	0.89	2.86-3.10	1	4
Consultation with teachers or parents	2.29	97.71	2.95	0.95	2.82-3.08	0	4
Behavior intervention	5.02	94.02	2.93	0.89	2.81-3.05	0	4
Psychopathology/ abnormal psychology	0.46	99.54	2.92	0.95	2.80-3.05	1	4
Developmental psychology	0	100	2.91	0.92	2.79-3.03	1	4
Crisis intervention	10.05	89.95	2.78	0.95	2.64-2.91	0	4
Techniques/strategies for working in school environment	9.13	90.87	2.72	0.98	2.58-2.85	0	4
Empirically-supported treatments	8.72	91.28	2.71	1.04	2.56-2.85	0	4
Learning skills needed to be a lifelong learner	6.42	93.58	2.67	1.13	2.51-2.82	0	4
Ethics/law	2.74	97.26	2.61	1.00	2.47-2.74	0	4
Information on mental health agencies and resources in the community	16.44	83.56	2.58	1.07	2.43-2.74	0	4
Treatment planning	17.97	82.03	2.55	0.94	2.41-2.69	0	4
Advanced psychotherapy	38.36	61.64	2.47	1.38	2.28-2.67	0	4
Prevention of mental health problems	15.60	84.40	2.40	1.00	2.25-2.54	0	4
Group therapy approaches and techniques	16.44	83.56	2.29	1.03	2.14-2.44	0	4
Systems consultation	14.22	85.78	2.24	1.14	2.07-2.40	0	4
Multicultural education	7.31	92.69	2.24	1.10	2.09-2.39	0	4
Case documentation	18.89	81.11	2.24	1.03	2.09-2.39	0	4

Psychopharmacology	16.20	83.80	2.22	1.07	2.06-2.38	0	4
Family therapy approaches and techniques	36.24	63.76	2.05	1.09	1.87-2.23	0	4
Survey course covering multiple therapeutic orientations	12.50	87.50	2.02	0.93	1.88-2.15	0	4
Advanced study of a single therapeutic orientation	23.74	76.36	1.90	1.08	1.73-2.06	0	4
Counseling adults	39.73	60.27	1.77	1.05	1.59-1.95	0	4

As can be seen in Table 13, the majority of participants (i.e., 90% or above) reported having received training in the following content areas: social-emotional behavioral assessment, developmental psychology, psychopathology/behavior disorders/abnormal psychology, consultation with teachers or parents, ethics/law, therapeutic relationship skills, behavior interventions, learning skills needed to be a life-long learner, multicultural education, empirically supported treatments, and techniques/strategies for working in the school environment. The training content areas that had the largest number of participants indicate that they did not receive training in that area (i.e., N/A) included the following: (1) counseling adults, (2) advanced psychotherapy, (3) family therapy approaches and techniques, (4) advanced study of a single therapeutic orientation, and (5) case documentation.

With regard to numeric ratings indicated by participants, the majority of training content areas received a minimum numeric rating of zero and a maximum numeric rating of four. None of the training content areas had a mean numeric rating corresponding to “Extremely Helpful” (i.e., mean rating of 3.51 to 4.0). However, several content areas received a mean numeric rating that corresponded to “Very Helpful” (i.e., mean rating of

2.51 to 3.50). Those training content areas included social-emotional behavioral assessment, therapeutic relationship skills, consultation with teachers or parents, behavioral interventions, psychopathology/behavior disorders/abnormal psychology, developmental psychology, crisis intervention, techniques/strategies for working in the school environment, empirically-supported treatments, learning skills needed to be a life-long learner, ethics/law, information on mental health agencies and resources in the community, and treatment planning.

Similarly, many content areas received a mean numeric rating corresponding to “Moderately Helpful” (i.e., mean rating of 1.51 to 2.50). Training content areas that were classified as “Moderately Helpful” included advanced psychotherapy, prevention of mental health problems, group therapy approaches and techniques, systems consultation, multicultural education, case documentation, psychopharmacology, family therapy approaches and techniques, survey course covering multiple therapeutic orientations, advanced study of a single therapeutic orientation, and counseling adults. None of the training content areas received a mean numeric rating corresponding to “Somewhat Helpful” (i.e., mean rating of 0.51 to 1.50) or “Not Helpful” (i.e., mean rating of 0.00 to 0.50).

*Research Question 6: To what extent do school psychologists perceive various types of applied experiences as important for preparation to provide SBMH services?*

To answer this research question, responses from question 24 and 25 on the survey were analyzed. The numeric rating for each applied experience was represented by the following values: 0= *Not Helpful*, 1=*Somewhat Helpful*, 2=*Moderately Helpful*, 3=*Very Helpful*, 4=*Extremely Helpful*, and N/A= *Did not incur this experience*. The

percentage of respondents who responded “N/A” for each item and the percentage of respondents that reported a numeric rating for each item were calculated and are presented in Table 14 and Table 15. The minimum and maximum numeric ratings identified by participants were also determined. The mean numeric rating and standard deviation for each applied experience was then calculated. Finally, a confidence interval was developed around the mean numeric rating for each item. Participants that marked N/A as their answer were not included in the mean numeric rating analyses for this question, although the frequency and percentage of the sample was reported for this response for each item. Mean numeric ratings, standard deviations, confidence intervals, and minimum and maximum numeric ratings for each item are presented in Table 14 and Table 15.



Table 14

*Numeric Ratings of Experiential Training Activities*

Applied Experiences	%	%	<i>M</i>	<i>SD</i>	C.I.	Min	Max
	Reported	Reported					
	N/A	0-4	Rating				
Work on a multidisciplinary team	9.09	90.91	3.05	0.94	2.91-3.18	0	4
Supervised practicum	4.09	95.01	3.04	1.02	2.90-3.18	0	4
Co-lead counseling group(s)	23.29	76.71	2.78	0.98	2.63-2.93	0	4
Observe master therapist(s)	42.27	57.73	2.55	1.04	2.37-2.73	0	4
Self-review and critique of counseling	30.91	69.09	2.42	1.06	2.25-2.59	0	4
Receive own counseling	50.00	50.00	2.26	1.30	2.02-2.51	0	4
In-class role plays	10	90	1.83	1.19	1.66-1.99	0	4

Table 15

*Numeric Rating of Professional Development Training Activities*

Professional Development Activities	%	%	<i>M</i>	<i>SD</i>	C.I.	Min	Max
	Reported	Reported					
	N/A	0-4	Rating				
Consultation with colleague	0	100	3.16	0.90	3.04-3.28	1	4
Self-study	0.45	99.55	2.78	0.87	2.66-2.89	1	4
Participate in professional organization	0	100	2.56	1.05	2.42-2.70	0	4
Formal supervision of services	23.29	76.71	2.39	1.17	2.21-2.57	0	4
Applied experience following an inservice	13.70	86.30	2.39	1.03	2.24-2.54	0	4
Inservice offered through one's district	10.45	89.55	2.11	1.24	1.93-2.28	0	4
Work with interns	34.72	65.28	2.09	1.10	1.90-2.27	0	4

As can be seen in Table 14, the vast majority of participants (i.e., 90% or above) reported having been provided the experiential training opportunities of supervised practicum, working on a multidisciplinary team, and in-class role plays. Contrastingly, 30% or more of participants reported having never personally experienced (i.e., N/A) the experiential training activities of receiving their own counseling, observing a master therapist, and self-reviewing and critiquing their own counseling.

With regard to numeric ratings indicated by participants, all of the experiential activities received a minimum numeric rating of zero and a maximum numeric rating of four. None of the experiential activities had a mean numeric rating corresponding to “Extremely Helpful” (i.e., mean rating of 3.51 to 4.0). However, four experiential activities received a mean numeric rating that corresponded to “Very Helpful” (i.e., mean rating of 2.51 to 3.50). Those experiential activities included working on a multidisciplinary team, supervised practicum, co-leading counseling groups, and observing a master therapist. The remaining three experiential activities received a mean numeric rating corresponding to “Moderately Helpful” (i.e., mean rating of 1.51 to 2.50). Experiential activities classified as “Moderately Helpful” included self-review and critique of counseling, receiving own counseling, and in-class role plays. None of the experiential activities received a mean numeric rating corresponding to “Somewhat Helpful” (i.e., mean rating of 0.51 to 1.50) or “Not Helpful” (i.e., mean rating of 0.00 to 0.50).

With regard to professional development training activities, as can be seen in Table 15, the majority of participants (i.e., 90% or above) reported having had the

professional development training activity of consulting with colleagues, participating in professional organizations and self-study. Contrastingly, 20% or more of participants reported having never personally experienced (i.e., N/A) the professional development training activities of working with interns or receiving formal supervision of their services.

With regard to numeric ratings indicated by participants, the vast majority of professional development activities received a minimum numeric rating of zero and a maximum numeric rating of four. None of the professional development activities had a mean numeric rating corresponding to “Extremely Helpful” (i.e., mean rating of 3.51 to 4.0). However, three professional development activities received a mean numeric rating that corresponded to “Very Helpful” (i.e., mean rating of 2.51 to 3.50). Those professional development activities included consultation with colleagues, self-study, and participating in a professional organization. The remaining professional development activities received a mean numeric rating corresponding to “Moderately Helpful” (i.e., mean rating of 1.51 to 2.50). Professional development activities classified as “Moderately Helpful” included formal supervision of services, applied experiences following an inservice, inservice offered through one’s district, and working with interns. None of the professional development activities received a mean numeric rating corresponding to “Somewhat Helpful” (i.e., mean rating of 0.51 to 1.50) or “Not Helpful” (i.e., mean rating of 0.00 to 0.50).

## Chapter Five

### Discussion

The purpose of the current study was to provide a comprehensive overview of the current role of school psychologists in the provision of school-based mental health (SBMH) services and factors that relate to their provision of mental health services by sampling a nationally representative group of practicing school psychologists. Specifically, this study determined the frequency with which specific child mental health symptoms are referred to school psychologists for mental health services, as well as the frequency with which school psychologists currently provide a variety of mental health services to respond to students' referral concerns. This study also determined the extent to which specific factors are perceived as facilitating or prohibiting school psychologists from providing additional mental health interventions. Finally, this study examined the content/knowledge areas and training experiences that allow practitioners to feel sufficiently prepared to provide mental health services in the schools. Mail out survey methodology was utilized to collect data from a large sample of participants throughout the country in a timely and cost efficient manner.

This chapter summarizes the results of the current study and integrates findings with existing literature, including studies presented in Chapter 2. The chapter is organized by the research questions addressed within the research study. Following the examination of results and presentation of notable findings, implications of the results for

school psychologists are examined, limitations of the research study are reviewed, and suggestions for future research are discussed.

### *Examination of Results*

#### *Student Problems Referred to School Psychologists for Mental Health Services*

The purpose of this first research question was to gain a greater understanding of the types of mental health problems that are most commonly referred for mental health services in school settings. Unique to this study was the use of a comprehensive list of 31 referral problems seen in schools, developed from previous qualitative and quantitative studies (i.e., Repie, 2005; Suldo et al., 2007; Whitmore, 2004; Yates, 2003). All referral problems except one (specifically, eating problems) were endorsed as common referral concerns (i.e., among the top five types of problems that are referred most frequently to the school psychologist for mental health services). These results suggest that, similar to findings from prior research (e.g., Suldo et al., 2007), school psychologists receive referrals for a diverse array of student mental health problems.

The mental health problems that had the greatest number of participants rank it in their top five included Attention Deficit Hyperactivity Disorder and academic problems, each endorsed by almost three-quarters of respondents. There was a relatively large gap between the number of participants who ranked ADHD and academic problems in their top five and the number of participants that ranked the remaining referral concerns in their top five. These findings suggest that ADHD and academic problems are referred far more frequently in schools than any other mental health problem assessed in the present study. The next most common (i.e., endorsed by 40-50% of participants) referral concerns included general externalizing concern, interpersonal problems,

Autism/Aspergers, and anger/aggression. After anger/aggression, the next most common referral concerns were endorsed by less than 20% of participants, suggesting that problems of an internalizing nature such as depression and generalized anxiety are not as common of referral concerns as problems that involve externalizing behavior. The mental health problems that were endorsed as common (i.e., within one's top five referral concerns) by the smallest number of participants (i.e., less than 1% of the sample) included romantic relationship problems, obsessive-compulsive disorder, and specific phobia.

These findings corroborate previous researchers' findings that have indicated that the types of problems referred within a school setting include, but are not limited to, diagnosable mental or addictive disorders (Foster et al., 2005; Repie, 2005; Suldo et al., 2007; Whitmore, 2004). Current prevalence data yielded from epidemiology studies of youth mental health problems have been limited by the type of data collection method utilized within the research studies. As described in Chapter 2, the definition of what constitutes a "mental health problem" is limited by case ascertainment, case definition, and presentation. Furthermore, epidemiological studies use a range of assessment methods to determine the prevalence of mental disorders (e.g., DSM-IV checklists). The results of this study indicate that many prevalence studies would not tap the types of problems that participants have indicated as common mental health problems that are referred for SBMH services (e.g., academic problems, general externalizing concerns, interpersonal problems) in that isolated symptoms would not be counted but are important enough to warrant psychologists' attention.

Several of the most common student mental health problems identified in the current study are consistent with those identified in previous research. For instance, the high prevalence of Attention Deficit Hyperactivity Disorder (ADHD) among students needing help was identified in previous studies that focused on mental health problems referred to an assortment of school personnel (Cohen & Angeles, 2006; Foster et al., 2005; Repie, 2005) and studies that focused solely on mental health problems referred to school psychologists (Suldo et al., 2007; Whitmore, 2004).

Consistent with the findings of Whitmore (2004) in which a national sample of school psychologists identified academic problems as a frequently occurring referral problem, over 70% of participants in the current study identified and ranked academic problems in their top five most commonly referred mental health problems. These findings also corroborate the research of Cohen and Angeles (2006) in which teachers cited academic problems (e.g., failing grades, truancy) as the most frequently exhibited concern for students. Although ADHD was ranked in the top five by the largest number of participants, academic problems was ranked more often as the most frequently referred mental health problem. Contrastingly, ADHD tended to be more frequently ranked by participants as the second or third most frequently referred mental health problem. These results suggest that when school psychologists do receive referrals for students' academic problems, it tends to be the problem that is referred to them most often for mental health services.

The emphasis participants placed on academic problems as a primary mental health concern is not surprising given the well-established link between mental health functioning and academic functioning (Weist, Goldstein, Morris, & Bryant, 2003).

Overall, these findings are in accord with more recent calls within the literature that advocate for the movement towards integrating and unifying mental health and educational goals within the school setting (Capella et al., 2008). As Capella and her colleagues suggest (2008), a model of mental health practice where learning goals are conceptualized as mental health goals would allow schools to promote optimal development in children, as efforts to strengthen the capacity of schools to promote learning would be directly relevant to serving their mental health needs. A shift in the conceptualization of school-based mental health has significant implications for the field and, in particular, the role of the school psychologist. School psychologists' role as mental health providers would include serving as "educational enhancers" to assist teachers and other school personnel in implementing and sustaining effective supports for students' learning and mental health (Atkins, Hoagwood, Kutash, & Seidman, 2010).

Similar to the emphasis participants placed on the referral concerns of anger/aggression and general externalizing concerns in Whitmore's (2004), Repie's (2005), and Suldo and colleagues' (2010) studies, both of these issues emerged as two of the top mental health referral concerns identified by approximately half of participants in the current study. Aggression was also identified as a commonly referred problem in schools by Foster et al.'s (2005) research, in which a representative sample of 1,147 schools in 1,064 districts across the country responded to a survey about the problems most frequently presented by students in their schools. Corroborating a number of previous studies that queried an assortment of school personnel (Foster et al., 2005; Repie, 2005) and school psychologists (Suldo et al., 2007; Whitmore, 2004) on the most



common and/or critical mental health concerns seen in schools, almost 50% of participants in the current study identified interpersonal problems as quite frequent.

Some of the mental health referral problems that were less frequently identified as common within the current study were also those that have been identified in previous studies as occurring infrequently. For instance, similar to the findings of Suldo et al. (2007) where atypical/bizarre behavior was mentioned a total of 9 times in 11 focus groups, only 12% of participants in the current study indicated that atypical or odd behavior as among their top five most frequently referred mental health problems. Similarly, threat to harm self, substance use, and depression were rated in Repie (2005) as some of the least critical emotional and behavioral problems of students in schools. One hypothesis for why these issues emerged as the “less” frequently referred mental health problems within schools relates to the primary employment settings of the participants in the sample utilized in this study. Approximately 44% of participants in the current study reported their primary employment placement (i.e., the setting in which they spent more than 50% of their time) was in an elementary school, with only approximately 10% the sample primarily working in a high school setting. Problems like substance use and threat to harm self are more likely to be evidenced by adolescents. For example, when Foster et al. (2005) and Whitmore (2004) analyzed only responses from participants employed in middle and high schools, they found that the frequency of citing substance abuse and depression as a major problem jumped sharply. Similarly, Repie (2005) found that respondents serving high schools rated depression, suicidal thoughts, and alcohol/drug abuse significantly higher than persons serving elementary schools.

A number of findings that emerged from the current study were contradictory to previous findings. Whereas anxiety was cited as the second most frequent mental health concern for females (Foster et al., 2005) and was frequently emphasized in an exploratory study of common referral problems to school psychologists (Suldo et al., 2007), only 16% of participants within the current study reported general anxiety as a frequently referred mental health problem. Although previous studies have identified self-esteem as representing a common referral concern (Repie, 2005; Whitmore, 2005), only 7% of participants in the current study indicated that it was one of the top five student problems referred for mental health services. However, these findings are consistent with a recent exploratory study in which school psychologists placed less emphasis on self-esteem as a common referral problem, with practitioners mentioning it a total of only four times during 11 focus groups (Suldo et al., 2007).

In contrast with Foster et al.'s (2005) findings that one of the most frequently endorsed mental health problems included family problems (contained within a larger response option that included social and interpersonal problems), less than 3% of participants within the current study indicated that divorce in family, problems/conflicts with caregivers, or caregivers' mental health issues were among the top five commonly referred mental health problems. However, the current study teased out social and interpersonal problems from family problems, which may account for the difference in findings. Notably, Cohen and Angeles (2006) also identified family social adjustment problems (e.g., divorce, family violence) as one of the more common problems exhibited by students in schools. One hypothesis for why these differences emerged relates to the sample utilized in each study. Participants in Foster and colleagues' (2005) study

included a variety of school personnel and the sample from Cohen and Angeles' (2006) study contained only classroom teachers. It is possible that family-based issues are more likely to be observed by teachers and other school personnel, given their more frequent contact with students in the classroom. A recent exploratory study sampling only school psychologists indicated that they tended to place less emphasis on the majority of family issues, with the exception of divorce in the family, as commonly referred mental health issues (Suldo et al., 2007).

A number of unique response options drawn from more recent studies (i.e., Suldo et al., 2007) were included in the current study, including referral problems that could be characterized as representing a diagnosable mental disorder (e.g., Autism/Aspergers, Obsessive Compulsive Disorder [OCD]) and referral problems that were isolated behavioral or emotional symptoms that could not by themselves constitute a diagnosable DSM disorder (e.g., general internalizing concern, lack of motivation). With regard to diagnosable mental disorders, Autism/Aspergers emerged as particularly common. Consistent with the findings of Suldo et al. (2007), many of the other DSM disorders, such as Obsessive-Compulsive Disorder (OCD), Bipolar Disorder, and Oppositional Defiant Disorder (ODD), were less frequently identified as one of the top five student mental health problems. Epidemiological studies of mental health disorders in youth estimate prevalence rates of ODD from 1-6% and CD from 1-4% (Shaffer et al., 1996), anxiety disorders around 7% (Roberts et al., 2007), mood disorders from 2-8% (US DHHS, 1999) and ADHD at approximately 8% (Visser, Lesesne, & Perou, 2007), while autism is closer to 0.67% (Center for Disease Control and Prevention, 2007). Prevalence rates may not identically reflect referral rates due to a variety of reasons, including

educators' ideas regarding which student mental health problems are appropriate for school-based interventions, the visibility of the nature of the referral problem (e.g., externalizing behaviors vs. internalizing behaviors), and/or because of societal attention to certain conditions (e.g., the current media focus on Autism). The current study suggests that educational personnel may be particularly likely to focus on the relatively small population of students with a disorder on the Autism spectrum when referring students for school-based mental health services.

It is notable that although some of the types of adolescent issues (e.g., romantic relationship problems, adolescent sexuality) and crisis situations (threat to harm others, grief or loss, school-wide tragedy) were endorsed relatively infrequently in the current study, these problems also emerged as confronting at least some school psychologists in prior research (e.g., Suldo et al., 2007). Thus, it remains important for school psychologists to have some background training and knowledge of these problems in order to provide effective mental health services for the full range of referral concerns.

#### *Mental Health Services Provided by School Psychologists*

The purpose of the second research question was to gain a greater understanding of the frequency with which school psychologists currently provide mental health services within the schools. Unique to this study was the use of a comprehensive list of mental health services, gathered from previous qualitative and quantitative studies (Luis, 2005; Suldo et al., 2010; Yates, 2003). Survey results indicated that school psychologists provide a diverse array of mental health services. These findings are consistent with previous research demonstrating that school psychologists offer a breadth of mental

health services to their students, ranging from individual counseling to crisis intervention (Pryzwansky et al., 1984; Repie, 2005; Suldo et al., 2010; Yates, 2003).

Overall, participants reported that they spend approximately half of their 40-hour work week engaging in the provision of mental health services. The mental health activities provided by the vast majority of participants (i.e., 80-100% of the sample) included consultation with school staff, behavioral interventions, consultation with parents/caregivers, social-emotional-behavioral assessment, and consultation with problem solving teams. A relatively sharp drop separated the next activities, which were endorsed by approximately half (i.e., 40%- 65%) of participants; these services included individual counseling, consultation with community service providers, brief counseling, referral to outside agencies for care, inservice training for school staff, and suicide assessment and intervention. Only one-third of the sample endorsed the provision of threat assessments. Services provided even less frequently included training for parents/caregivers, counseling adults, and family counseling.

As would be expected, the mental health services provided by the largest percentage of school psychologists were the same services that occupied the greatest amount of time during an average work week. Consultation with school staff clearly emerged as the mental health service that school psychologists are spending the most time providing, with a mean of half of a day during a typical work week. Four mental health services emerged as occupying 2 to 3 hours of school psychologists' work week, including social-emotional-behavioral assessment, consultation with problem solving teams, individual counseling, and behavioral interventions. Consultation with parents/caregivers and group counseling also emerged as regular activities in the work

week (i.e., 1 to 2 hours of weekly engagement for each). The remaining mental health services were provided relatively infrequently (i.e., < 1 hour per week).

It is challenging to integrate previous research on services provided due to the diverse definitions of mental health services utilized in each study. With that caveat, findings in the current study can be compared with studies that queried an assortment of school personnel on the provision of psychotherapeutic services (Brenner et al., 2001; Calcar & Christensen, 2010; Foster et al., 2005; Repie, 2005; Whitmore, 2004), studies that focused on the professional practices of school psychologists (e.g., Curtis et al., 2008), and studies that focused solely on the provision of psychotherapeutic services by school psychologists (Luis, 2005; Pryzwansky et al.; Smith, 1984; Suldo et al., 2007; Yates, 2003; Yoshida et al., 1984).

In general, the fact that case management/consultation, social-emotional behavioral assessment, individual counseling, and behavioral interventions emerged as the mental health services that school psychologists engage in most corroborates the previous findings of Foster et al. (2005), Whitmore (2004), Slade (2003), and Brenner et al. (2001). Results from the current study are consistent with the overwhelming majority of national studies that have indicated that the majority of a school psychologist's work day is spent in the provision of psychoeducational assessment, direct interventions, and consultation (Agrega, 2004; Bramlett, Murphy, Johnson, Wallingsford, & Hall, 2002; Curtis et al., 1999; Curtis et al., 2008; Hosp & Reschly, 2002).

The current study underscores the frequent provision of consultative services in school-based practice. When serving students with mental health issues, school psychologists consult with a variety of clients including problem-solving teams,

individual teachers, parents, and community service providers. Taken together, these consultation activities pertinent to students' mental health issues occupy over 20% of time in an average school psychologist's work week. In general, these results corroborate the previous findings of Yates (2003) and Luis (2005), which found that approximately 20% of practitioners' work week was reportedly spent providing consultative services.

Approximately 85% of participants within the current study reported providing social-emotional behavioral assessment, which is similar to the large body of existing research that has consistently identified assessment/testing as a mental health service frequently provided in schools (Foster et al., 2005; Repie, 2005; Slade, 2003) by school psychologists (Luis, 2005; Yates, 2003). Whereas the percentage of practitioners engaging in this service has remained relatively consistent, there may be change in the amount of time in an average work week that practitioners spend providing this service. Prior research studies suggest that school psychologists spend a relatively large amount of time in their work week providing assessment and diagnosis, ranging from 31.5% (Luis, 2005) to 49.8% (Yates, 2003). However, participants in the current study reported spending only 7.33% of their work week in the provision of social-emotional-behavioral assessment. These results are consistent with the findings of Suldo et al. (2010), in which the provision of social-emotional behavioral assessment was not emphasized (specifically, mentioned only 18 times by the 39 participants). One possible explanation for this discrepancy pertains to the term used to describe "assessment for mental health issues." Within the present study and Suldo et al. (2007) study, the term used to identify assessment for mental health issues included the words "social-emotional" or "mental health." Prior studies have used a more ambiguous term to identify assessment for

mental health issues that usually included only the word “assessment.” The large amount of time respondents have previously reported providing assessment and diagnostic services suggests that participants in earlier survey research may not have limited their responses to activities specific to mental health services (e.g., social-emotional behavioral assessment to determine the clinical needs of students with mental health problems vs. psychoeducational assessment completed to determine eligibility for special education).

Regarding research examining psychotherapeutic services provided specifically by school psychologists, the results from this study are consistent with more recent studies that highlighted that only around 60-70% of school psychologists provide individual counseling services (Curtis et al., 2008; Luis, 2005; Yates, 2003). Of note, it is challenging to provide direction comparisons to previous research due to the use of differing definitions of counseling services, which ranged from specific (e.g., “individual counseling”, “group counseling”) to broad (e.g., “counseling”). Nevertheless, studies conducted in the 80’s and 90’s (Prout et al., 1993; Smith, 1984; Yoshida et al., 1984) indicated that school psychologists spent at least 7.3% of their time providing “individual counseling” and as much as 17% of their time providing “counseling” services. Studies conducted within the last ten years (Agresta, 2004; Luis, 2005; Yates, 2003) reaffirmed that school psychologists continued to spend, at a minimum, 7% of their time providing “individual counseling” services and as much as 17.2% of their time providing “counseling” services. Results from the current study suggest that practitioners typically spend 7.5% of their week providing individual counseling services, including brief counseling (provided by more than half of participants). When combined with family counseling and group counseling, the total time spent providing counseling services was



an average of 10.75% of a practitioners' work week, which is a lower estimate than what was obtained in past research. Overall, it appears that direct counseling occurs less frequently than the provision of indirect services such as consultation with teachers, parents, and problem solving teams.

Consistent with previous research studies examining psychotherapeutic services provided specifically by school psychologists (Agresta, 2004; Luis, 2005), participants reported providing less group counseling as compared to individual counseling services. Unique to the current study were participants' responses that clarified the different types of counseling groups provided. Participants reported providing groups that addressed a variety of problems, with the most common types of groups focusing on social skills, anger management, anxiety, and study skills. Given the larger number of students that can be affected through a group modality of service provision, it is concerning that only half of school psychologists provide any group counseling services, and that it continues to occupy only a small percentage of time in practitioners' typical work weeks.

The current study suggested minimal provision of family services such as family counseling. This finding is consistent with research from a national sample of school psychologists (Whitmore, 2004) and regular and special education teachers, school counselors, and school psychologists (Repie, 2005), which indicated that family counseling services was the mental health service provided least often in the school settings. This may be a relatively recent phenomenon, as some studies conducted in the 1980's using a sample of school psychologists from a northern state (Pryzawansky et al., 1984) and a national sample of school psychologists (Yoshida et al., 1984) identified family services as a common mental health service provided. Nevertheless, the paucity

of family services identified in the current study is in line with results of current studies of school psychologists (cf. Luis, 2005; Suldo et al., 2007; Yates, 2003) that indicate that this is a mental health service that is provided infrequently by school psychologists.

Only a minority of participants in the current study also reported providing prevention services, consistent with previous research suggesting that prevention services are not services commonly provided in the schools (Foster et al., 2005; Repie, 2005) or provided by school psychologists (Luis, 2005; Suldo et al., 2010; Yates, 2003). It is possible that other educational personnel are addressing such needs, as a national sample of guidance counselors, psychologists, social workers, and principals surveyed reported that many of their schools provided alcohol and other drug use prevention, suicide prevention, and violence prevention (Brener et al., 2001). A recent review of school-based prevention and intervention programs for depression indicated that the delivery of these programs were provided by graduate students (40%), mental health professionals (36%), and school teachers (31%; Calear & Christensen, 2010).

Some of the findings that emerged from the current study were contradictory to previous research. Whereas crisis intervention services have been cited as among the most frequently provided mental health services in schools (Repie, 2005) and by the majority of school psychologists (Debski et al., 2007; Luis, 2005; Suldo et al., 2010), within the current study the majority of crisis intervention services were endorsed by less than 45% of participants. Similarly, the 0.32 hours per week that current participants reported spending in the provision of crisis intervention services (i.e., threat assessment, suicide assessment) was significantly less than the 1.19 hours reportedly spent in the provision of crisis intervention services by a national sample of school psychologists

surveyed by Luis (2005). Findings from the current study may be influenced by the primary population (i.e., elementary age students) served by the current sample.

Some unique mental health services identified within more recent studies of school-based mental health service provision by school psychologists (c.f., Suldo et al., 2010) were also included within the current study (e.g., behavioral interventions, school/classwide screenings, counseling adults). Approximately 90% of participants reported providing behavioral interventions, and reported that this service comprised a total of 5% of their time in an average work week. These findings are not surprising given that Luis (2005) found that almost 90% of participants engaged in behavior management consultation and that this service comprised 8.4% of the work week. The current results confirm that school psychologists are playing a more active or direct role in the provision of behavior interventions in schools, perhaps in response to the frequency with which students with externalizing problems are referred for school-based assistance. In contrast, the current study found that less than 20% of school psychologists provide school/classwide screenings or inservice trainings for parents/caregivers. Such proactive and ecologically-oriented services may increase in frequency as the school psychologists' role changes to be more systemic.

Knowledge that school psychologists engage in such a variety of activities broadens the range of mental health services that school psychologists are known to provide on a relatively common basis. Implications of these findings are twofold for the field of school psychology. First, school psychology graduate training programs must ensure that graduate students are being trained and are prepared to provide the types of mental health services that are frequently providing in the schools. Secondly, deliberate

professional development services can be tailored to the specific knowledge and training needs in those service areas for school psychology graduate students and practitioners for those mental health services that are currently being provided relatively infrequently. Such targeted trainings may increase practitioners' capacity to provide mental health services that they are currently not providing.

### *Barriers to School-Based Mental Health Service Provision*

The purpose of this research question was to determine the specific factors that are perceived as the greatest inhibitors to school psychologists in their provision of SBMH services. By identifying the most significant barriers to SBMH service provision, these factors can be addressed so as to increase the likelihood that a school psychologist would provide mental health services. Unique to this study was the use of a comprehensive list of 27 factors experienced in schools, gathered from previous qualitative and quantitative studies (Luis, 2005; Meyers & Swerdlik, 2003; Suldo et al., 2010; Yates, 2003). Overall, responses from participants indicated that the majority of participants had experienced each of the factors included on the survey.

Given that each factor was perceived by at least one participant as either an "Extreme Barrier" or "Not a Barrier," these results suggest that there are individual differences in how practitioners' perceive specific factors as potential barriers to the provision of school-based mental health services. None of the factors' mean numeric rating corresponded to "Extreme Barrier", and only one factor (too many psychoeducational evaluations to complete) besides the "other" category emerged as a "Significant Barrier." The eight factors that emerged as "Moderate Barriers" included personal factors (e.g., role strain), school-based factors (e.g., difficulty collaborating with

teachers to implement interventions), and district level factors (e.g., insufficient funds for mental health services from district administration). The majority of “Slight Barriers” related to problems with school personnel (e.g., teachers not supportive of counseling), problems inherent to using schools as the site of service delivery (e.g., student attrition), and insufficient professional preparation. Contrastingly, only two factors, personal mental health problems and off-putting student characteristics, were on average “Not a Barrier.” Given that the majority of factors included within the current study were perceived by participants as being “Slight” to “Moderate Barriers,” these results suggest that very few factors appear to completely thwart school psychologists’ provision of SBMH services.

Corroborating previous researchers’ findings, school psychologists perceive both external (i.e., due to the systems in which the practitioner works) and internal (i.e., specific to an individual practitioner’s experiences and attitudes) barriers to the provision of school-based mental health services. Although participants tended to endorse the “other” response options as a “Significant Barrier,” the fact that only seven additional barriers were hand-written into the “other” category by one participant each suggests that these barriers tend to be unique factors that are rarely experienced by school psychologists. Furthermore, a close look at these responses indicated that most could likely be incorporated under the factors already included in the current survey. Taken together, these results suggest that the list of factors contained within the current study is a relatively comprehensive list of the factors that may inhibit school psychologists from providing SBMH services.

Many of the factors related to a practitioner's caseload at school corresponded with those found in the existing literature (Meyers & Swerdlik, 2003; Suldo et al., 2010; Yates, 2003). The particular saliency of having too many psychoeducational evaluations to complete is consistent with Yates' (2003) results, in which a national sample of school psychologists most endorsed a heavy emphasis on assessment as the factor that most often presented a barrier to spending more time providing counseling. School psychologists' tendency to feel like there simply wasn't enough time in the day to meet all students' needs was also reflected in the emergence as "having too many students in need of mental health services" as a moderate barrier. A potential effect of having overwhelming academic and mental health caseloads is a perception of role strain, which also emerged as a moderate barrier in the current study.

With the exception of one item, factors that relate to problems inherent to using schools as the site of service emerged as moderate to slight barriers. Issues involving insufficient time and integration into the school site, problems accessing students during the school day, and inconsistent treatment have also been identified as problematic in previous research (Suldo et al., 2010). Although other factors such as overlapping responsibility among mental health providers, accountability for academic success, and insufficient space to provide mental health services were mentioned just as frequently in Suldo et al., these issues only emerged as slight barriers in the current study.

Based on findings from more recent studies of barriers to SBMH service provision (Luis, 2005; Suldo et al., 2010), a number of factors related to the support and involvement of a variety of school-based personnel were assessed within the current study. Overall, responses from participants indicated that those factors that involve

teachers, building-level administrators, and other mental health professionals are perceived as slight barriers to SBMH service provision. Only one factor, difficulty collaborating with teachers to implement interventions, was perceived as a moderate barrier on average. Overall, these findings corroborate previous researchers' findings in which a national sample of school psychologists responded to two forced-choice likert-style questions regarding the level of support perceived from school administration and staff on a scale of (1) *no support* to (5) *much support* (Luis, 2005), with practitioners reporting "average support" from school staff and school-based administration.

Consistent with prior research in which school psychologists lamented a perceived lack of attention to student mental health at the district level (Luis, 2005; Yates, 2003; Suldo et al., 2010), school psychologists rated factors related to insufficient support from district administration as slight to moderate barriers. These findings are consistent with the results of the SAMHSA survey (US DHHS, 1999), in which schools ranked the extent to which certain factors were barriers to the delivery of mental health services, using a scale of 1 ("not a barrier") to 4 ("serious barrier"), and 49% of participants endorsed a lack of sufficient funds and resources as a serious barrier. Clearly, financial support for service provision is a prerequisite for ethical and effective practice. Whereas the factor of narrowly defined department-assigned roles and responsibilities has previously emerged as a significant constraint on the provision of SBMH services (Suldo et al., 2010; Yates, 2003) and suicide assessment and intervention services (Debski et al., 2007), practitioners indicated that this factor was only a slight barrier, suggesting that the participants in the current study may perceive greater explicit permission to provide a fuller range of psychological services in schools. Overall, these

results underscore the relatively significant role that the department can play in preventing school psychologists from providing mental health services in the event that sufficient support is not provided with regard to financial resources and comprehensive job descriptions.

This study also queried participants about the degree to which internal factors limit their provision of mental health services. Previous research had stumbled upon the important role of professional training through providing an opportunity for participants to provide open-ended comments about “other” barriers to providing counseling services not purposefully assessed in the study (Yates, 2003), a finding that has consistently emerged in more recent studies (Debski et al., 2007; Suldo et al., 2010). Within the current study, participants’ responses indicated that the factors of insufficient training and insufficient confidence in their ability to provide mental health services represented only slight barriers to their provision of SBMH services. This is consistent with the finding that the majority of participants in the current study reported that their graduate school training sufficiently prepared them to provide mental health services.

Items pertaining to internal factors such as personal characteristics, as well as those items related to challenging student factors, received mean numerical ratings that were much lower than the other factors included in the survey. Although the factors of personal mental health problems and negative student characteristics had previously been identified as barriers (Suldo et al., 2010), participants’ responses within the current study indicated that these issues were not barriers. However the infrequency with which these factors were mentioned in focus groups in this prior research study suggests that this may



be a unique factor that is rarely encountered in schools and infrequently perceived by practitioners as a barrier.

Taken together, this study indicates the presence of external and internal barriers to the provision of school-based mental health services. Although almost all of factors included within the current study were reported as having been experienced by the overwhelming majority of participants, the mean numeric ratings reported for many of the factors indicated that they do not necessarily significantly limit school psychologists' provision of SBMH services. Nevertheless, because school psychologists indicated that many specific factors do slightly to moderately serve as barriers to SBMH services, these findings can ultimately aid in determining the specific skills school psychologists need in order to be prepared to manage the individual and systems-level barriers that exist, including the role that school, department, and district administration should play in ameliorating such barriers.

#### *Enablers to School-Based Mental Health Service Provision*

The purpose of this research question was to determine the specific factors that are perceived as the greatest enablers to school psychologists in the provision of SBMH services. By identifying the most significant enablers to SBMH service provision, these factors can be capitalized upon so as to increase the likelihood that a school psychologist can provide mental health services. Unique to this study was the use of a comprehensive list of 21 factors, gathered from previous qualitative and quantitative studies (Luis, 2005; Suldo et al., 2010; Yates, 2003). Overall, responses from participants indicated that the majority of participants had experienced each of the factors included on the survey.

Given that each factor was perceived by at least one participant as either an “Extreme Enabler” or “Not an Enabler,” these results suggest that there are individual differences in how practitioners’ perceive specific factors as potential enablers to the provision of school-based mental health services. None of the factors’ mean numeric rating corresponded to “Extreme Enabler” and only one factor (personal desire to provide mental health services) besides the “other” category emerged as a “Significant Enabler.” The majority of factors, a total of sixteen, received a mean numeric rating corresponding to “Moderate Enabler” and included personal factors (e.g., ability to remain objective with a student), school-level factors (e.g., sufficient space to provide mental health services), school-based facilitative relationships factors (e.g., teachers are supportive of mental health services), and district level factors (e.g., department provides relevant professional development). The remaining three factors related to a school psychologists’ caseload and district support received a mean numeric rating corresponding to “Slight Enabler.” None of the factors received a mean numeric rating corresponding to “Not an Enabler.” Given that the majority of factors included within the current study were perceived by participants as “Moderate Enablers,” these results suggest that there are several avenues school psychologists can pursue to facilitate their provision of SBMH services.

Corroborating previous researchers’ findings, school psychologists perceive both external (i.e., due to the systems in which the practitioner works) and internal (i.e., specific to an individual practitioner’s experiences and attitudes) enablers to the provision of school-based mental health services. Although participants tended to endorse the “other” response options as a “Significant Enabler,” the fact that only six additional

enablers were hand-written into the “other” category by one participant each suggests that these enablers tend to be unique factors that are rarely experienced by school psychologists. Furthermore, most responses could likely be incorporated under the factors already included in the current survey. Taken together, these results suggest that the list of factors contained within the current study is a relatively comprehensive list of the factors that may enable school psychologists from providing SBMH services.

Consistent with Yates’ (2003) dissertation in which 60% of a national sample of school psychologists endorsed a personal interest in counseling as a factor facilitative of SBMH service provision, the personal factor of having the desire to provide mental health services was the item that had the highest mean numeric rating. Implications of this finding include the need to ensure that school psychologists are knowledgeable of the link between academic success and social-emotional wellness (e.g., U.S. Department of Health and Human Services, 1999), as such a conceptual framework may increase and/or maintain practitioners’ motivation to provide SBMH services. Other personal factors included on the survey (i.e., ability to maintain personal boundaries, ability to remain objective with a student, personal experiences as a parent helps you handle similar problems with student) were identified by participants as “Moderate Enablers.” This is contradictory to recent findings where school psychologists placed less emphasis on the role of these specific personal factors, mentioned a total of only four to seven times during 11 focus groups (Suldo et al., 2010).

The emphasis school psychologists have previously placed on adequate training in topics germane to SBMH (Luis, 2005; Yates, 2003) is consistent with the finding that sufficient knowledge/skills and confidence in SBMH service provision emerged as

moderate enablers in the current study. Given that the factors of having insufficient knowledge/skills and confidence in SBMH service provision were perceived as only slight barriers, sufficient training appears to be more relevant to helping school psychologists get involved in SBMH service provision than in preventing them from providing these services.

Contrasting the emphasis participants placed on barriers pertinent to an overwhelming academic and mental health caseload at school, participants identified a manageable caseload as only a slight enabler. These results suggest that issues related to the size of a school psychologist's caseload matters more in preventing involvement in SBMH services than enabling it. Perhaps a strong personal desire to provide SBMH services trumps the logistics of competing role responsibilities. Somewhat unique to this study was the inclusion of the enabling factor of access to adolescents, only recently identified by Suldo et al. (2010), which participants in the current study identified as indeed a moderate enabler. Further research is needed to determine if this phenomenon is driven by school psychologists' perception that younger children do not have substantial mental health needs, or if alternatively the job description of school psychologists that serve children is more focused on traditional activities such as assessment for eligibility.

Factors related to advantages of using schools as the site of service emerged as moderate enablers within the current study. Underscoring the value of working with a team of educators, having the availability to consult with other school mental health professionals was identified as one of the factors with the highest overall mean numeric ranking. Based on findings from more recent studies of enablers to SBMH service provision (Luis, 2005; Suldo et al., 2010), a number of factors related to the support and

involvement of a variety of school-based personnel were also included within the current study. Overall, results indicated that support from teachers and building-level administrators indeed serve as enablers to SBMH service provision. Consistent with the emphasis practitioners have previously placed on the role of school administration support (Yates, 2003) and staff and teacher support (Luis, 2005), these factors were identified as moderate enablers. External support in the form of parent support and access to community resources previously identified in research (Luis, 2005) were also reported as facilitating school psychologists' provision of SBMH services. Contrastingly, items pertaining to district and department administration tended to receive mean numerical ratings that were much lower than the other factors included in the survey. Although support from the department and district have previously been identified as facilitators to SBMH service provision (Luis, 2005; Suldo et al., 2010; Yates, 2003), practitioners responses in the current study suggest that they tend to play less of a role in facilitating their provision of SBMH services as compared to the support provided by individuals with whom the practitioner interacts on a more regular basis.

Taken together, this study indicates the presence of external and internal enablers to the provision of school-based mental health services. Essentially, internal factors were found to be the strongest facilitating forces, with other school and systems-level factors also emerging as moderately strong enablers. The principle role that graduate school training programs hold in training and providing school psychologists with the confidence, therapeutic skills, and motivation needed to facilitate the provision of SBMH services is clearly indicated. However, these findings also point to the

important role that school-based personnel and the department can take in providing support for school psychologists in their provision of mental health services.

### *Didactic Content Training of School Psychologists*

The purpose of this research question was to determine the specific didactic content training areas that may ultimately aid in the design and implementation of effective mental health training in school psychology programs. Many of the didactic content areas included in current study correspond with those found in the existing literature (Suldo et al., 2007; Whitmore, 2004; Yates, 2003). Unique to this study was the use of a comprehensive list of 24 training content areas gathered from these previous qualitative and quantitative studies. Whereas the majority of previously conducted studies have identified the current status of training in mental health (but have not attempted to assess the relevance of these content areas to the actual provision of mental health services), the current study identified those didactic content areas that are perceived as most beneficial in that they increased school psychologists' ability to provide mental health services.

The majority of participants reportedly received training in the majority of didactic content areas, which is consistent with recent qualitative studies (Suldo et al., 2007) and quantitative studies (Whitmore, 2004) examining university-level training of school psychologists. Given that each didactic content area was perceived by at least one participant as either "Not Helpful" or "Extremely Helpful," these results suggest that there are individual differences in how practitioners' perceive training in specific content areas as beneficial in preparing them to provide school-based mental health services. Despite these differences, none of the training content areas received a mean numeric

rating below “Moderately Helpful.” In fact, thirteen areas were categorized as “Very Helpful,” and the remaining eleven areas were categorized as “Moderately Helpful.” These results suggest that all of the training content areas included within the present study should be perceived as critical components of school psychology training programs.

The percentage of participants who reported receiving coursework covering behavioral interventions, developmental psychology, personality, group counseling, neuropsychology, multicultural education, psychotherapy, and crisis intervention is consistent with prior research (Debski et al., 2007; Yates, 2003). The fact that the content areas of counseling adults and family therapy had the greatest percentage of participants indicate that they did not receive training in that area was not surprising given that participants in the current study reported providing these services infrequently. Whereas 42% of participants from Yates’ (2003) study reported receiving coursework in Multicultural Counseling, approximately 93% of participants within the current study reported receiving coursework in multicultural education. Perhaps many graduate programs discuss multicultural issues within their training program, but do not apply such discussions to multicultural counseling. A larger number of participants in the current study, approximately 62%, reported receiving training in advanced psychotherapy, as compared to the 46% of participants in Yates’ (2003) study. These results are promising in that it appears that the number of practitioners receiving advanced training in psychotherapy is on the rise.

Given that participants in this study emphasized the enabler of sufficient knowledge/skills relevant to mental health service provision, it is logical that none of the

content areas were rated as “Not Helpful”. Many of the content areas that received a mean numeric rating that corresponded to “Very Helpful” are those that have been noted in the previous literature examining university-level training of school psychologists (Suldo et al., 2007; Whitmore, 2004; Yates, 2003). This is an encouraging finding given that at least some of the beneficial coursework identified by participants within the current study were recently noted as part of practitioners’ training. Also encouraging was the finding that the vast majority of participants (i.e., 90% or more) reported having received graduate school training in the content areas identified as “Very Helpful.” Such results support the notion that school psychologists should be viewed as among the educational professional prepared to assume more responsibility for the provision of SBMH services to the vast number of youth in need.

Many of the training content areas that were perceived as very helpful, including psychopathology, behavioral interventions, and consultation with teachers or parents, are particularly germane to the SBMH services that school psychologists spend the most time in during their work week. Contrastingly, whereas practitioners emphasized the value of receiving training in crisis interventions, they reported engaging in these services relatively infrequently in an average work week. Perhaps because of the specific skills needed to provide crisis intervention services, receiving training in these content areas is perceived as particularly important to practitioners.

Many of the training content areas that were classified by practitioners as moderately helpful included those that focused on the knowledge and application of skills in the provision of the mental health service of therapy. Specifically, these content areas included advanced psychotherapy, case documentation, survey course covering multiple



therapeutic orientations, advanced study of a single orientation, family therapy approaches and techniques, and counseling adults. Given the smaller percentage of participants who reported providing the services of family therapy and counseling adults, as well as the relatively small amount of time practitioners currently report spending providing this service in their work week, it is not surprising that practitioners do not necessarily perceive some of these content areas as having been particularly important in preparing them to provide SBMH services. Notably, the training item of advanced study of a single orientation was defined relatively broadly within the current study and may not necessarily reflect the value of training in all types of mental health orientations. Additional research is needed to specifically identify the value of receiving training in each single orientation (e.g., cognitive-behavioral, gestalt, solution-focused) before a definitive conclusion regarding the importance of receiving training in this broader didactic content area can be made.

Given that participants within the current study rated the content areas of group therapy approaches and prevention of mental health problems as only somewhat helpful, school psychologists may feel that their graduate training in these areas do not adequately prepare them to provide these services. This hypothesis has previously been supported by Luis (2005), in which a nationally representative sample of school psychologists were asked to rank order three out of eleven possible training areas that they felt were the most important to receive additional training in. Two of the top three content areas identified by participants included social skills training and prevention of emotional and behavioral problems (Luis, 2005).

The implications of these findings are important to consider given that participants indicated that graduate school coursework can play a significant role in providing them with the content knowledge that allowed them to feel sufficiently prepared to provide mental health services in the schools. Importantly, the fact that all of the didactic content areas within this study were perceived as helpful suggests that these topics should be critical components of school psychology graduate coursework for school psychologists. This training can be provided during graduate school, as well as implemented in continued education courses, particularly in light of consistent findings illustrating practitioners' reliance and the perceived helpfulness of post-graduate seminars to receive additional training in mental health services.

#### *Applied Training Experiences of School Psychologists*

The purpose of this research question was to determine the degree to which specific applied training experiences are perceived by school psychologists as important in preparing them to provide SBMH services. Knowledge of effective applied training experiences can ultimately aid in the design and implementation of effective mental health training in school psychology programs. Many of the experiential activities and professional development activities that were included on the survey used in the present study correspond with those found in the existing literature (Suldo et al., 2007; Whitmore, 2004; Yates, 2003). Unique to this study was the use of a comprehensive list of 14 applied experiences gathered from the aforementioned qualitative and quantitative studies. Furthermore, the current study expanded upon this area by querying participants regarding the type of applied training experiences that they felt were most helpful in preparing them to provide mental health services.

Consistent with recent research that indicates that school psychologists had applied training experiences in the form of experiential activities occurring during graduate school and professional development activities occurring during professional practice (Suldo et al., 2007), all of the items included within the current study were reported to have been experienced by the majority of participants. The current results are in line with prior research that identified such graduate training experiences as observations of a trainer in a counseling session, supervision, and one-way viewing as part of mental health training (Yates, 2003). Consistent with studies querying school psychologists with regard to training in crisis intervention (Adamson & Peacock, 2007; Debski et al., 2007) and SBMH (Whitmore, 2004; Yates, 2003), practitioners were more likely to report having participated in professional development training as compared to the experiential training activities provided during graduate school.

Given that the majority of applied training activity were perceived by at least one participant as either “Not Helpful” or “Extremely Helpful,” these results suggest that there are individual differences in how practitioners’ perceive specific training activities as beneficial in preparing them to provide school-based mental health services. Self-study and consultation with colleagues did not receive a rating below one, indicating that these two activities were perceived by all practitioners as helpful in preparing them to provide SBMH services. Although none of the applied activities received a mean numeric rating corresponding to “Extremely Helpful,” none received a mean numeric rating below “Moderately Helpful.” Seven of the fourteen activities were categorized as “Very Helpful,” and the remaining seven were categorized as “Moderately Helpful.” These results suggest that the applied training activities included within the present study should

be perceived as critical components of school psychology training programs and professional practices.

Of note, it is challenging to integrate previous research on the perceived importance of specific experiential graduate training activities due to the minimal number of studies that have specifically focused on this research topic. With that caveat, findings in the current study can be compared to a recent qualitative study that queried school psychologists as to the specific training experiences (beyond class work) that most enabled them to provide mental health assessment and intervention (Suldo et al., 2007). Consistent with the emphasis practitioners voiced on the importance of having had received a supervised practicum in graduate school, mentioned a total of 26 times during 11 focus groups (Suldo et al., 2007), participants in the current study reported this activity as very helpful. The importance participants in the current study placed on the opportunity to consult with colleagues is consistent with a prior research study in which school psychologists mentioned this activity 12 times during 11 focus groups (Suldo et al., 2007). A promising finding was that all of the participants reported participating in consultation with colleagues, suggesting that many school psychologists in the field are taking advantage of their peer resources. Similarly, almost 100% of participants in the current study reported accessing the other professional development opportunities rated as very helpful, including self-study and participation in a professional organization.

A few of the findings that emerged from the current study were contradictory to previous findings. Inconsistent with the infrequency with which participants verbalized the importance of participating on a multidisciplinary team, having been mentioned only two times during 11 focus groups (Suldo et al., 2007), participants in the current study

rated it as the most helpful experiential activity, and over 90% of participants in the current study reported having received this training experience. Discrepant to the emphasis participants had placed on the value of inservices offered through one's district, mentioned a total of 27 times during 11 focus groups (Suldo et al., 2007), participants in the current study reported this activity as only moderately helpful. However, given that the practitioners who participated in the Suldo et al. (2007) study were geographically limited to two districts, the emphasis they placed on in-service training may be unique to the valuable training they had been provided within their specific districts.

The implications of these findings are important to consider given that participants indicated that both graduate school applied experiences and school district professional development opportunities can play a significant role in providing the training experiences that would allow them to feel sufficiently prepared to provide mental health services in the schools. Importantly, the fact that all of the experiential activities and professional development activities were perceived as helpful suggests that these experiences should be critical components of training for school psychologists.

#### *Implications of Results*

The findings of this study have significant implications for school psychology practitioners and trainers of school psychologists, both at the graduate-level and the professional practice-level. In particular, because of the study's focus on the training needs of current practitioners, an overarching goal of this study was to gather information regarding how school psychology graduate training programs as well as district supervisors could enhance the training experiences of school psychologists to maximize delivery of SBMH services. Therefore, this section is organized into communicating the

implications of the results of this study that pertain to practicing school psychologists and those that specifically pertain to school psychology trainers.

### *Implications for School Psychologists*

Because school psychologists receive referrals for students with a diverse set of mental health problems, professionals working with youth must be knowledgeable of the etiology of a variety of mental health conditions and have the skills necessary to provide individualized and comprehensive assessments that will lead to the selection and implementation of interventions likely to address students' needs. Clearly there are certain mental health issues that school psychologists will encounter more frequently within the schools, such as ADHD and academic issues, and it is particularly imperative that school psychologists have the knowledge and skills needed to allow them to meet the needs of students struggling with these issues. Addressing the mental health needs of youth will also require school psychologists to engage in the implementation of systems-level initiatives and programming, given that findings suggest that proactive methods (e.g., school-wide screenings) for identifying students with internalizing disorders in school-based populations is necessary, as these students are unlikely to get referred for assistance via traditional methods.

Furthermore, results from this study indicate that school psychologists are likely to engage in the provision of a broad array of school-based mental health services, ranging from consultation to crisis intervention. School psychologists should ensure that they feel confident and well prepared to provide effective and evidence-based comprehensive mental health services. Hence, an important step for practitioners involves developing and cultivating self-awareness through frequent self-reflection and

self-evaluation in order to effectively identify professional strengths and weaknesses, followed by implementation of action plans to improve competence in those areas identified as in need of improvement

Participants' responses supported the presence of barriers and enablers to mental health service provision that exist across multiple levels and systems within education, as well as have to do with the personal training experiences and characteristics that individual practitioners possess. One of the most efficient ways to apprise practicing school psychologists of these issues is through relaying this information via professional development training opportunities. Discussions should apprise practitioners of the personal and systems-level factors that are most likely to both enable and inhibit their provision of mental health services and focus on facilitating the acquisition of the skills and strategies needed to address these issues in the school setting. A component of this training may involve a personal analysis of the specific barriers and facilitators practitioners are experiencing in their school settings, followed by the development of individual plans designed to address each of the factors.

Results from this study indicate that it is important to recognize the role that school, district, and department personnel can play in ameliorating barriers and providing supportive practices to increase school psychologists provision of SBMH services. The social environment of schools and school districts, and the professional relationships between school psychologists and other educational personnel like teachers and administrators, will be critical in efforts to increase SBMH service provision. Thus, these key stakeholders will need to be apprised of the results from the current study in order for them to understand fully their role in affecting school psychologists' ability to provide

mental health services. The role that educators play in school psychologists' provision of SBMH services, along with specific practices they can follow to promote these practices, could be woven into inservice presentations in the school setting. Principals and district and department administrators have unique opportunities to influence school and district policies in ways that emphasize a commitment to SBMH via decisions affecting the professional role of the school psychologists, such as the heavily emphasized barrier of caseloads.

The need for excellent professional preparation is underscored by the emphasis practitioners placed on the role that training and confidence served in enabling them to provide SBMH services. Responses from practitioners within the current study suggest that it is not enough only to receive training through graduate school, but that enhancing one's skill and confidence in SBMH service provision also involves a commitment to continuing education opportunities. School psychologists should consider the potential opportunity to enhance their knowledge and skills in SBMH through elective coursework and the opportunity to engage in experiential training activities. The importance of making a personal commitment and investing time as a practitioner into increasing one's knowledge and skills as a SBMH service provider was underscored in the current study, particularly in light of the perceived helpfulness of such professional development means as self-study.

In terms of continuing education training, school districts might consider recognizing the need for continual training on didactic content areas. Such topics could be covered during in-services offered through the district, particularly in light of consistent findings illustrating practitioners' reliance on in-services to receive this



additional training in mental health services (Debski et al., 2007; Suldo et al., 2007; Yates, 2003). However, based on the responses of participants from the current study, other professional development activities were deemed more helpful in providing practicing school psychologists with the knowledge needed to engage in the provision of SBMH services. In regards to these professional development activities, practitioners rated highly the ability to consult with peer colleagues, individually initiate self-study, and participate in professional organizations. Setting up a network within the district through e-mail, providing resources (e.g., textbooks, journal articles) to allow for practitioners independent study, and offering incentives for becoming a member of a school psychology organization could offer practitioners the opportunities needed to enhance the knowledge and skills necessary for mental health service provision in schools.

#### *Implications for School Psychology Graduate Trainers*

Most graduate programs currently offer coursework in psychopathology (i.e., abnormal psychology, behavior disorders, etc.) that focus on understanding and treating mental disorders. If the services of school psychologists are to be maximized to meet the needs of all children struggling with mental health problems, it will not be sufficient only to train school psychologists to understand and treat diagnosable disorders. School psychologists must also be trained and prepared to deal with discrete symptoms and crisis situations. It is particularly imperative that school psychologists receive sufficient training relevant to the mental health issues that school psychologists encounter most frequently within the schools, such as ADHD and academic issues.

Importantly, some of the internalizing mental health issues that have been identified as the most prevalent mental health disorders among child and adolescent populations (e.g., anxiety, depression) did not emerge as those that are frequently referred for services. These findings suggest that additional training may need to occur for both school personnel and school psychologists with regard to recognizing warning signs and effective methods of screening in order to identify internalizing disorders in school-based populations.

Results from this study also indicate that it is not sufficient to train school psychologists to provide only one modality of psychotherapeutic service (e.g., counseling), as participants indicated providing a broad array of school-based mental health services, from consultation to crisis intervention. In order to ensure that effective and evidence-based mental health services are being provided, graduate training programs must prepare practitioners to provide the most effective approaches to treatment using each popular modality. Specifically, practitioners should be fully prepared and trained to provide consultation services, social-emotional-behavioral assessment, individual and group counseling, and behavioral interventions.

Despite the push towards prevention and mental health promotion within the field of school psychology, practitioners continue to struggle with shifting away from the traditional reactive approach to addressing students' emotional concerns towards a prevention-oriented, problem-solving approach to service delivery. If school psychologists are to fully realize their roles in providing comprehensive mental health services, they must be provided with the training opportunities and knowledge needed to provide such important modalities of treatment. Importantly, even though participants

reported spending slightly over 50% of their time in the provision of SBMH services, the overwhelming majority indicated that they would like to spend “more time” or “the same amount of time” providing mental health services.

Given the clear desire for school psychologists to engage in the provision of SBMH services, if school psychologists are to fully embrace the role of school-based mental health professionals, the personal and systems-level factors affecting their ability to provide such services must be addressed. One of the most efficient ways to apprise school psychologists of these issues is through integrating this information into the coursework covered in school psychology graduate programs. Discussions should apprise students of the personal and systems-level factors that will likely both enable and inhibit their provision of mental health services and focus on facilitating the acquisition of the skills and strategies needed to address these issues in the school setting. By providing future practitioners with this knowledge, they will be better prepared and skilled in problem solving through systems-level and school-based issues, collaborating and navigating the school environment, and generating potential solutions before problems occur. Furthermore, training content should be expanded to include enabling factors like fostering an individual’s desire to provide mental health services, acquiring skills to remain objective with a student, and how to maintain personal boundaries.

The need for excellent professional preparation of modern school psychologists is underscored by the emphasis practitioners placed on the role that training and confidence served in enabling them to provide SBMH services. Thus, training programs must consider ways to provide the content knowledge and experiences necessary for a school psychologist to enter a school prepared to provide comprehensive mental health services,

and administrators must provide continuing education training to practicing school psychologists that will enhance the knowledge and skills necessary for mental health service provision in schools. Graduate school trainers should consider recognizing the need for comprehensive didactic coursework covering content that not only enhances knowledge and skills in the provision of specific services relevant to addressing the social-emotional needs of children (e.g., behavioral interventions, social-emotional behavioral assessment, consultation with teachers/caregivers), but also in their knowledge of mental health (e.g., psychopathology, developmental psychology). Essential to the training experience are the experiential activities that allow students to actively practice and/or observe a skill needed for mental health service provision. In general, applied graduate school activities were deemed as helpful by school psychologists in the current study, but the benefits of working on a multidisciplinary team, supervised practicum, and co-leading counseling groups emerged as particularly salient.

In conclusion, results from the current study yield important implications that warrant particular attention from school psychology graduate trainers. Taken together, the following broad recommendations can be made for school psychology graduate training programs:

- 1) Training in mental health problems should include the etiology and effective treatment of discrete symptoms and crisis situations, as well as DSM-IV disorders
- 2) Training in psychotherapeutic service provision should incorporate a broad array of effective and evidence-based mental health services, including both direct and indirect mental health services, particularly consultation

- 3) Training should include comprehensive didactic coursework covering content that enhances students' knowledge and skills in mental health and the provision of specific services relevant to addressing the social-emotional needs of children, coupled with applied training experiences
- 4) Training should include apprising students of the personal and systems-level factors that will likely both enable and inhibit their provision of mental health services and focus on facilitating the acquisition of the skills and strategies needed to address these issues in the school setting
- 5) A focus of training and coursework should be on providing students with the knowledge and skills needed to move towards universal, prevention-focused mental health promotion within schools (e.g., systems-level consultation, school-wide screenings, implementing prevention programs).

#### *Limitations of the Current Study*

This study explored the current role of school psychologists in the provision of SBMH services. Given the intended purpose of the study as well as the ability to access the target population of study, survey research was identified as a suitable and effective method to collect data for this study. Mail out survey methodology was utilized to allow for data collection from a large sample of participants throughout the country in a timely and cost efficient manner. The procedures were based on the recommendations of Dillon's TDM (2007) and previous national studies that surveyed the professional practices of school psychologists (e.g., Curtis et al, 2008). In total, surveys were completed and returned by 226 out of a possible 600 respondents, representing a 37.7% response rate. Although several precautions were taken to increase the likelihood that

credible findings and interpretations were advanced, not all threats to the trustworthiness of the research can be controlled. Therefore, several limitations to the present study warrant consideration when interpreting the results and making suggestions for future research and practice.

One of the greatest criticisms of the mail survey methodology used in the current study involves the low response rates (Fowler, 1984). Low response rates may highlight differences in the groups who respond to the questionnaire versus those that do not respond. For example, because participation in the study was voluntary, it is possible that the voices heard by participants reflect the activities and perceptions of a subgroup of practitioners with a particular interest in providing psychotherapeutic services to students. According to Babbie (1990), a response rate of at least 50% is generally considered adequate for the analysis and reporting of survey information. Despite the incorporation of several procedures utilized to increase the response rate, this survey approach yielded a total response rate of only 37.7%. Even with this limitation, the results demonstrated consistency with previous research on the majority of demographic characteristics of school psychologists (Curtis et al., 2008). Additionally, first mailing and second mailing respondents were compared and found to demonstrate comparable demographic characteristics.

A threat to internal validity is that participants may have been inclined to provide socially desirable responses. Social desirability bias occurs when respondents are unwilling to admit socially undesirable actions, attitudes and behaviors and admit to socially desirable ones (Weisberg, Krosnik, & Bowen, 1996). Although research suggests that the majority of school psychologists provide some mental health services,

there still remains a small number that do not. If a school psychologist does not provide such services at all, he/she may have been inclined to respond falsely. However, a review of the responses provided for each of the survey questions suggests that participants did report a range of responses. For example, a review of participants' responses for the number of hours per week they engaged in each mental health service indicated that all of the services included in the survey had at least one participant report as never engaging in the provision of that service (i.e., 0 hours). Finally, the survey instrument asked school psychologists to recall the mental health services that they had provided since the beginning of the school year. Potentially there was the problem of recall bias (Schweigert, 1994) which may result in participants reporting inaccurate information. Results from the test-retest reliability analysis completed on these items suggests that although participants were able to recall the types of services they provided relatively consistently, discrepancies were noted with regard to the reported amount of time spent providing each service in an average work week.

A number of limitations that represent potential threats to internal validity relate to the specific methods that were used in the survey to gather information to answer the aforementioned research questions. Specifically, participants were only asked to identify their top five most frequently referred mental health problems which required participants to rank order their responses. A central limitation of rank ordering data is that the successive points on such scales are not intrinsically separated by equal intervals. Another limitation of this study is that, beyond those items listed on the current survey, participants did not have the opportunity to provide information on additional didactic content area and applied experiences that they perceived as helpful through open-ended

questions. It is possible that participants have experienced other didactic content areas and applied experiences as quite helpful. A final limitation of the study includes the potential effect of measurement error on the validity of the results, which can occur when respondents misunderstand the wording of questions presented or interpret items differently. For example, the mental health service item of “counseling adults” may have been interpreted by some participants as providing referral or counseling services to the caregivers of students, whereas other participants may have interpreted this item as providing ongoing counseling to school-based staff (e.g., teachers).

#### *Suggestions for Future Research*

The purpose of the current study was to provide a comprehensive picture of school psychologists and their role in the provision of school-based mental health services. It is hoped that the results of this study can be used to guide future research and practice and contribute to a better understanding of the mental health training needs of school psychologists. However, due to the limitations of this study, recommendations can be made with regard to additional information that can be gathered to enhance our understanding of school psychologists and in particular their involvement in school-based mental health services. Several suggestions for future research are noted below.

This study provided a comprehensive investigation of the most common mental health referral problems to school psychologists, mental health services provided by school psychologists, barriers and enablers perceived by school psychology practitioners, and the mental health training needs of practitioners. Although the findings of this study yield a great deal of potential for training efforts in school psychology programs and district programs, it is necessary to replicate these findings before broad generalizations



can be made. Because this study was one of the first to have practitioners provide quantitative information regarding the degree to which they perceived specific factors as barriers and enabler to service provision and the degree to which they deemed specific training content areas and applied experiences as helpful, it is of particular importance that these areas be investigated in greater depth to provide a greater amount of evidence for the generalization of these findings to the population of school-based practitioners. Some of the methodological limitations of the study (e.g., using past recollection of hours spent providing services) also suggest the need for a thorough investigation on the time and types of mental health services delivered, perhaps accomplished through an ongoing data collection method that allows practitioners to log their hours over a specified period of time in an effort to gather more accurate and reliable data.

Although it was outside the scope of the present study, future research should examine the relationship between the provision of mental health services and other demographic variables. Additional statistical analyses of the current dataset might prove helpful in investigating the influence of factors such as gender, school level primarily served, ratio of students to school psychologist, or years of experience on the types and amounts of mental health services provided by school psychologists. Furthermore, prior research studies have highlighted several significant differences between new school psychologists and experienced school psychologists with regard to their perception of barriers and enablers and their training needs in school-based mental health (Suldo et al., 2007). By understanding what demographic factors promotes and inhibits mental health services delivered by school psychologists, training programs and school environments

can implement changes that increase the likelihood of the delivery of mental health services.

Results from the current study yielded findings that indicate a number of additional avenues through which researchers can gain a greater understanding of school psychologists' role in the provision of school-based mental health services. Given the salience of teacher support and administrative support to SBMH services, another logical next step involves exploring these educational personnel as to their perspectives on the topic, such as barriers teachers experience in implementing classroom-based interventions. Also needed are the empirical investigations that identify effective strategies implemented within schools and districts, and by school psychologists, to address the identified barriers to, and facilitators of, the provision of SBMH services.

To provide for an exhaustive list of beneficial training content areas and applied experiences, follow-up research should specifically focus on identifying the full range of didactic content areas and applied experiences that enable school psychologists to feel sufficiently trained in SBMH service provision. Finally, given the emphasis placed on the important role of training in SBMH, an additional line of research would be on the identification of models in the delivery of SBMH training through both graduate school programs and professional development opportunities. Recent publications on such training models (Reinke et al., 2010) identify promising practices and implications for extending the existing lines of research to move forward with the implementation and evaluation of these high-quality training models.

Although this study provides information regarding how school psychologists can begin to make headway in providing school-based mental health services at the secondary

or tertiary level, future investigations should focus on other important issues germane to school-based mental health, namely systems-level change efforts such as positive behavior support (PBS), response to intervention (RtI), evidenced-based practice implementation in schools, and systems of care (SOC). These areas of research are particularly salient given the identified lack of involvement in the provision of universal, prevention-focused school-based mental health services school psychologists denoted in the current study. Potential avenues of research may include a study of factors that characterize the school psychologists who are successful at providing these prevention-oriented and systems-level services.

### *Conclusions*

Changes in government policy, societal initiatives, prevalence of mental disorders in youth, and movement towards prevention and mental health promotion within the field of school psychology have underscored the need for school psychologists to provide school-based mental health services. In spite of the rising call for a more concerted effort in mental health, practitioners in the field continue to struggle to expand their role in the provision of SBMH services (e.g., Curtis et al., 1999; Fagan & Wise, 2007). This study provided current information with respect to the most common types of mental health concerns school psychologists are currently receiving referrals for in the school environment, the mental health services they most frequently provide, the factors that they perceive inhibit and enable them from providing more services, and the types of training experiences that allow school psychologists to feel sufficiently prepared to provide mental health services in the schools. Given the clear desire for school psychologists to engage in the provision of SBMH services, if school psychologists are to

fully embrace the role of school-based mental health professionals, the individual and systems-level factors affecting their ability to provide such services must be addressed. Similarly, the mental health training needs of school psychologists must be recognized by graduate training programs and professional development services must be provided for practicing school psychologists to enhance the knowledge and skills necessary for mental health service provision in schools.

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## Appendices

## Appendix A: First Cover Letter

Dear NASP Member,

Growing concern for children's social and emotional functioning has led to calls for increased involvement by school psychologists in the provision of mental health assessment and intervention services. We are asking for your assistance in expanding the field's knowledge of school-based mental health services by completing the enclosed survey. Our goals in conducting the study are to better understand (a) the types of problems for which students are referred for mental health help, (b) factors that facilitate and prohibit school psychologists from providing mental health assessment and intervention services, and (c) the specific knowledge and skill areas in which additional training would be helpful in order to enable school psychologists to provide mental health interventions. Findings from this study may ultimately aide in influencing school psychologists' ability to provide mental health services as well as shape the mental health training provided in school psychology programs and in district professional development programs.

You are being asked to be part of this study because you are a practicing school psychologist whose primary employment is in a school setting. We would like you to be a participant in this study, regardless of the amount of time you currently spend providing mental health services. Your decision to participate in this study is completely voluntary and you are free to withdraw at any time without penalty.

Participation in the study involves completing the enclosed questionnaire and returning it in the enclosed envelope within **3 weeks**. The survey will only take 12-15 minutes to complete and we have provided you with a postage-paid envelope to use in returning the survey. A returned survey will be considered consent to participate in the study.

As a token of our appreciation, 5 people who return completed questionnaires will be randomly selected to receive a **\$50.00** Visa gift card. In order for us to provide these awards, a code number has been included on the return envelope. Please note that data will be reported only in aggregate form and findings may be published; importantly, the responses of individuals will be treated in the strictest confidence. When a questionnaire is returned, it will immediately be separated from the envelope, so that the individual respondent cannot be identified. This study has been approved by the University of South Florida Institutional Review Board as project number 107624G. If you wish for further information, you may contact Dr. Krista Kutash, Chairperson of the Institutional Review Board, at 813-974-5638.

Thank you in advance for your time and assistance with this research project. If you have any questions or concerns about the project, please feel free to contact us at the numbers and emails

Appendix A: (Continued)

listed below. We also invite you to contact us if you would like to obtain the results of the study.

Thank you so much for your participation.

Sincerely,

Allison A. Friedrich, M.A.  
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Doctoral Candidate  
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## Appendix B: Second Cover Letter

Dear NASP Member,

Growing concern for children's social and emotional functioning has led to calls for increased involvement by school psychologists in the provision of mental health assessment and intervention services. I am asking for your assistance in expanding the field's knowledge of school-based mental health by completing the enclosed survey. You are being asked to be part of this study because you are a practicing school psychologist whose primary employment is in a school setting. We would like you to be a participant in this study, regardless of the amount of time you currently spend providing mental health services. Findings from this study may ultimately aide in influencing school psychologists' ability to provide mental health services as well as shape the mental health training provided in school psychology programs and in district professional development programs. By completing this survey you can make an important contribution to the field of school psychology.

Participation in the study involves completing the enclosed questionnaire and returning it in the enclosed envelope within **3 weeks**. The survey will only take 12-15 minutes to complete and we have provided you with a postage-paid envelope to use in returning the survey. A returned survey will be considered consent to participate in the study.

As a token of our appreciation, 5 people who return completed questionnaires will be randomly selected to receive a **\$50.00** Visa gift card. In order for us to provide these awards, a code number has been included on the return envelope. Please note that data will be reported only in aggregate form and findings may be published; importantly, the responses of individuals will be treated in the strictest confidence. When a questionnaire is returned, it will immediately be separated from the envelope, so that the individual respondent cannot be identified. This study has been approved by the University of South Florida Institutional Review Board as project number 107624G. If you wish for further information, you may contact Dr. Krista Kutash, Chairperson of the Institutional Review Board, at 813-974-5638.

Our records indicate that as of this date we have not received a completed questionnaire from you. Please take a few minutes to complete and return the enclosed survey. Thank you in advance for your time and assistance with this research project and if you have already mailed a questionnaire, please accept our thanks for your contribution. If you have any questions or concerns about the project, please feel free to contact us at the numbers and emails listed below. We also invite you to contact us if you would like to obtain the results of the study.

Thank you so much for your participation.



Appendix B: (Continued)

Sincerely,

Allison A. Friedrich, M.A.  
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Appendix C: SBMH Survey  
(Modified to fit in Proposal Format)

**School-Based Mental Health Survey for School Psychologists**  
**\*\*Please answer all questions based on your experiences since the beginning of the 2008-2009 school year\*\***

**I. DEMOGRAPHIC INFORMATION**

1. Gender (please circle)    A. Female                      B. Male
  
2. Age \_\_\_\_\_
  
3. Ethnicity (circle one)
 

A. American Indian/Alaskan Native	D. Caucasian
B. Asian American/Pacific Islander	E. Hispanic
C. Black/African American	F. Other, please specify: _____
  
4. Years practicing psychology in school setting (include present year) \_\_\_\_\_
  
5. State in which employed (e.g., IL, FL, NY) \_\_\_\_\_
  
6. Highest degree earned (e.g., bachelors, masters, specialist, doctorate) \_\_\_\_\_
  
7. How many different school buildings do you serve in your current position? \_\_\_\_\_
  
8. What type of school(s) do you serve in your current position? (circle one)
 

A. Private	B. Public	C. Parochial
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9. What percent of your time is assigned to serving students at each school level? (e.g., 25%, 50%; total should equal 100%)
 

_____ Preschool
_____ Elementary School
_____ Middle/Jr. High School
_____ High School
_____ Other, please specify: _____
  
10. In your current position, what is the school psychologist: student ratio? (circle one)
 

A. 1: <500	B. 1: 500-999	C. 1: 1000-1499
D. 1: 1500-2000	E. 1 : >2000	

11. After completing your graduate school training (e.g., courses, practicum, internship), how prepared did you feel to provide mental health services (e.g., counseling, crisis intervention; see question 17 for full list) in the schools? (circle one)

Not at All Prepared	A Little Prepared	Satisfactorily Prepared	Well Prepared	Extremely Prepared
0	1	2	3	4

12. Please indicate the amount of time you would prefer to spend providing mental health services: (circle one)

A. More time	B. Less time	C. The same amount of time
--------------	--------------	----------------------------

Appendix C: (Continued)

**II. REFERRAL CONCERNS**

The following is a list of problems for which children are commonly referred for mental health services

Referral Concerns	
A. Academic problems (e.g., poor study skills, failure to complete work)	Q. Grief or loss
B. Adolescent sexuality (e.g., pregnancy, sexual preference)	R. Interpersonal problems (e.g., poor social skills, social isolation, peer rejection)
C. Anger/aggression	S. Lack of motivation
D. Attention Deficit Hyperactivity Disorder (ADHD)	T. Low self-esteem/self-concept
E. Atypical or odd behaviors (e.g., bizarre or inappropriate comments)	U. Obsessive Compulsive Disorder (OCD)
F. Autism/Asperger's	V. Oppositional Defiant Disorder (ODD)
G. Bipolar Disorder	W. Problems/conflict with caregivers
H. Bullying (i.e., victims or aggressors; physical or verbal )	X. Romantic relationship problems
I. Caregivers' mental health issues (e.g., parental depression or substance use)	Y. School-wide tragedy (e.g., teacher or student dies)
J. Cutting	Z. Specific Phobia (e.g., school, tests)
K. Depression	AA. Substance use
L. Divorce in family	BB. Threat to harm others (e.g., threatens to kill other students, brings weapon to school)
M. Eating problems	CC. Threat to harm self (suicidality)
N. General anxiety	DD. Truancy
O. General externalizing concern (e.g., disrespect, talking back, conduct problems)	EE. Trauma (e.g., emotional, physical, or sexual abuse)
P. General internalizing concern (e.g., withdrawn, shy, flat/negative affect)	FF. Other (please specify): _____

13. Please list the letters (e.g., A, T, FF) that correspond to the five types of student problems that are referred to you most frequently for mental health services (in rank order):

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_

14. Approximately what proportion of students that are referred to you for mental health services would meet criteria for a DSM disorder? \_\_\_\_\_% or N/A (I am not familiar with DSM criteria)

## Appendix C: (Continued)

### **III. MENTAL HEALTH SERVICES PROVIDED**

**17. Which of the following mental health services do you provide to children with mental health problems?**

*Place a check next to each service you provide and then estimate the number of hours in a typical work week you spend providing the service.*

For services that you provide on an as needed or inconsistent basis, average the service within a weekly hourly estimate (e.g., 2 hours conducting a threat assessment approximately every other month=average of .25 hours per week)

	<i>Check if Provided</i>	<i>Hours per Week</i>
A. Individual counseling	_____	_____
B. Family counseling	_____	_____
C. Consultation with parent/caregiver	_____	_____
D. Consultation with school staff (e.g., teacher, administrator)	_____	_____
E. Consultation with problem-solving teams	_____	_____
F. Consultation with community service providers (e.g., psychiatrists, therapists, juvenile justice)	_____	_____
G. Referral to outside agencies for follow-up care	_____	_____
H. Suicide assessment and intervention	_____	_____
I. Threat assessment (i.e., with students who pose threat to safety of others or school)	_____	_____
J. Brief counseling (i.e., address specific problem in 1-2 meetings)	_____	_____
K. Behavioral interventions (e.g., FBA, behavior contracts, behavior intervention plans)	_____	_____
L. Inservice training for parents/caregivers	_____	_____
M. Inservice training for school staff	_____	_____
N. Prevention programs	_____	_____
O. School/classwide screening	_____	_____
P. Social-emotional-behavioral assessment	_____	_____
Q. Group counseling	_____	_____
<i>Circle which type(s) of groups you provide:</i> Social skills    Grief		
Divorce    Anger management    Anxiety    Study Skills    Other(s) _____		
R. Counseling adults (i.e., brief counseling with school staff)	_____	_____
S. Other (please specify): _____	_____	_____

## Appendix C: (Continued)

### IV. BARRIERS TO MENTAL HEALTH SERVICE PROVISION

**18. To what extent do you feel each of the following factors presents a barrier in your provision of mental health (m.h.) services in your school(s)? (please circle) 0=Not a Barrier 1=Slight Barrier, 2=Moderate Barrier, 3= Significant Barrier, 4=Extreme Barrier, N/A=Have not personally experienced this factor**

	Not a Barrier	Slight Barrier	Moderate Barrier	Significant Barrier	Extreme Barrier	N/A
A. Inconsistent treatment (miss scheduled sessions due to other responsibilities)	0	1	2	3	4	N/A
B. Problems accessing students during day (e.g., pulling students from class for sessions; finding a common time to hold a group)	0	1	2	3	4	N/A
C. Unplanned/premature termination of services due to school calendar	0	1	2	3	4	N/A
D. Difficulty maintaining students' privacy due to inquiries from school staff	0	1	2	3	4	N/A
E. Insufficient space to provide m.h. services (e.g., no room to meet with students)	0	1	2	3	4	N/A
F. Overlapping responsibilities among mental health professionals (e.g., social workers, guidance counselors, psychologists)	0	1	2	3	4	N/A
G. Schools are accountable for students' <u>academic</u> success only (vs. behavioral or social wellness)	0	1	2	3	4	N/A
H. Student attrition (e.g., drop-out, moving during school year)	0	1	2	3	4	N/A
I. Narrowly defined department-assigned roles and responsibilities	0	1	2	3	4	N/A
J. Cumbersome department procedures and requirements (e.g., extensive paperwork)	0	1	2	3	4	N/A
K. Concerns with liability and legal problems related to providing m.h. services	0	1	2	3	4	N/A
L. Insufficient funds for mental health services from district administration	0	1	2	3	4	N/A
M. Insufficient support for m.h. services from building-level administration	0	1	2	3	4	N/A
N. Insufficient support for mental health services from teachers (e.g., don't value mental health treatment)	0	1	2	3	4	N/A
O. Teachers are unaware of mental health services that school psychologists can provide	0	1	2	3	4	N/A
P. Difficulty collaborating with teachers to implement interventions	0	1	2	3	4	N/A
Q. Too many students in need of mental health services	0	1	2	3	4	N/A
R. Too many psychoeducational evaluations to complete	0	1	2	3	4	N/A
S. Insufficient time and integration into your school site	0	1	2	3	4	N/A
T. Role strain (i.e., having too many responsibilities as the school psychologist)	0	1	2	3	4	N/A
U. Burn out (i.e., emotional/physical toll incurred by providing m.h. services)	0	1	2	3	4	N/A
V. Personal desire to provide traditional services such as assessment	0	1	2	3	4	N/A
W. Personal mental health problems (i.e., dealing with issues in one's own life)	0	1	2	3	4	N/A
X. Insufficient knowledge/skills relevant to mental health service provision (i.e., not enough didactic training or applied experiences)	0	1	2	3	4	N/A
Y. Insufficient confidence in your ability to provide mental health services	0	1	2	3	4	N/A
Z. Off-putting student characteristics (e.g., poor hygiene, immature behavior)	0	1	2	3	4	N/A
AA. Insufficient support from parents during mental health intervention efforts	0	1	2	3	4	N/A
BB. Other (please specify) _____	0	1	2	3	4	N/A

**19. Please list the letters (e.g., AA, Q, B) that correspond to the top five factors from the list above that you feel present the greatest barriers to your provision of mental health services in your schools (in rank order):**

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_

Appendix C: (Continued)

**V. ENABLERS TO MENTAL HEALTH SERVICE PROVISION**

**20. To what extent do you feel each of the following factors serves to enable your provision of mental health (m.h.) services in your school(s)? (please circle) 0= Not an Enabler, 1=Slight Enabler 2=Moderate Enabler, 3=Significant Enabler, 4=Extreme Enabler, N/A= Have not personally experienced this factor**

	Not an Enabler	Slight Enabler	Moderate Enabler	Significant Enabler	Extreme Enabler	N/A
A. Department gives explicit permission to provide mental health services and creates assignments consistent with this expectation	0	1	2	3	4	N/A
B. Department provides relevant professional development (i.e., inservices about mental health interventions, behavior disorders, etc.)	0	1	2	3	4	N/A
C. District support for mental health service provision (e.g., initiatives that prioritize mental health, sufficient funding and personnel resources)	0	1	2	3	4	N/A
D. Personal desire to provide mental health services	0	1	2	3	4	N/A
E. Ability to maintain personal boundaries (e.g., use preventive strategies to avoid becoming too attached to a child or overwhelmed by multiple demands)	0	1	2	3	4	N/A
F. Personal experiences as a parent helps you handle similar problems with students	0	1	2	3	4	N/A
G. Ability to remain objective with a student (e.g., avoid involvement with school discipline matters, avoid being influenced by teachers' opinions of the student)	0	1	2	3	4	N/A
H. Sufficient time and integration into your school site (e.g., assigned to one school for multiple days; high availability to school staff or students)	0	1	2	3	4	N/A
I. Sufficient support for m.h. services from building-level administration	0	1	2	3	4	N/A
J. Teachers are supportive of mental health services/interventions	0	1	2	3	4	N/A
K. Teachers expect school psychologist's role to include mental health services	0	1	2	3	4	N/A
L. Sufficient knowledge/skills relevant to mental health service provision	0	1	2	3	4	N/A
M. Adequate confidence in your ability to provide mental health services	0	1	2	3	4	N/A
N. Availability to consult with other school mental health professionals	0	1	2	3	4	N/A
O. Sufficient space to provide mental health services	0	1	2	3	4	N/A
P. Manageable number of children who require psychoeducational evaluations	0	1	2	3	4	N/A
Q. Manageable number of children in need of mental health services	0	1	2	3	4	N/A
R. Access to adolescents (i.e., working in a middle or high school setting)	0	1	2	3	4	N/A
S. Sufficient support from parents for mental health services	0	1	2	3	4	N/A
T. Access to/linkages with community resources	0	1	2	3	4	N/A
U. Other (please specify) _____	0	1	2	3	4	N/A

**21. Please list the letters (e.g., T, C, O) that correspond to the top five factors from the list above that you feel are the greatest facilitators to your provision of mental health services in your schools (in rank order):**

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_

Appendix C: (Continued)

**VI. TRAINING IN SCHOOL-BASED MENTAL HEALTH**

22. To what extent do you feel each content area below was important in preparing you to provide mental health services in your school(s)? (please circle) 0= Not Helpful, 1=Somewhat Helpful, 2=Moderately Helpful, 3=Very Helpful, 4=Extremely Helpful, N/A=Did not receive training in content area

	Not Helpfu	Somewhat Helpful	Moderately Helpful	Very Helpfu	Extremely Helpful	N/A
A. Psychopathology/behavior disorders/abnormal psychology	0	1	2	3	4	N/A
B. Developmental psychology	0	1	2	3	4	N/A
C. Social-emotional-behavioral assessment (e.g., interview techniques, rating scales)	0	1	2	3	4	N/A
D. Advanced study of a single therapeutic orientation (e.g., Rogerian, Gestalt, CBT)	0	1	2	3	4	N/A
E. Survey course covering multiple therapeutic orientations	0	1	2	3	4	N/A
F. Advanced psychotherapy (i.e., how to conduct individual psychotherapy)	0	1	2	3	4	N/A
G. Family therapy approaches and techniques	0	1	2	3	4	N/A
H. Group therapy approaches and techniques	0	1	2	3	4	N/A
I. Crisis intervention (e.g., suicide assessment/ intervention, threat assessments)	0	1	2	3	4	N/A
J. Behavior interventions (e.g., relaxation training, behavior analysis)	0	1	2	3	4	N/A
K. Consultation with teachers or parents	0	1	2	3	4	N/A
L. Systems consultation	0	1	2	3	4	N/A
M. Multicultural education	0	1	2	3	4	N/A
N. Ethics/Law	0	1	2	3	4	N/A
O. Psychopharmacology	0	1	2	3	4	N/A
P. Empirically-supported treatments (i.e., identifying evidence-based interventions)	0	1	2	3	4	N/A
Q. Prevention of mental health problems	0	1	2	3	4	N/A
R. Treatment planning (identifying goals, tracking progress)	0	1	2	3	4	N/A
S. Case documentation (progress notes, intake summaries)	0	1	2	3	4	N/A
T. Therapeutic relationship skills (e.g., interpersonal skills, listening skills)	0	1	2	3	4	N/A
U. Information on mental health agencies and resources in the community	0	1	2	3	4	N/A
V. Techniques/strategies for working in school environment	0	1	2	3	4	N/A
W. Learning skills needed to be a lifelong learner (i.e., to stay abreast of mental health literature)	0	1	2	3	4	N/A
X. Counseling adults (i.e., what to say, techniques)	0	1	2	3	4	N/A

23. Please list the letters (e.g., A, R, W) that correspond to the top five content areas from the list above that you feel were most important in preparing you to provide mental health services (in rank order):

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_

Appendix C: (Continued)

**24. To what extent do you feel each of the following types of experiential activities was important in preparing you to provide mental health services in your school(s) (please circle) 0= Not Helpful, 1=Somewhat Helpful, 2=Moderately Helpful, 3=Very Helpful, 4=Extremely Helpful N/A= Did not incur this experience**

	Not Helpful	Somewhat Helpful	Moderately Helpful	Very Helpful	Extremely Helpful	N/A
A. In-class role plays	0	1	2	3	4	N/A
B. Supervised practicum	0	1	2	3	4	N/A
C. Co-lead counseling group(s)	0	1	2	3	4	N/A
D. Observe master therapist(s) (e.g., live through mirror, videotapes available commercially)	0	1	2	3	4	N/A
E. Self-review and critique of counseling (e.g. watch audio or videotapes of own sessions)	0	1	2	3	4	N/A
F. Receive own counseling	0	1	2	3	4	N/A
G. Work on a multidisciplinary team (i.e., opportunity to interact with other mental health professionals)	0	1	2	3	4	N/A

**25. To what extent do you feel each of the following types of professional development opportunities was/is important in preparing you to provide mental health services in your school(s)? 0= Not Helpful, 1=Somewhat Helpful, 2=Moderately Helpful, 3=Very Helpful, 4=Extremely Helpful N/A= Did not incur this experience**

	Not Helpful	Somewhat Helpful	Moderately Helpful	Very Helpful	Extremely Helpful	N/A
A. In-services offered through one's district	0	1	2	3	4	N/A
B. Applied experiences following an inservice	0	1	2	3	4	N/A
C. Work with interns	0	1	2	3	4	N/A
D. Participate in professional organization (e.g., NASP, state organization)	0	1	2	3	4	N/A
E. Self-study (e.g., reading books on mental health interventions, psychopathology, etc.)	0	1	2	3	4	N/A
F. Formal supervision of services	0	1	2	3	4	N/A
G. Consultation with colleagues	0	1	2	3	4	N/A



***SBMH Survey and Cover Letter:  
Pilot Study***

*In a minute I am going to hand you a survey and cover letter and I'd like you to fill it out the same way you would if it came to you in the mail at home. I'll stay here in the room while you fill it out, but please don't ask me any questions; just complete it like you were sitting at home and I wasn't here. I will be taking some notes while you fill out the form. Please don't let this distract you. When you are finished please hold on to the cover letter and survey and once everyone is completed, I will ask you some questions.*

***General Questions:***

Were there any words in the cover letter or survey that you did not understand?

If you received these materials in the mail, would you be likely to participate? If not, what information in the cover letter would make you more willing to take part?

Was there any information in the cover letter that made you not likely to participate in the study?

Was there any information on the cover letter that was unnecessary?

Did any of the questions in the survey offend you? Embarrass you to answer?

Did you find any of the questions extremely difficult to answer?

Was there any time that you wanted to stop answering during the survey?

Would you have filled out the entire questionnaire if it had come to you at home?

***Questions for Randomly Selected Item:***

How did you interpret \_\_\_\_\_ question? What did you think I was asking you?

Was there anything in this question that you felt should have been included and wasn't?

***Sample Questions Based on Observations:***

I noted that when you got here you stopped for a minute and looked ahead and turned over the form. Could you tell me what you might have been thinking about here?

## Appendix D: (Continued)

I noticed here that you seemed to be thinking really hard, or was there something about this question you were trying to figure out?

I'd like to ask you about this item (skipped item). I see you left it blank. Was there a particular reason for that?

### *Final Questions:*

Do you have anything else you would like to tell us that you haven't had a chance to mention?

## About the Author

Allison Friedrich received a Bachelor's Degree in Psychology from Illinois Wesleyan University in 2003. She worked as a prevention specialist and a special education aide in Illinois until she entered the Ph.D. program at the University of South Florida in 2005.

While in the Ph.D. program at the University of South Florida, Ms. Friedrich was very active in research groups studying school-based mental health and positive psychology. She has co-authored a number of publications, including articles on the topic of school-based mental health services that were published in *School Psychology Review* and *Psychology in the Schools*. She has also made several paper presentations at state and national conferences. Ms. Friedrich is currently completing an APPIC approved internship at Hoffman Estates High School in Hoffman Estates, IL.