

THE DEVELOPMENT OF MULTI-MODAL MENTAL HEALTH SERVICES FOR
CHILDREN WITH ATTENTION DEFICIT / HYPERACTIVITY DISORDER AND
THEIR CAREGIVERS

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ABSTRACT

The purpose of this project was to assess the mental health needs of children with Attention Deficit / Hyperactivity Disorder (ADHD) who attend elementary schools in Middlesex County, New Jersey, and to analyze the feasibility of the Psychological Clinic at the Graduate School of Applied and Professional Psychology (GSAPP), Rutgers University, to provide multi-modal mental health services to this target population. A needs assessment and resource analysis using survey methodology were conducted. 139 subjects participated in this investigation; each was a member of one of three natural samples: 1) Middlesex County elementary school staff (SS), 2) current GSAPP students (GS) and 3) Psychological Clinic staff/faculty (CS). Each sample was administered an online survey requesting responses to quantitative and qualitative items assessing their perspectives regarding mental health service availability, utilization and efficacy, as well as resource availability and need, within their respective organizations. Results revealed that SS participants reported a need for additional mental health services targeting their students with ADHD, as well as their caregivers. Major areas of need were identified as executive functioning and organizational skills training, as well as parent-directed and teacher-directed services. GS and CS participants reported availability of assessment and therapy services, as well as some human and procedural resources. Additional resources needed to support a multi-modal mental health program targeting children with ADHD and their caregivers included supervisors, space, materials, equipment and financial resources. Major barriers to program development, dissemination and utilization were reported as time, cost, location, language, lack of information and goodness-of-fit. Implications for the development of a practicum program designed to train GSAPP

students in the delivery of multi-modal mental health services to the target population are considered. Facilitators that address barriers to program development, dissemination and utilization are discussed. Practical suggestions for the Psychological Clinic regarding program development are offered. Limitations and future directions are presented.

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Literature Review

ADHD: Definition, Diagnosis & Causes

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder most commonly diagnosed in childhood and/or adolescence that typically persists into adulthood and remains present throughout the lifespan (Zwi et al., 2011). Characterized by patterns of inattention, impulsivity and/or hyperactivity, ADHD symptom expression must be considered developmentally maladaptive and pervasive, causing functional impairment across multiple domains (e.g. home, school, work; American Psychiatric Association, 2000). Worldwide prevalence rates for ADHD range from 2.2% to 17.8% (Skounti, Philalithis, & Galanakis, 2007); with approximately 5-10% of children and 2.4-4% of adolescents affected internationally (Polanczyk et al., 2007). In the United States, ADHD has been found in approximately 3% to 16% of school-aged children (American Psychiatric Association, 2000; Barkley, 2005; Leslie & Wolraich, 2007; Wehmeier, Schacht & Barkley, 2010), making it one of the most commonly diagnosed childhood psychiatric conditions (American Academy of Child and Adolescent Psychiatry, 2007). With nearly 36.3% of international cases (Kessler et al., 2005) and roughly 50-60% of US cases persisting into adulthood (Barkley et al., 2002; Faraone, 2006), ADHD has been designated as a significant public health concern (Hoza et al., 2006; National Institutes of Health, 2000).

The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR; American Psychiatric Association, 2000) and Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V; American Psychiatric Association, 2013) specify three ADHD subtypes: 1) Predominantly Hyperactive-

Impulsive Type / Presentation (ADHD-HI), 2) Predominantly Inattentive Type / Presentation (ADHD-IT), and 3) Combined Type / Presentation (ADHD-CT). Diagnosis most commonly occurs through a combination of procedures including clinical diagnostic interview; behavioral observation; rating scales measuring attention, impulsivity, hyperactivity and executive functioning; continuous performance tasks; and neuropsychological tests (American Academy of Child and Adolescent Psychiatry, 2007). Distinguishing symptoms of inattention, impulsivity and hyperactivity from developmentally appropriate activity and attention patterns is crucial, making differential diagnosis challenging and often times difficult to accomplish before school age due to natural behavioral variability (American Psychiatric Association, 2000; American Psychiatric Association, 2013). While hyperactivity is often readily noticed in toddlers when locomotion is achieved, inattentive symptoms become more apparent during elementary school years when task demands require sustained attention. In some cases, symptoms of hyperactivity taper off during adolescence; however attention difficulties often persist into adulthood.

Specific causes of ADHD have been widely hypothesized and commonly point to neurodevelopmental underpinnings. Many neuropsychological studies link ADHD with deficits in executive functioning, particularly in association with response inhibition, alertness and vigilance, working memory, cognitive flexibility and planning capabilities (Aguiar, Eubig & Schantz, 2010; Willcutt et al. 2005). Other studies have implicated neurochemical dysregulation of the dopamine circuits, abnormal noradrenergic signaling, and deficiencies or excesses of various neurotransmitter systems, particularly serotonin (Aguiar et al., 2010; Swanson et al., 2007). Neuroimaging studies have drawn attention to

reduced cortical grey and white matter volume in children with ADHD (Castellanos et al., 2002), with brain volume reductions of up to 5% (Aguiar et al., 2010), specifically in the prefrontal cortex, caudate nucleus, cerebellum and corpus callosum (Nigg and Nikolas, 2008). Relatedly, fMRI studies have found the dorsolateral prefrontal and anterior cingulate cortices, right caudate and right thalamus to be associated with hypoactivity in individuals with ADHD (Dickstein et al., 2006).

Evidence also suggests a strong genetic influence in ADHD, with first-degree blood relatives often sharing symptoms and/or ADHD diagnosis. That is, children and adolescents with ADHD often have parents, siblings, or extended family members with the disorder, or, at the very least, who present with symptoms of inattention, impulsivity, hyperactivity, and/or common comorbidities (e.g. learning difficulties, social-emotional impairments, psychological diagnoses; American Psychiatric Association, 2000; American Psychiatric Association, 2013). With heritability estimated at 76%, recent attention has been paid to possible genetic underpinnings of ADHD (e.g. Aguiar et al., 2010; Castellanos & Tannock, 2002; Faraone et al., 2005; Franke et al., 2009); genome scan studies associate the disorder with markers at chromosomes 4,5,6,8,11,16 and 17 (Muenke, 2004; Smalley et al., 2004). Relatedly, the endophenotype concept of ADHD etiology holds that behavioral symptoms of the disorder can be separated into more stable phenotypes with distinct genetic connections, suggesting that environmental influences on specific genes affect their frequency, intensity and type of expression (Berger, 2011).

ADHD: Broad Effects. In addition to core symptoms, ADHD is often associated with comorbid psychiatric and developmental disorders (American Psychiatric Association, 2000; American Psychiatric Association, 2013; Berger, 2011; Pliszka et al.,

1999; Wehmeier, Schacht & Barkley, 2010; Young, 2008). Among the most prevalent co-occurring psychiatric conditions are Oppositional Defiant Disorder (ODD), Conduct Disorder (CD), anxiety disorders, depression, bipolar disorder and substance use disorders. Global difficulties with emotion-regulation resulting in excessive emotional expression, increased rates of anger and aggression, poor frustration tolerance, reduced empathy and low arousal have also been found in individuals with ADHD (Wehmeier, Schacht and Barkley, 2010). Other less frequent comorbidities may include sleep disorders, eating disorders, tic disorder, epilepsy and celiac disease (Young 2008). ADHD has also been linked to academic underachievement and learning disorders, increased delinquent activity, decreased vocational opportunities, and increased anti-social and criminal activity (Danckaerts et al., 2010). Furthermore, adolescents with ADHD are at greater risk for drug experimentation, speeding while driving, risky sexual activity and teenage pregnancies, and sexually transmitted diseases.

One of the most prevalent features in children with ADHD is that they tend to have greater difficulty with emotion regulation and behavioral control. In a recent study of children ages 6-14, DePauw and Mervielde (2011) found that individuals with ADHD exhibited temperament traits of higher reactivity, emotionality, activity level and negative affect, as well as lower effortful control, conscientiousness, and emotional stability when compared to children without ADHD. Thus, children with ADHD have been found to be more talkative, demanding and negative, as well as less cooperative and less independent than their non-ADHD peers (Anastopoulos, Sommer & Schatz, 2009). Some variance in early childhood temperament has been differentially associated with particular symptoms and ADHD subtype. Specifically, regulation problems have been found to contribute to

the emergence of symptoms of inattention-disorganization, while reactive or behavioral control problems have been linked to the emergence of hyperactivity-impulsivity (Martel & Nigg, 2006). Due to regulatory and emotional difficulties inherent in these temperamental styles and personality traits, individuals with ADHD can have great difficulty with interpersonal interactions. Thus, social and familial relationships often suffer, with greatest strain often existing within the parent-child relationship.

Many studies involving observation of parent-child interactions have found greater parent-child conflict in dyads where children were diagnosed with ADHD, with the same studies also found this association to correlate with less positive parenting practices (Anastopoulos, Sommer & Schatz, 2009; Deault, 2010). Parents of children with ADHD have reported feelings of low efficaciousness, high stress, and elevated levels of depression and anxiety (Gerdes, Haack & Schneider, 2010; Modesto-Lowe, Danforth & Brooks, 2008), and therefore are at greater risk for poorer parenting practices. Parents of children with ADHD have also been found to self-report less effective parenting practices, with higher levels of reactive behavior toward their children (Anastopoulos, Sommer & Schatz, 2009), greater attention to overactive and impulsive behaviors, more verbal use of reprimands and behavioral corrections, and less use of rewards and positive responses than parents of typically developing children (Anastopoulos, Sommer & Schatz, 2009; Modesto-Lowe, Danforth & Brooks, 2008). Thus, parenting stress, broadly defined as “the aversive psychological reaction to the demands of being a parent,” is a widely accepted phenomenon in parents of children with ADHD (Johnston & Mash, 2001; Theule et al., 2011).

In a recent study of parental stress in families of children with ADHD, Theule and colleagues (2011) found that the presence of ADHD symptoms in parents was more predictive of parental stress than child behaviors associated with the disorder. Parental symptoms of ADHD have also been associated with even fewer positive parenting practices than non-symptomatic parents, as well as less consistency and greater frequency of self-reported lax parenting styles (Anastopoulos, Sommer & Schatz, 2009; Harvey et al., 2003). While impulsivity in fathers has been associated with greater frequency of arguing, inattention in mothers has been linked with negative parent-child interactions (Harvey et al., 2003). Furthermore, families of children with ADHD have been shown to have less social support from other family members, peers and community members, making the experience of parenting all the more stressful (Theule et al., 2011).

Studies have found parental depression as predictive of parenting stress (Biederman et al., 1992), thus linking familial depression and ADHD. In a study of relationship predictors in children with ADHD and their parents, Gerdes and colleagues (2007) investigated the association between depressive symptomatology and negative parent-child relationship quality. They found that children with ADHD perceived their parents as more power assertive than did their non-ADHD peers, while those with comorbid depressive symptomatology perceived their parents as additionally less warm. Likewise, mothers of children with ADHD perceived themselves as more power assertive, as well as less warm if they were higher in depressive symptomatology or their children showed comorbid depressive symptomatology. While the risk for parental depression is higher for parents, particularly mothers, of children with ADHD, maternal

depression has also been linked to the development of comorbidities in their children with ADHD (Anastopoulos, Sommer & Schatz, 2009).

Recently, studies assessing the quality of life (QoL) of children with ADHD and their families have gained popularity (Danckaerts et al., 2010; Gerdes et al., 2007; Wehmeier, Schacht & Barkley, 2010). Quality of life can be described as one's subjective perception of their position in life based upon their social, psychological and physical functioning; thus it is a useful outcome measure in mental health research (Danckaerts et al., 2010). A recent review of the literature revealed that that children with ADHD have greater social impairments than non-ADHD peers, resulting in more conflicts with peers, fewer friendships, greater associations with deviant peer groups, and greater instances of bullying on both the victim and perpetrator ends (Wehmeier, Schacht and Barkley, 2010), as well problems with family members and stressful parent-child relationships. Taken together, these factors indicate a lower QoL for individuals with ADHD.

It is clear that the core symptoms and associated comorbidities greatly challenge the social-emotional wellbeing of individuals with ADHD. However, functional impairment is not contained to those with the disorder, but rather impacts those in direct proximity (e.g. family, peers, teachers), as well as the greater community through associated risk outcomes (e.g. car accidents, drug use, low employment rates). Considering the prevalence of childhood ADHD and its persistence into adulthood, as well as the impact on individual, interpersonal and societal functioning, the need for effective treatment is essential. As research has shown, poor parenting practices are often part of a larger feedback loop in which the child's unfavorable behaviors increase in reaction to negative reinforcement, thus exacerbating negative parental attention and

parent-child discord. Thus, parents, and mothers in particular, have been found to perceive themselves as less capable of responding effectively to their children, which may account for increases in lax parenting styles and increased behavioral issues in their children with ADHD. This cycle points to the importance of addressing parenting practices as a crucial component of comprehensive ADHD treatment.

ADHD Treatment

Psychopharmacology. Medication is often considered first-line treatment for ADHD, with psychostimulants being the gold standard medication most commonly prescribed to treat ADHD (Majewicz-Hefley & Carlson, 2007). Following the rise of ADHD diagnoses, prescription rates have steadily risen over the past decade (Hoekstra, 2011), and psychostimulant production in the US increased by 740% from 1991-2000 (Modesto-Lowe, Danforth & Brooks, 2008). Widespread use of stimulant medication has been due to their ability to act on the neurobiological substrates of the disorder, addressing the core symptoms of inattention, hyperactivity and impulsivity (Crenshaw et al., 1999; Wehmeier et al., 2010). Short-term benefits of stimulant medications include decreases in core symptomatology and subsequent improvements in behavior, learning, executive functioning, and overall QoI (Hoekstra, 2011; Modesto-Lowe, Danforth & Brooks, 2008; Wehmeier et al., 2010). However, uncertainty remains as to the long-term maintenance of these benefits, and concern has been also raised about possible risks associated with chronic stimulant usage (Hoekstra, 2011), specifically regarding their potentially addictive properties and associated side effects (Modesto-Lowe, Danforth & Brooks, 2008). Thus, attention has been paid to adjunctive treatments such as individual, group, family or school-based interventions that aim to remediate core and peripheral

symptoms associated with ADHD, as well as to address comorbid disorders and associated risk factors.

In their Practice Parameters for the assessment and treatment of childhood ADHD, the American Academy of Child and Adolescent Psychiatry (AACAP; 2007) supported stimulant medications as an efficacious treatment addressing core symptoms of ADHD, with adjunctive therapy services targeting peripheral features of ADHD as an essential component of comprehensive treatment model. AACAP also indicated that any plan of care should include services targeting both the patient and their parents. Thus, in addition to therapies aimed at children with ADHD, they recommended that parents of children with ADHD be provided with psychoeducation about ADHD and associated developmental challenges, available treatment options, and strategies to help improve their child's academic and behavioral functioning. According to AACAP, comprehensive treatment of childhood ADHD should include wrap-around, multi-modal therapy services targeting core and peripheral ADHD symptoms, as well as those global effects of the disorder that cause functional impairment on interpersonal, familial and societal levels.

Adjunctive treatment. Historically, social-skills groups have been a popular form of adjunctive therapy for children with ADHD who experience negative peer interactions, and have been proven efficacious when administered with pharmacotherapy as part of a multimodal service delivery model (Pelham & Fabiano, 2008). In a recent study of treatment efficacy in children with ADHD, Storebo and colleagues (2011) found that social skills training combined with parent training and medication was more efficacious in reducing ADHD symptoms than medication alone. In addition, behavior modification programs have been developed, evaluated and deemed to be effective

treatment methods for dealing with peripheral symptoms of ADHD that manifest as observable behaviors. Specifically, interventions such as behavior contingency management in the classroom (BCM), behavior parent training (BPT) and intensive summer-based peer behavioral interventions have been proven most effective in managing targeted behaviors demonstrated by children with ADHD, and are most efficacious when part of a wrap-around, multimodal treatment program (Pelham & Fabiano, 2008; Pelham, Wheeler & Chronis, 1998).

More recently, programs targeting executive functioning skills have been developed and implemented with children and adolescents with ADHD. These programs often include computer or in-vivo games through which specific executive functions are targeted and trained through repetition and association. In particular, attention-training programs have gained widespread popularity over the past decade, with studies showing improvements in attention and concentration in children with ADHD (Semrud-Clikeman et al., 1999; Tamm et al., 2010). In a recent study, Tucha and colleagues (2011) investigated the efficacy of an attention-training program (AixTent; Strum, Orgass & Hartje, 2001) on 31 children with ADHD and 16 healthy controls. They assessed alertness, vigilance, selective attention, divided attention and flexibility pre and post treatment. The authors found that those who received the AixTent program had significant improvements in vigilance, divided attention and flexibility post-treatment. In conjunction with other therapies, direct services targeting both core and peripheral symptoms of ADHD have the potential to improve global functioning and QoL.

Multi-modal treatment. In 1992, the National Institute of Mental Health (NIMH) sought to compare the benefits of the leading treatment methods for ADHD at

the time. A multisite clinical trial known as the Multimodal Treatment Study of Children with ADHD (MTA study) was developed in order to discern which long-term treatments yield the most optimal outcomes and why. A sample of 579 children with ADHD were randomly assigned to one of four groups: 1) medication management (MM), 2) intensive behavioral treatment (Beh), 3) the combination of the two (Comb), or 4) routine community care (CC). Repeated assessment across six domains (ADHD symptoms, oppositional / aggressive symptoms, social skills, internalizing symptoms, parent-child relations, and academic achievement) followed from baseline through 14-months. Findings from the MTA study after 14 months of treatment indicated that MM and Comb treatments were superior in addressing ADHD symptoms, while the Comb treatment had a slight advantage over the other three when considering other externalizing symptoms, internalizing symptoms, social skills, parent-child relations, and academic functioning (Jensen et al., 2001). At three-year follow-up, all groups had shown symptom improvement as compared to baseline; however outcomes for the Beh group increased while the MM and Comb groups decreased. This indicated that, over time, behavioral interventions had lasting effects over interventions inclusive of medication (Jensen et al., 2007). While the authors recognized that this may have been due to age effects, treatment adherence, and other mediating or moderating factors (Jensen et al., 2007), eight-year follow-up findings indicated no significant differences in functioning between groups, and that the now adolescents with ADHD were functioning less-well than their non-ADHD peers (Molina et al., 2009).

Despite the absence of long-term symptom remission, the MTA study highlighted the need for more effective and sustainable interventions to address both core and

peripheral features of the disorder. Countless subsequent investigations have sought to do just that. One meta-analytic study conducted by Majewicz-Hefley and Carlson (2007) sought to synthesize and examine the effects of combined treatments for ADHD. Their findings emphasized the efficacy of combined treatments on both core (inattention, hyperactivity, impulsivity) and peripheral (social skills, academics) features of ADHD. Greatest effects were found on the variables of inattention and hyperactivity, with impulsivity and social skills also yielding large effects. In their review of the literature, Wehmeier and colleagues (2010) also stressed the importance of multimodal treatment for ADHD in addressing both core and peripheral symptoms associated with the disorder, as well as greater subjective perception of QoL. The authors asserted QoL impacts one's physical, psychological and social functioning, thus lending support to adding QoL instrumentation when measuring treatment outcomes. They support parental education, behavioral parent training, teacher training in classroom, behavior management, summer treatment programs and contingency management methods used globally as best practices to improving global functioning across domains and thus QoL.

An additional feature brought to the forefront through the eight-year follow-up findings of the MTA study was the need to include family functioning as a treatment outcome measure. Among the elements of multi-modal ADHD treatment for children and adolescents is behavior parent training (BPT). Several manualized BPT programs have been developed, implemented and studied for over 10 years. Designed as an intervention to alleviate stressful parent-child interactions, BPT emphasizes parental use of positive reinforcement for child prosocial behaviors, with negative behaviors either ignored or, if necessary, punished with removal of privileges (Antshel & Barkley, 2008). The use of

parent training for ADHD supports Barkley's model of impaired self-regulation in children with ADHD, which suggests that impairments in executive functions limit, among other things, a child's ability to delay gratification. Thus, by focusing on the immediate environment rather than past experience or future-orientation, parents who deliver interventions in "real time" can influence the actual experience of children with ADHD whose motivation is present-focused (Barkley, 1997). The general desired outcomes include increases in positive parenting practices, better parent-child interactions, and decreases in negative child behaviors that, with repetition and consistency, can have lasting effects on global functioning over time (Lee et al., 2012).

Parent training programs. In their review of the treatment literature on ADHD, Pelham and Fabiano (2008) found BPT programs in general to meet criteria for well-established ADHD treatment, with substantial efficacy outcomes when measuring ADHD symptomatology. Multiple studies have found BPT efficacious for improving child behavior, parenting practices, and parental perceptions of their children with ADHD (Lee et al., 2012; Modesto-Lowe, Danforth & Brooks, 2008). Furthermore, BPT programs have been associated not only with statistically significant changes, but also with clinically meaningful change in parental functioning (Gerdes, Haack & Schneider, 2010). In a recent review of the literature on parent training programs, Zwi and colleagues (2011) also found support for outcomes such as reduced parental stress and greater parental confidence.

While great success has been associated with BPT programs, barriers to treatment have included poor attendance and issues with treatment adherence, with the greatest barrier to treatment adherence being single motherhood. The STEPP Program for single

mothers was developed to address barriers to treatment and possible poor outcomes associated with traditional BPT programs (Chacko et al., 2008). Specifically, the model elaborates on traditional BPT by including an assessment of parental cognitions during initial intake procedures in order to address barriers to treatment and increase treatment motivation and acceptance. In addition, the model includes coping-modeling interventions directed at problem solving for parents, as well as a parent-child interaction component. Overall, the authors found improvements in parental stress and ADHD symptomatology, as well as greater treatment attendance and adherence.

Any ADHD intervention method for children is highly dependent upon parental motivation for, acceptance of, and adherence to treatment protocol. Thus, parental attitudes toward their child's problems and toward treatment in general may play a large role in the success of interventions (Hoza et al., 2006). As part of the MTA study, parental cognitions about themselves, their children, and their parenting were investigated as predictors of children's outcomes at 14 months (Hoza et al., 2000). Specifically, low self-esteem in mothers and low efficacy in fathers, as well as self-reported dysfunctional discipline practices in both were associated with worse child treatment outcomes. Interestingly, parenting behavior and overall family stress were significantly decreased through all three MTA trials (Beh, MM, Comb) as compared to the CC group (Wells et al., 2000). Furthermore, a decrease in negative or ineffective discipline was found to mediate improvements in children's school-based social skills (Hinshaw et al., 2000).

A number of social-cognitive models have been used to examine predictors of treatment behaviors and outcomes, and may play an important role when considering the reliance on parental motivation in comprehensive ADHD treatment (Hoza et al., 2006).

Hoza and colleagues (2006) summarized multiple models relevant to parental cognitions and child treatment outcomes, and proposed a unified heuristic model that aims to use predictions regarding parents' treatment intentions and treatment behaviors in order to improve treatment outcomes for children with ADHD. The authors propose a model to optimize treatment outcomes that includes: 1) attending to those factors influencing treatment initiation and behavior, 2) assessing parents' beliefs and knowledge about ADHD and its treatment, 3) increasing parents' sense of efficacy, and 4) exploring and addressing parental attributions for their children's behaviors. The authors purport that by addressing parental cognitions that present as barriers to treatment, necessary cognitive shifts can occur that result in more optimal outcomes for their children with ADHD. This model was recently tested by Johnson, Mah and Regambal (2010), who found that by including pre-treatment interventions focusing on parents' feelings about themselves as parents, as well as their ideas about the effectiveness of treatment, their sense of efficacy and confidence increased such that interventions taught through BPT programs were utilized more frequently.

Other parent training programs, such as the Incredible Years (IY), which combines parent and child training for preschool children with ADHD, have been found to reduce children's deviant behavior and increase social skills, as well as decrease poor parenting practices of with mothers of children with ADHD, but not fathers (Webster-Stratton, 2011). In a recent study, Power and colleagues (2012) developed and evaluated the effectiveness of a family plus school intervention for children with ADHD. The intervention, called Family-School Success (FSS) included 12-week sessions broken down into family, school and group sessions. Outcome data revealed significant effects

on parenting behaviors, homework performance and the relationship between families and their school. The authors concluded that although brief, the intervention resulted in effect sizes comparable to longer-term treatments such as the Multimodal Treatment Study of Children with ADHD (MTA).

Summary of Treatment Literature. Current research suggests that best practices in the treatment of childhood ADHD should include comprehensive services targeting both children and their caregivers that address both the core and peripheral features of ADHD. As such, a multi-modal mental health service program that uses direct and indirect intervention strategies is considered most effective in alleviating symptom severity and increasing global functioning. Direct services may include, but are not limited to, psychopharmacology, social skills groups, executive functioning training programs, and behavior management programs. Indirect services may include family-focused psychoeducation, behavioral parent training (BPT), teacher consultation in classroom behavior management (CBM), and physician consultation for medication management.

Rationale for Current Study

Current research holds that ADHD is among the most common childhood psychiatric disorders and thus a significant mental health concern warranting the need for treatment. Extant literature on ADHD treatment suggests that while many methods of service delivery have proven efficacious, multi-modal services that include both child-directed interventions as well as a parent-training component are considered best practices. For the purposes of this study, multi-modal mental health services targeting children with ADHD and their caregivers included: 1) behavior parent training; 2) a

combination of child-directed executive functioning training (predominantly inattentive-type or combined-type), child-directed social skills groups (predominantly hyperactive-type or combined-type), and/or child-directed organizational skills training (all types); and 3) consultation/liaison services.

This study applied current literature and a best practices framework to assess the current state of affairs regarding treatment availability and utilization for children with ADHD and their caregivers in Middlesex County, New Jersey. A needs assessment using survey methodology was conducted by gathering information from key informants within Middlesex County elementary schools regarding their perspectives on the mental health needs of children with ADHD. By evaluating school-based ADHD service availability and utilization, information gathered provided insight about gaps between the current state of affairs regarding school-based ADHD treatment in Middlesex County and the components of a multi-modal treatment program described above. These discrepancies highlighted those unmet mental health needs of children with ADHD in Middlesex County, and provided useful information about additional services that could be provided through the Psychological Clinic to fulfill a multi-modal mental health program based on a best practices framework. In addition, the ability of the Psychological Clinic to provide additional mental health services to the target population was evaluated. To achieve this end, a resource analysis of the Psychological Clinic, which is the training clinic of the Graduate School of Applied and Professional Psychology (GSAPP) at Rutgers University, also located within Middlesex County, was conducted. The information gathered through this resource analysis was used to determine the ability of the Psychological Clinic provide multi-modal mental health services that meet the needs of

the target population. In doing so, this study provided insight into those conditions or actions necessary for the Psychological Clinic to feasibly deliver mental health services to children with ADHD and their caregivers.

It was hypothesized that a discrepancy would exist between the availability of school-based mental health services targeting children with ADHD and their caregivers, and best practices treatment, warranting the development of a multi-modal mental health service program targeting the unique needs of children with ADHD and their caregivers in Middlesex County would be needed. Using a mixed method approach, this study addressed the following research questions:

1. Does a need for multi-modal mental health services targeting children with ADHD and their caregivers exist in Middlesex County, New Jersey?
2. What conditions are required in order for multi-modal mental health services to be provided to the target population?
3. Does the Psychological Clinic have the resources (e.g. space, staffing, and administrative infrastructure) required to provide multi-modal mental health services to children with ADHD and their caregivers?
4. What actions must be taken in order for the Psychological Clinic to increase its readiness to provide multi-modal mental health services to children with ADHD and their caregivers?

Method of Investigation

This investigation involved a concurrent needs assessment of children with ADHD and their caregivers in Middlesex County, as well as a resource analysis of the Psychological Clinic. The needs assessment aimed to identify those components of a multi-modal ADHD treatment program currently offered through Middlesex County schools, and if a need for additional mental health services targeting children with ADHD and their caregivers existed. A resource analysis of the Psychological Clinic aimed to determine if the organization could feasibly provide those components of a multi-modal mental health service program to meet the specific needs of the target population, and if not, what actions should be taken to increase organizational readiness to deliver these services were explored. A best practices framework was applied to the development of multi-modal mental health services targeting children with ADHD and their families. As such, a combination of well-established direct (social skills groups, executive functioning training programs, behavior management) and indirect (psychoeducation, behavioral parent training, teacher consultation, physician consultation/medication management) interventions were understood as a combination that could meet the needs of the target population.

Rossi, Lipsey and Freedman (2004) suggested that a thorough definition of the problem under investigation should precede any assessment or analysis activities. They asserted that assessing the extent of the problem including prevalence rates, as well as those services available and utilized, can present researchers with a clear picture of the current state of affairs, which can be used as a working definition of the problem. Through the review of ADHD research, a thorough definition and current prevalence

rates of the problem were provided, as well as recommended best practices in service provision. However, an assessment of service availability and utilization within the catchment area under investigation remained necessary. This study considered relevant methodologies outlined in the literature pertaining to conducting needs assessments in order to achieve this end.

The basic steps in conducting a needs assessment, as outlined by Rossi, Lipsey and Freedman (2004), is a five-part process that involves the identification of the following: 1) use and users, 2) the target population and service environment, 3) needs identification, 4) needs assessment methodologies, and 5) communication of findings. This study utilized a needs assessment for the purposes of clarifying any unmet needs of the target population. The investigator used these findings to better understand the requirements of a multi-modal mental health service program designed to fulfill unmet needs of the target population. The target population was identified as children with ADHD and their caregivers in Middlesex County, New Jersey. The service environment was identified as the Psychological Clinic, which is the training clinic of the Graduate School of Applied and Professional Psychology (GSAPP), Rutgers University, New Brunswick / Piscataway campus, located in Middlesex County, New Jersey. A broad identification of the target population needs was offered through a review of current literature that provided a comprehensive analysis of ADHD etiology and epidemiology, comorbidities, risk and outcomes, as well as treatment methodologies. From this, research supported the need for mental health services that address the global impact of this disorder, including direct interventions targeting both core and peripheral symptoms of ADHD, as well as indirect services aimed at parents, teachers and other important

individuals who may provide support to, and therefore are directly involved in, the treatment of children with ADHD. However, a best practices framework asserts that programs and services should be adopted to address the local nature of the problem and those unique circumstances of target population. Thus, information gathered through a needs assessment was crucial to achieve this end.

Using a public health framework, a “need for mental health services” is typically defined as the existence of a diagnosable disorder or condition that might benefit from treatment or mental health services that address this condition (Landerman, Burns, Swartz, Wagner, & George, 1994). Having a systematic means of assessing the needs of a particular population serves a way to evaluate the current state of affairs within a certain context. With this information, one can better understand what needs are adequately addressed as well as those needs gone unmet. While there are many styles for conducting needs assessments, those developed by Warheit, Bell and Schwab (1977) are among the most commonly used and adapted. The authors provided five basic approaches to conducting needs assessments including: 1) key informant approach, which involves surveying those in a position to best understand the specific needs of the population under assessment; 2) community forum approach, which involves information gathering via small group discussions with a cross section of the population under assessment; 3) rates-under-treatment approach, which uses data collected from professional agencies or individuals that collectively create a picture of the population’s utilization of services provided by or through them; 4) social indicators approach, which uses existing descriptive data from public records to draw inferences about a population’s needs; and 5) field survey approach, in which relevant data is collected from a representative sample

of the population under assessment. Many researchers (Mertens, 2010; Trochin, 2006) have highlighted the usefulness of survey research for its ease and cost efficiency. This investigation utilized a survey questionnaire of key informants in order to provide information regarding the mental health needs of children with ADHD in Middlesex County elementary schools.

In addition to conducting a needs assessment, this study performed a resource analysis of the Psychological Clinic. The Psychological Clinic offers supervised training to students in the delivery of various mental health services to the local community. Services include psychological and psychoeducational assessment; diagnostic evaluations; individual, group, couples and family therapy; cognitive-behavioral therapy, interpersonal therapy, psychodynamic therapy, substance abuse treatment, and dialectical-behavioral therapy; and psychological consultation services. These services aim to address a host of client presenting problems including mood disorders, anxiety disorders, personality disorders, tic disorders, learning disorders, attention-deficit and disruptive behavior disorders, impulse control disorders, substance-related disorders, eating disorders, and adjustment issues. The role of GSAPP graduate students working within the clinic is to gain training in treatment modalities for specific presenting problems, and to deliver mental health services directly to clients. The director of the clinic is responsible for program development and coordination of all services deliverable through the Psychological Clinic, while various GSAPP faculty members provide supervision of student work. The Psychological Clinic also employs staff members including an administrative assistant, receptionist, and graduate student clinic coordinators.

The purpose of the resource analysis was to gain a better understanding of the relevant environmental factors in which the target population and their needs could be addressed. Thus, the resource analysis aimed to clarify those organizational factors specific to the Psychological Clinic that are relevant to the development of a multi-modal mental health service program targeting parents of children with ADHD. Using the AVICTORY model (Davis & Salisin, 1977), the overall ability of the Psychological Clinic to commit resources to the development of such a program was assessed. In addition, those values of the Psychological Clinic that pertain to the development of human service programs, and to providing human service programs to the local community, were evaluated. Ideas held by various organizational members about the development of a human service program targeting caregivers of children with ADHD, as well as circumstances within the organization that relate to its structure and direction, were also assessed. Issues regarding timing of program development, obligation felt by organizational members in regard to human service programming, and resistances to the development of a new multi-modal mental health program targeting children with ADHD and their caregivers were likewise investigated. Finally, the overall yield, or additive value and benefit, of a multi-modal mental health service program targeting children with ADHD and their caregivers was analyzed. In addition to the AVICTORY model, the resource analysis drew on topics and themes outlined by Forman, Jofen and Lubin (2012) that assess what current programs and/or services might address some mental health needs of the target population, as well as perspectives on the benefit of additional programs and opinions on issues surrounding service utilization and programs already in place that could serve as a model for new program development through the Psychological Clinic.

This investigation utilized a survey questionnaire of key informants at GSAPP who were involved in service delivery through the Psychological Clinic.

Together, the assessment of mental health needs of children with ADHD in Middlesex County, New Jersey and concurrent resource analysis of the Psychological Clinic, provided information about any discrepancies between the current state of affairs (CSA) and desired state of affairs (DSA) as put forth in the literature. Specifically, by gathering information on mental health services available and utilization in Middlesex County elementary schools, a service need was determined, as well as those conditions that need to be in place in order for the target population to receive services. Information gathered through the resource analysis helped to determine the Psychological Clinic's ability to meet those needs, as well as what changes would need to take place in order for the organization to meet the needs of the target population.

Participants

A total of 139 subjects participated in this investigation, and each was a member of one out of three natural samples: 1) Middlesex County elementary school staff (SS), 2) current GSAPP students (GS) and 2) Psychological Clinic staff/faculty (CS). Only Child Study Team members, as well as guidance and student assistant counselors employed within those Middlesex County school districts approved for research conducted were included as key informants for needs assessment data collection. Current GSAPP graduate students, as well as any GSAPP faculty or staff members involved with service provision within Psychological Clinic were included as key informants for resource analysis data collection. Both women and minorities are represented among the pool of potential participants. Female respondents represented 78.5% and males 21.5% of the

total sample. Ages ranged from 20-66 years ($M = 32.45$; $SD = 10.63$); and highest levels of education were reported as Bachelor's Degree (46.7%), Master's Degree (37.7%), Specialist Certification (8.9%), and Doctorate Degree (6.7%). The number of years in participants' current roles (SS=CST; GS=PsyD student; CS=Clinic) ranged from 1-25 ($M = 4.69$, $SD = 4.45$). Participant demographic data are reported in Table 1 of Appendix P.

Needs Assessment Participants. To assess the mental health needs of children with ADHD, information was gathered from key informants with professional background in identifying service availability and utilization among elementary school children, as well as frequent exposure to a variety of children both with and without ADHD diagnoses. Child Study Team (CST) members, as well as guidance and student assistant counselors employed within Middlesex County elementary schools were key informants. CST members consisted of social workers, learning consultants and school psychologists who have education and training in special education, and are responsible for assessments and interventions related to special education. Guidance and student assistant counselors also provide interventions to both special education and general education students. As such, these individuals were selected as key informants due to their role in school-based mental health provision and professional focus on the social-emotional development of students.

The number of Middlesex County school districts asked to participate in this study was 29, and of these districts, 6 (20.7%) approved recruitment efforts to participate in this study. Within the approved school districts, the total number of key informants employed within district elementary schools was 66. These 66 key informants were sent recruitment letters via email informing them of the current study, and while 39 (59%)

agreed to participate, 35 people (53%) gave consent. Of the SS participants, 97.1% were female and only one participant was male; ages ranged from 26-61 ($M=43$; $SD=11.32$; Table 1, Appendix P). All participants were either a Child Study Team (CST) member or guidance counselor, and within these titles 29.4% were school psychologists, 20.6% guidance counselors, 17.6% social workers, 17.6% learning disability teaching consultants (LDTs), 8.8% student assistance counselors (SACs) and 5.9% were speech pathologists or language specialists (Table 2, Appendix P). 97.1% of participants reported currently case managing elementary school students diagnosed with ADHD during the 2012-2013 academic year, with the number of students with ADHD in their current caseloads ranging from 2-30 ($M=11.32$; $SD=6.29$), although some participants reported percentages (i.e. 60-70%) while others were not sure of the actual number (Table 3, Appendix P). Only 1 participant reported not currently case managing students with ADHD (Table 3, Appendix P). Years of service in their current roles ranged from 1-24 years ($M=7.86$, $SD=6.03$), while total number of years of professional experience in education and/or human services ranged from 1-39 years ($M=15.06$, $SD=9.33$; Table 6, Appendix P). All participants held professional degrees; 65.7% reported having a master's degree, 20% held specialist degrees and 14.3% held doctorate degrees (Table 7, Appendix P).

Resource Analysis Participants. GSAPP students were identified as appropriate participants for providing information on the training needs of student clinicians who provide services through the Psychological Clinic due to their role in direct service provision to clients. One hundred students enrolled at GSAPP during the Spring 2013 semester were asked to participate in the current study; of these, 98 people (98%)

consented. Of these 98 students, 73.4% were female and 26.6% were male; ages ranged from 20-47 years old ($M=27.47$; $SD=4.17$; Table 1, Appendix P). In addition, 55.3% were enrolled in the School Psychology program and 44.7% were enrolled in the Clinical Psychology program (Table 4, Appendix P). While all GS participants were working toward a Doctor of Psychology (Psy.D.) degree, 20.2% were in their first year, 20.2% in their second, 16% in their third, 22.3% in their fourth, 16% in their fifth, 2.1% in their sixth, and 3.2% were beyond their sixth year in their respective programs (Table 4, Appendix P). Prior to beginning their current Psy.D. program, 4.3% had attained a specialist degree, 28.7% had earned a master's degree, and 67% held a bachelor's degree (Table 7, Appendix P).

The director of the Psychological Clinic, clinic coordinators and administrators, as well as Clinic supervisors who also hold GSAPP faculty appointments were also identified as appropriate potential participants for providing information on resource availability and program development. A total of six GSAPP faculty and/or staff members affiliated with the Psychological Clinic were asked to participate in the current study; 100% gave consent. While ages ranged from 35-65 years ($M=50.67$; $SD=14.76$), the sample was split evenly in terms of gender, with 50% female and 50% male (Table 1, Appendix P). Positions held at the Clinic included three Supervisors (50%), one Clinic Coordinator (16.7%), the Clinic Director (16.7%) and one Administrative Assistant (16.7%; Table 5, Appendix P). The rationale for including this range of individuals is due to each person's unique perspectives on the Clinic as an organization, the daily operations, administrative activities, and services provided. Years employed in current positions ranged from 2-25 years ($M=10.67$; $SD=8.8$; Table 6, Appendix P). Four

participants held a doctorate degree (66.7%), one held a master's degree (16.7%), and one held a bachelor's degree (16.7%; Table 7, Appendix P).

Measures

Needs Assessment Measures. Instruments used to conduct this needs assessment were a School Staff Survey created by the investigator through SurveyMonkey, delivered to participants through electronic mail. The School Staff Survey (Appendix F) begins by presenting participants with an Informed Consent Agreement (Appendix E), and continued with a series of questions aimed at determining the mental health needs of children with ADHD in their schools. The measure was developed by the researcher in order to tap into specific domains necessary in determining a possible gap between the current state of affairs and desired state of affairs regarding the target population's mental health needs. This measure included questions about specific mental health services available to children, parents and teachers through Middlesex County schools, the frequency of their utilization, and key informant's perceptions of their effectiveness. In addition, the School Staff Survey asked questions about key informants' ADHD knowledge base, their perceptions of multi-modal services, and the likelihood of their referring children with ADHD and their caregivers to the Psychological Clinic for such services, as well as perceived barriers to treatment. The measure included a combination of free-text descriptive responses for qualitative analysis, as well as scaled and multiple-choice response items for quantitative analysis.

Resource Analysis Measures. Instruments used to conduct the resource analysis included an GSAPP Student Survey created by the investigator through SurveyMonkey, delivered to GSAPP student participants through electronic mail. The GSAPP Student

Survey (Appendix K) began by presenting participants with an Informed Consent Agreement (Appendix J), and continued with a series of questions aimed at determining the training needs of GSAPP students, particularly surrounding ADHD knowledge and service delivery. The measure was developed by the researcher in order to tap into specific domains necessary in determining a possible gap between the current state of affairs and desired state of affairs regarding GSAPP student training needs. Specifically, the GSAPP Student Survey was composed of questions that assessed GSAPP students' skills and experience in ADHD service provision, their perceptions of additional knowledge and skill needed for ADHD service provision, their interest in providing multi-modal mental health services to children with ADHD and their caregivers, as well as perceptions of barriers and facilitators to this type of service provision through the Psychological Clinic. In addition, the GSAPP Student Survey aimed to investigate the likelihood of GSAPP students to gain training in the delivery of comprehensive ADHD treatment programs, potential barriers to acquiring such training, and any additional didactics that would be desired prior to dissemination of a mental health service program targeting children with ADHD and their caregivers. The measure included a combination of free-text descriptive responses for qualitative analysis, as well as scaled and multiple-choice response items for quantitative analysis.

The Clinic Staff Survey (Appendix N) was developed by the investigator in order to gain a better understanding of the environmental factors in which a mental health service program targeting children with ADHD and their caregivers may be delivered. The Clinic Staff Survey consisted of both structured and open-ended questions aimed at clarifying those organizational factors specific to the Psychological Clinic and GSAPP

community that would be relevant to the development, implementation and evaluation of human services delivered to the target population. The survey questions were developed through an adoption of the AVICTORY model (Davis & Salasin, 1975), as well as current research on the development and implementation of human service programs (Forman, Jofen & Lubin, in press; Rossi, Lipsey & Freedman, 2004). Specifically, a public health framework was used to develop questions that tap into the ability of the Psychological Clinic to commit resources to the target population, the values that support the delivery of such services, and ideas held by staff regarding human service programs. In addition, circumstances that relate to the structure and direction of the Psychological Clinic, as well as the timing of program development, obligations of the Psychological Clinic to GSAPP and the community at large, additive value or benefit of this program to the Psychological Clinic, and resistances to such services were evaluated through the resource analysis. Thus, the measure was used to provide both quantitative and qualitative data on major themes related to the development of a multi-modal mental health service program targeting children with ADHD.

Procedures

Needs Assessment Procedures. Prior to recruitment, the Superintendent of each school district in Middlesex County was contacted with a Request for Approval (Appendix A) informing them of this project and requesting permission for research to be conducted within their district. Those administrators who expressed interest were subsequently sent a Statement of Approval (Appendix B) outlining requirements for participation, and were asked to sign and return the document to the investigator if they

agreed to have CST members and guidance counselors within their district contacted for voluntary participation. A list of approved districts is provided (Appendix C).

Upon IRB approval, administrators who approved research being conducted in their district provided the investigator with a list of email addresses of potential participants. Potential participants were sent a Letter of Notification (Appendix D) via email, informing them of the research being conducted and their ability to voluntarily participate by completing an anonymous and confidential survey. Following receipt of the letter, potential participants were asked to voluntarily sign Informed Consent (Appendix E) and complete the School Staff Survey (Appendix F), delivered through SurveyMonkey. Reminder emails were sent to potential participants who had not completed the survey on a weekly basis for four weeks. After four weeks, the School Staff Survey was discontinued and voluntary participation was closed. As a “Thank You” for completing the survey, participants were given an ADHD Fact Sheet (Appendix L) to enhance their understanding of the disorder and assist them in providing guidance to parents and other professionals. Prior to data analysis, participant email addresses were separated from survey responses for purposes of anonymity.

Resource Analysis Procedures. Prior to recruitment, the Dean of GSAPP was contacted with a Request for Approval (Appendix G) informing him of this project, and permission for research to be conducted within GSAPP was requested. He signed and returned a Statement of Approval (Appendix H) authorizing the investigator to contact those GSAPP students, faculty and staff involved in service delivery through the Psychological Clinic for voluntary participation. GSAPP students were asked to participate by volunteering to complete a GSAPP Student Survey (Appendix K), and

selected GSAPP faculty and staff were asked to participate by volunteering to engage in a survey (Appendix N). Prior to recruitment, individuals who were asked to participate in this resource analysis were sent an email notification outlining the goals of this project and parameters of their voluntary participation.

The GSAPP Student Survey was designed to be delivered to current GSAPP students through email via SurveyMonkey. Email addresses of current students were listed on the GSAPP Student Services webpage. All current students were considered potential participants, and were sent a Letter of Notification (Appendix I) via email, informing them of the research being conducted and their ability to participate voluntarily by completing an anonymous and confidential survey. The Letter of Notification included contact information of the investigator where questions could be directed, and also indicated that they would be emailed a survey in the upcoming week which they can choose to complete or not. Following receipt of the letter, potential participants through which they would be asked to sign Informed Consent (Appendix J) and to complete the GSAPP Student Survey (Appendix K) on a voluntary basis. Reminder emails were sent to potential participants who had not completed the survey once weekly for four weeks. After four weeks, the GSAPP Student Survey was discontinued and voluntary participation was closed. As a “Thank You” for completing the survey, participants were be given an ADHD Fact Sheet (Appendix L) to enhance their understanding of the disorder and assist them in providing guidance to parents and other professionals.

The Clinic Staff Survey was designed to be delivered to GSAPP faculty and staff members through email via SurveyMonkey. Email addresses of GSAPP faculty and staff were listed on the GSAPP webpage. Those faculty and staff members involved in service

delivery through the Psychological Clinic were considered potential participants, and were sent a Letter of Notification (Addendum: Appendix O) via email, informing them of the research being conducted and their ability to participate voluntarily by completing an anonymous and confidential survey. The Letter of Notification included contact information of the investigator where questions could be directed, and also indicated that they would be emailed a survey in the upcoming week which they could choose to complete or not. Following receipt of the letter, potential participants were asked to sign Informed Consent (Appendix M) and to complete the Clinic Staff Survey (Appendix N) on a voluntary basis. Reminder emails were sent to potential participants who had not completed the survey once weekly for four weeks. After four weeks, the Clinic Staff Survey was discontinued and voluntary participation was closed. As a “Thank You” for completing the survey, participants were given an ADHD Fact Sheet (Appendix L) to enhance their understanding of the disorder and assist them in providing guidance to parents and other professionals.

Procedures for the Protection of Private, Identifiable Data. The information obtained through all surveys was de-identified. Only the primary investigator and dissertation chair had access to the online data from this study. All data was downloaded from the survey site (SurveyMonkey) onto a password protected Excel spreadsheet. IP addresses were registered as participants interacted with the survey site (SurveyMonkey), but were not recorded in the researcher’s data set. IP information was eliminated before downloading data. The researcher’s data file did have any IP information. Only group data was reported in the primary investigator’s dissertation, as well as any publications or presentations resulting from this study. All data was stored in the primary investigator’s

computer in a secure password protected computer file, and data will be kept for five years from the time at which the survey closed (May 2013), after which it will be destroyed May 2018).

Data Analysis

Mixed Method Approach. Quantitative and qualitative data collected through survey responses were analyzed through a mixed method approach. Descriptive data (means, SD, ranges) were used to describe relevant demographic information of key informants from each sample. In analyzing needs assessment data, the number of services available, frequency of school-based mental health service utilization, specifically as it pertains to social skills services, individual counseling services, executive functioning training programs, and behavior modification programs, as well as parent and teacher services aimed at addressing the mental health needs of children with ADHD, were calculated. In addition, the means of perceived effectiveness of these services specified above were calculated. Furthermore, data was used to calculate key informants' knowledge of ADHD, their likelihood of referring children with ADHD to the Psychological Clinic for mental health services, and the percentage of key informants who favor multi-modal service provision over other types of treatments.

Resource analysis data were used to calculate the mean ratings of both skill and experience in ADHD service provision and/or supervision, current knowledge of ADHD and perception of knowledge level, as well as the frequencies related to methods of developing current knowledge and skill necessary for ADHD service provision. In addition, the percentage of interest in ADHD service provision through the Psychological Clinic, and respondents' perceptions of the percentage training types required in order to

provide ADHD services was calculated. Finally, ADHD knowledge, perceptions of the need for services and effectiveness of services currently available through the Psychological Clinic, as well as organizational factors related to program development in general and those specific to the design of a multi-modal mental health program was calculated.

Qualitative data analytic methods followed a classic content analysis approach involving coding of major themes that arose from free-text survey responses, and subsequent calculation of prevalence rates, similarities and differences, as well as the relationship between coded themes. Needs assessment data provided information on key informants' perceptions of the need for additional services, likelihood of the target population utilizing services through the Psychological Clinic, and potential barriers and facilitators to service utilization. Resource analysis data provided information regarding current service availability, potential barriers and facilitators to service provision, and organizational domains related to service provision in general, as well as those specific to the development of a multi-modal mental health service program for children with ADHD and their caregivers.

Between-group analyses across collapsed samples were also conducted to investigate the relationship between key independent and dependent variables. The key independent variable under consideration was sample membership; either School Staff (SS), GSAPP Students (GS) or Clinic Staff (CS). Between-group comparisons included multiple ANOVAs and Chi-square analyses to analyze the relationship between sample membership (SS, GS, CS) and key dependent variables (e.g. ADHD knowledge, perception of importance for service delivery, perceptions on current services available,

support for multi-modal mental health services, and perception of likelihood of caregiver participation).

Figure 1

Research Questions and Mixed Method Approach

<u>Research Question</u>	<u>Data Sources</u>	<u>Analytic Method</u>
1. Does the need for multi-modal mental health services targeting children with ADHD and their caregivers exist in Middlesex County, NJ?	<ul style="list-style-type: none"> • School Staff Survey 	<ul style="list-style-type: none"> • Descriptive Statistical Analysis • Classical Content Analysis
2. What conditions need to be met in order for multi-modal mental health services to be provided to the target population?	<ul style="list-style-type: none"> • School Staff Survey • GSAPP Student Survey • Clinic Staff Survey 	<ul style="list-style-type: none"> • Descriptive Statistical Analysis • Classical Content Analysis • ANOVA • Chi-Square
3. Does the Psychological Clinic have the resources required to provide multi-modal mental health services to children with ADHD and their caregivers?	<ul style="list-style-type: none"> • GSAPP Student Survey • Clinic Staff Survey 	<ul style="list-style-type: none"> • Descriptive Statistical Analysis • Classical Content Analysis
4. What actions needs to be taken in order for the Psychological Clinic to increase its readiness to provide multi-modal mental health services to children with ADHD and their caregivers?	<ul style="list-style-type: none"> • School Staff Survey • GSAPP Student Survey • Clinic Staff Survey 	<ul style="list-style-type: none"> • Descriptive Statistical Analysis • Classical Content Analysis • ANOVA • Chi-Square

Results

A total of 139 subjects participated in this investigation, and as previously stated, each was a member of one out of three natural samples: 1) Middlesex County elementary school staff (SS), 2) current GSAPP students (GS) and 2) Psychological Clinic staff/faculty (CS). Participants in each sample completed a survey designed to gather targeted information: 1) SS survey, 2) GS survey and 3) CS survey. Within group analyses produced the following results.

School Staff (SS) Survey

SS participants responded to a number of survey questions aimed at assessing their perspectives on the need for mental health service provision for children with ADHD. As a foundation for understanding their responses, an assessment of ADHD knowledge was first included. Results for ADHD knowledge (Table 8, Appendix Q) revealed that SS participants ranged widely in their understandings of the disorder, based on statements that were presented as true or false. Of SS participants, 97.1% endorsed ADHD as: 1) “characterized by inattention,” 2) “characterized by hyperactivity or impulsivity,” and 3) “can be managed by behavior management strategies.” Many also believed that ADHD “can be managed by parent or teacher training in behavior management” (94.1%) and “can be managed through social skills training” (82.4%). In addition, some supported the statements that ADHD 1) “is a neurodevelopmental disorder” (79.4%), 2) “can managed through cognitive-behavioral therapy” (64.7%, 3) “is related to an imbalance of neurotransmitters” (44.1%), and 4) “is manageable through play therapy” (35.3%). Finally, 8.8% of participants believed ADHD “can only be managed through medication” while 2.9% endorsed that “ADHD is associated with a

lack of willpower or desire to do well” and “there are no effective treatments for ADHD.” No participants selected “ADHD is a measure of intelligence” or “ADHD is caused by parenting” as “true.”

SS participants’ responses to items assessing their knowledge of ADHD were scored as either correct or incorrect. Scores for ADHD knowledge are reported in Table 9, Appendix Q. One point was given for endorsing the following true statements: 1) ADHD is a neurodevelopmental disorder (77.1% correct response), 2) ADHD can be characterized by inattention (94.3% correct response), 3) ADHD can be characterized by hyperactivity or impulsivity (94.3% correct response), 4) ADHD can be managed by behavior management strategies (94.3% correct response), and 5) ADHD can be managed by parent or teacher training in behavior management (91.4% correct response). In addition, one point was given for NOT endorsing the following false statements: 1) ADHD is a measure of intelligence (100% correct response), 2) ADHD is related to an imbalance of neurotransmitters (57.1% correct response), 3) ADHD is associated with a lack of willpower or desire to do well (97.1% correct response), 4) ADHD is caused by parenting (100% correct response), 5) ADHD can only be managed by medication (8.6% correct response), 6) ADHD can be managed through social skills training (20% correct response), 7) ADHD can be managed through play therapy (65.7% correct response), 8) ADHD can be managed through cognitive behavioral therapy (37.1% correct response), and 9) there are no effective treatments for ADHD (94.3% correct response). A total score was calculated for “ADHD Knowledge” in order to assess participants’ general understandings of the disorder. Of a possible 14 points, scores ranged from 8-14 total points ($M=10.38$; $SD\ 1.44$). Specifically, 44.1% of participants earned 10 points, 17.6%

earned 11 points, 11.8% earned 9 points, 8.8% earned 8 points, another 8.8% earned 13 points, 5.9% earned 12 points and 2.9% earned 14 points.

Further survey items were aimed at assessing the status of SS perspectives on the importance of mental health service delivery to the target population, as well as the status of current service available and utilized through Middlesex County schools. Some school staff participants believed that it is “extremely important” (26.5%), “very important” (26.5%) or “important” (32.4%) for their students with ADHD to receive mental health services; while 14.7% believed it is only “somewhat important” and 0% believed it is “not important” (Table 13, Appendix R). Of SS participants, 85.3% reported that students with ADHD currently receive mental health services within their schools, and while many thought them to be “very helpful” (12.9%) or “helpful” (35.5%), others found the sum of services available to be only “somewhat helpful” (45.2%) or “not helpful” (6.5%); 0% found them to be “more than helpful” (Table 17, Appendix S).

Questions regarding service availability and utilization were itemized by type of service: 1) social skills groups, 2) individual counseling, 3) behavior modification, 4) executive functioning training, 5) organizational skills training, 6) caregiver-directed services, and 7) teacher-directed services. Table 21, Appendix S, shows SS participants’ perspectives on current service availability and utilization, while Table 22, Appendix S, shows SS participants’ perspectives on the degree to which available services are helpful, as outlined below:

1) Of SS participants, 76.5% reported that social skills groups are currently available through their schools for students with ADHD. None of the SS participants responded to a question aimed at assessing utilization of social skills services by students

with ADHD. Most SS participants believed social skills groups are “more than helpful” (3.8%), “very helpful” (26.9%) or “helpful” (23.1%); however 42.3% found these services to be only “somewhat helpful” while 3.8% found them to be “not helpful.”

2) Of SS participants, 88.5% reported that individual counseling services are currently available through their schools for students with ADHD. Utilization was reported in both percentages and total numbers of students with ADHD, with reports of individual counseling service utilization ranging from 15-90% and 1-80. 20% of respondents reported that individual counseling is “very helpful,” 50% stated it is “helpful,” and 30% found them to be only “somewhat helpful;” 0% reported “more than helpful” or “not at all helpful.”

3) Of SS participants, 82.4% reported that behavior modification services are currently available through their schools for students with ADHD. Utilization was reported in both percentages and total numbers of students with ADHD, with reports of behavior modification service utilization ranging from 10-85% and 10-80. Respondents described behavior modification as “very helpful” (32.1%), “helpful” (50%) or “somewhat helpful” (17.9%); 0% reported “more than helpful” or “not at all helpful.”

4) While 14.7% of SS participants stated that executive functioning training services are currently available through their schools for students with ADHD, the majority of participants (85.3%) reported that these services are not available. Of those who reported such services are currently available, one respondent reported that 10 students with ADHD utilize executive functioning training, while another respondent reported that 30 students with ADHD utilize this service. All participants believed these

services to be either “more than helpful” (50%), “very helpful” (25%) or “helpful” (50%); 0% reported “more than helpful” or “not at all helpful.”

5) When asked about organizational skills training, 58.1% of SS participants reported that these services are currently available through their schools for students with ADHD, however 41.9% reported they are not currently available. Of those who reported current service availability, utilization was reported in both percentages and total numbers of students with ADHD, with reports of service organizational skills service utilization ranging from 30-100% and 10-90. Respondents believed organizational skills training is “more than helpful” (5.9%) “very helpful” (29.4%), “helpful” (41.2%), or “somewhat helpful” (23.5%); 0% reported “not at all helpful.”

6) Regarding services to assist caregivers in addressing the mental health needs of their children with ADHD, 64.5% of SS participants reported that they are not available through their schools, and only 35.5% reported such services are currently available. Respondents indicated that 10-100% of these caregivers utilize such services. SS participants believed caregiver services are “very helpful” (40%), “helpful” (20%) or “somewhat helpful” (40%); 0% reported “more than helpful” or “not at all helpful.”

7) Regarding services to assist teachers in addressing the mental health needs of students with ADHD, 54.8% of SS participants reported that they are available through their schools while 45.2% stated that such services are not currently available. Respondents indicated that or 40-100% or 10-90 of teachers utilize such services. SS participants thought services for teachers were “very helpful (35.3%), “helpful” (41.2%) or “somewhat helpful” (23.5%); 0% reported “more than helpful” or “not at all helpful.”

SS participants were provided with a description of what constitutes “multi-modal mental health services for ADHD” and asked whether they believed their students with ADHD would benefit from such services; 100% responded “yes” (Table 27; Appendix T). When asked to describe why they believed multi-modal services would be helpful, SS participants’ free responses included that such services are comprehensive (51.4%), targeted (22.9%), and generalizable (17.1%); have a positive effect on academic performance (8.6%) and others who interact with target population (8.6%); services are effective (2.9%) and provide psychoeducation to all who work with target population (2.9%); 2.9% responded that they don’t know why these services would be helpful (Table 30, Appendix T). SS participants were also asked to describe reasons why such services might not be helpful. Responses included that time constraints (5.7%), lack of treatment adherence (5.7%), lack of adjunctive pharmacological treatment (5.7%), lack of family commitment (2.9%), lack of availability (2.9%), lack of insurance (2.9%), cost (2.9%), and age (2.9%) would contribute to ineffective multi-modal mental health services; however 37.1% responded to this same question by indicating that services would be effective (Table 31, Appendix T).

SS participants were asked how likely it would be that they would refer the caregivers of students with ADHD for additional mental health services to the Psychological Clinic. Respondents stated that it would be “more than likely” (6.7%), “very likely” (36.7%), “likely” (33.3%), “somewhat likely” (16.7%) or “not at all likely” (6.7%) to refer caregivers (Table 33, Appendix U). When asked what might prevent them from referring caregivers of their students with ADHD to the Psychological Clinic for additional mental health services, participants reported that a lack of information about

services (20%), lack of caregiver interest (20%), lack of transportation (20%), cost of services (11.4%), lack of provider's coordination with schools (8.6%), time (8.6%), language barriers (2.9%), lack of insurance (2.9%), and long wait list (2.9%) would be prohibitive to referral. Others indicated that nothing (11.4%) would prevent referrals of caregivers of students with ADHD to the Psychological Clinic for multi-modal mental health services (Table 34, Appendix U).

SS participants were also asked how likely they thought it would be for the caregivers of their students with ADHD to attend the Psychological Clinic for mental health services targeting ADHD symptoms. Respondents stated it would be either very likely" (3.3%), "likely" (43.3%) "somewhat likely" (53.3%); 0% reported "more than likely" or "not at all likely" (Table 35, Appendix U). When asked what might prevent the caregivers of their students with ADHD from attending the Psychological Clinic for additional mental health services, participants reported lack of transportation (31.4%), cost (22.9%), treatment refusal (20%), time (14.3%), location/distance (11.4%), lack of program information (11.4%), language barriers (11.4%), immigration status (8.6%), stigma (8.6%), reliance on school for services (5.7%), clinic hours (5.7%), lack of insurance (2.9%), and lack of goodness-of-fit with clinician (2.9%). Others indicated that they don't know (5.7%) what might prevent caregivers of students with ADHD from attending the Psychological Clinic for multi-modal mental health services (Table 39, Appendix U).

Finally, school staff participants were asked to offer suggestions on other services that they thought would be helpful in addressing the mental health needs of their students with ADHD. Results are reported in Table 24, Appendix S. Responses included parent

services (14.3%), teacher services (11.4%), direct services (11.4%), psychoeducation (11.4%), school-based services (8.6%), additional resources (8.6%), extracurricular activities (5.7%), bilingual services (2.9%), mental health consultation (2.9%), and in-home services (2.9%).

GSAPP Student (GS) Survey

GS participants responded to a number of survey questions aimed at assessing their perspectives on the need for mental health service provision for children with ADHD. As a foundation for understanding their responses, an assessment of ADHD knowledge was included. Results for ADHD knowledge are reported in Table 8, Appendix Q. Results revealed that GS participants ranged widely in their understandings of ADHD, based on statements that were presented as true or false. All participants (100%) believed that ADHD “can be managed through behavior management strategies.” Slightly fewer endorsed ADHD as: 1) “characterized by hyperactivity or impulsivity” (98.9%), 2) “characterized by inattention” (97.8%), and 3) “can be managed by parent or teacher training in behavior management” (95.7%). Many also believed that ADHD “is a neurodevelopmental disorder” (77.4%) and “can be managed through cognitive-behavior therapy” (76.3%). In addition, some supported the statements that ADHD 1) “can be managed through social skills training” (66.7%), 2) “can be managed through play therapy” (32.3%), and “is related to an imbalance of neurotransmitters” (26.9%). Finally, 7.5% of participants believed ADHD “can only be managed through medication,” while 3.2% endorsed that “ADHD is associated with a lack of willpower or desire to do well.” No participants selected “ADHD is a measure of intelligence,” “ADHD is caused by parenting” or “there are no effective treatments for ADHD” as “true.”

GS participants' responses to items assessing their knowledge of ADHD were scored as either correct or incorrect. Scores for ADHD knowledge are reported in Table 9, Appendix Q. One point was given for endorsing the following true statements: 1) ADHD is a neurodevelopmental disorder (76.6% correct response), 2) ADHD can be characterized by inattention (96.8% correct response), 3) ADHD can be characterized by hyperactivity or impulsivity (97.9% correct response), 4) ADHD can be managed by behavior management strategies (98.9% correct response), and 5) ADHD can be managed by parent or teacher training in behavior management (94.7% correct response). In addition, one point was given for NOT endorsing the following false statements: 1) ADHD is a measure of intelligence (100% correct response), 2) ADHD is related to an imbalance of neurotransmitters (73.4% correct response), 3) ADHD is associated with a lack of willpower or desire to do well (96.8%), 4) ADHD is caused by parenting (100% correct response), 5) ADHD can only be managed by medication (92.6% correct response), 6) ADHD can be managed through social skills training (34% correct response), 7) ADHD can be managed through play therapy (68.1% correct response), 8) ADHD can be managed through cognitive behavioral therapy (24.5% correct response), and 9) there are no effective treatments for ADHD (100% correct response). A total score was calculated for "ADHD Knowledge" domain in order to assess participants' general understandings of the disorder. Of a possible 14 points, scores ranged from 7-13 total points ($M=10.54$; $SD\ 1.24$). Specifically, 30.9% earned 11 points, 29.8% earned 10 points, 16% earned 12 points, 12.8% earned 9 points, 5.3% earned 13 points, 4.3% earned 8 points and 1.1% earned 7 points.

Most GS participants were in support of children with ADHD and their caregivers to receive mental health services. Specifically, 26.9% described it as “extremely important,” 47.3% reported it to be “very important,” 23.7% reported it to be “important” and 2.2% described it as only “somewhat important; 0% reported “not at all important” (Table 13, Appendix R). Of GS participants, 11% thought current services available through the Psychological Clinic were “very helpful” in addressing the mental health needs of children with ADHD and their caregivers and 30.8% thought they are “helpful,” however 30.8% also found current services to be only “somewhat helpful” and 1.1% responded “not helpful,” while 26.4% indicated this question was “not applicable;” 0% reported “more than helpful” (Table 17, Appendix S). GS participants were asked about services currently available through the Clinic and utilized by the target population. 78% reported assessment services, 61.5% reported individual therapy, 35.2% reported caregiver-directed services 33% reported behavior modification therapy, 20% reported executive functioning training, 17.6% reported consultation-liaison services, and 14.3% reported social skills groups are currently available and utilized; however 27.5% reported not knowing about current service availability and utilization while 5.5% reported there are no services targeting children with ADHD and their caregivers (Table 23, Appendix S). When asked what types of programs and/or services might be missing, participants indicated that parenting programs (16.8%), groups (16.8%), individual therapy (12.6%), targeted services (11.6%), consultation services (10.5%), dedicated practicum / training program (4.2%), supervision (3.2%), assessment services (3.2%), and comprehensive services (2.1%); others responded that they don’t know (5.3%) what types of programs

and/or services might be missing from those currently available through the Clinic aimed at addressing the mental health needs of the target population (Table 25, Appendix S).

GS participants were provided with a description of what constitutes “multi-modal mental health services for ADHD” and asked whether they believed that children with ADHD would benefit from such services; 97.8% reported “yes” and 2.2% reported “no” (Table 27, Appendix T). Of GS participants, 65.6% thought multi-modal mental health services would be “compatible with the Clinic’s values,” 64.4% said it would be “compatible with the Clinic’s philosophy” and “compatible with the Clinic’s mission,” 46.7% said compatible with the Clinic’s existing programs,” 33.3% reported “don’t know” and 1.1% said it was “not compatible” (Table 32, Appendix T).

GS participants also responded to questions aimed at assessing the ability of the Psychological Clinic to provide multi-modal mental health services to the target population. Included were items assessing GS participants’ experiences as providers of such services; results are reported in Table 43, Appendix V. Of GS participants, 61.7% reported having experience providing mental health services to children with ADHD. Specifically, participants reported “I continually work with this population,” having “a good amount of experience” (14.6%), “some experience” (40.4%), “a little experience” (25.8%) or “no experience” (12.4%). A similar question was asked assessing for level of experience providing mental health services to caregivers of children with ADHD; 2.2% stated “I continually work with this population,” 13.5% reported “a good amount of experience,” 21.3% “some experience,” 23.6% reported having “a little experience” and 39.3% reported having “no experience.” Regarding specific skills (Table 44, Appendix V), 70.8% reported proficiency in “assessment services,” 62.9% in “individual therapy

services,” 56.2% “social skills group services,” 44.9% “consultation and liaison services,” 37.1% “behavior modification services,” 24.7% “behavior parent training,” 21.3% “organizational skills training,” and 3.4% “executive functioning training.” Only 9% of GSAPP students reported having “none” regarding skill proficiency. Following up, GSAPP students were asked how they acquired their knowledge and skill base in the aforementioned areas; results are reported in Table 47, Appendix V. GS respondents indicated that 78.2% received “on the job training,” while others reported through “supervision,” (65.5%), “coursework,” (64.4%), “independent reading” (29.9%), “workshops” (25.3%), “websites,” (20.7%), “online training” (6.9%) and “other,” which was further broken down into practica/externships (3.1%), research experience (2.1%), previous employment (1.1%) and undergraduate field work (1.1%).

Results revealed that 70.8% of GS participants would be interested in a new program that would train student clinicians in provision of multi-modal mental health services targeting children with ADHD. Of these, many indicated an interest in providing “direct intervention to caregivers of children with ADHD” (91.8%), “direct intervention to children with ADHD” (88.5%), and “teacher / school consultation” (83.6%); 39.3% also indicated “medication monitoring / physician consultation” (Table 45, Appendix V). GSAPP students indicated a number of areas for didactic training that would be necessary to gain, in addition to current coursework, before delivering mental health services to children with ADHD and their caregivers. Among the most prevalent were “ADHD treatment approaches” (87.4%), “training in working with parents” (73.6%), “training in working with children” (69%), and “training in teacher / school-based consultation” (67.8%). Other areas for additional training included “ADHD diagnostic criteria” (54%),

“ADHD etiology / epidemiology” (52.9%), “ADHD risk factors / comorbidities” (51.7%), “training in consultation with physicians / health care providers” (51.7%), “individual therapy” (48.3%), “child development” (44.9%), “group therapy” (42.5%), and “lifespan development” (23%). None of the participants reported “no additional training required” (Table 46, Appendix V).

Results also revealed that 83.9% of GS participants believed that “workshops” would be a good method for providing additional didactic training to prepare GSAPP students in delivering multi-modal mental health services to the target population, while other methods endorsed included: supervision groups (63.2%), courses (51.7%), individual supervision (37.9%) and online training (28.7%; Table 47, Appendix V). In addition, respondents indicated that considerations that might be necessary when designing a training program for GSAPP students in this type of service delivery included clinician needs/factors (14.7%), service model (11.6%), procedures (10.5%), level of ADHD training (9.5%), time (9.5%), supervision (7.4%), client needs/factors (7.4%), Clinic resources (7.4%), goodness-of-fit (5.3%), consultation ability (3.2%), and program sustainability (2.1%; Table 48, Appendix V).

When asked about the likelihood of participating in a practicum providing multi-modal mental health services to the target population, respondents reported “more than likely” (1.1%), “very likely” (8%), “likely” (13.8%), “somewhat likely” (34.5%) or “not at all likely” (42.5%; Table 49; Appendix V). Issues or barriers that would prohibit GSAPP students from participating in a practicum providing multi-modal mental health services to children with ADHD and their families were identified as time (23.2%), Clinic organizational issues (13.7%), interest (8.4%), supervision (7.4%), lack of financial

compensation (7.4%), lack of clients (6.3%), skills deficit (4.2%), and location of service provision (2.1%; Table 50, Appendix V).

When asked about the likelihood of programming success, 6% believed “more than likely,” 19.3% believed it would be “very likely,” 34.9% thought that it would be “likely,” 26.5% believed it would only be “somewhat likely” that caregivers of children with ADHD would attend the Psychological Clinic for mental health services; 0% stated “not at all likely” (Table 35, Appendix U). When asked what they thought might prevent caregivers of children with ADHD from attending the Psychological Clinic for additional mental health services, GSAPP students indicated that cost (37.9%), time (25.3%), lack of transportation (23.2%), lack of program information (18.9%), need for child care (18.9%), stigma (17.9%), receiving other treatment (12.6%), location/distance (7.4%), clinical hours (6.3%), clinician factors (5.3%), and parking (2.1%) could likely be barriers to treatment (Table 40, Appendix U). Following up to this, GSAPP students identified a number of factors that would make a multi-modal mental health service program targeting children with ADHD and their caregivers easy to use. Specifically, they identified accessibility (24.2%), types of services offered (21.1%), no-cost / pro-bono services (12.6%), compatibility (9.5%), flexible appointment times (8.4%), provision of child care (3.2%), dedicated intake coordinators (3.2%), dedicated clinicians (2.1%), dedicated supervisors (2.1%), and Spanish speaking providers (1.1%). Others indicated that they don’t know (5.3%) what would make a multi-modal mental health service program targeting children with ADHD and their caregivers easy to use (Table 42; Appendix U).

Clinic Staff (CS) Survey

CS participants responded to a number of survey questions aimed at assessing their perspectives on the need for mental health service provision for children with ADHD, as well as the Psychological Clinic's ability to meet the needs of this target population through mental health programming. As a foundation for understanding their responses, an assessment of ADHD knowledge was included. Results for ADHD knowledge are reported in Table 8, Appendix Q. Results revealed that all participants endorsed ADHD as: 1) "characterized by inattention," 2) "characterized by hyperactivity or impulsivity," 3) "can be managed by behavior management strategies," and 4) "can be managed by parent or teacher training in behavior management." In addition, 83.3% supported the statements that ADHD 1) "is a neurodevelopmental disorder" and 2) "can be managed through cognitive-behavioral therapy;" 50% endorsed ADHD as manageable "through social skills training;" and 33.3% supported ADHD as manageable "through play therapy."

CS participants' responses to items assessing their knowledge of ADHD were scored as either correct or incorrect. Scores for ADHD knowledge are reported in Table 9, Appendix Q. One point was given for endorsing the following true statements: 1) ADHD is a neurodevelopmental disorder (83.3% correct response), 2) ADHD can be characterized by inattention (100% correct response), 3) ADHD can be characterized by hyperactivity or impulsivity (100% correct response), 4) ADHD can be managed by behavior management strategies (100% correct response), and 5) ADHD can be managed by parent or teacher training in behavior management (100% correct response). In addition, one point was given for NOT endorsing the following false statements: 1) ADHD is a measure of intelligence (100% correct response), 2) ADHD is related to an

imbalance of neurotransmitters (100% correct response), 3) ADHD is associated with a lack of willpower or desire to do well (100%), 4) ADHD is caused by parenting (100% correct response), 5) ADHD can only be managed by medication (100% correct response), 6) ADHD can be managed through social skills training (50% correct response), 7) ADHD can be managed through play therapy (66.7% correct response), 8) ADHD can be managed through cognitive behavioral therapy (16.7% correct response), and 9) there are no effective treatments for ADHD (100% correct response). A total score was calculated for “ADHD Knowledge” domain in order to assess participants’ general understandings of the disorder. Of a possible 14 points, scores ranged from 10-14 total points ($M=12.17$; $SD=1.47$). Specifically, 33.3% earned 13 points, 16.7% earned 10 points, 11 points, 12 points, and 14 points.

Regarding perceived need for mental health services targeting children with ADHD and their caregivers, 33.3% believed it to be “very important” for children with ADHD and their caregivers to receive mental health services while 66% of participants believed that it is “important,” 0% reported “extremely important,” “somewhat important” or “not at all important” (Table 13, Appendix R). Interestingly, 16.7% believed current services are “more than helpful” and 50% thought that services currently available through the Psychological Clinic were only “somewhat helpful” in addressing the mental health needs of the target population; however 0% reported “very helpful,” “helpful” or “not at all helpful” while 33.3% believed this question to be non-applicable, meaning that either current services do not target children with ADHD and their caregivers, or that the respondent did not understand the question (Table 17, Appendix S). All CS participants (100%) agreed that assessment services are currently available

through the Psychological Clinic that help meet the mental health needs of the target population; however discrepancy existed as to what other services might also be available and utilized by the target population. 83.3% reported individual therapy, 66.7% reported behavior modification therapy, 33.3% reported caregiver-directed services, 33.3% reported consultation-liaison services, 16.7% reported social skills groups, 16.7% reported executive functioning training, and 16.7% reported not knowing what current services are available and utilized by the target population (Table 23, Appendix S). When asked to provide separate feedback regarding additional services that might be missing, CS participants reported targeted interventions (16.7%), dedicated practicum (16.7%) parenting programs (16.7%), groups (16.7%), skills training (16.7%), neuropsychological assessment (16.7%), and executive functioning training (16.7%). In addition, 33.3% stated that they don't know what additional services might be missing (Table 26, Appendix S).

All CS participants agreed that children with ADHD and their families would benefit from multi-modal mental health services (Table 27, Appendix T). Of all CS respondents, 83% thought that the development of a multi-modal mental health service program targeting children with ADHD and their caregivers would be compatible with the Clinic's philosophy, values and mission; and 50% believed such a program would be compatible with the Clinic's existing programs (Table 32, Appendix T). CS participants identified student clinicians (100%), support staff (83.3%), supervision (66.7%), technology (50%), materials (33.3%), and space (16.7%) as resources currently available to support such programming; none of the participants thought the Psychological Clinic currently has financial resources for startup, marketing and supervision/consultation costs

(Table 52, Appendix V). Additionally, they identified additional resources necessary for program development as financial resources (66.7%), supervision (66.7%), space (33.3%), equipment (16.7%), and administrators (16.7%; Table 53, Appendix V).

Regarding procedures, participants identified the essential components of linking clients to existing mental health services delivered through the Psychological Clinic as: phone screening (33.3%), intake (66.7%), case assignment (83.3%), and case consultation / supervision (33.3%). 80% believed these same procedures could be used to support the provision of a multi-modal mental health program to the target population (Table 54, Appendix V). CS participants responded to items assessing their experience supervising students in the delivery of mental health services to the target population; results are reported in Table 43, Appendix V. 16.7% of CS reported having “some experience” providing supervision to students delivering mental health services to children with ADHD, 83.3% reported having “no experience;” 0% reported “continually work with this population,” “a lot of experience” or “a good amount of experience.” Similarly, while 16.7% of Clinic staff/faculty surveyed reported having “a good amount of experience” providing supervision to students delivering mental health services to caregivers of children with ADHD, 83.3% reported having “no experience;” 0% reported “continually work with this population,” “a lot of experience” or “some experience.”

While 16.7% thought this was the right time for the Clinic to engage in this specific type of program development, 83.3% were unsure and 0% did not think it was the right time. While, 66.7% did not think that developing this type of program would pose a risk to the Clinic, 16.7% were unsure and another 16.7% reported that this question was non-applicable; 0% thought it would pose a risk to the Clinic. CS

participants were asked to speak to the perceived benefits of developing this type of program deliverable through the Psychological Clinic. Responses Included increased service provision (33.3%), increased training (33.3%), financial profit (33.3%), enhanced reputation (33.3%), help at-risk children and families (16.7%), and provision of financial compensation to student clinicians (16.7%); while 16.7% indicated that they don't know how this type of program could benefit the Clinic (Table 56, Appendix V). CS participants were also asked to give their perspectives on barriers and facilitators to program development; results are reported in Table 57, Appendix V. Respondents considered what might hinder the Psychological Clinic from engaging in the development of a multi-modal mental health service program targeting children with ADHD and their caregivers as financial resources (50%), student interest (33.3%), supervision (33.3%), space (33.3%), and clinician skill deficits (16.7%); while 16.7% don't know what might hinder the Clinic from engaging in this type of program development. Participants indicated that such a program would be easier to develop and implement through insuring dedicated clinicians (33.3%), dedicated supervisors (16.7%), dedicated coordinators (16.7%), compatibility with existing Clinic programs (16.7%), and flexible appointment times (16.7%). Again, 66.7% of CS participants indicated that they don't know what would facilitate ease of use.

While 33.3% thought it would be "very likely" that caregivers of children with ADHD referred by their child's elementary school would attend the Psychological Clinic for mental health services, 66.7% believed it would only be "somewhat likely;" 0% reported "more than likely," "likely" or "not at all likely" (Table 35, Appendix U). Following up to this, barriers to treatment were identified as cost (50%), time (33.3%),

clinic hours (33.3%), parking availability (33.3%), transportation (33.3%), lack of program information (16.7%), distance (16.7%), and available clinicians / waitlist (16.7%), insurance (16.7%). CS participants anticipated issues or barriers that might prohibit GSAPP students from participating in a practicum providing mental health services to the target population, including time (33%), interest (33.3%), and commitment (16.7%; Table 41, Appendix U).

Finally, 100% of participants indicated that they would be in support of a new practicum developed through the Psychological Clinic that would train students to provide multi-modal mental health services to children with ADHD and their caregivers (Table 27; Appendix T). Considerations for designing a program to train GSAPP students in the delivery of mental health services to the target population included financial resources (33.3%), clinicians (33.3%), supervisors (16.7%), staff training (16.7%), ADHD training (16.7%), space (16.7%), and program evaluation (16.7%; Table 52, Appendix V). Other organizations identified as possible models of function, utility and ease of use for this type of programming included Farleigh Dickenson University Clinic (16.7%) and Dr. Linda Reddy's Clinic (16.7%); however many CS participants indicated that they don't know (50%) of other organizations to use as models of programming (Table 58; Appendix V).

Between Group Comparisons

A series of one-way between-groups analyses of variance (ANOVA) were conducted to explore the impact of sample membership (SS, GS, CS) on certain responses to items that were present in surveys across all three samples. In addition, a series of Chi-square tests for independence were also conducted to determine the

relationship between sample membership and item responses that were categorical in nature (e.g., yes/no). The rationale for this was to determine the degree to which responses on certain items differed significantly between SS, GS, and CS participants.

A between group comparison was conducted to better understand the impact of sample membership on ADHD Total Knowledge scores (ADHD Knowledge), as measured by a survey item administered to all participants. The highest score possible on this measure was 14 correct out of 14 questions. The mean ADHD Knowledge score for participants across all three samples was 10.57 ($M=10.57$; $SD=1.34$; Table 10, Appendix Q). An ANOVA revealed a statistically significant difference at the $p < .05$ level in ADHD Knowledge for the three samples: $F(2, 131) = 4.9, p = .009$ (Table 11, Appendix Q). A Tukey's post-hoc analysis indicated that CS participants displayed greater knowledge about ADHD as compared to SS and GS participants (Table 12, Appendix Q).

Another ANOVA was conducted to better understand the impact of sample membership on perceived importance of mental health services for children with ADHD and their caregivers (Perceived Importance), as measured by a survey item administered to all participants. Perceived Importance was measured using a likert scale (1-5), with "1" indicating "not important" and "5" indicating "extremely important." Within the total sample of respondents to this question ($n=135$), participants across all three samples rated Perceived Importance between "important" and "very important" ($M=3.87$; $SD=.856$; Table 14, Appendix R). Specifically, 25.6% reported "extremely important," 41.4% reported "very important," 27.8% reported "important," 5.3% reported "somewhat important" and 0% reported "not important" (Table 13, Appendix R). There was a statistically significant difference at the $p < .05$ level in Perceived Importance scores for

the three samples: $F(2, 130) = 3.3, p = .038$ (Table 15, Appendix R). Although the ANOVA showed a significant difference between the three samples, Tukey's post-hoc analysis indicated that the contrast analyses between group means were not significant (Table 16, Appendix R). This is probably due to the unequal sample sizes, particularly between the CS sample and other two groups.

To examine the impact of sample membership on perceived helpfulness of those services currently available for children with ADHD and their caregivers (Perceived Helpfulness), as measured by a survey item administered to all participants, another ANOVA was conducted. Perceived Helpfulness was measured using a likert scale (1-5), with "1" indicating "not helpful" and "5" indicating "extremely helpful." In general, participants across all three samples rated Perceived Helpfulness between "helpful" and "very helpful" ($M=3.14$; $SD=1.25$; Table 18, Appendix S). Specifically, 11.9% reported current services to be "extremely helpful," 31% reported "very helpful," 35.7% reported "helpful," 2.4% reported "somewhat helpful" and 19% reported "not helpful" (Table 17, Appendix S). There was a statistically significant difference at the $p < .05$ level in Perceived Helpfulness scores for the three samples: $F(2, 123) = 2.5, p = .083$ (Table 19). Although the ANOVA showed a significant difference between the three samples, Tukey's post-hoc analysis indicated that the contrast analyses between group means were not significant (Table 20, Appendix S). Again, this is most likely due to the difference in sample size between the CS and other two groups.

The relationship between sample membership and support for multi-modal mental health services targeting children with ADHD and their caregivers (MM Support) was explored through a Chi-square test for independence due to the categorical nature of this

response (yes/no). While 98.4% of total participants responded “yes” in support of multi-modal mental health services targeting children with ADHD and their caregivers, 1.6% responded “no” (Table 27, Appendix T). Furthermore, those who responded “no” were part of the GS sample (2 participants). The Chi-square test for independence indicated no significant association between sample and MM support, $\chi^2 (2, n = 127) = .84, p = .66, \phi = .08$ (Tables 28&29; Appendix T).

Finally an ANOVA was conducted to better understand the impact of sample membership on perceptions of the likelihood that caregivers of children with ADHD would attend the Psychological Clinic for mental health services (Attendance Likelihood), as measured by a survey item administered to all participants. Attendance Likelihood was measured using a likert scale (1-5), with “1” indicating “not likely” and “5” indicating “extremely likely.” In general, participants across all three samples rated Attendance Likelihood between “likely” and “very likely” ($M=3.54$; $SD=2.01$; Table 36, Appendix U). Specifically, 13.4% reported attendance to be “more than likely,” 6.7% reported “very likely,” 35.3% reported “likely,” 35.3% reported “somewhat likely,” and 0% reported “not likely” (Table 35; Appendix U). There was a statistically significant difference at the $p < .05$ level in Attendance Likelihood scores for the three samples: $F (2, 116) = 7.2, p = .001$ (Table 37; Appendix U). Although the ANOVA showed a significant difference between the three samples, Tukey’s post-hoc analysis indicated that the contrast analyses between group means were not significant. This is also probably due to the unequal sample sizes, particularly between the CS sample and other two groups (Table 38, Appendix U).

Discussion

The purpose of this investigation was to examine the current state of affairs regarding multi-modal treatment availability and utilization for children with ADHD and their caregivers in Middlesex County, New Jersey, and assessed the feasibility of a university-based mental health training clinic in Middlesex County to provide additional mental health services to the target population. A best practices framework in the treatment of children with ADHD was used to provide guidance and recommendations on the development of a multi-modal mental health program deliverable to the target population within their local community. As extant literature suggests, best practices include comprehensive services targeting both children and their caregivers that address both the core and peripheral features of ADHD (AACAP, 2007; Jensen et al., 2001; Wehmeier et al., 2010). Thus, a multi-modal mental health service program that uses direct and indirect intervention strategies is considered most effective in alleviating symptom severity and increasing global functioning in children with ADHD. For the purposes of this study, the components that comprise a multi-modal mental health service program targeting children with ADHD and their caregivers are: 1) caregiver-directed services, 2) child-directed services, and 3) consultation/liaison services. More specifically, caregiver-directed services include psychoeducation and behavior parent training, while child-directed services can include a combination of executive functioning training (predominantly inattentive-type or combined-type), social skills groups (predominantly hyperactive-type or combined-type), and/or organizational skills training (all types). Consultation-liaison services include teacher training, school-based consultation, and psychopharmacology consultation.

Understanding of Attention-Deficit Hyperactivity Disorder

It was determined that assessing for participant level of ADHD knowledge would be important in understanding the accuracy of information that influenced their responses. Thus, while SS and GS participants' knowledge was moderate, CS participants' knowledge was high. As such, the results should be interpreted with an understanding that these levels of knowledge likely influenced each sample's responses, particularly those pertaining to ADHD services.

Research Question #1: Does a need for multi-modal mental health services targeting children with ADHD and their caregivers exist in Middlesex County, New Jersey?

The needs assessment using survey methodology was administered to school staff (SS) involved in the provision of mental health services within those Middlesex County elementary schools in order to assess their perceptions on the current state of affairs regarding school-based mental health services targeting students with ADHD and their caregivers. The data gathered and analyzed revealed useful information regarding current mental health service availability and utilization by the target population, as well as participants' perception of service efficacy. Results indicated that a large percentage of SS reported current availability of school-based mental health services targeting students with ADHD, however most participants found the sum of services currently available to be moderately helpful (e.g. "somewhat helpful" or "helpful"). Fewer participants found the sum of available services to be either very helpful or not helpful at all. Additional analyses revealed further variability in participant perception of service efficacy, and raises the question of what specific components or aspects of services were deemed to be effective versus ineffective. For the purposes of this investigation's goal of assessing

need, it was important to delineate what specific services are currently *available* and *utilized* by the target population in order to determine if additional services are warranted. Specifically, if 75% of SS participants reported specific service availability and utilization within their schools, this study purports that a need does not exist for additional service provision in this area, however if less than 75% of SS participants reported service availability and utilization within their schools, it is determined that a need for that specific service does exist. What follows is a breakdown of data collected on each service typically available within schools, and/or those services recognized as best practices in the treatment of childhood ADHD.

Social Skills Groups. Of SS participants, 75% reported that social skills groups were available for students with ADHD, and while service utilization was not reported by any of the participants, perspectives on efficacy ranged from somewhat helpful to very helpful, with a few reporting these services to be more than helpful. Because availability was 75% or higher, it would follow that a need for social skills groups does not exist. However, perceived helpfulness was slightly above half (53.8%), warranting further investigation as to if the frequency and intensity of this service as currently delivered is adequately matched to the target population's need and thus influencing perceptions of service efficacy. Research suggests that social skills groups are most effective when presented in conjunction with other interventions such as medication, behavior modification, and/or behavior parent/teacher training (Pelham et al., 2008; Storebo et al., 2011). Therefore, it would be helpful to know what other services students with ADHD in these particular schools are receiving, if any. With this knowledge, the Clinic could

further assess the need for adjunctive service provision to these schools with established social skills programs in place, in order to enhance multi-modal service efficacy.

Individual Counseling. Of SS participants, 88.5% reported that individual counseling services were available for students with ADHD, with utilization of this service ranging from very few to almost all of these students. Half of SS participant reported that individual counseling is helpful, while another half thought it to be very helpful or somewhat helpful. Because availability exceeded 75% and perceived efficacy was generally high, it is determined that there is not a need for individual counseling services. Interestingly, the most popular form of individual counseling for childhood psychiatric disorders, namely cognitive-behavioral therapy (CBT), has not been found to be particularly helpful for children with ADHD (Abikoff & Gittelman, 1985; DuPaul, & Eckert, 1997), however interventions such as organizational skills training (Epstein, Urbanowicz et al., 2008; Loe & Feldman, 2007) as well as executive functioning training (Semrud-Clikeman et al., 1999; Tamm et al., 2010; Tucha 2011) have been found to have a positive impact on academic outcomes in children with ADHD. It would be useful for the Clinic to know what types of individual counseling students with ADHD are receiving in those schools reporting service availability, utilization and efficacy. Further investigation could help the Clinic assess which schools are providing evidence-based individual counseling services supported by current research, and those in need of additional service provision in this area.

Behavior Modification. Of SS participants, 82.4% reported that behavior modification services were available for students with ADHD, with utilization ranging from some to many of these students. Half of these participants described behavior

modification as helpful, while close to half found it to be either very helpful or somewhat helpful. Because service availability exceeded 75% and efficacy was perceived as high, it is determined that a need for behavior modification services does not exist. As the literature lends support to behavior modification in schools and specifically classrooms as an effective intervention for treating children with ADHD (Pelham et al., 2008; Pelham et al., 1998), and because services are available, utilized and deemed effective within many Middlesex County schools, this needs of the target population is currently being met.

Executive Functioning Training. Of SS participants, 85.3% reported that executive functioning training programs are not currently available for students with ADHD. Of the participants reporting service availability within their schools, one indicated that 10 students receive these services, while another reported that 30 students receive these services. All participants understood these services to be helpful when available, which matches what is supported in the literature (Semrud-Clikeman et al., 1999; Tamm et al., 2010; Tucha 2011). Based on the 75% threshold utilized within this study, it is determined that a need for executive functioning training services does exist. However, further investigation is warranted to determine if some respondents may have subsumed executive functioning training under individual counseling where this service may be provided. This would provide a more accurate analysis of service need. Even still, it is likely that many schools are not equipped with the technology or programming to provide executive functioning training and therefore, the Clinic will need to consider incorporating executive functioning training into its multi-modal mental health program.

Organizational Skills Training. Of SS participants, 58.1% reported that organizational skills training services are available to students with ADHD within their

schools, while 41.9% reported that these services are not available. Of those reporting availability, utilization ranged from some to all students with ADHD, and most SS participants believed these services are helpful, which is in line with current research that supports organizational skills training as an effective intervention for children with ADHD, particularly as it relates to school functioning (Epstein, Urbanowicz et al., 2008; Loe & Feldman, 2007). Based on the 75% threshold utilized within this study, it is determined that a need for executive functioning training services does exist. However, further investigation is warranted to determine if some respondents may have subsumed organizational skills training under individual counseling where this service may be provided. This would provide a more accurate analysis of service need. Current research supports organizational skills training as an effective intervention for children with ADHD. If further analysis continues to support the need for additional service provision in this area, the Clinic will need to consider incorporating social skills training into its multi-modal mental health program.

Caregiver-directed Services. Of SS participants, 64.5% of SS that caregiver-directed services are not available to caregivers of students with ADHD, while 35.5% reported that these services are available. Of those reporting service availability, utilization ranged from some to all caregivers of students with ADHD. Over half believed caregiver services are helpful or very helpful, while slightly less than half found them to be somewhat helpful. Because service availability was below 75%, it is determined that a need for caregiver-directed services does exist. Respondents' perceptions of service efficacy is inconsistent with current literature that supports behavior parent training (BPT) and other caregiver interventions as among the most effective non-

pharmacological interventions for addressing the core symptoms of childhood ADHD (AACAP, 2007; Jensen et al., 2007; Jensen et al., 2001; Pelham et al., 2008), thus psychoeducation would be a necessary addition to service provision and implementation in order to provide rationale and gain support for this additional service.

Teacher-directed Services. Of SS participants, 54.8% reported that teacher-directed services are currently available to educators of students with ADHD, while 45.2% reported these services are not currently available within their schools. Of those reporting availability, utilization ranged from some to all teachers of students with ADHD, and all participants thought services for teachers were helpful, very helpful, or somewhat helpful. Because service availability was below 75%, it is determined that a need for teacher-directed services does exist. Furthermore, where this service is present, it is perceived as effective in addressing the mental health needs of students with ADHD, which is consistent with current literature findings (Pelham et al., 2008; Pelham et al., 1998).

Additional Services. SS participants were asked to offer feedback on additional services that might be helpful in addressing the mental health needs of their students with ADHD. Many participants listed services that were already assessed within the survey, such as parent/caregiver services, teacher services, direct services and dedicated resources; however some participants highlighted supports that had not been addressed within the survey. Specifically, SS participants thought that providing psychoeducation and mental health consultation would be helpful to offer a framework for better understanding ADHD, its widespread effects, and useful treatment approaches. In addition, they suggested both school-based and in-home service delivery as methods of

convenient dissemination that would optimize utilization. Furthermore, bilingual services were recommended as to targeting the mental health needs specific to children with ADHD and their caregivers. Finally, extracurricular activities, such as sports or clubs, were suggested in order to provide outlets for socialization and the development of appropriate peer relationships.

Needs Assessment Summary. Most SS participants reported that their schools current provide some mental health services targeting students with ADHD. An assessment of availability, utilization and efficacy of individual services revealed a need for these additional mental health services: 1) executive functioning training, 2) organizational skills training, 3) caregiver-directed services, and 4) teacher-directed services. Further investigation is needed to determine whether respondents were subsuming organizational skills and executive functioning skills training under individual counseling. This will provide a more accurate assessment of service need particular to individual schools within Middlesex County. Additional considerations raised by SS participants in conceptualizing multi-modal mental health services for their children with ADHD also need to be considered by the Clinic. Service provision location, offering bilingual services, and utilizing extracurricular already available within the schools should be considered by the Clinic in catering to the specific demographics of the target population, which include a substantial percentage of low income and Spanish speaking individuals (U.S. Department of Commerce, 2013).

Research Question #2: What conditions need to be met in order for multi-modal mental health services to be provided to the target population?

Results from the needs assessment revealed SS perspectives on certain conditions that need to be met in order for a multi-modal mental health service program to be delivered to the target population. Specifically, dissemination of this type of program is dependent upon the ability of the Clinic to provide the following services:

1. Executive Functioning Training Services
2. Organizational Skills Training Services
3. Caregiver-directed Services
4. Teacher-directed Services

In addition, psychoeducation needs to be provided through school-based consultation and liaison services, as well as further investigation into more specifics of current service provision and resource availability through mental health program development and evaluation services. The ability of the Psychological Clinic to provide the aforementioned services was further assessed through the resource analysis, discussed in the following section.

Other conditions were deemed important to be met by all participants in order for a multi-modal mental health service program to be provided to the target population. These additional conditions speak more to participants' perceptions of 1) the importance of such services, 2) the helpfulness of existing services, and 3) the likeliness of participation by the target population; as well as overall support for multi-modal mental health services targeting children with ADHD and their caregivers. All participants were asked to respond to questions assessing their perspectives on these items. Results were understood to provide further information on those conditions that need to be met in order for multi-modal mental health services to be provided to the target population.

Perspectives on the Importance of Mental Health Services. All participants were asked to respond to an item assessing their perspectives on the importance of providing mental health services to children with ADHD and their caregivers (Perceived Importance). Across samples, participants generally lent support to the importance of the target population receiving services, with the mean response falling between “important” and “very important.” Although between group analyses revealed statistically significant differences in responses between groups, a post-hoc test did not confirm this. Between-group differences in perceptions of the importance of providing mental health services to the target population was not confirmed, and the majority of participants are of the mindset that these services are important for children with ADHD and their caregivers.

Perspectives on the Helpfulness of Services Currently Available. All participants were asked to respond to an item assessing their perspectives on the helpfulness of those services currently available through the schools (SS participants) or Clinic (GS and CS participants) in addressing the mental health needs of children with ADHD and their caregivers (Perceived Helpfulness). Across samples, participants generally lent support to the helpfulness of currently available services, with the mean response falling between “helpful” and “very helpful.” Although between group analyses revealed statistically significant differences in responses between groups, a post-hoc test did not confirm this. We can therefore assume that any between-group difference in perceptions of the helpfulness of currently available services was not confirmed, which suggests that the majority of participants are of the mindset that these services are helpful in for children with ADHD and their caregivers. Popular responses supporting the helpfulness of mental health services included the comprehensiveness and targeted nature

of services, as well as having a positive effect on academic performance; while popular responses not in support of mental services as helpful included lack of medication and other reasons having to do with barriers to treatment, such as time and adherence.

Support for Multi-Modal Mental Health Services Targeting Children with ADHD and Their Caregivers. All participants were asked to respond to an item assessing their support for the development of a multi-modal mental health program targeting children with ADHD and their caregivers. All but 2 out of 139 participants were in support of this type of program deliverable to the target population.

Perspectives on the Likelihood of Caregiver Attendance. All participants were asked to respond to an item assessing their perspectives on the likelihood of caregivers of children with ADHD attending the Psychological Clinic for mental health services. Although participants across samples generally lent support to the likelihood of caregivers presenting for treatment at the Clinic, there was a range in responses both within and between groups. Although between group analyses revealed statistically significant differences in responses between groups, a post-hoc test did not confirm this. Thus, any between-group differences in perceptions of the likelihood of caregivers attending the Clinic for services was not confirmed, which suggests that the majority of participants think that caregivers of children with ADHD are likely to present for treatment at the Clinic.

In following up to this, SS participants were asked to provide feedback on their perceptions of barriers to caregiver attendance. Responses included factors such as transportation, cost, lack of interest, time, location/distance, lack of program information, language barriers, immigration status, stigma, reliance on school services, clinic hours,

lack of insurance, and lack of goodness-of-fit with clinicians. Additionally, SS were asked about their likelihood of referring caregivers of students with ADHD to the Psychological Clinic for mental health services. While most reported they would likely refer caregivers of their students with ADHD to the Clinic, a small percentage reported that it wouldn't be likely. Barriers to referral were surprisingly similar to perceived barriers to caregiver attendance, and included a lack of information about services, lack of caregiver interest, lack of transportation, cost, lack of provider coordination with schools, time constraints, language barriers, lack of insurance, and long wait lists. Thus, the Clinic would want to reduce the number of these prohibitive factors to the best of their ability in order to increase likelihood of SS referral and caregiver attendance in the following ways:

1. Information about multi-modal mental health program: The Clinic should provide Middlesex County schools with information about ADHD and the effects on academic and social-emotional functioning, lending support for treatment. Information on best practices in the treatment of ADHD should also be provided, in conjunction with the multi-modal mental health program that the Clinic is hoping to provide. This information can be provided through in-service presentations, as well as through paper-based and digital marketing materials. The Clinic would want to also provide information geared toward families in both English and Spanish, with Clinic contact information included.
2. Coordination of Clinic services with schools / Reliance on schools for services: At the outset, the director, primary supervisor, or coordinator of a

multi-modal mental health program should meet with each school to individually tailor Clinic services to meet that school's specific needs. Throughout program delivery, student clinicians will provide ongoing consultation and liaison services to ensure smooth communication and ongoing coordination of school-based services and those provided through the Clinic. Support and guidance should be provided to schools in addressing caregiver reliance on schools for service provision, and how to support the collaborative efforts between the Clinic and schools.

3. Time / Clinic hours: The Clinic should try to accommodate caregiver time constraints by offering convenient and flexible appointment times, and possible service provision on weekends. Coordinating child and caregiver service provision so that it is delivered at the same time will likely optimize likelihood of attendance.

4. Childcare: The Clinic should consider providing childcare services for siblings of children with ADHD, in order to ensure that families are able to attend treatment on a regular basis.

5. Cost / Insurance: The Clinic does not accept insurance and therefore this would not be a barrier to treatment. The Clinic would need to work toward keeping costs low as to optimize treatment participation and compliance. A sliding scale fee arrangement should apply.

6. Transportation / Location / Distance / Parking: If possible, the Clinic should consider utilizing community-based facilities for some components of service delivery, such as schools, churches or community centers. To facilitate

ease of use for services delivered through the Psychological Clinic, parking passes will be given. Evening and weekend hours would help with parking issues that may arise during peak hours, which are usually after school.

7. Language: The Clinic should make efforts to recruit at least one bilingual student clinician to provide caregiver services to Spanish speaking individuals, and to co-facilitate parenting groups.

8. Immigration Status: The Clinic should make efforts to recruit clients and provide services to any child with ADHD and their caregivers, regardless of immigration status. There may be policies and procedures already in place within the Clinic that apply to service delivery in general.

9. Stigma: By providing caregivers with appropriate psychoeducation about ADHD and its treatment, the Clinic can work to reduce stigma associated with mental health. Additionally, working in collaboration with schools, stigma associated with mental health services may be further reduced. These efforts may also work to increase caregiver interest and reduce treatment refusal.

10. Wait list: The Clinic should work to ensure timely delivery of services to the target population. It may be helpful to consider utilizing weekend hours or summer programs if and when a wait list begins to accrue.

11. Goodness-of-fit with clinicians: GSAPP students receive training in diversity and cultural sensitivity, and the Clinic may consider prior completion of this course as a requirement to participating in multi-modal mental health service delivery to the target population. By training clinicians to deliver evidence-based and targeted treatments with confidence and

professionalism while working to establish and maintaining good rapport with families, a goodness-of-fit is more likely to occur.

Research Question #3: Does the Psychological Clinic have the resources required to provide multi-modal mental health services to children with ADHD and their caregivers?

The resource analysis using survey methodology was administered to GSAPP students (GS) and Clinic Staff (CS) involved in the provision of mental health services through the Psychological Clinic in order to assess their perceptions regarding various aspects involved in developing a mental health service program targeting children with ADHD and their caregivers, deliverable through the Clinic. Specific information was gathered regarding: 1) current service availability and efficacy, 2) program compatibility with current Clinic trends, and 3) resource availability. The data gathered and analyzed revealed useful information regarding the Clinic's ability to provide multi-modal mental health services to the target population, described and discussed below.

Psychological Clinic Services. GS and CS provided feedback on their perceptions of current services provided through the Psychological Clinic that address the mental health needs of the target population. While all CS participants and most of GS agreed that ADHD assessment services are currently available through the Psychological Clinic, there was discrepancy as to what other currently available services might address the mental health needs of the target population. Individual therapy, behavior modification, caregiver-directed services, and consultation and liaison services were among the specific services understood as currently available to address the needs of children with ADHD and their caregivers, however only some GS and CS participants

were aware of this. Other services such as organizational skills training and executive functioning training were noted by GS participants to also be available to address the needs of the target population, however these services are actually not currently available through the Psychological Clinic. Additionally, social skills groups were noted as available to meet the mental health needs of the target population, and while they are currently offered through the Clinic, they target a different (non-ADHD) population. It is notable that both discrepancy and misinformation exists among GS and CS participants with regard service availability through the Clinic, and suggests that both groups need to be better informed as to the current state of affairs within the Psychological Clinic.

Despite the discrepancies and misinformation, GS and CS participants found those services currently available through the Psychological Clinic to be somewhat helpful by half of CS and some of GS participants. Many participants reported that this question was “non-applicable,” which could be interpreted as these participants do not feel current mental health services available through the Psychological Clinic are designed to target the specific needs of children with ADHD and their caregivers. An alternative interpretation is that some participants are unaware of current services that do target the specific needs of the target population. Regarding the former, respondents were offered the opportunity to provide feedback on additional services that would be helpful in meeting the needs of the target population, which is outlined below. The latter interpretation, however, lends further support to the need for additional services targeted to children with ADHD and their caregivers.

GS and CS identified parenting programs, groups, consultation, neuropsychological assessment, and executive functioning training services as additional

services that could be provided through the Clinic to address the mental health needs of children with ADHD and their caregivers. Furthermore, respondents also commented that comprehensive and targeted services in the form of a dedicated practicum and ADHD training program are missing. All of these services and/or programs specific to ADHD treatment are in fact missing from the Clinic. However, assessment services and individual therapy services were also among those identified as missing, but are actually currently available through the Clinic. Again, the discrepancy and misinformation among GS and CS participants with regard ADHD specific service availability through the Clinic is notable, and points to a strong need for dissemination of accurate information to both GSAPP students and Clinic staff/faculty regarding what services are available in general, as well as those specific to children with ADHD and their caregivers. Methods to accomplish this are described below in response to research question #4.

Compatibility with Clinic Mission, Values, Philosophy and Existing

Programs. Many GS participants and most CS participants felt that a multimodal mental health service program targeting children with ADHD and their caregivers would be compatible with the Clinic's philosophy, values and mission. About half of both samples believed it would be compatible with the Clinic's existing programs. Current procedures, including phone screening, intake, case assignment and case consultation were identified by CS as essential components of linking clients to existing mental health services delivered through the Psychological Clinic, and most believed these same procedures could be used to support the provision of a multi-modal mental health program to the target population.

Resource Availability. Both GS and CS participants offered perspectives on those resources currently available to support a new multi-modal mental health service program. All CS participants identified student clinicians and most identified support staff as available; half identified supervision and technology as available and only some thought that materials and space were available to support this program. Thus, when considering the program development phase, resources such as technology, materials and space will be areas where investment is needed. When considering space, the psychological clinic may want to consider non-traditional space options such as school-based services, community centers, or communal spaces within GSAPP or Rutgers University. Additionally, the possibility of providing services on weekends may be considered as an option that would allow for optimal space utilization within the clinic. Regarding technology and materials, financial investments would be necessary in acquiring such resources. However, none of the CS participants thought the Psychological Clinic currently has financial resources for startup, marketing and supervision/consultation costs, and most CS reported that the clinic would need additional financial resources and to acquire additional supervisors, space, equipment and administrators would be necessary for program development. To secure additional funding for program development and dissemination, the Clinic should explore options such as applying for local and state funding through grants for non-profit agencies or organizations, applying for private foundation grants, and/or applying a fee-for-service model for programming support.

Student Clinicians. GS participants reported interest in multi-modal mental health service provision to children with ADHD and their caregivers. Of those students

interested, a substantial number reported interest in providing direct interventions to both children with ADHD and their caregivers, and many students interested would need to gain training in the aforementioned services in order to meet proficiency. Over half of GS participants reported having experience providing mental health services to both children with ADHD and their caregivers. GS participants reported highest level of proficiency in delivering assessment services and individual therapy services, with less reporting proficiency in consultation and liaison services, behavior modification services, behavior parent training, and organizational skills training. Nearly none of the participants reported experience delivering executive functioning training services. Considering results from both the needs assessment and this resource analysis, additional training would need to be acquired by those student clinicians providing organizational skills training, executive functioning training, and caregiver-directed services. Furthermore, training in school-based consultation and teacher-directed services would likely be necessary for all students.

Many GS participants reported interest in a new program that would train them in provision of multi-modal mental health services targeting children with ADHD. GS indicated that additional didactics and training would be necessary to be a well informed provider of multi-modal mental health services to children with ADHD and their caregivers. Many specific training interests and needs were identified, the overlap of which included direct intervention delivery methods targeting children with ADHD, direct intervention delivery methods targeting parents / caregivers, and training in teacher / school-based consultation. Preferred methods of acquiring this training included workshops, individual and group supervision, courses, and online training. Almost half of

GS participants indicated that it would be likely that they would participate in this type of training program, however almost half reported that their participation wouldn't be likely.

About half of participants reported likelihood in program participation. GS participants identified factors that might hinder their participation as time, Clinic organizational issues, interest, lack of supervision, lack of financial compensation, lack of clients, skills deficits, and location of service provision. Likewise, CS participants agreed that student clinician participation could be hindered by time, interest and commitment factors. Thus, while student interest in service provision to children with ADHD and their caregivers is high, their interest in training programs aimed at proficiency in service provision is only moderate. This gap suggests that if the Psychological Clinic were to design a multi-modal mental health service program targeting children with ADHD and their caregivers, dedicated clinicians would most likely be pooled from those with the existing skill set necessary for program delivery, with a small sub-group potentially willing to engage in additional training to meet service delivery proficiency. In addition, by organizing a formal practicum inclusive of appropriate training and supervision in the provision of multi-modal mental health service delivery to children with ADHD and their caregivers, the Clinic can address certain barriers to student participation. Providing students with academic credit for practica participation would ensure that their time would be spent working toward degree completion while gaining specialized training. Specific methods for training student clinicians are discussed below in response to research question #4.

Supervision. Responses to questions aimed at assessing CS participants' experiences providing supervision of students delivering mental health services to

children with ADHD revealed that only one reported having some experience while most reported no experience. However, the CS sample was small (6 participants) and only half provided psychological supervision to student clinicians. Therefore, one out of three of these supervisors reported experience supervising student clinicians delivering mental health services to children with ADHD and/or their caregivers. The Psychological Clinic has a large pool of supervisors who are not represented in this survey, and who may or may not have experience providing supervision to students delivering mental health services to children with ADHD and their caregivers. These individuals are not represented in this study because only those individuals who have an affiliation with both GSAPP and the Clinic were recruited due to the perception that these individuals would be the most well informed regarding all Clinic resource availability. Of those who have both this dual affiliation and who provide supervision of students, many did not respond to recruitment efforts. The Psychological Clinic would have to recruit new supervisors with this specific area of expertise from the community, or pull from within their pool of supervisors.

Resource Analysis Summary: Many GS participants and most CS participants felt that a mental health service program targeting children with ADHD and their caregivers would be compatible with the Clinic's philosophy, values, mission, and current procedures, while about half of both samples believed it would be compatible with the Clinic's existing programs. Behavior Modification, individual therapy, caregiver-directed services / parenting programs, groups, and consultation and liaison services were identified as available through the Clinic and necessary components of a multi-modal mental health program targeting children with ADHD and their caregivers.

Those services identified as necessary components of a multi-modal mental health program and not currently available through the Clinic include the following:

1. Organizational Skills Training
2. Executive Functioning Training
3. Neuropsychological Assessment
4. Teacher-directed services
5. Mental health program development and evaluation services.

Resources identified as lacking were technology, materials and space. Non-traditional space options such as schools, community centers, or communal spaces within GSAPP or Rutgers University, as well as providing services on weekends, should be considered as alternatives to the Clinic if space becomes an issue. Financial investment is needed for allocation of technology and materials, and grant applications as well as fee-for-service options are recommended to secure additional funding. Regarding human resources, about half of GS participants reported likelihood in program participation. Areas of training need as well as methods of training delivery that would meet these needs were identified, and training methods will be discussed below. Formalizing a practicum program, providing academic credit and a stipend for participation, as well as pooling from those students with a substantial existing skill set particular to service provision targeting children with ADHD and their caregivers would increase the likelihood of student clinician participation. Likewise, supervisors with skills specific to multi-modal mental health service delivery, as well as ADHD treatment with children and families, need to be recruited, and financial resources would need to be secured for their compensation.

Research Question #4: What actions need to be taken in order for the Psychological Clinic to increase its readiness to provide multi-modal mental health services to children with ADHD and their caregivers?

In order to become ready for service provision targeting children with ADHD and their caregivers, the Psychological Clinic would need to establish a comprehensive, targeted practicum dedicated to multi-modal mental health service program that meets the specific needs of this target population in Middlesex County. In order to do this, financial resources would need to be secured through grant funding initiatives previously described. Allocation of resources such as equipment, treatment manuals, marketing materials, public relations, supervision and consultation fees, and student compensation would be a necessary use of startup funds. A business plan projecting ongoing financial need and outlining funding source (e.g. ongoing grant proposals, fee-for-service) would ensure program maintenance. The Clinic may want to model this off of existing, similar and financially sustainable programs already established in-house (e.g. YAD-C, Tourette Clinic). In addition, financial resources would be required in acquiring resources to develop the following services:

1. Executive Functioning Training Services:
 - Dedicated treatment room with space for desks, chairs and computers
 - Dedicated computers
 - Computer Programs (i.e. CogMed; BrainTrain)
 - Training in program administration to student clinicians and supervisors

2. Organizational Skills Training Services:
 - Clinician's manual on organizational strategies for children with executive functioning (EF) difficulties
 - Organization workbooks for children with ADHD / EF difficulties
 - Books on organizational strategies for caregivers of children with ADHD / EF difficulties
3. Behavior Parent Training
 - Education/Didactics on providing behavior parent training
 - Manual (i.e. Barkley's BPT; Eyeberg's PCIT) on behavior modification strategies for caregivers of children with ADHD
 - Group treatment room to accommodate 6-8 people
4. Teacher-Directed Services (Consultation / Liaison Service)
 - Education/Didactics on providing teacher-directed services in schools
 - In-service presentation for teachers of students with ADHD
 - Laptops
 - Manuals, training materials
5. Mental Health Program Development and Evaluation Services
(Consultation / Liaison Service)
 - Education/Didactics on providing C/L services within schools (i.e. requirement of course: Program Planning and Development)
 - Education/Didactics on providing C/L services with health care professionals who treat children with ADHD

Included in marketing and public relations efforts should be psychoeducation on the need for services offered. Thus, a resource package of educational materials about ADHD and its treatment that lends support to the services it purports to provide. ADHD information could be disseminated to school personnel initially through in-service presentations, with additional paper materials for their desk reference. Information for caregivers could be in the form of physical pamphlets distributed to Middlesex County elementary schools. Furthermore, this information should include language understandable to the target population, school personnel who will be the referral source, and GSAPP students who will be potential providers of services to the target population. The language in this informational packet can also serve as a foundation for communication between service providers, referral sources and service consumers.

The Psychological Clinic would need to recruit both student clinicians and supervisors for the delivery of a multi-modal mental health service program for children with ADHD and their caregivers. Greatest success would come from a pool of potential student clinicians who have both interest in service provision and adequate training to meet protocol proficiency, as well as those with interest in service provision and training allocation. Regarding supervision, the Clinic would need to reach out to its current pool of supervisors and assess their interest in and ability to provide supervision of student clinicians in the delivery of a multi-modal mental health service program targeting children with ADHD and their caregivers. This would require expertise in ADHD service provision, and experience implementing multi-modal mental health service delivery models.

Additional steps need to be taken in order to design an effective training program for students and supervisors to use in the provision of multi-modal mental health services to children with ADHD and their caregivers. A framework provided by Brown (2008) suggests that this begins with a needs assessment and is followed by goal determination, establishment of training objectives and selection of training methods (Forman, *in press*). Through this study, a needs assessment and resource analysis have driven the determination of goals and training objectives, both outlined in previous sections of this discussion. It is essential that the Clinic choose training methods that will optimize clinician and supervisor knowledge, skill and ability in ADHD service provision to children and families in the context of the Clinic and in collaboration with Middlesex County elementary schools.

Both didactic and competency training (McHughes & Barlow, 2012) are important to insure a solid knowledge base in interventions used (didactic training), as well as in the application of these interventions within a context (competency training). Didactic training would need to include not only practical how-to instruction on intervention dissemination, but also its theoretical underpinnings. An essential component of any mental health service delivery model includes psychoeducation regarding the myths and facts about the disorder being targeted (Forman, *in press*). Rogers (2003) highlights the importance of service program implementers having knowledge about the theory and research behind an innovation, called principles knowledge. This information provides a foundation for understanding the work to be done and the methods to be used. Rogers (2003) states that without principles knowledge, there is a chance that innovations can be misused as implementation is underway. GS

participants identified workshops and courses as useful methods of didactic training that would be amenable to disseminating this type of information (Forman, *in press*).

Didactic training in providing structured intake for the purposes of program eligibility would need to be tailored to assess the following:

1. Presence of ADHD diagnosis (if not already indicated)
2. Type of ADHD (inattentive, hyperactive/impulsive, combined)
3. Services determined to be needed
4. Services available through current school placement
5. Services provided through other health care professionals
6. Services needed to complete multi-modal treatment

In addition, training in specific intervention delivery and approaches to working with families, schools and teachers using the aforementioned models should also be provided. The consultation and liaison component of this program should involve training in coordinating services with other providers, including both health and mental health care professionals, as well as child-focused agencies, schools, and families. Training methods could include workshops and courses, as well as through individual and/or group supervision sessions. Competency training would follow using both individual and group supervision methodology, as well as through observation (via supervision), objective assessment, or self-report surveys. Brown (2008) further suggests that evidence of learning, program evaluation and revision/redesign are essential steps in training; thus the Clinic would want to incorporate this by selecting an appropriate model to follow (e.g. Brown, 2008; Mahar, 2010).

Risks and benefits. Only one CS participant thought this was the right time for the Clinic to engage in this specific type of program development while the rest were unsure. Two thirds of CS participants thought that multi-modal programming would not pose a risk to the Clinic, while one third was unsure. In considering program development, there is a significant lack of similar programs housed within university clinics that the Psychological Clinic could use as a model for its own program development. CS participants suggested using Farleigh Dickenson University's clinic as one potential model, while Dr. Reddy's expertise was understood as an asset to ADHD programming through the Psychological Clinic. Due to the lack of similar programs to model from, the Clinic may want to look toward in-house child-focused in-house programs such as YAD-C or the Tourette Disorder Clinic as examples of mental health program design. Having models of successful program development may function to increased CS support and buy-in.

CS participants identified many benefits to providing multimodal mental health services to the target population. Specifically, they felt that increasing the Clinic's breadth of service provision would be beneficial, as would increasing the breadth and depth of training for GSAPP students. CS participants also thought that there could be financial profit from this type of program, and that the Clinic's reputation within the community would be enhanced through providing a needed service with local vision. Additionally, CS participants emphasized that helping at-risk children and families would be beneficial. Finally, the potential of financially compensating student clinicians was identified as a possible benefit.

There are other benefits associated with the development of a multi-modal mental health program targeting children with ADHD and their caregivers that were not identified by CS participants, but that should be noted here. First, developing this program offers an opportunity for the Clinic to fill a gap that exists within its local community, with the specific mission of providing services to address unmet mental health needs of Middlesex County children with ADHD and their caregivers. Along with this, if such a program were to be implemented, there is potential for the Clinic to assist in alleviating certain targeted symptoms, as well as associated widespread effects of the disorder experienced within the individual, family and school systems. On another note, this type of project offers the Clinic a practical tool to assist in developing needed programs in general, and its framework could be applied to other programming initiatives in the future. Similarly, this platform could serve as model for other university-based clinics that provide resources to a similar population and/or to their own local communities.

Limitations

This study includes several limitations. First, the SS sample was limited, as only 20.7% of eligible districts approved recruitment efforts, and of the pool of potential participants, only 53% gave consent. Therefore, the needs assessment data gathered represents a partial segment of the larger SS population within Middlesex County. In addition, the size of the CS sample was small (6 people), and limited in terms of demographic variables (i.e. highest degree earned; current position). The sample could have been expanded by recruiting more participants, particularly those individuals who are directly involved in program development and/or supervision of students. Although

the CS sample was composed of 50% Clinic administrators and 50% supervisors, only 3 people composed each half. Input from more individuals would be helpful in getting a thorough understanding of the current state of affairs, as well as the Clinic's potential to meet a desired state of affairs. More specifically, the data regarding organizational issues was limited, such that the Clinic would need to investigate further the degree to which current resources could be allocated to new programming. Likewise, data regarding supervision was limited; and the Clinic would also need to investigate further the degree to which current supervisors have skill set necessary for this type of programming or if new supervisors need to be recruited.

Another limitation of this study was the lack of psychometric properties within survey measures used. Because measures do not exist that would tap into the target population's need and Psychological Clinic's resource availability, the researcher developed surveys that would hone in on the specific research questions presented within this study. The lack of standardization of these measures constricts the results to the confines of this study and suggests that they are not generalizable to other ADHD populations or university-based mental health clinics. However, researchers or program developers interested in similar projects involving needs assessment and resource analysis endeavors may use these measures as a guideline or framework when developing their own surveys to answer similar research questions.

Another limitation of this study was both the statistically significant difference in ADHD total knowledge scores between groups, as well as the unknown effect of ADHD knowledge on participants' perceptions and thus their responses. Taken together, the extent to which accurate or inaccurate perceptions about ADHD had an influence on the

results is a limitation of this study. Samples matched on ADHD knowledge could have been used to control for response biases based on individual perceptions about ADHD. Alternatively, education regarding “myths and facts” about ADHD could have been provided to all participants across each sample, in order to insure that responses to needs assessment and resource analysis questions were influenced by the same information regarding ADHD.

While this study was enriched by the use of qualitative responses, the lack of follow-up for clarification presented as another limitation of this study. Following initial data analysis, further investigation could have been conducted across all three samples. Formats of further data collection could have included additional surveys, interviews, or focus groups including a representative sub-sample from each sample group. Additionally, qualitative responses followed a classic content analysis approach involving the coding of major themes that arose from free-text survey responses. While this provided fluidity and ease for data analyses, individual nuances may have been lost in the reporting of results. To address this, further investigation could have been conducted across all three samples following initial data analysis. By presenting those major themes derived from qualitative responses, participants would have the opportunity to clarify if their perceptions were being captured accurately, and would allow for content clarification. Follow-up inquiry could be conducted in the form of additional surveys as to ensure responses from all participants and not a sub-sample.

In addition, quantitative results derived from the SS survey regarding school-based service availability, utilization and perceived efficacy should be interpreted with caution. Specifically, the measure did not tease apart whether services were utilized in

isolation or in conjunction with other services within schools. Furthermore, the measure did not assess for service utilization outside of the school, provided by external mental health professionals. Therefore, it is unknown whether SS participants' perceptions of outcomes were due to the services alone or the result of multiple services received simultaneously. Further investigation is thus warranted in order to clarify efficacy findings.

Finally, there was a lack of caregiver voice in study, which poses a limitation, especially when considering perspectives on mental health service needs and likelihood of service utilization. If the Clinic were to engage in program design, it would be beneficial to gain a better understanding of these perceptions as to inform development and implementation. Data from caregivers could be gathered through survey, interview or focus group methodology.

Implications and Future Directions

Findings offer directions for future research. As mentioned, a brief follow-up study is warranted to address some of the limitations in data collection processes as well as response content that resulted from the current study. Specifically, further investigation is needed to determine those specific components of services currently available within the schools deemed to be effective versus ineffective. This information could serve to guide the planning and development of a multi-modal mental health service program, such that areas deemed effective would ideally remain in place while those deemed to be ineffective may be improved or removed if unnecessary. Other areas of follow-up investigation include a focus on the possible reasons why some GS and CS participants felt questions regarding service efficacy was non-applicable, as well as to

better understand GS clinician proficiency in the provision of school-based mental health program development and evaluation. Following-up on qualitative responses through additional surveys, interviews or focus groups would allow for clarification and elaboration on data gathered within the current study. Controlling for ADHD knowledge would be useful in this phase.

As caregivers do not represent a voice in this investigation, brief follow-up efforts should include a focus group of caregivers to directly assess perspectives on mental health services for their children with ADHD, as well as the likelihood of participating in a mental health service program delivered through the Clinic. The use of a focus group may be most beneficial to provide an open, conversational style of inquiry with multiple participants at one time that also allows for follow-up on responses to critical items. Conducting focus groups at convenient locations within the community would also increase caregiver participation.

Upon review of this needs assessment and resource analysis, the Psychological Clinic may wish to engage in program development and implementation. Thus, future directions may include a more in-depth exploration of the Clinic's resource availability at the time of development and implementation to account for any changes since the time of data collection. In addition, there was variability between GS and CS reports on current service ability, as well as some discrepancy between perceptions and actuality. Thus, controlling for more accurate information in future investigations will be essential, and also that this accurate information be better streamlined to GS and CS populations as to produce a well-informed cohesive group of Clinic affiliates.

Finally, this study may serve as a model for other university-based mental health clinics that serve their local communities in the initial phase of program development. Specifically, the format for this needs assessment can offer a foundation for similar investigatory efforts aimed at fulfilling unmet mental health needs of a particular population. Likewise, the format for this resource analysis can offer a foundation for similar studies aimed at assessing the current state of affairs regarding knowledge, skill of a university-based mental health clinic, as to determine the readiness of such an organization to meet the mental health needs of a particular population. Additionally, those conditions that need to be met, as well as steps that need to be taken, in order for a similar organization to become better able to provide mental health services to a particular population can be derived from using the format outlined in the current study. Finally, any university-based mental health clinic that engages in similar preliminary investigations that may lead to program development would likewise be contributing to the greater body of literature that exists on mental health program development.

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Appendix A

Request for Approval

Investigation of Mental Health Needs of Children with ADHD and Their Caregivers

Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854

To Whom It May Concern:

My name is Lara Brodzinsky and I am a School Psychologist and doctoral candidate at the Graduate School of Applied and Professional Psychology (GSAPP) at Rutgers University. I am currently conducting a dissertation study entitled, “The Design of a Mental Health Service Delivery Program for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers.” In order to determine the specific needs of children with ADHD and their caregivers, I am conducting a needs assessment within Middlesex County that will drive the design phase of this project. Your school district would be a much-valued asset to this project.

To achieve the **goal** of gaining information on the needs of children with ADHD and their caregivers, I have developed a survey asking elementary school child study team members and guidance counselors to provide feedback on their perceptions of the mental health needs of their students with ADHD. The survey does not ask staff members to provide any personal, demographic or academic information about their students. Survey data will be kept **CONFIDENTIAL**, and those who choose to participate in the survey will do so **ANONYMOUSLY**. The survey has been developed through SurveyMonkey and will be delivered electronically. Participation in this study is **voluntary**. The survey should take approximately **10-30 minutes** to complete. As a thank-you for completing the survey, participants will be given an “ADHD Fact Sheet” that may further their understanding of the disorder and subsequently assist them in providing school-based guidance to teachers and families.

The results of the study will be included in my dissertation. However, the dissertation document will NOT include any identifying information about staff members OR students in your district. When data collection is **completed in the spring of 2013**, I’ll be happy to share results with you.

If you are able to **APPROVE** that research be conducted within your district, and authorize the delivery of this survey for the purposes of data collection as outlined above, please sign, date and return the attached Statement of Approval to me at the address listed below. If you have any questions, please do not hesitate to contact me via phone or email. I sincerely hope this project interests you, and I look forward to talking with you further.

Lara Brodzinsky, Psy.M.
Graduate School of Applied and Professional Psychology
Rutgers University

152 Frelinghuysen
Piscataway, NJ 08854

Regards,
Lara Brodzinsky, Psy.M.
(917)-415-8959
coordinator.lara@gmail.com

Appendix B

Statement of Approval

Investigation of Mental Health Needs of Children with ADHD and Their Caregivers

Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854

My school district was recently contacted by Lara Brodzinsky, who is requesting my approval to have child study team (CST) members and guidance counselors currently employed at elementary schools within my district to be contacted for possible participation in her research study entitled, “The Design of a Mental Health Service Delivery Program for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers.”

I understand that the **goal** of this study is to conduct an assessment of the mental health needs of elementary school children with ADHD and their caregivers who currently reside in Middlesex County. The purpose of conducting this needs assessment is to gather information that will drive the design of a mental health service program targeting children with ADHD and their caregivers.

I understand that by authorizing my district to participate in this study, elementary school CST members and guidance counselors will be contacted by the Principal Investigator to inquire about their voluntary participation in the needs assessment phase of this study. I also understand that they will be asked to complete **ONLY** one survey, which will require approximately **10-30 minutes** of their time.

I understand that the information provided by staff members through the survey assessing the mental health needs of children with ADHD and their caregivers will be used to design a specific program to address the needs of the target population.

I understand that there are **no known risks** associated with participation in this research study.

I understand that this research is **confidential** and participation will be **anonymous**.

I understand that participation is **voluntary**, and that staff members may withdraw from the study at any time without penalty and without loss of benefits to which they are otherwise entitled. In addition, the Principal Investigator will terminate participation if a study volunteer is not a CST member or guidance counselor in a Middlesex County elementary school.

I understand that there is no financial cost to individual participants or my school district for participation in this study.

I understand that an “ADHD Fact Sheet” will be provided to participants as a “thank you” for their time, and that no financial compensation will be provided for participation in this study.

I understand that that this study may **benefit** the students in my school district, as the information provided through the needs assessment survey will inform development of a mental health service program designed to meet the mental health needs of children with ADHD and their caregivers who reside in my district. Benefit to those individuals may include a decrease in: 1) symptom severity, 2) family stress and 3) behavioral and/or academic difficulties that result from ADHD symptoms.

I understand that the results of this research will be written up as part of the Principal Investigator’s doctoral dissertation, which will be available to participants upon publication.

I understand that I can contact the Principal Investigator or the Investigator’s dissertation chairperson at any time at the addresses, telephone numbers or emails listed below if I have any questions, concerns or comments regarding your participation in this study.

Lara Brodzinsky, Psy.M. (Principal Investigator)
Rutgers University, GSAPP
152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
Telephone: 917-415-8959
Email: coordinator.lara@gmail.com

Susan Forman, Ph.D. (Chairperson)
Rutgers University, GSAPP
152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
Telephone: 848-445-3975
Email: sgforman@rci.rutgers.edu

I understand that this Statement of Approval will be submitted to the Institutional Review Board (IRB) for the Protection of Human Subjects at Rutgers University, and that research in my district is contingent upon IRB approval of this research project.

I understand that any questions about the rights of research participants can be addressed to the IRB Administrator at Rutgers University at:

Rutgers University, the State University of New Jersey
Institutional Review Board for the Protection of Human Subjects
Office of Research and Sponsored Programs
3 Rutgers Plaza
New Brunswick, NJ 08901-8559

Tel: 732-932-0150 ext. 2104

Email: humansubjects@orsp.rutgers.edu

I have read and understood the contents of this Statement of Approval and have received a copy of it for my files. By signing below, I APPROVE of this research and authorize to have CST members and guidance counselors working in elementary schools within my district contacted for the purposes of participation in this research project.

District Administrator Name _____

Title _____

District Administrator Signature _____

Date _____

Investigator Signature _____

Date _____

Appendix C

The Development of Multi-Modal Mental Health Services for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and their Caregivers

Authorization from Non-Rutgers Research Sites

School District	Contact Person	Title	Email	Phone	Status
Milltown	Dr. Linda Madison	Chief School Administrator	lmadison@milltownps.org	(732)214-2365	Approved
New Brunswick	Mr. Kaplan	Superintendent	richard_kaplan@nbps.k12.nj.us	(732)745-5300	Approved
Dunellen	Maria Luciano	Director of Special Services	lucianom@dunellenschools.org	(732)968-3226	Approved
Carteret	Dr. Ahearn	Superintendent	KAhearn@carteretschools.org	732.541.8960 x6015/6	Approved
Metuchen	Dr. Caputo	Superintendent	vcaputo@metboe.k12.nj.us	(732)321-8700	Approved
South Brunswick	Dr. Gary McCartney	Superintendent	Gary.McCartney@sbschools.org	(732)297-7800	Approved

Authorization from GSAPP as Research Site

School District	Contact Person	Title	Email	Phone	Status
Graduate School of Applied and Professional Psychology (GSAPP) Rutgers University	Dr. Stanley Messer	Dean	smesser@rci.rutgers.edu	848-445-3900	Approved

Appendix D

Letter of Notification

Investigation of Mental Health Needs of Children with ADHD and Their Caregivers

Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854

To Whom It May Concern:

My name is Lara Brodzinsky and I am a School Psychologist and doctoral candidate at the Graduate School of Applied and Professional Psychology (GSAPP) at Rutgers University.

I am conducting study to assess the mental health needs of children with ADHD and their families within your school district. By completing this confidential survey delivered through SurveyMonkey, your feedback will be used to determine specific needs to be addressed, and will further guide the development of a customized program to the identified needs. All identifying information will be separated from your survey responses, so participation is anonymous. By volunteering to complete this survey, you will be compensated with an ADHD Fact Sheet that may further your understanding of the disorder, and assist you in providing school-based guidance to parents and teachers whose children display signs of inattention, impulsivity and/or hyperactivity.

If you have any questions of concerns, you can contact Lara Brodzinsky by phone at (917)-415-8959, or by e-mail at coordinator.lara@gmail.com. Thank you in advance for all of your help.

Kind Regards,

Lara Brodzinsky, Psy.M.
917-415-8959
coordinator.lara@gmail.com

Appendix E

Informed Consent Agreement

Investigation of the Mental Health Needs of Children with ADHD

Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854

You are invited to participate in a research study. Before agreeing to participate in this study, you should know enough about it to make an informed decision. If you have any questions, please feel free to contact the investigator, whose information is provided below. You should be satisfied with the answers before you agree to be in the study.

Study Description and Goals: This study aims to assess the mental health needs of children with ADHD and their families who currently attend Middlesex County elementary schools. The purpose of conducting this needs assessment is to gather information that will be used to determine whether the design of a mental health service program for children with ADHD and their caregivers is warranted. The goals of this study are: 1) to assess the mental health needs of children with ADHD, 2) determine if a mental health program for children with ADHD is warranted, and 3) design a mental health program for children with ADHD and their caregivers, if warranted. The procedure for conducting a needs assessment involves the administration of an anonymous survey to Child Study Team (CST) members who currently provide case management services in Middlesex County elementary schools. The survey will ask CST members to comment on their perceptions of the mental health needs of their students with ADHD. The information provided by CST members through this survey will be used to determine whether the design of a mental health service program to address the needs of children with ADHD and their caregivers is warranted. No identifying information or demographic data about students will be gathered. Surveys data will remain confidential, and survey participation will be anonymous.

Participant Requirements: If you wish to participate in this study, you will be sent a needs assessment survey through electronic mail via SurveyMonkey. You will be asked to provide responses to survey questions and submit the survey electronically to SurveyMonkey when completed. Your participation is voluntary. If you choose to participate, you will be asked to provide the Principal Investigator with your email address where the needs assessment survey will be sent. Your email address will be kept separate from your survey responses to insure anonymity.

Risks: There are no known risks associated with your participation in this research study.

Benefits: Participation in this study may benefit your school district directly, as the information provided by CST members will inform the development of a mental health service program designed to meet the needs of children with ADHD and their families who attend elementary schools within your school district. Benefit to those individuals

may include a decrease in: 1) symptom severity, 2) family stress and 3) behavioral and/or academic difficulties that result from ADHD symptoms.

Confidentiality: This research is **confidential**. ONLY your name will appear on this consent form and will be kept separate from research records. This information will be kept confidential by limiting access to the research data and keeping it in a secure locked location. The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. Your responses will be grouped with other participants' responses and analyzed collectively.

Anonymous: By providing consent, you are agreeing to participate in the needs assessment survey **anonymously**. That means your identifying information will be separated from the response record you provide. Only response records will be incorporated into data analysis.

Duration of Participation: Participation in this study will involve the completion of one survey. It is estimated that this survey may take between 10-20 minutes, based on the length of your responses. You will not be asked to do anything other than complete one survey.

Procedure for Accessing Counseling: If you are adversely affected as a result of participating in this study, a referral for counseling will be provided to you by the Principal Investigator. However, it is not expected that participants will be adversely affected by this study.

Compensation: As a "thank you" for participating in this study, you will receive an ADHD Fact Sheet that may further your understanding of the disorder, and assist you in providing school-based guidance to teachers and parents whose children display symptoms of inattention, impulsivity and/or hyperactivity. No financial compensation will be offered for participation.

Cost to Participants: Your participation in this study will not involve a financial cost to you.

Freedom to Withdraw: YOU MAY WITHDRAW FROM THIS STUDY AT ANY TIME, WITHOUT PENALTY TO YOU.

Investigator Termination of Participation: The Principal Investigator may terminate your participation if you are not a CST member in a Middlesex County elementary school.

Estimated Number of Participants: The number of CST members contacted totaled XX. Of these, it is unknown how many will volunteer to participate.

Research Results: The results of this research will be written up as part of the Principal Investigator's doctoral dissertation, which will be available to you upon publication.

You may contact the Principal Investigator or the Investigator's dissertation chairperson at any time at the addresses, telephone numbers or emails listed below if you have any questions, concerns or comments regarding your participation in this study.

Lara Brodzinsky, Psy.M. (Principal Investigator)
Rutgers University, GSAPP
152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
Telephone: 917-415-8959
Email: coordinator.lara@gmail.com

Susan Forman, Ph.D. (Chairperson)
Rutgers University, GSAPP
152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
Telephone: 848-445-3975
Email: sgforman@rci.rutgers.edu

If you have any questions about your rights as a research subject, you may contact the IRB Administrator at Rutgers University at:

Rutgers University, the State University of New Jersey
Institutional Review Board for the Protection of Human Subjects
Office of Research and Sponsored Programs
3 Rutgers Plaza
New Brunswick, NJ 08901-8559
Tel: 732-932-0150 ext. 2104
Email: humansubjects@orsp.rutgers.edu

Rights as a Participant: Participation in this study is VOLUNTARY; if you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled.

I have read and understood the contents of this consent form and have received a copy of it for my files. By signing below, I consent to participate in this research project.

Participant's Name _____

Email _____

Participant Signature _____

Date _____

Investigator Signature _____

Date _____

Appendix F

School Staff Survey

1. Are you a Child Study Team member or guidance counselor working within a Middlesex County school?

Yes

No

2. How many years of professional experience in education and/or human services do you have?

3. How many years have you worked in your current role and setting?

4. My highest degree earned is:

Doctorate

Specialist Degree

Masters Degree

Bachelor's Degree

6. Do you currently case manage or work with elementary school students who have been diagnosed with Attention Deficit Hyperactivity Disorder (ADHD)?

Yes

No

7. Approximately how many students in your caseload hold an ADHD diagnosis?

8. In addition to academic accommodations, do these students with ADHD currently receive mental health services within your school (e.g. counseling, social skills groups, etc.)?

Yes

No

9. Are social skills group services available through your school for students with ADHD?

Yes

No

10. To what degree are social skills groups helpful in addressing the mental health needs of your students with ADHD?

Not Helpful

Somewhat Helpful

Helpful

Very Helpful

More than Helpful

11. Are individual counseling services available through your school for students with ADHD?

Yes

No

12. To what degree is individual counseling helpful in addressing the mental health needs of your students with ADHD?

Not Helpful

Somewhat Helpful

Helpful

Very Helpful

More than Helpful

13. Are executive functioning training services available through your school for students with ADHD?

Yes

No

14. To what degree is executive functioning training helpful in addressing the mental health needs of your students with ADHD?

Not Helpful

Somewhat Helpful

Helpful

Very Helpful

More than Helpful

15. Are behavior modification services available through your school for students with ADHD?

Yes

No

16. To what degree is behavior modification helpful in addressing the mental health needs of your students with ADHD?

Not Helpful

Somewhat Helpful

Helpful

Very Helpful

More than Helpful

17. Are services available through your school to assist caregivers in addressing the mental health needs of their children with ADHD?

Yes

No

18. To what degree are services for caregivers helpful in addressing the mental health needs of your students with ADHD?

Not Helpful

Somewhat Helpful

Helpful Very

Helpful

More than Helpful

19. Are services available through your school to assist teachers in addressing the mental health needs of students with ADHD?

Yes

No

20. To what degree are these services for teachers helpful in addressing the mental health needs of your students with ADHD?

Not Helpful

Somewhat Helpful

Helpful Very

Helpful

More than Helpful

21. To what degree is the sum of services currently available through your school district helpful in addressing the mental health needs of your students with ADHD?

Not Helpful

Somewhat Helpful

Helpful

Very Helpful

More than Helpful

N/A

22. Do you think that it is important for your students with ADHD to receive mental health services?

Yes

No

23. Please describe your understanding of ADHD by checking the boxes in front of items you believe to be true. You may additionally provide text description in the box below.

ADHD is a neurodevelopment disorder

ADHD is a measure of intelligence

ADHD is related to an imbalance of neurotransmitters

ADHD can be characterized by inattention

ADHD can be characterized by hyperactivity or impulsivity

ADHD is due to a lack of willpower or desire to do well

ADHD is caused by parenting

ADHD can only be managed by medication

ADHD can be managed by behavior management strategies

ADHD can be managed by parent or teacher training in behavior management

ADHD can be managed through skills training

There are no effective treatments for ADHD

Other (please specify)

24. Multi-modal mental health services for ADHD include multiple interventions that aim to address the core symptoms of inattention, impulsivity and hyperactivity, as well as social, emotional and behavior issues that arise from these symptoms and affect the person's overall quality of life. Thus, multi-modal mental health services aim to improve the person's quality of life through a combination of interventions at the individual, family, group and systems level. Do you think your students with ADHD would benefit from multi-modal mental health services?

Yes

No

25. Why do you think multi-modal mental health services would be effective in addressing the needs of your students with ADHD?

26. Why do you think multi-modal mental health services would NOT be effective in addressing the needs of your students with ADHD?

27. How likely is it that you would refer the caregivers of your students with ADHD for additional mental health services to the Psychological Clinic, which is a low fee sliding scale training clinic housed within the Graduate School of Applied and Professional Psychology at Rutgers University, Piscataway?

Not at all Likely

Somewhat Likely

Likely

Very Likely

More than Likely

28. What might prevent you from referring caregivers of your students with ADHD to the Psychological Clinic for additional mental health services?

29. How likely is it that the caregivers of your students with ADHD would attend the Psychological Clinic at Rutgers University in Piscataway for mental health services targeting their symptoms of ADHD?

Not at all Likely

Somewhat Likely

Likely

Very Likely

More than Likely

30. What might prevent the caregivers of your students with ADHD from attending the Psychological Clinic for additional mental health services?

31. What other services do you think would be helpful in addressing the mental health needs of your students with ADHD?

Appendix G

Request for Approval

The Development of Multi-Modal Mental Health Services for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers

Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854

Dear Dean Messer:

In partial fulfillment of the requirements for the degree of Doctor of Psychology, I am proposing a dissertation study entitled, "The Design of a Mental Health Service Delivery Program for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers." In order to determine the ability of the Psychological Clinic housed within the Graduate School of Applied and Professional Psychology (GSAPP) to provide mental health services to the target population, I am interested in conducting a resource analysis involving GSAPP students, faculty and staff.

As part of this resource analysis, I have developed a survey asking GSAPP students about their training needs, and specifically about their feasibility to provide mental health services to the target population. In addition to the survey, I have developed a survey deliverable to GSAPP faculty and staff who may be involved in the provision of a mental health service program to the target population. The surveys do not ask participants to provide any personal, demographic or academic information. Survey data will be kept CONFIDENTIAL, and those who choose to participate in the survey will do so ANONYMOUSLY. The survey has been developed through SurveyMonkey and will be delivered electronically.

Participation in this study is voluntary. The results of the study will be included in my dissertation. However, the dissertation document will NOT include any identifying information about GSAPP students, faculty or staff. When data collection is completed in the spring of 2013, I'll be happy to share results with you and the GSAPP community.

If you are able to APPROVE that research be conducted within your school, and authorize the delivery of this survey for the purposes of data collection as outlined above, please sign, date and return the attached Statement of Approval to me at the address listed below. If you have any questions, please do not hesitate to contact me via phone or email. I sincerely hope this project interests you, and I look forward to talking with you further.

Regards,

Lara Brodzinsky, Psy.M.

Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854
(917)-415-8959

Appendix H

Statement of Approval

The Development of Multi-Modal Mental Health Services for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers

Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854

I was contacted by Lara Brodzinsky, who is requesting my approval to have current graduate students, faculty and staff within the Graduate School of Applied and Professional Psychology (GSAPP) be contacted for possible participation in her research study entitled, “The Design of a Mental Health Service Delivery Program for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers.”

I understand that the aim of this study is to assess the feasibility of the GSAPP community to provide a mental health service program to the target population. The purpose of conducting this needs assessment is to gather information that will drive the design of a mental health service program targeting children with ADHD and their caregivers.

I understand that by authorizing my school to participate in this study, certain GSAPP students, faculty and staff members may be contacted by the Principal Investigator to inquire about their voluntary participation in the resource analysis phase of this study. I understand that they will be asked to complete a survey.

I understand that the information provided by the GSAPP community will be used to design a mental health service program targeting children with ADHD and their caregivers.

I understand that there are no known risks associated with participation in this research study.

I understand that this research is confidential and participation will be voluntary. I also understand that participants may withdraw from the study at any time without penalty and without loss of benefits to which they are otherwise entitled. In addition, the Principal Investigator will terminate participation if a study volunteer is not a member of the GSAPP community.

I understand that there is no financial cost to individual participants or my school for participation in this study.

I understand that an “ADHD Fact Sheet” will be provided to participants as a “thank you” for their time, and that no financial compensation will be provided for participation in this study.

I understand that that this study may benefit the students, faculty and staff in my school directly, as the information gathered will inform the design of mental health service program for children with ADHD and their caregivers in which they will be trained. Benefit to those individuals may include: 1) new clinical training opportunities, 2) increased knowledge base in ADHD treatment and 3) increased revenue for the Psychological Clinic.

I understand that the results of this research will be written up as part of the Principal Investigator's doctoral dissertation, which will be available to participants upon publication.

I understand that I can contact the Principal Investigator or the Investigator's dissertation chairperson at any time at the addresses, telephone numbers or emails listed below if I have any questions, concerns or comments regarding participation in this study.

Lara Brodzinsky, Psy.M. (Principal Investigator)
Rutgers University, GSAPP
152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
Telephone: 917-415-8959
Email: coordinator.lara@gmail.com

Susan Forman, Ph.D. (Chairperson)
Rutgers University, GSAPP
152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
Telephone: 848-445-3975
Email: sgforman@rci.rutgers.edu

I understand that this Statement of Approval will be submitted to the Institutional Review Board (IRB) for the Protection of Human Subjects at Rutgers University, and that research is contingent upon IRB approval of this project.

I understand that any questions about the rights of research participants can be addressed to the IRB Administrator at Rutgers University at:

Rutgers University, the State University of New Jersey
Institutional Review Board for the Protection of Human Subjects
Office of Research and Sponsored Programs
3 Rutgers Plaza
New Brunswick, NJ 08901-8559
Tel: 732-932-0150 ext. 2104
Email: humansubjects@orsp.rutgers.edu

I have read and understood the contents of this Statement of Approval and have received a copy of it for my files. By signing below, I APPROVE of this research and authorize to have members of the GSAPP community contacted for the purposes of participation in this research project.

Name _____

Title _____

Signature _____

Date _____

Investigator Signature _____

Date _____

Appendix I:

Letter of Notification to GSAPP Students

The Development of Multi-Modal Mental Health Services for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers

Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854

To Whom It May Concern:

My name is Lara Brodzinsky and I am a fifth-year doctoral candidate in the School Psychology program at the Graduate School of Applied and Professional Psychology (GSAPP) at Rutgers University.

I am conducting study to assess the feasibility of the Psychological Clinic to provide a new mental health service program to children with ADHD and their caregivers. A portion of this project involves an assessment of the training needs of current GSAPP students who would be delivering a mental health service program to the target population through the Psychological Clinic. By completing this confidential survey delivered through SurveyMonkey, your feedback will be used to determine specific needs to be addressed, and will further guide the development of a customized program to meet the training needs of GSAPP students. All identifying information will be separated from your survey responses, so participation is anonymous. By volunteering to complete this survey, you will be compensated with an ADHD Fact Sheet that may further your understanding of the disorder, and assist you in providing guidance to parents and teachers whose children display signs of inattention, impulsivity and/or hyperactivity.

If you have any questions of concerns, you can contact Lara Brodzinsky by phone at (917)-415-8959, or by e-mail at coordinator.lara@gmail.com. Thank you in advance for all of your help.

Kind Regards,

Lara Brodzinsky, Psy.M.
917-415-8959
coordinator.lara@gmail.com

Appendix J

Informed Consent Agreement GSAPP Students

The Development of Multi-Modal Mental Health Services for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers
Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854

You are invited to participate in a research study. Before agreeing to participate in this study, you should know enough about it to make an informed decision. If you have any questions, please feel free to contact the investigator, whose information is provided below. You should be satisfied with the answers before you agree to be in the study.

Study Description and Goals: This study aims to assess the feasibility of the Psychological Clinic at GSAPP to provide mental health services to children with Attention-Deficit / Hyperactivity Disorder (ADHD) and their caregivers through the context of the Psychological Clinic. The goals of this study are: 1) to assess the training needs of current GSAPP students, 2) to assess the feasibility of the Psychological Clinic to deliver mental health services to the target population, and 3) to design a mental health program for children with ADHD and their caregivers, deliverable by GSAPP students through the Psychological Clinic. A portion of the procedure for conducting this needs assessment involves the administration of a confidential survey to current GSAPP students, which asks for comments on their training needs. The information provided by the GSAPP community will be used to determine whether the design of a mental health service program to address the needs of children with ADHD and their caregivers is feasible to be delivered through the Psychological Clinic. No personal information about GSAPP community members will be gathered, and all data will remain confidential.

GSAPP Student Participant Requirements: If you wish to participate in this study, you will be sent an GSAPP Student Survey through electronic mail via SurveyMonkey. You will be asked to provide responses to survey questions and submit the survey electronically to SurveyMonkey when completed. Your participation is voluntary. Your email address will be kept separate from your survey responses to insure anonymity.

Duration of Participation: Participation in this study will involve the completion of one survey. It is estimated that this survey may take between 10-20 minutes.

Risks: There are no known risks associated with your participation in this research study.

Benefits: Participation in this study may benefit the GSAPP community by providing additional training opportunities for its students, and additional revenue for the Psychological Clinic.

Confidentiality: This research is **confidential**. ONLY your name and email address will appear on this consent form and will be kept separate from research records. This information will be kept confidential by limiting access to the research data and keeping it in a secure locked location. The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law.

Procedure for Accessing Counseling: If you are adversely affected as a result of participating in this study, a referral for counseling will be provided to you by the Principal Investigator. However, it is not expected that participants will be adversely affected by this study.

Compensation: As a “thank you” for participating in this study, you will receive an ADHD Fact Sheet that may further your understanding of the disorder, and assist you in providing guidance to clients. No financial compensation will be offered for participation.

Cost to Participants: Your participation in this study will not involve a financial cost to you.

Freedom to Withdraw: YOU MAY WITHDRAW FROM THIS STUDY AT ANY TIME, WITHOUT PENALTY TO YOU.

Investigator Termination of Participation: The Principal Investigator may terminate your participation if you are not a current member of the GSAPP community.

Estimated Number of Participants: The number of GSAPP students estimated to be contacted to complete a survey is 150. The number of GSAPP faculty and staff estimated to be contacted to complete a survey is 10. Of these, it is unknown how many will volunteer to participate.

Research Results: The results of this research will be written up as part of the Principal Investigator’s doctoral dissertation, which will be available to you upon publication.

You may contact the Principal Investigator or the Investigator’s dissertation chairperson at any time at the addresses, telephone numbers or emails listed below if you have any questions, concerns or comments regarding your participation in this study.

Lara Brodzinsky, Psy.M. (Principal Investigator)
Rutgers University, GSAPP
152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
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Email: coordinator.lara@gmail.com

Susan Forman, Ph.D. (Chairperson)
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152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
Telephone: 848-445-3975

Email: sgforman@rci.rutgers.edu

If you have any questions about your rights as a research subject, you may contact the IRB Administrator at Rutgers University at:

Rutgers University, the State University of New Jersey
Institutional Review Board for the Protection of Human Subjects
Office of Research and Sponsored Programs
3 Rutgers Plaza
New Brunswick, NJ 08901-8559
Tel: 732-932-0150 ext. 2104
Email: humansubjects@orsp.rutgers.edu

Rights as a Participant: Participation in this study is VOLUNTARY; if you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled.

I have read and understood the contents of this consent form and have received a copy of it for my files. By signing below, I consent to participate in this research project.

Participant's Name _____

Email _____

Participant Signature _____

Date _____

Investigator Signature _____

Date _____

Appendix K

GSAPP Student Survey

1. What program are you currently enrolled in at GSAPP?

School Psychology

Clinical Psychology

2. How far along are you in your doctoral training?

First Year

Second Year

Third Year

Fourth Year

Fifth Year

Sixth Year

Beyond Sixth Year

3. What is your highest degree earned before enrolling at GSAPP?

Specialist Degree

Master's Degree

Bachelor's Degree

4. Please specify your gender

Male

Female

Transgender

Other (please specify)

5. Please specify your age

6. How good is your understanding of ADHD?

No Understanding

A Little Understanding

Good Understanding

High Degree of Understanding

ADHD is My Area of Specialty

7. How are your skills in providing mental health services to children with ADHD?

No skills

Some Skills

Average Skills

Very Good Skills

This is my area of expertise.

8. What is your experience in providing mental health services to children with ADHD?

No Experience

A Little Experience

Some Experience

A Good Amount of Experience

I Continually Work With This Population

9. Do you have experience in providing mental health services to caregivers of children with ADHD?

No Experience

A Little Experience

Some Experience

A Good Amount of Experience

Continually Work With This Population

10. How did you develop your knowledge and skill base in this area?

Coursework

Online Training

Websites

Workshops

Supervision

Independent Reading

On-the-job Training

Other (please specify)

11. Would you be interested in a new practicum that would train you to provide multi- modal mental health services targeting children with ADHD?

Yes

No

12. Please specify the specific type of service you would be interested in providing:

Direct intervention to children with ADHD

Direct intervention to caregivers of children with ADHD

Direct intervention to both children with ADHD and their caregivers

Teacher / school consultation

Medication monitoring / physician consultation

13. In addition to current coursework, what didactic training do you think would be necessary to gain before delivering mental health services to children with ADHD and/or their caregivers?

ADHD diagnostic criteria

ADHD etiology / epidemiology

ADHD risk factors / comorbidities

ADHD treatment approaches

Group therapy

Individual therapy

Training in working with children

Training in working with parents

Training in teacher / school based consultation

Training in consultation with physician health care providers

Child development

Lifespan development

No additional training required

14. How do you think additional didactic training should be provided to GSAPP students who are interested in a practicum providing mental health services to children with ADHD and their caregivers?

Course

Workshop

Online Training

Supervision Group

Individual Supervision

Other (please specify)

15. How likely is it that you would participate in a practicum providing mental health

services to children with ADHD and/or their caregivers through the Psychological Clinic at

GSAPP?

Not at all Likely

Somewhat Likely

Likely

Very Likely

More than Likely

16. How likely is it that you would participate in a practicum providing mental health services to children with ADHD and/or their caregivers at a school in Middlesex County?

Not at all Likely

Somewhat Likely

Likely

Very Likely

More than Likely

17. What considerations might be necessary when designing a training program for students at GSAPP to deliver mental health services to children with ADHD and/or their caregivers?

18. What issues or barriers might arise that would prohibit GSAPP students from participating in a practicum providing mental health services to children with ADHD and/or their caregivers?

19. Please describe your understanding of ADHD by checking the boxes in front of items you believe to be true. You may additionally provide text description in the box below.

ADHD is a neurodevelopment disorder

ADHD is a measure of intelligence

ADHD is related to an imbalance of neurotransmitters

ADHD can be characterized by inattention

ADHD can be characterized by hyperactivity or impulsivity

ADHD is due to a lack of willpower or desire to do well

ADHD is caused by parenting

ADHD can only be managed by medication

ADHD can be managed by behavior management strategies

ADHD can be managed by parent or teacher training in behavior management

ADHD can be managed through skills training

There are no effective treatments for ADHD

Other (please specify)

20. Multi-modal mental health services for ADHD include multiple interventions that aim to address the core symptoms of inattention, impulsivity and hyperactivity, as well as social, emotional and behavior issues that arise from these symptoms and affect the person's overall quality of life. Thus, multi-modal mental health services aim to improve the person's quality of life through a combination of interventions at the individual, family, group and systems level. Do you think your students with ADHD would benefit from multi-modal mental health services?

Yes

No

Appendix L

Attention Deficit / Hyperactivity Disorder (ADHD) Fact Sheet

What it IS:

- ADHD is considered a neurodevelopmental or neurobehavioral disorder.
- It manifests as patterns of inattention and/or hyperactivity/impulsivity that are developmentally atypical AND that occur in 2 or more settings.
- The three core symptoms of ADHD are:
 - Inattention: difficulty concentrating or paying attention
 - Hyperactivity: Being more active than developmentally expected
 - Impulsivity: acting suddenly without control

What it IS NOT:

- ADHD is not due to a lack of willpower, effort or desire.
- ADHD is not a measure of intelligence.
- ADHD is not caused by parenting or other external factors.

Diagnosing ADHD: An ADHD diagnosis can only be made by a health care professional through a detailed and thorough psychodiagnostic evaluation. Basic criteria include:

Inattentive Symptoms	Hyperactive Symptoms
Careless mistakes / poor attention to detail	Fidgeting / squirming
Unable to sustain attention	Unable to sit still
Poor listening skills	Feeling of restlessness / running or climbing
Poor organization skills	Difficulty with quiet activities
Difficulty following through on tasks	“On the go”
Avoids tasks requiring sustained attention	Excessive talking
Easily distracted	Blurt out answers / interrupts often
Forgetful	Trouble taking turns
Often loses items needed for daily activities	Interrupting or intruding in on others

- Person must have 6 or more symptoms of inattention and/or hyperactivity
- Symptoms must be present for at least 6 months AND present before age 7
- Symptoms must occur in 2 or more settings AND occur more often and to a greater degree than what is expected based on person’s developmental level
- ADHD looks different in each person

Causes of ADHD: The exact causes of ADHD are unknown, but research suggests the following factors may be involved:

- *Neurological Development:* ADHD may involve dysregulation or deficits in the prefrontal cortex, which is the front portion of the brain responsible for higher-order mental functions, or executive functions, that regulate behavior, attention and judgment.
- *Brain chemistry:* ADHD may involve an imbalance of certain neurotransmitters.
- *Genetics:* ADHD may be hereditary and linked to specific chromosomes.
- *Prenatal and Perinatal factors:* ADHD symptoms have been linked to maternal smoking during pregnancy, birth or delivery complications, and/or illnesses of early infancy.

Managing ADHD: ADHD is best managed through a combination of methods, referred to as multi-modal treatment. These may include:

- Medication
- Therapy:
 - **Behavioral Management:** a program that teaches people how to replace negative behaviors with positive ones
 - **Behavioral Parent Training:** a program that teaches parents how to manage their child's behaviors through reinforcing positive or desired behaviors in order to replace negative or undesired behaviors
 - **Skills Training:** This involves learning skills and strategies to manage daily tasks, often taught by a mental health care professional that specializes in ADHD. Skills may include organizational skills, social skills, behavior management skills, coping skills, tips on task completion, executive functioning training, emotion regulation training / biofeedback.
- *Support Groups:* These can be helpful for older children or adolescents with ADHD, as well as for caregivers of children with ADHD.
- *ADHD Coach:* This is a health care professional who specializes in ADHD can offer consultation and skills training to both parents and children with ADHD.
- *School Support:* School counselors and teachers can help with time management, limiting distractions, breaking down assignments into manageable chunks, and providing academic assistance when deemed necessary.

How Caregivers can Support their Children with ADHD:

- Educate yourself about ADHD
- Establish daily routines for chores and other household responsibilities
- Focus on certain behaviors – be clear and consistent about expectations
- Praise your child for his or her strengths and positive behaviors
- Use proactive discipline methods for negative or undesired behaviors
- Make sure your child knows that you support and love him or her unconditionally
- Seek consultation or assistance from a health care professional when determining what course or combination of treatment is best for you and your child
- Stay in contact with your child's teachers, counselors and other school staff who may provide your child with support during school hours
- Build a support team and stay on track with treatment

Appendix M

Informed Consent Agreement

GSAPP Faculty and Staff

The Development of Multi-Modal Mental Health Services for Children with Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers

Graduate School of Applied and Professional Psychology, Rutgers University

152 Frelinghuysen

Piscataway, NJ 08854

You are invited to participate in a research study. Before agreeing to participate in this study, you should know enough about it to make an informed decision. If you have any questions, please feel free to contact the investigator, whose information is provided below. You should be satisfied with the answers before you agree to be in the study.

Study Description and Goals: This study aims to assess the feasibility of the Psychological Clinic at GSAPP to provide mental health services to children with Attention-Deficit / Hyperactivity Disorder (ADHD) and their caregivers, within the context of the Psychological Clinic. The goals of this study are: 1) to assess the training needs of current GSAPP students, 2) to assess the feasibility of the Psychological Clinic to deliver mental health services to the target population, and 3) to design a mental health program for children with ADHD and their caregivers, deliverable by GSAPP students through the Psychological Clinic. A portion of the procedure for conducting this resource analysis involves the administration of a confidential survey to current GSAPP faculty and staff who may be involved in the provision of mental health services to the target population through the Psychological Clinic. The information provided by the GSAPP community will be used to determine whether the design of a mental health service program to address the needs of children with ADHD and their caregivers is feasible to be delivered through the Psychological Clinic. No personal information about GSAPP community members will be gathered, and all data will remain confidential.

GSAPP Faculty / Staff Participant Requirements: If you wish to participate in this study, you will be invited to engage in an ANONYMOUS and CONFIDENTIAL survey. Your participation is voluntary.

Duration of Participation: Participation in this study will involve one survey that is estimated to take 20 minutes.

Risks: There are no known risks associated with your participation in this research study.

Benefits: Participation in this study may benefit the GSAPP community by providing additional training opportunities for its students, and additional revenue for the Psychological Clinic.

Confidentiality: This research is **confidential**. ONLY your name and email address will appear on this consent form and will be kept separate from research records. This information will be kept confidential by limiting access to the research data and keeping it in a secure locked location. The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law.

Procedure for Accessing Counseling: If you are adversely affected as a result of participating in this study, a referral for counseling will be provided to you by the Principal Investigator. However, it is not expected that participants will be adversely affected by this study.

Compensation: As a “thank you” for participating in this study, you will receive an ADHD Fact Sheet that may further your understanding of the disorder, and assist you in providing guidance to clients. No financial compensation will be offered for participation.

Cost to Participants: Your participation in this study will not involve a financial cost to you.

Freedom to Withdraw: YOU MAY WITHDRAW FROM THIS STUDY AT ANY TIME, WITHOUT PENALTY TO YOU.

Investigator Termination of Participation: The Principal Investigator may terminate your participation if you are not a GSAPP faculty or staff member.

Estimated Number of Participants: The number of GSAPP faculty and staff members estimated to be contacted for participation is 10. Of these, it is unknown how many will volunteer to participate.

Research Results: The results of this research will be written up as part of the Principal Investigator’s doctoral dissertation, which will be available to you upon publication.

You may contact the Principal Investigator or the Investigator’s dissertation chairperson at any time at the addresses, telephone numbers or emails listed below if you have any questions, concerns or comments regarding your participation in this study.

Lara Brodzinsky, Psy.M. (Principal Investigator)
Rutgers University, GSAPP
152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
Telephone: 917-415-8959

Email: coordinator.lara@gmail.com

Susan Forman, Ph.D. (Chairperson)
Rutgers University, GSAPP
152 Frelinghuysen Rd
Piscataway, NJ 08854-8085
Telephone: 848-445-3975

Email: sgforman@rci.rutgers.edu

If you have any questions about your rights as a research subject, you may contact the IRB Administrator at Rutgers University at:

Rutgers University, the State University of New Jersey
Institutional Review Board for the Protection of Human Subjects
Office of Research and Sponsored Programs
3 Rutgers Plaza
New Brunswick, NJ 08901-8559
Tel: 732-932-0150 ext. 2104
Email: humansubjects@orsp.rutgers.edu

Rights as a Participant: Participation in this study is VOLUNTARY; if you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled.

I have read and understood the contents of this consent form and have received a copy of it for my files. By signing below, I consent to participate in this research project.

Participant's Name _____

Email _____

Participant Signature _____

Date _____

Investigator Signature _____

Date _____

Appendix N
Clinic Staff Survey

1. What is your affiliation with the Psychological Clinic?

2. How long have you been in this position?

3. What is your highest degree earned?

4. Please specify your gender

Male

Female

Transgender

Other (please specify)

5. What is your highest degree earned before enrolling at GSAPP?

Doctorate Degree

Specialist Degree

Master's Degree

Bachelor's Degree

6. Do you think that it is important for your students with ADHD to receive mental health services?

Yes

No

7. Please describe your understanding of ADHD by checking the boxes in front of items you believe to be true. You may additionally provide text description in the box below.

ADHD is a neurodevelopment disorder

ADHD is a measure of intelligence

ADHD is related to an imbalance of neurotransmitters

ADHD can be characterized by inattention

ADHD can be characterized by hyperactivity or impulsivity

ADHD is due to a lack of willpower or desire to do well

ADHD is caused by parenting

ADHD can only be managed by medication

ADHD can be managed by behavior management strategies

ADHD can be managed by parent or teacher training in behavior management

ADHD can be managed through skills training

There are no effective treatments for ADHD

Other (please specify)

8. What programs and/or services, if any, are currently provided through the Psychological Clinic that would address the mental health needs SPECIFIC TO children with ADHD and their caregivers?

9. How helpful are services currently available through the Psychological Clinic in addressing the mental health needs of children with ADHD and their caregivers?

Not Helpful

Somewhat Helpful

Helpful

Very Helpful

More than Helpful

N/A

10. What types of programs and/or services do you feel might be missing?

11. Multi-modal mental health services for ADHD include multiple interventions that aim to address the core symptoms of inattention, impulsivity and hyperactivity, as well as social, emotional and behavior issues that arise from these symptoms and affect the person's overall quality of life. Thus, multi-modal mental health services aim to improve the person's quality of life through a combination of interventions at the individual, family, group and systems level. Do you think your students with ADHD would benefit from multi-modal mental health services?

Yes

No

12. Do you think that the development of a multi-modal mental health service program targeting children with ADHD and their caregivers is compatible with the Psychological Clinic's philosophy, values, needs and other existing programs?

13. Which of the following resources does Psychological Clinic have to support a multi-modal mental health service program targeting children with ADHD and their caregivers?

Student clinicians

Supervision

Support staff

Technology

Space

Materials

Financial resources

Not able to commit resources

14. What additional resources might be necessary for the Psychological Clinic to successfully deliver a multi-modal mental health service program to children with ADHD and their caregivers?

15. What are the procedures used to link clients to mental health services through the Psychological Clinic?

16. Can these procedures be used to support the provision of a multi-modal mental health service program targeting children?

Yes

No

17. What might hinder the Psychological Clinic from engaging in the development of a multi- modal mental health service program targeting children with ADHD and their caregivers?

18. Does this type of program development pose a risk to the Psychological Clinic?

19. Is this the right time for the Psychological Clinic to engage in the development of a multi- modal mental health service program targeting children with ADHD and their caregivers?

20. What benefits might be gained by the Psychological Clinic in moving forward with the development of a multi-modal mental health service program targeting children with ADHD and their caregivers?

21. If developed, what would make a multi-modal mental health service program targeting children with ADHD and their caregivers easy to use?

22. What organizations might have this type of program already in place such that the Psychological Clinic may observe its function?

23. What is your experience in providing supervision to students delivering mental health services to children with ADHD?

No Experience

Some Experience

Good Amount of Experience

A lot of Experience

This is my area of Expertise

24. What considerations might be necessary when designing a training program for students at GSAPP to deliver mental health services to children with ADHD and/or their caregivers?

25. What issues or barriers might arise that would prohibit GSAPP students from participating in a practicum providing mental health services to children with ADHD and/or their caregivers?

26. How likely do you think it is that the caregivers of children with ADHD referred through Middlesex County elementary schools would attend the Psychological Clinic for mental health services?

Not at all Likely

Somewhat Likely

Likely

Very Likely

More than Likely

N/A

27. Would you be in support of a new practicum through the Psychological Clinic that would train students to provide multi-modal mental health services to children with ADHD and their caregivers?

Yes

No

Appendix O

Letter of Notification GSAPP faculty and staff

**The Development of Multi-Modal Mental Health Services for Children with
Attention-Deficit / Hyperactivity Disorder (ADHD) and Their Caregivers**
Graduate School of Applied and Professional Psychology, Rutgers University
152 Frelinghuysen
Piscataway, NJ 08854

To Whom It May Concern:

My name is Lara Brodzinsky and I am a fifth-year doctoral candidate in the School Psychology program at the Graduate School of Applied and Professional Psychology (GSAPP) at Rutgers University.

I am conducting study to assess the feasibility of the Psychological Clinic to provide a new mental health service program to children with ADHD and their caregivers. A portion of this project involves conducting a survey in order to gain a better understanding of the relevant environmental factors in which a multi-modal mental health service program targeting children with ADHD and their caregivers may be developed. By completing this confidential survey delivered through SurveyMonkey, your feedback will be used to guide the development of a customized program to meet the training needs of GSAPP students. All identifying information will be separated from your survey responses, so participation is anonymous. By volunteering to complete this survey, you will be compensated with an ADHD Fact Sheet that may further your understanding of the disorder, and assist you in providing guidance to parents and teachers whose children display signs of inattention, impulsivity and/or hyperactivity.

If you have any questions or concerns, you can contact Lara Brodzinsky by phone at (917)-415-8959, or by e-mail at coordinator.lara@gmail.com. Thank you in advance for all of your help.

Kind Regards,

Lara Brodzinsky, Psy.M.
917-415-8959
coordinator.lara@gmail.com

Appendix P

Tables and Figures: Demographic Data

Table 1

Total Sample Demographics

<u>Sample</u>	<u># Participants</u>	<u>% Female</u>	<u>% Male</u>	<u>Mean Age (SD)</u>
SS	35	97.1	2.9	43 (SD=11.32)
GS	98	73.4	26.6	27.47 (SD=4.17)
CS	6	50	50	50.67 (SD=14.67)
Total Sample	139	78.5	21.5	32 (SD=10.63)

Note: Numbers reported in “% Female” and “% Male” columns are percentages.

Table 2

SS Occupational Information

<u>Occupation</u>	<u>Percentage</u>
School Psychologist	29.4
Guidance Counselor	20.6
Social Worker	17.6
Learning Disability Teaching Consultant (LDTC)	17.6
Student Assistance Counselor (SAC)	8.8
Speech Pathologist / Language Specialist	5.9

Note: Numbers reported are percentages

Table 3

SS Case Management Information

<u>Percentage SS w/ ADHD Cases</u>	<u># ADHD Cases</u>	<u>Mean ADHD Cases (SD)</u>
97.1	2-30	11.32 (SD=6.29)

Note: Number in first column reported as percentage

Table 4

GS Program Information

<u>Program Type</u>	<u>Percentage of GS Sample</u>
Clinical Psychology	44.7
School Psychology	55.3
<u>Program Year</u>	
1 st year	20.2
2 nd year	20.2
3 rd year	16
4 th year	22.3
5 th year	16
6 th year	2.1
beyond 6 th year	3.2

Note: Numbers reported are percentages

Table 5

CS Occupational Information

<u>Role</u>	<u># of CS Participants</u>	<u>Percentage of CS Sample</u>
Supervisor	3	66.7
Clinic Director	1	16.7
Clinic Coordinator	1	16.7
Administrative Assistant	1	16.7

Note: Numbers reported in “Percentage of CS Sample” column are percentages

Table 6

Total Sample: # of Years in Current Role

<u>Sample</u>	<u>Current Role</u>	<u># Years Range</u>	<u>Mean # Years (SD)</u>
SS	CST member	1-24	7.86 (SD=6.03)
GS	GSAPP student	1-6+*	3.13 (SD=1.61)
CS	Clinic affiliate	2-25	10.67 (SD=8.8)
Totals	N/A	1-25	4.69 (SD=4.45)

*GS participants responded to forced-choice question regarding “years in current program,” with “more than six years” as the upper limit forced-choice option.

Table 7

Total Sample: Highest Degree Earned

<u>Sample</u>	<u>% Bachelor's</u>	<u>% Master's</u>	<u>% Specialist</u>	<u>% Doctorate</u>
SS	0	65.	20	14.3
GS	67	28.7	4.3	0
CS	16.7	16.7	0	66.7
Totals	46.7	37.7	8.9	6.7

Note: All numbers reported in this table are percentages.

Appendix Q

Tables and Figures: ADHD Knowledge Data

Table 8

ADHD Knowledge

<u>True Statement Endorsed</u>	<u>%SS</u>	<u>%GS</u>	<u>%CS</u>
ADHD is a neurological disorder	77.1	76.6	83.3
ADHD is characterized by inattention	94.3	96.8	100
ADHD is characterized by hyperactivity/impulsivity	94.3	97.9	100
ADHD can be managed by behavior modification strategies	94.3	98.9	100
ADHD can be managed by parent/teacher training in behavior management	91.4	97.4	100
<u>False Statements NOT Endorsed</u>			
ADHD is a measure of intelligence	100	100	100
ADHD is related to an imbalance of neurotransmitters	57.1	73.4	100
ADHD is associated with a lack of willpower or desire to do well	97.1	96.8	100
ADHD is caused by parenting	100	100	100
ADHD can only be managed through medication	8.6	92.6	100
ADHD can be managed through social skills training	20	34	50
ADHD can be managed through play therapy	65.7	68.1	66.7
ADHD can be managed through cognitive behavioral therapy	37.1	24.5	16.7
There are no effective treatments for ADHD	94.3	100	100

Note: Numbers reported in all columns are percentages, and represent percentage of correct responses.

Table 9

ADHD Knowledge Total Scores

<u>Scores</u>	<u>SS</u>	<u>GS</u>	<u>CS</u>
Range (0-14)	8-14	7-13	10-14
Mean (SD)	10.38 (SD=1.44)	10.54 (SD=1.24)	12.17 (SD=1.47)
% earned 7 points	0%	1.1%	0%
% earned 8 points	8.8%	4.3%	0%
% earned 9 points	11.8%	12.8%	0%
% earned 10 points	44.1%	29.8%	16.7%
% earned 11 points	17.6%	30.9%	16.7%
% earned 12 points	5.9%	16%	16.7%
% earned 13 points	8.8%	5.3%	33.3%
% earned 14 points	2.9%	0%	16.7%

Note: Numbers reported in “Range (0-14)” row are the range of correct scores for each sample.

Table 10

Between Group Comparisons for ADHD Knowledge Total Scores

<u>Sample</u>	<u>N</u>	<u>Mean</u>	<u>Std. Deviation</u>
SS	34	10.38	1.44
GS	94	10.54	1.24
CS	6	12.17	1.47
Total	134	10.57	1.34

Table 11

ANOVA: ADHD Knowledge Total Score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.561	2	8.281	4.882	.009*
Within Groups	222.193	131	1.696		
Total	238.754	133			

*statistically significant $p < .05$

Table 12

Tukey HSD post-hoc Test for ADHD Knowledge Total Score***

Sample	N	Subset for alpha = 0.05	
		1	2
SS	34	10.3824	12.1667
GS	94	10.5426	
CS	6		
Sig.		.941	1.000

Note: Means for groups in homogeneous subsets are displayed.

*Uses Harmonic Mean Sample Size = 14.513.

**The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Appendix R

Tables and Figures: Importance of Mental Health Services

Table 13

Perceived Importance of Mental Health Service Delivery to Target Population

<u>Sample</u>	<u>Not</u> <u>Important</u>	<u>Somewhat</u> <u>Important</u>	<u>Very</u> <u>Important</u>	<u>Extremely</u> <u>Important</u>
SS	0	14.7	32.4	26.5
GS	0	2.2	23.7	47.3
CS	0	0	66.7	33.3
Total	0	5.3	27.8	41.4

Note: Numbers reported are percentages.

Table 14

Between Group Comparisons for Perspectives on Importance of Mental Health Services

<u>Sample</u>	<u>N</u>	<u>Mean</u>	<u>Std. Deviation</u>
Total Sample	133	3.87	.856

Table 15

ANOVA: Perspectives on Importance of Mental Health Services

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)		4.740	2	2.370	3.346	.038*
	Linear	Unweighted	.502	1	.502	.709	.401
	Term	Weighted	.573	1	.573	.809	.370
		Deviation	4.167	1	4.167	5.882	.017
Within Groups			92.087	130	.708		
Total			96.827	132			

*Statistically Significant $p < .05$

Table 16

*Tukey HSD*post-hoc Test for Perspectives on Importance of Mental Health Services***

Sample	N	Subset for alpha = 0.05
		1
33	6	3.33
31	34	3.65
32	93	3.99
Sig.		.094

Note: Means for groups in homogeneous subsets are displayed.

**Uses Harmonic Mean Sample Size = 14.505.*

***The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.*

Appendix S

Tables and Figures: Current Service Utilization and Efficacy

Table 17

*Total Sample Perspectives on Helpfulness of All Services Currently Available **

<u>Sample</u>	<u>Not</u> <u>Helpful</u>	<u>Somewhat</u> <u>Helpful</u>	<u>Very</u> <u>Helpful</u>	<u>More Than</u> <u>Helpful</u>
SS	6.5	45.2	35.5	12.9
GS**	1.1	30.8	30.8	11
CS***	0	50	0	16.7
Total****	2.4	35.7	31	11.9

Note: Numbers reported are percentages

**SS reporting on school-based services; GS and CS reporting on Clinic-based services*

***26.4% of GS participants reported this questions was “not applicable”*

****33.3% of CS participants reported this question was “not applicable”*

*****19% of the Total Sample reported this question was “not applicable”*

Table 18

Between Group Comparisons for Current Service Helpfulness

<u>Sample</u>	<u>N</u>	<u>Mean</u>	<u>Std. Deviation</u>
Total Sample	126	3.14	1.25

Table 19

ANOVA: Current Services Helpfulness

			Sum of Squares	df	Mean Square	F	Sig.
Between	(Combined)		7.762	2	3.881	2.544	.083*
Groups	Linear	Unweighted	.008	1	.008	.005	.941
	Term	Weighted	4.250	1	4.250	2.786	.098
		Deviation	3.512	1	3.512	2.302	.132
Within Groups			187.666	123	1.526		
Total			195.429	125			

**Statistically Significant $p < .05$*

Table 20

Tukey HSD post-hoc Test for Current Service Helpfulness***

Sample	N	Subset for alpha = 0.05
		1
32	91	1.99
33	4	2.50
31	31	2.55
Sig.		.563

Note: Means for groups in homogeneous subsets are displayed.

**Uses Harmonic Mean Sample Size = 10.230.*

***The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.*

Table 21

SS Reported Service Availability and Utilization

<u>Service</u>	<u>% Available*</u>	<u>Utilization Range</u>	<u>% Utilization</u>
Social Skills Groups	76.5%	N/A	N/A
Individual Counseling	88.5%	1-80	15-90%
Behavior Modification	82.4%	10-80	10-85%
Executive Functioning	14.7%	10-30**	N/A
Organizational Skills	58.1%	10-90	30-100%
Caregiver Services	35.5%	N/A	10-100%
Teacher Services	54.8%	10-90	40-100%

Note: Utilization range and percentages refer to number of students with ADHD within participants' schools

Note: "N/A" indicates SS participants did not respond to this item (No Answer)

**Percent of SS participants reporting service is currently available in their schools*

***Only two SS participants responded to this question, each number (10; 30) represents one participant's response*

Table 22

SS Perspectives on Helpfulness of Services Currently Available

<u>Service</u>	<u>Not</u> <u>Helpful</u>	<u>Somewhat</u> <u>Helpful</u>	<u>Very</u> <u>Helpful</u>	<u>More Than</u> <u>Helpful</u>
Social Skills Groups	3.8	42.3	23.1	26.9
Individual Counseling	0	30	50	20
Behavior Modification	0	17.9	50	32.1
Executive Functioning	0	0	25	50
Organizational Skills	0	23.5	41.2	29.4
Caregiver Services	0	40	20	40
Teacher Services	0	23.5	41.2	35.3

Note: Numbers reported are percentages.

Table 23

GS and CS Perspectives on Clinic Services Currently Available for Target Population

<u>Service</u>	<u>%GS</u>	<u>%CS</u>
Assessment Services	78	100
Social Skills Group Services	14.3	16.7
Individual Therapy	61.5	83.3
Behavior Modification Therapy	33	66.7
Executive Functioning Training	20	16.7
Organizational Skills Training	23.1	0
Caregiver-Directed Services	35.2	33.3
Consultation / Liaison Services	17.6	33.3
No Services for children w/ ADHD	5.5	0
Don't Know	27.5	16.7

Note: Numbers reported are percentages

Table 24

SS Perspectives on Additional Services Helpful for Target Population

<u>Service</u>	<u>Percentage</u>
Parent Services	14.3
Teacher Services	14.3
Direct Services	14.3
Psychoeducation	11.4
School-Based Services	8.6
Additional Resources	8.6
Extracurricular Activities	5.7
Bilingual Services	2.9
Mental Health Consultation	2.9
In-Home Services	2.9

Note: Numbers reported are percentages

Table 25

GS Perspectives on Additional Services for Target Population

<u>Service</u>	<u>Percentage</u>
Parenting Programs	16.8
Groups	16.8
Individual Therapy	16.8
Targeted Services	11.6
Consultation Services	11.6
Dedicated Practicum / Training Program	4.2
Supervision	3.2
Assessment Services	3.2
Comprehensive Services	2.1
Don't Know	5.3

Note: Numbers reported are percentages

Table 26

CS Perspectives on Additional Services for Target Population

<u>Service</u>	<u>Percentage</u>
Targeted Interventions	16.7
Dedicated Practicum	16.7
Parenting Programs	16.7
Groups	16.7
Skills Training	16.7
Neuropsychological Assessment	16.7
Executive Functioning Training	16.7
Don't Know	33.3

Note: Numbers reported are percentages

Appendix T

Tables and Figures: Support for Multi-Modal Mental Health Services

Table 27

Support for Multi-Modal Mental Health Services

<u>Sample</u>	<u>% Support</u>	<u>% No Support</u>
SS	100	0
GS	97.8	2.2
CS	100	0
Total	98.4	1.6

Note: Numbers reported are percentages

Table 28

Chi-Square Tests: Support for Multi-Modal Mental Health Services

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.835*	2	.659
Likelihood Ratio	1.391	2	.499
Linear-by-Linear Association	.309	1	.578
N of Valid Cases	127		

*3 cells (50.0%) have expected count < 5. The minimum expected count is .09.

Table 29

Tukey HSD post-hoc Test: Support for Multi-Modal Mental Health Services***

Sample	N	Subset for alpha = 0.05
		1
31	31	6.00
33	6	6.00
32	90	6.02
Sig.		.884

Note: Means for groups in homogeneous subsets are displayed.

*Uses Harmonic Mean Sample Size = 14.283.

**The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Table 30

SS Perspectives on Multi-Modal Services as Helpful

<u>Free Response</u>	<u>% Support for Helpfulness</u>
Comprehensive	51.4
Targeted	22.9
Generalizable	17.1
Positive Effect: Academics	8.6
Positive Effect: Others	8.6
Effective	2.9
Provide Psychoeducation	2.9
Don't Know	2.9

Note: Numbers reported are percentages.

Table 31

SS Perspectives on Multi-Modal Service as NOT Helpful

<u>Free Response</u>	<u>% Support for NOT Helpful</u>
Time Constraints	5.7
Lack of Treatment Adherence	5.7
Lack of Adjunctive Rx Treatment	5.7
Lack of Family Commitment	2.9
Lack of Insurance	2.9
Cost	2.9
Age	2.9
Would be Helpful	37.1

Note: Numbers reported are percentages.

Table 32

GS and CS Perspectives on Multi-Modal Service Compatibility with Clinic

<u>Clinic Domain</u>	<u>% GS Reporting Compatibility</u>	<u>% CS Reporting Compatibility</u>
Clinic's Values	65.6	83
Clinic's Philosophy	65.6	83
Clinic's Mission	64.4	83
Clinic's Existing Programs	46.7	50
Don't Know	33.3	0
Not Compatible	1.1	0

Note: Numbers reported are percentages.

Appendix U

Tables and Figures: Likelihood of Referral and Treatment Participation

Table 33

SS Referral Likelihood

<u>Sample</u>	<u>Not Likely</u>	<u>Somewhat Likely</u>	<u>Likely</u>	<u>Very Likely</u>	<u>Extremely Likely</u>
SS	6.7	16.7	33	36.7	6.7

Note: Numbers reported are percentages

Table 34

SS Perspectives on Barriers to Referral

<u>Barrier</u>	<u>Percentage</u>
Lack of Information about Services	20
Lack of Caregiver Interest	20
Lack of Transportation	20
Cost of Services	11.4
Lack of Provider Coordination with Schools	8.6
Time	8.6
Language Barriers	2.9
Lack of Insurance	2.9
Long Wait Lists	2.9
Nothing	11.4

Note: Numbers reported are percentages

Table 35

Participant Perspectives on Likelihood of Caregiver Attendance

<u>Sample</u>	<u>Not Likely</u>	<u>Somewhat Likely</u>	<u>Likely</u>	<u>Very Likely</u>	<u>More Than Likely</u>
SS	0	53.3	43.3	3.3	0
GS	0	26.5	34.9	19.3	6
CS	0	66.7	0	33.3	0
Total	0	35.5	35.5	6.7	13.4

Note: Numbers reported are percentages

Table 36

Between Group Comparisons for Perspectives on Likelihood of Caregiver Attendance

<u>Sample</u>	<u>N</u>	<u>Mean</u>	<u>Std. Deviation</u>
Total Sample	119	3.54	2.01

Table 37

ANOVA: Likelihood of Caregiver Attendance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups (Combined)	52.795	2	26.397	7.243	.001*
Linear Unweighted	.139	1	.139	.038	.846
Term Weighted	21.541	1	21.541	5.910	.017
Deviation	31.254	1	31.254	8.575	.004
Within Groups	422.785	116	3.645		
Total	475.580	118			

*Statistically Significant $p < .05$

Table 38

Tukey's HSD post-hoc Test for Likelihood of Caregiver Attendance*

Sample	N	Subset for alpha = 0.05
		1
31	30	2.50
33	6	2.67
32	83	3.98
Sig.		.104

Note: Means for groups in homogeneous subsets are displayed.

*Uses Harmonic Mean Sample Size = 14.148.

**The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Table 39

SS Perspectives on Barriers to Caregiver Attendance

<u>Barrier</u>	<u>Percentage</u>
Lack of Transportation	31.4
Cost	22.9
Treatment Refusal	20
Time	14.3
Location / Distance	11.4
Lack of Program Information	11.4
Language Barriers	11.4
Immigration Status	8.6
Stigma	8.6
Reliance on School for Services	5.7
Clinic Hours	5.7
Lack of Insurance	2.9
Goodness-of-Fit with Clinician	2.9
Don't Know	5.7

Note: Numbers reported are percentages

Table 40

GS Perspectives on Barriers to Caregiver Attendance

<u>Barrier</u>	<u>Percentage</u>
Cost	37.9
Time	25.3
Lack of Transportation	18.9
Lack of Program Information	18.9
Need for Childcare	18.9
Stigma	17.9
Receiving other Treatment	12.6
Location / Distance	7.4
Clinic Hours	6.3
Clinician Factors	5.3
Parking	2.1

Note: Numbers reported are percentages

Table 41

CS Perspectives on Barriers to Caregiver Attendance

<u>Barrier</u>	<u>Percentage</u>
Cost	50
Time	33.3
Clinic Hours	33.3
Parking Availability	33.3
Lack of Transportation	33.3
Lack of Program Information	16.7
Location / Distance	16.7
Available Clinicians / Waitlist	16.7
Insurance	16.7

Note: Numbers reported are percentages

Table 42

GS Perspectives on Facilitators to Caregiver Attendance

<u>Facilitator</u>	<u>Percentage</u>
Accessibility	24.2
Types of Services Offered	21.1
Pro-Bono / No-Cost Services	12.6
Compatibility	9.5
Flexible Appointment Times	8.4
Provision of Child Care	3.2
Dedicated Intake Coordinators	3.2
Dedicated Clinicians	2.1
Dedicated Supervisors	2.1
Spanish-speaking Providers	1.1
Don't Know	5.3

Note: Numbers reported are percentages

Appendix V

Tables and Figures: Resource Analysis Data

Table 43

GS & CS Experience Providing Mental Health Services to Target Population

<u>Target Population</u>	<u>No Experience</u>	<u>Little Experience</u>	<u>Some Experience</u>	<u>Good Experience</u>	<u>Continually Work w</u>
Pop GS: Child*	12.4	25.8	40.4	14.6	
6.7					
CS: Child*	83.3	0	16.7	0	0
GS: Caregivers	0	23.6	21.3	13.5	2.2
CS: Caregivers	83.3	0	0	16.7	0

Note: Numbers reported are percentages

*Child = Children with ADHD

Table 44

GS Service Delivery Proficiencies

<u>Service</u>	<u>Percentage</u>
Assessment Services	70.8
Individual Therapy Services	62.9
Social Skills Group Services	56.2
Consultation / Liaison Services	44.9
Behavior Modification Services	37.1
Behavior Parent Training Services	24.7
Organizational Skills Training	21.3
Executive Functioning Training	3.4
None	9

Note: Numbers reported are percentages

Table 45

*GS Interest in New Service Delivery Training Program**

<u>Service Interested in Delivering</u>	<u>Percentage**</u>
Direct Interventions to Caregivers	91.8
Direct Interventions to Children with ADHD	88.5
Teacher / School Consultation	83.6
Medication Monitoring / Physician Consultation	39.3

Note: Numbers reported are percentages

*70.8% of GS reported interest in new multi-modal mental health training program targeting children with ADHD and their caregivers

**n=69 (70.8% of total sample n=98)

Table 46

GS Didactic Training Interests

<u>Didactic</u>	<u>Percentage</u>
ADHD Treatment Approaches	87.4
Working with Parents	73.6
Working with Children	69
Teacher / School-Based Consultation	67.8
ADHD Diagnostic Criteria	54
ADHD Etiology / Epidemiology	52.9
ADHD Risk Factors / Comorbidities	51.7
Physician / Health Care Provider Consultation	51.7
Individual Therapy	48.3
Child Development	44.9
Group Therapy	42.5
Lifespan Development	23
No Additional Training Required	0

Note: Numbers reported are percentages

Table 47

GS Knowledge, Skills, and Didactic Training Acquisition

<u>Current Knowledge & Skill Acquisition Method</u>	<u>Percentage</u>
On-the-Job Training	78.2
Supervision	65.5
Coursework	64.4
Independent Reading	29.9
Workshops	25.3
Websites	20.7
Online Training	6.9
Other (Practica/Externships)	3.1
Other (Research Experience)	2.1
Other (Previous Employment)	1.1
Other (Undergrad Fieldwork)	1.1
 <u>Desired Didactic Training Method</u>	 <u>Percentage</u>
Workshops	83.9
Supervision Groups	63.2
Courses	51.7
Individual Supervision	37.9
Online Training	28.7

Note: Numbers reported are percentages

Table 48

GS Perspectives on Considerations for Design of Training Program

<u>Consideration</u>	<u>Percentage</u>
Clinician Needs / Factors	14.7
Service Model	11.6
Procedures	10.5
Level of ADHD Training	9.5
Time	9.5
Supervision	7.4
Client Needs / Factors	7.4
Clinic Resources	7.4
Goodness-of-Fit	5.3
Consultation Ability	3.2
Program Sustainability	2.1

Note: Numbers reported are percentages

Table 49

GS Likelihood of Program Participation

<u>Sample</u>	<u>Not Likely</u>	<u>Somewhat Likely</u>	<u>Likely</u>	<u>Very Likely</u>	<u>Extremely Likely</u>
GS	42.5	34.5	13.8	8	1.1

Note: Numbers reported are percentages

Table 50

GS Perspectives on Barriers to Program Participation

<u>Barrier</u>	<u>Percentage</u>
Time	23.2
Clinic Organizational Issues	13.7
Interest	8.4
Supervision	7.4
Lack of Financial Compensation	7.4
Lack of Clients	6.3
Skills Deficits	4.2
Location of Service Provision	2.1

Note: Numbers reported are percentages

Table 51

CS Perspectives on Barriers to GS Program Participation

<u>Barrier</u>	<u>Percentage</u>
Time	33.3
Interest	33.3
Commitment	16.7

Note: Numbers reported are percentages

Table 52

CS Perspectives on Resources Available to Support Program Development

<u>Resource</u>	<u>Percentage</u>
Student Clinicians	100
Support Staff	83.3
Supervision	66.7
Technology	50
Materials	33.3
Space	16.7
Financial Resources	0

Note: Numbers reported are percentages

Table 53

CS Perspectives on Considerations to Design of Training Program for Students

<u>Consideration</u>	<u>Percentage</u>
Financial Resources	33.3
Clinicians	33.3
Supervisors	16.7
Staff Training	16.7
ADHD Training	16.7
Space	16.7
Program Evaluation	16.7

Note: Numbers reported are percentages

Table 54

*CS Perspectives on Procedures Required for Linking Clients with Services**

<u>Procedures</u>	<u>Percentage</u>
Phone Screening	33.3
Intake	66.7
Case Assignment	83.3
Case Consultation / Supervision	33.3

Note: Numbers reported are percentages

**80% of GS participants believe these same procedures could be used to support new program development.*

Table 55

CS Perspectives on Additional Resources Necessary to Support Program Development

<u>Resource</u>	<u>Percentage</u>
Financial Resources	66.7
Supervision	66.7
Space	33.3
Equipment	16.7
Administration	16.7

Note: Numbers reported are percentages

Table 56

CS Perspectives on Risk, Benefits and Timing of Program Development

<u>Timing</u>	<u>Percentage</u>
Right Time	16.7
Not Right Time	0
Unsure	83.3

Risk(16.7% reported question non-applicable)

Risk – Yes	66.7
Risk – No	0
Risk – Unsure	16.7

Benefits

Increased Service Provision	33.3
Increased Training	33.3
Financial Profit	33.3
Enhanced Reputation	33.3
Help at-risk Children / Families	16.7
Student Financial Compensation	16.7
Don't Know	16.7

Note: Numbers reported are percentages

Table 57

CS Perspectives on Barriers and Facilitators to Program Development

<u>Barrier</u>	<u>Percentage</u>
Financial Resources	50
Student Interest	33.3
Supervision	33.3
Space	33.3
Clinician Skill Deficit	16.7
Don't Know	16.7
<u>Facilitators</u>	
Dedicated Clinicians	16.7
Dedicated Supervisors	16.7
Dedicated Coordinators	16.7
Compatibility w/ Clinic Programs	16.7
Flexible Appointment Times	16.7
Don't Know	66.7

Note: Numbers reported are percentages

Table 58

CS Perspectives on Models for Program Development

<u>Model</u>	<u>Percentage</u>
Farleigh Dickenson University Clinic	16.7
Dr. Linda Reddy's Clinic	16.7
Don't Know	50

Note: Numbers reported are percentages