#### **ORIGINAL PAPER**



# Parents' Preferences for School- and Community-Based Services for Children at Risk for ADHD

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#### Abstract

This study used conjoint analysis, trade-off methodology employed by marketing researchers and health economists, to examine preferences of parents for school- and community-based interventions for childhood ADHD. Participants were 29 mothers (86.2% Caucasian) of boys aged 5–13 years with or at risk of ADHD. Mothers completed a conjoint survey that examined trade-offs across 15 attributes of service content (e.g., materials, resources), process (e.g., time demand, format/ delivery mode), and outcome (e.g., improvement in children's behavioral functioning). Findings suggest that parents preferred services maximizing children's behavioral and social outcomes (relative to family functioning). Parents were willing to give up services with desirable delivery features (such as daily homeschool notes and child's frequent participation in therapy) for programs optimizing outcomes. Simulation analyses, forecasting tools that predict how respondents would behave in the real world, revealed that 62.1% of parents were predicted to prefer a standard, evidence-informed school-based service involving daily teacher involvement and monthly parent involvement, while 37.9% of parents were predicted to use a standard, evidence-informed community-based service involving daily parent involvement and monthly teacher involvement. Findings from this study show that parents value improved social and behavioral outcomes more than desirable service delivery features. However, results suggest that if the treatment package includes school-based services in which there is greater teacher involvement and less parent involvement, a majority of parents prefer school services, especially if they involve children's ongoing use of self-control strategies. Results suggest ways in which the delivery of effective treatments needs to be altered to make them more palatable and acceptable by parents. Other implications for school-based practitioners are discussed.

Keywords School-based services · Community-based services · ADHD in children · Parent preferences · Conjoint analysis

# Introduction

# **Description of the Problem**

Up to 80% of children who need mental health services do not receive them (Kataoka, Zhang, & Wells, 2002) and of the families receiving treatment for their child's mental health needs, over half drop out prematurely (Miller & Prinz, 1990). Attention-deficit/hyperactivity disorder (ADHD) is a chronic childhood disorder and one of the most common, affecting 9.5% of youth in the USA (Center for Disease Control, 2010). ADHD and other mental healthcare problems often go untreated for a variety of reasons such

Frances A. Wymbs wymbsf@ohio.edu as treatment barriers of stigma and stress (Owens et al., 2002; Owens, Murphy, Richerson, Girio, & Himawan, 2008). When ADHD goes untreated, costs to society are exorbitant. Childhood ADHD is estimated to cost \$50-60 billion annually and \$14,000 per individual per year, rivaling societal costs for stroke and depression (Pelham, Foster, & Robb, 2007). ADHD is also costly to schools, with a student with ADHD estimated to incur an average annual incremental cost to society of \$5007 (Robb et al., 2011). Children with untreated ADHD pose a serious public health concern as they lag behind same-aged peers in sustained attention, impulse control, and modulation of activity level, each of which may result in impaired relationships with adults and peers and problems in social situations and academic settings (APA, 2013). Unfortunately, symptoms and impairment associated with ADHD persist for many into adulthood, particularly those who are untreated (Barkley, Murphy, & Fischer, 2008), leaving them at lifetime risk of a

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host of social, mental health, and medical problems. Given these long-term impairments associated with this chronic disorder, treating ADHD is crucial to prevent problems from worsening and persisting into adulthood.

#### **Effective Services**

Fortunately, effective treatments are available. One of the most successful, common, and well-established psychosocial treatments for child ADHD is behavioral parent training (BPT; Evans, Owens, & Bunford, 2014a; Chronis, Chacko, Fabiano, Wymbs, & Pelham, 2004). BPT involves teaching parents effective behavior management strategies (e.g., praise, positive attending, ignoring minor inappropriate behaviors, limit setting with house rules and time out, effective comments) in an effort to increase children's appropriate behaviors and decrease inappropriate behaviors. Other community-based psychosocial interventions with empirical support for elementary school-aged children include intensive peer interventions, or organizational interventions provided at a clinic (see Evans et al., 2014a for a review).

Other well-established interventions for children with ADHD are provided in school, including contingency management in the classroom and teaching students organization, time management, and planning (Evans et al., 2014a). School-based interventions for children with ADHD offer advantages over community interventions in that the former can increase access and decrease barriers to treatment that parents may face (e.g., transportation and child care problems; Evans, Rybak, Strickland, & Owens, 2014b). In one study comparing a school-based intervention to a community-based intervention for elementary students with ADHD, families randomly assigned to the school-based intervention had 80% enrollment in the program relative to the 55% enrollment for families recruited to clinic-based services (Atkins et al., 2006). Families assigned to schoolbased service also showed 100% retention at the end of 3 months, whereas no families remained in the clinic-based program at the end of 3 months (Atkins et al., 2006). Similar results were observed in a study comparing school-based to community-based interventions for at-risk preschool children (Shelton et al., 2000). Although these effects did not endure in 2-year follow-up assessments once the treatment was withdrawn (Shelton et al., 2000), findings suggest the superiority of this school-based intervention versus community treatments for very young children with ADHD, while interventions are implemented.

#### **Barriers to Service Engagement**

Unfortunately, families of children with ADHD are at a particularly high risk of attrition from and low engagement in treatment (Chacko et al., 2009) given increased

rates of parental stress, maladaptive cognitions, psychopathology, insularity, and other barriers to treatment (Chronis et al., 2004). Availability of services, knowledge of what is effective, and advertisement of the program (as well as other program and situational factors) may also impact treatment engagement (Smith et al., 2015). It is also likely that parents of children with ADHD drop out of treatment because they do not want what is offered to them—as such, parental preferences may be another factor that leads to treatment attrition and low engagement in services. The latest research indicates that 3 out of 4 parents seeking treatment for child ADHD would not choose as a first-choice option the evidence-based service offered to them (Wymbs et al., 2016), which may explain the rates of early termination and disengagement from treatment in these families. In this way, preference can impact pursuit of service or initial buy-into treatment, or it can impact intentions to stay in treatment. In the case of the latter, poor alignment between parents' preferences and mental health treatment received may inform why fewer than 50% of families seeking treatment for children's mental health problems complete treatment (e.g., Kazdin, 1996).

Other factors related to preferences that predict parent engagement include parent expectations and attributions. Parents' negative expectations (e.g., hopelessness) about treatment predict parents' low attendance, poor participation, and attrition in family-based services, and poor participation, engagement, and motivation, in turn, adversely impact these services (Hoagwood, 2005; Hoagwood et al., 2010). Parents are more likely to be dissatisfied and drop out if treatment misaligns with their expectancies, attributions, and preferences for treatment (Prinz & Miller, 1996; Vick & Scott, 1998). Conversely, parents may be more likely to use and adhere to services that align with their preferences (Morrissey-Kane & Prinz, 1999). Alignment of parent preferences and treatment has the potential to amplify the impact of evidence-based services and improve the outcomes of youth and families.

It is important to mention that parents may prefer something that is not effective. When this occurs, researchers need to balance parent preferences with interventions that have been found to be effective or evidence based. In one study, Wymbs et al. (2016) found that about a quarter of the parents surveyed preferred a minimal information option (i.e., a non-evidence-based service) over group or individual BPT for children at risk of ADHD; these researchers concluded that given these parents' strong preferences for minimally intensive BPT, a minimal information option might be offered first with the hope that over time, parents might become more open to evidence-based solutions (Wymbs et al., 2016). It is also possible that with increased education about evidence-based services and the benefits of effective interventions, parents' preferences might become better aligned with effective services.

# Best Practices for Measuring Preferences and Service Engagement

Investigating patient preferences in relation to service engagement presupposes that preferences can be accurately measured. However, measuring preferences via traditional rating scales, questionnaires, and interviews results in unreliable and invalid estimates of true patient preferences for many reasons. Namely, traditional methods often fail to mimic real-world choice-making scenarios and are subject to social desirability biases and demand characteristics [Cunningham et al., 2008; see (Reisberg, 2006) for a fuller discussion of this topic].

#### **Conjoint Analysis to Measure Preferences**

One method that health economists and marketing researchers have used to enhance accuracy when measuring preferences is conjoint analysis (Orme, 2013). Conjoint analysis is one of the most widely used quantitative methods in marketing research. It is used to measure preference for product/ service features, to learn how changes to price affect demand for products or services, and to forecast the acceptability of a product or service if brought to market (www.sawtoothso ftware.com). One conjoint method is the discrete choice experiment (DCE). DCEs employ multi-step processes and present individuals with choice tasks about experimentally, systematically varied combinations of product or service subcomponents. These subcomponents are shown in seemingly viable options comparing service delivery alternatives with one another in a survey. Each option is comprised of different levels of product "attributes," and participants make trade-offs between competing attributes. For example, parents who are asked to consider various parent-program attributes might be asked to choose between "A program that meets weekly in groups of 20 other parents with a therapist" or "A program that meets monthly and individually with a therapist" (attribute levels are underlined).

Conjoint analysis has been shown to yield accurate estimates of consumers' and patients' intentions to use and actual utilization of medical services (Phillips, Johnson, & Maddala, 2002). It is believed that the complexity of multi-attribute choice tasks allows participants to make trade-offs, thereby mimicking real-world decision-making (Ryan & Gerard, 2003), reducing social desirability biases inherent in traditional rating scales (Phillips et al., 2002), and predicting actual behavior (Hainmueller, Hangartner, & Yamamoto, 2014). As such, this approach is beneficial because rather than directly asking survey respondents what they prefer in a product or service, or what attributes they find most important, conjoint analysis employs the more realistic context of respondents evaluating potential product profiles. In fact, research on preferences (as measured by traditional surveys) shows that preference predicts consumer behavior (Kurzban & Weeden, 2007). In a study examining parents' preferences for school health programming, parental preferences (as measured by traditional surveys) regarding school-located immunization programs were related to program participation once it became available (Middleman & Tung, 2011). In this study, about 60% of parents who preferred school immunization programs on pre-questionnaires consented to having their child receive vaccines at school, and over 60% of parents who preferred non-school venues for immunization refused to allow their child to be vaccinated at school (Middleman & Tung, 2011). However, studies show that preference as measured by conjoint methods better predicts actual behavior relative to traditional approaches, such as the use of vignettes (Hainmueller et al., 2014). In a study examining preferences for granting citizenship to immigrants with varying profiles, conjoint approaches outperformed traditional vignette approaches in predicting behavioral benchmarks, i.e., willingness to grant citizenship to hypothetical individuals, showing that conjoint surveys better predicted real-world behavior than traditional vignette options (Hainmueller et al., 2014). Research also shows that conjoint approaches lead to more cost efficiency in the market place (Orme, 2013) by examining whether market shares of products estimated from stated preference data predict actual market shares (Hainmueller et al., 2014).

# Parents' Preferences for Children's Mental Health Services

Findings from the mental health field using conjoint analysis methods show that there are distinct groups of parents who show different patterns of preference for children's mental health services (e.g., Cunningham et al., 2008; Waschbusch et al., 2011; Wymbs et al., 2016; Wymbs et al., 2017). Specifically, parents' level of depression, children's severity of mental health problems, parents' interest in being involved, and parents' sensitivity to logistical demands in therapy predicted parent's preference for treatment (Cunningham et al., 2008; Wymbs et al., 2016, 2017). Findings also show that parents have preferences about the type and amount of involvement of their child in therapy/intervention services (Cunningham et al., 2013).

In Cunningham et al. (2008), some parents of children with mental health needs preferred solution-focused, problem-solving, action-oriented services; they valued outcomes over logistics (e.g., time demand) of the program. Others valued program logistics over improved outcomes in their children. Wymbs et al. (2016, 2017) found a similar pattern of preferences. In the Wymbs et al. (2016) study, most parents preferred a group or an individual parent training (PT) program over a minimal information service. In this study, parents preferring group PT were the most solutionfocused and action-oriented, and these parents preferred services that involved step-by-step skills training modules so that parents could solve children's behavioral problems. Parents preferring individual PT were interested in being educated about solutions and were sensitive to logistic demands, showing a preference for a service that fit their daily demands but still informed them about possible solutions. Wymbs et al. (2016) found that parents who reported the highest level of depression and the greatest severity of children's risk of ADHD preferred a minimal information service. In Wymbs et al. (2017), parents who preferred a group PT option were more solution-focused and outcome oriented; they were willing to forgo logistical preferences for better child outcomes. Parents preferring the waiting list option, or an alternative in which parents could select if they opted out of active parenting services, preferred to be less involved in their child's treatment and were more sensitive to logistic factors; they were willing to forgo better outcomes in order to have a more desirable service format (e.g., less group meetings and phone calls).

Another study found that when parents are waiting to receive a parent intervention for their child's mental health, they are especially interested in having the child participate in therapy (Cunningham et al., 2015). This is consistent with anecdotal reports from parents and clinicians in which parents state that they would like their child-as well as their child's teacher-to be involved in intervention services. Two recent studies have examined caregiver preferences using best-worst scaling, a method similar to conjoint analysis. Both studies examined preferences for a variety of management strategies, including a few aspects of school-based services, for ADHD in children. In a pilot study by dosReis et al. (2015), caregivers showed a preference for individualized education plans over a homeschool progress note and a tutor. However, caregivers in this study valued more other services available in the community (e.g., caregiver or parent training) than school-based services (as indicated by importance scores). In another study by Xinyi et al. (2016), caregivers showed a similar pattern of preference; they preferred an individualized education plan other a homeschool note and tutor; in this study, parents were more interested in a variety of community-based and school-based services than medication, but these services (community based, school based, and medication) were not directly compared against one another. Xinyi et al. (2016) also found that a third of caregivers did not receive the preferred individualized education plan and instead received a homeschool note or tutor not matching their first-choice preference.

Although recent studies using conjoint analysis have examined parent preferences for parent-based interventions for children with ADHD (Wymbs et al., 2016, 2017), few studies have examined parent preferences for any type of school-based intervention for children with ADHD (e.g., dosReis et al., 2015; Xinyi et al., 2016), and no study has investigated a variety of school-based preferences against those for community-based services using a DCE. In addition, more children receive mental health services through schools than through community clinics (Burns et al., 1995). This may be attributable to the fact that school-based service can reduce logistic barriers for parents (e.g., Owens et al., 2008), yet parent preferences for these two services have never been examined using conjoint analysis. Additionally, some school-based services, like the daily report card (DRC), may be maximized by at least some level of parent involvement (Vannest, Davis, Davis, Mason, & Burke, 2010). Indeed, a recent meta-analysis showed the benefits of a daily report card (DRC) intervention may be maximized when parents are involved (Vannest et al., 2010). Thus, it is important to understand parents' preferences for school-based services (i.e., location, reduce logistic barriers, or degree of involvement) given that some of schoolbased interventions are maximized by some level of parent support.

# The Current Study

Using conjoint analysis, the current study was designed to investigate two aims related to parents' preferences for school-based interventions. First, this study examined the degree (i.e., share) of preference for school-based versus community-based services for children with ADHD. Because school-based services reduce barriers for parents, we predicted that school-based services would be preferred to community-based services. Second, we examined parents' preferences for a variety of school- and community-based service components, delivery/process variables, and outcomes. To this end, we hypothesized that parents would prefer that their child and their child's teacher be very involved in their child's intervention<sup>1</sup> and use behavior management skills frequently, so as to reduce burden on themselves/or share in the treatment burden. We also hypothesized that parents would prefer to be somewhat involved in their child's intervention and use behavior management skills less frequently than their children or child's teacher. These hypotheses are based on

<sup>&</sup>lt;sup>1</sup> Although the term "intervention" may more commonly used by school mental health professionals, it is our impression that "therapy" is more commonly used among parents. As such, we refer to "intervention" in the text of this manuscript to appeal to the readership of this journal. However, we asked parents in the survey about their preferences for their child's "therapy."

previous findings of Cunningham et al. (2013) in which parents preferred children to participate in their child's intervention a lot (i.e., 67% of the time) and they preferred to be involved as parents less frequently (i.e., 33% of the time). Although no studies have investigated parents' preferences for teacher involvement or other aspects of school-based services, it is reasonable to assume that parents expect teachers to be highly involved in intervention and use behavior management skills frequently, following a preference for other caregivers to "fix" their child (Andrews, Andrews, & Shearer, 1989).

# Methods

#### **Participants**

Participants were recruited while enrolling their child in a therapeutic summer day-treatment program run in the community at a local university. Participants were 29 mothers of boys aged 5–13 years with or at risk of ADHD. Children must have shown three or more symptoms of inattention or hyperactivity/impulsivity as reported by parents and teachers on the Disruptive Behavior Disorders (DBD) Rating Scale (Pelham, Gnagy, Greenslade, & Milich, 1992) to be included in the study. Parents and teachers completed the DBD scales prior to the start of camp, and completion of these scales helped to determine eligibility of the camp and therefore our study. Of the 40 parents enrolling their child in the summer daytreatment program, 29 participants agreed to complete the discrete choice experiment (DCE) in accordance with the institutional review board-approved protocol. The 11 parents who did not complete the survey agreed verbally and initially to participate but could not complete the survey at the time of intake, i.e., when the survey was administered. At the time of the study, parents may have received treatment (for their child or family) previously, and most (i.e., 93%) reported having received some form of previous treatment, but families had not received any services associated with the upcoming summer day-treatment program as it had not yet started. Exclusion criteria were not showing 3 or more symptoms of ADHD. Additionally, children with estimated IQ lower than 70 or who presented with a mental health problem that could not be adequately addressed in the day-treatment setting and might compromise day treatment for others (e.g., severe autism spectrum disorder, childhood schizophrenia, or recent, severe physical aggression resulting expulsion from school) were not eligible for camp. Table 1 presents the demographic characteristics of the sample.

Table 1 Demographic characteristics of the study sample of parents

	M (SD)/ %
ADHD on IOWA Conners	8.59 (3.51)
Family status	
Single parents	6.90%
Two-parent family	93.10%
Parent's immigrant status	
Nonimmigrant	96.55%
Immigrant	03.45%
Parent's education level	
Doctorate/medical degree	27.59%
Master's degree	31.03%
Bachelor's degree	17.24%
High school degree	13.79%
Less than high school	6.90%
Other	3.45%
Family income level	
Under \$20, 000	10.34%
\$20,000-29,000	6.90%
\$30,000–59,000	58.62%
\$60,000 and over	20.69%
Prefer not to answer	3.45%
Child's first language	
English	96.55%
Another language	03.45%
Parent's race	
White	86.21%
Non-white	13.79%
Child's race	
White	68.97%
Non-white	31.03%

ADHD on IOWA Conners reflects total score on the first 5 items measuring inattention, overactivity, and impulsivity of the 10-item measure, with higher scores indicating higher levels of ADHD. Parents indicated whether children showed each symptom "not at all" (0), "just a little" (1), "pretty much" (2), or "very much (3). Indication of a symptom occurring "pretty much" (2) or "very much" (3) typically means that the symptom occurs at a level that is considered clinically meaningful. The average score presented here (i.e., 8.59) is consistent with data from clinical samples indicating risk of ADHD (Goyette, Conners, & Ulrich, 1978; Pelham, Milich, Murphy, 4 Murphy, 1989; Waschbusch & Willoughby, 2007). This average score suggests that parents endorsed 3 or 4 symptoms as occurring at clinically meaningful levels, with scores falling, on average, over a standard deviation above the mean

#### **Survey Development**

Themes for the survey were derived from two focus groups, one with a sample of 10 parents of 6–18-year-old children and another with 15 professional experts (e.g., clinicians, researchers, educators) in children's ADHD. Expert facilitators conducted the focus groups. Parents and professional experts in focus groups discussed children's mental health

#### (1 of 20)

Option 1	Option 2	Option 3
Coaching is provided over the internet as needed	Coaching is provided over the internet on a daily basis	Coaching is provided over the internet on a daily basis
Coaching is provided by the phone on a weekly basis	Coaching is provided by the phone on a weekly basis	Coaching is provided by the phone on a daily basis
	0	

Fig. 1 If these were your options for services to improve your child's mental health functioning, which would you choose? Assume that services are identical in all ways except for the differences shown

services and issues that were important to them, sources of information, and recommendations for improving these services. Information derived from focus groups was audiotaped and later transcribed by two advanced graduate students; comments were later subjected to thematic analysis, which is the focus of another paper. Then, using focus group themes, we composed a list of 15 attributes that best represented most comprehensively parents' and experts' needs and concerns. This list of 15 attributes centered on service content, delivery/process mechanisms, and outcomes. Later, our team pilot tested survey and solicited feedback from parents regarding unclear items/suggestions for rewording to maximize comprehension.

The rationale for selecting levels and frequencies within levels was guided by research in the school mental health field, feedback from expert focus group members, and awareness of conjoint principles. All attributes were defined by four levels to avoid biasing effects of any particular attributes (e.g., an attribute with seven levels may seem more important that one with four levels). For each set of four levels, one level described a common service feature, and three illustrated alternative design choices. For instance, the attribute "group versus individual meetings" was defined by a common group format, "is given to me in a group of 10 parents" as well as three actionable options "is given to me alone" or "is given to me in a group of 5 parents" or "is given to me in a group of 15 parents." A partial profile discrete choice experiment (DCE; Orme, 2013) with 30 choice tasks per participant was then developed.

To balance statistical and informant efficiency (Patterson & Chrzan, 2004), choice tasks in the current DCE presented three options to parents, with each way described by two levels of the same two attributes. This format has been used in other conjoint studies (Cunningham et al., 2008; Wymbs et al., 2016), and the rationale for the number of attributes and type of levels selected is articulated in Orme (2013) and Patterson and Chrzan (2004). Attempts were made to include the most pertinent attributes in the survey to ensure

gathering accurate information and asking enough questions (i.e., maximizing statistical efficiency) while avoiding fatiguing the respondent by including too many variables or variable levels (i.e., maximizing information efficiency). Figure 1 presents an example choice task from the survey, showing a service comprised of two attribute subcomponents or levels. In remaining choice tasks, other attributes and their levels may be paired with these or previously unseen attribute levels. A sample survey examining providers' preferences for behavioral mental health consultation that demonstrates choice task presentation can be found at https://RRBehavior alConsultantConjoint.sawtoothsoftware.com/login.html.

Regarding the complexity of choice tasks and the survey and whether parents could respond accurately, we pilot tested the survey with 10 parents of various educational backgrounds, and all reported in follow-up interviews that they could understand what was being asked of them as well as what was presented to them in conjoint tasks. We specifically solicited feedback regarding wording of attribute levels to ensure comprehension and make adjustments to language when they reported that wording was unclear. The final version of the survey was pilot tested among five additional parents, each of whom reported being able to understand all attributes and levels in the choice task.

Conjoint analysis is considered a decompositional approach because conjoint methods allow researchers to compute the relative influence of variations in the levels of each attribute on respondents' choices (i.e., importance scores; Lancsar & Louviere, 2008). Respondents show sensitivity to variations in the levels of an attribute by demonstrating that the least versus the most preferred level is large in relation to the total variation across attributes (which is indicated by importance scores). Within attributes, a respondent's preference for one level over another is indicated by a higher utility value. Recognizing influential attributes and preferable service subcomponents is beneficial when trying to understand complex decision-making (Orme, 2013).

#### Measures

#### **Demographic Information**

Mothers reported their education level, marital/relationship status, and family income; they provided their child's first language and race. Mothers were also asked to give their own and their child's immigrant status.

# Children's Mental Health Problems and Associated Impairment

Parents completed the Disruptive Behavior Disorder (DBD) Rating Scale (Pelham, Gnagy, Greenslade, & Milich, 1992) to assess for ADHD symptoms (three symptoms must have been endorsed to be "at risk") and clinical diagnosis. Parents' endorsement of three or more symptoms of ADHD qualified them for the study. The DBD rating scale is shown to have good reliability and validity; internal consistency reliabilities (Cronbach's alpha) were .95 for ADHD inattention, .94 for ADHD-hyperactive/impulsive, and .97 for all ADHD symptoms examined together (Wright, Waschbusch, & Frankland, 2007). At the start of the current study (i.e., about eight weeks after parents completed the DBD), parents completed the 10-item IOWA Conners Rating Scale (Conners, 1997) to assess for current ADHD. The IOWA Conners is shown to have good reliability, with Chronbach's alpha internal consistency reliability ranging between .78 and .91 (Waschbusch & Willoughby, 2007). The first five items of the IOWA Conners scale assess inattention, overactivity, and impulsivity, and those items were used to assess current ADHD symptoms. Parents also completed the Impairment Rating Scale (IRS; Fabiano et al., 2006) to discern whether the child showed impairment associated with having ADHD symptoms. The IRS-Parent version is a six-item measure that is used to assess children's severity of impairment associated with ADHD and its deficits. Higher scores indicate more impairment. The IRS has been shown to have good temporal stability and has demonstrated convergent and discriminant validity (Fabiano et al., 2006) as well as adequate reliability and validity (Pelham, Fabiano, & Massetti, 2005). Cross-informant reliability on the IRS is .64 (Fabiano et al., 2006).

#### Procedure

Anonymous surveys were completed in a university-based laboratory on a computer. All families were presenting to a university-based clinic to enroll their child in a therapeutic summer day-treatment program. Each participating parent completed the study in a separate room. Parents were given online informed consent. The median completion time was 30.5 min. Parents completed all demographic and descriptive measures online, followed by the online 30-choice task conjoint survey.

#### **Data Analysis**

To test hypotheses of aims 1 and 2, simulation analyses were conducted and parameter estimates (utility values and importance scores) were generated. The processes for conducting simulation analyses and computing utility values and importance scores are provided below.

#### Simulations

Randomized first-choice (RFC) market simulations were used to model parental response to the services. Simulations were run to predict percentages of parents that would prefer<sup>2</sup> school-based services and community-based services. Simulations were conducted given that traditional approaches are subject to social desirability biases, simplifying heuristics, and difficulties reflecting real-world decisions, and therefore, the latter are likely to yield inaccurate preference estimates. RFC simulators are forecasting tools that predict individuals' responses to the combinations of attribute levels. Attribute levels reflect service subcomponents that may be available in the real world. For example, in this study, subcomponents of services (i.e., attribute levels) can be arranged to build school-based services (e.g., a daily report card with teacher consultation). Simulations estimated the proportion of parents preferring each service by determining the service that maximized parents' preference score across attributes, and estimated attribute and program variability error (Huber, Orme, & Miller, 2007). The specific steps to conduct the simulation began with modeling a standard school-based service and community-based service. Table 2 presents the attribute levels that were indicated for each selected attribute of school- and community-based services (see also Table 3 for a list of attributes and Table 4 for a complete list of attributes and levels). The selection of these attribute levels was based on empirical research summarizing the components of effective school- and community-based interventions, namely contingency management in the classroom with teacher consultation and behavioral parent training (Evans et al., 2014a; Page et al., 2016; Watabe, Stewart, Owens, Andrews, & Griffeth, 2013). Importantly, these options did not have a label such as "Behavioral Parent Training" or "Daily Report Card with Teacher Consultation" as they were instead a combination of generic service components.

 $<sup>^2</sup>$  We use the term "prefer" instead of "predicted to prefer," language used by marketing researchers (Orme, 2013), here and throughout the manuscript to enhance readability of the text.

Table 2	Outcome, process, and	d content attribute	levels that differed	l between the stand	dard school and	d community options
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Service option/attribute	School	Community	
Outcome			
Improves behavioral functioning	Is 75% effective in improving behavioral functioning	Is 75% effective in improving behavioral func- tioning	
Improves social functioning	Is 75% effective in improving social functioning	Is 75% effective in improving social functioning	
Improves academic functioning	Is 75% effective in improving academic func- tioning	Is 25% effective in improving academic func- tioning	
Improves family functioning	Is 25% effective in improving family function- ing	Is 75% effective in improving family functioning	
Process			
Rate of child participation	Child participates in therapy weekly	Child participates in therapy weekly	
Rate of parent participation	Parent participates in therapy monthly	Parent participates in therapy daily	
Rate of teacher participation	Teacher participates in therapy daily	Teacher participates in therapy monthly	
Rate of phone coaching	Coaching is provided by the phone as needed	Coaching is provided by the phone as needed	
Rate of internet coaching	Coaching is provided over the internet as needed	Coaching is provided over the internet as needed	
Frequency of report card feedback	A homeschool note is used daily	A homeschool note is used monthly	
Group size of child meetings	Child attends meetings individually	Child attends meetings individually	
Group size of parent meetings	f parent meetings Parent attends meetings with a therapist and 5 Parent attends meetings with a therapist other parents other parents		
Content			
Parent uses behavior management skills	Behavior management skills used by me the parent to help my child 25% of the time	Behavior management skills used by me the par- ent to help my child 75% of the time	
Teacher uses behavior management skills	Behavior management skills used by the teacher to help my child 75% of the time	Behavior management skills used by the teacher to help my child 25% of the time	
Child uses self-management skills	Self-control strategies used by my child 50% of the time	Self-control strategies used by my child 50% of the time	

Attribute levels that differed between the two services are bold-faced. All other attributes (that are not bold-faced) were held constant in the simulation

Randomized first-choice (RFC) market simulations were used to model parental response to the services, and RFC simulators are forecasting tools that predict individuals' responses to the combinations of attribute levels. As such, RFC simulations were used to test the second hypothesis. Attribute levels reflect service subcomponents that may be available in the real world. For example, in this study, subcomponents of services (i.e., attribute levels) can be arranged to build school-based services (e.g., a daily report card with teacher consultation). Simulations are then run to predict what percentage of parents would want each service option (i.e., in this study, school-based or community-based services). Simulations assume that parents would choose a service that maximizes utility. Simulations estimated the proportion of parents preferring each treatment by determining the service that maximized parents' preference score across attributes, and estimated attribute and program variability error (Huber et al., 2007; aim 1).

#### **Utility Values and Importance Scores**

Hierarchical Bayes theorem and a simulated Monte Carlo Markov chain algorithm (e.g., Gibbs sampling) were used to compute utility coefficients for each participant (Orme, 2013). The hierarchical model draws from two separate models, including (1) a lower-level model that estimates how well part-worth utilities fit choices of each respondent in the study sample, and (2) an upper-level model that borrows information from other respondents in the study sample to compute part-worth utility averages and variances for the entire study sample (Orme, 2013). Utility values were zero-centered and involved setting the average utility value range of all attributes to 100. Utility values show the relative strength of the levels of each attribute on participant choices; higher values reflect stronger preferences. To estimate each respondents' sensitivity to variations in the levels of an attribute, importance scores were calculated by computing a percentage score; this percentage reflected the sum of each

	Average Importan Scores ( $N = 29$ ) R = M (S		ortance 9)
	R	М	(SD)
Attributes			
Improves behavioral functioning	1	11.5	(2.3)
Improves social functioning	2	9.8	(2.8)
Rate of phone coaching	3	9.1	(2.2)
Improves academic functioning	4	8.6	(3.2)
Rate of parent participation	5	7.4	(1.5)
Child uses self-management skills	6	7.1	(1.7)
Improves family functioning	7	6.7	(2.1)
Teacher uses behavior management skills	8	6.6	(1.5)
Rate of child participation	9	5.7	(2.0)
Rate of internet coaching	10	5.1	(2.2)
Rate of teacher participation	11	5.0	(2.0)
Parent uses behavior management skills	12	4.6	(1.3)
Group size of child therapy meetings	13	4.6	(1.4)
Frequency of report card feedback	14	4.2	(1.6)
Group size of parent therapy meetings	15	4.1	(0.8)

 Table 3
 Importance scores for school- and community-based service features

R = relative rank of importance scores

of the ranges in utilities (maximum minus minimum) across attributes divided by the number of attributes (Orme, 2013). Higher importance scores indicate greater influence of one attribute above all others on participant choices. Utility values and importance scores were then aggregated to explore parents' preferences for various school- and communitybased mental health service components, processes, and outcomes (aim 2).

# Results

# Aim 1: Calculate the Share of Preference for School-Based Versus Community-Based Services

Simulation analyses revealed that 62.1% of parents were predicted to use a standard school-based service, while 37.9% of parents were predicted to use a standard community-based service. However, when the standard, evidence-based school service involved children using self-control strategies most (75%) of the time (manipulating the level of the "Child uses self-management strategies" attribute), school services were preferred overwhelmingly (82.5%) to community services (17.5%). On the other hand, when teacher involvement was reduced from a daily to a weekly basis in these school-based services, making the school-based service less intense (i.e., manipulating the level of the "Rate of teacher participation" attribute) only 33.3% of parents preferred them to a community-based service that included daily parent involvement (preferred by 66.7% of parents).

# Aim 2: Examine Service Features Most Important to Parents

Importance scores (Table 3) and utility values (Table 4) show that parents differentially value outcome and process service attributes and subcomponents. A brief description of the outcome, process, and content attributes preferred by parents follows.

# **Outcome Attributes**

Importance scores showed that variations in outcomes were very important to parents (Table 3). Parents preferred services that were 75% effective (vs. 50, 25%, and less than 25% effective) in improving children's behavioral, social, and academic functioning (Table 4), and among all of the attributes (outcome, process, and content), parents were most concerned about improving children's behavior (Table 3). They were also concerned about improving children's social and academic functioning. Parents also preferred services that were 75% effective (vs. 50, 25%, and less than 25% effective) in improving family functioning, though this attribute exerted less influence on their choices.

# **Process Attributes**

Process attributes were moderately important to parents (Table 3). Parents preferred services in which phone coaching was provided as needed and programs in which parents participated in intervention monthly or weekly (Table 4). However, it is important to note that parents were sensitive to these attributes given a strong disutility (or lack of preference) for the more intensive options, daily phone coaching, and daily parent participation, for each of these. Parents preferred services in which children participated in intervention weekly and teachers participated monthly (relative to daily and as needed intervention). Parents preferred internet coaching as needed (relative to daily, weekly, and monthly service). Parents preferred a weekly homeschool note over a daily and monthly homeschool note, though they were less sensitive to this attribute relative to other attributes. Finally, parents were less sensitive to the group size of child and parent meetings, preferring groups of 5 or less individuals.

# **Content Attributes**

Content attributes were relatively less important to parents than other attributes (Table 3). Parents preferred that children use self-control strategies 75% of the time (vs. 50, 25%, and less than 25% of the time), teachers use behavior Table 4 Standardized (zero-summed) utility value descriptives for school- and community-based service features

Content of attribute level	M	(SD)
Attributes		
Improves behavioral functioning		
Is less than 25% effective in improving behavioral functioning	- 71.4	18.1
Is 25% effective in improving behavioral functioning	- 49.0	18.7
Is 50% effective in improving behavioral functioning	28.7	11.8
Is 75% effective in improving behavioral functioning	94.5	25.2
Improves social functioning		
Is less than 25% effective in improving social functioning	- 72.6	21.5
Is 25% effective in improving social functioning	- 48.7	16.1
Is 50% effective in improving social functioning	48.6	14.1
Is 75% effective in improving social functioning	72.7	26.2
Rate of phone coaching		
Coaching is provided over the phone as needed	42.7	22.4
Coaching is provided over the phone monthly	26.2	19.0
Coaching is provided over the phone weekly	14.0	20.4
Coaching is provided over the phone daily	- 82.8	24.0
Improves academic functioning		
Is less than 25% effective in improving academic functioning	- 54.9	31.9
Is 25% effective in improving academic functioning	- 36.3	22.4
Is 50% effective in improving academic functioning	29.3	18.1
Is 75% effective in improving academic functioning	61.9	34.0
Rate of parent participation		
Parent participates in therapy minimally (i.e., less than monthly)	20.1	30.3
Parent participates in therapy monthly	21.3	21.2
Parent participates in therapy weekly	20.6	25.2
Parent participates in therapy daily	- 62.0	19.1
Child uses self-control strategies		
Self-control strategies not used by my child	- 52.7	19.8
Self-control strategies used by my child 25% of the time	- 26.3	15.5
Self-control strategies used by my child 50% of the time	35.0	19.3
Self-control strategies used by my child 75% of the time	44.0	21.2
Improves family functioning		
Is less than 25% effective in improving family functioning	- 49.9	22.2
Is 25% effective in improving family functioning	- 21.3	22.2
Is 50% effective in improving family functioning	30.6	14.5
Is 75% effective in improving family functioning	40.6	25.1
Teacher uses behavior management skills		
Behavior management skills not used by teacher to help my child	- 57.0	15.0
Behavior management skills used by teacher to help my child 25% of the time	9.0	21.6
Behavior management skills used by teacher to help my child 50% of the time	15.5	13.1
Behavior management skills used teacher to help my child 75% of the time	32.4	21.7
Rate of child participation		
Child participates in therapy minimally (i.e., less than monthly)	8.2	19.0
Child participates in therapy monthly	6.5	20.2
Child participates in therapy weekly	31.1	12.3
Child participates in therapy daily	- 45.8	30.9
Poto of internet cooching		

Rate of internet coaching 22.6 Coaching is provided over the internet as needed Coaching is provided over the internet monthly 4.8 Coaching is provided over the internet weekly 4.7 Coaching is provided over the internet daily - 31.8

13.2

35.0

16.3

30.6

Table 4 (continued)	Content of attribute level	M	(SD)
	Rate of teacher participation		
	Teacher participates in therapy minimally (i.e., less than monthly)	- 1.0	27.9
	Teacher participates in therapy monthly	14.9	29.3
	Teacher participates in therapy weekly	0.3	20.7
	Teacher participates in therapy daily	- 14.2	40.5
	Parent uses behavior management skills		
	Behavior management skills not used by me to help my child	- 23.4	21.4
	Behavior management skills used by me to help my child 25% of the time	- 27.1	9.3
	Behavior management skills used by me to help my child 50% of the time	27.0	10.2
	Behavior management skills used by me to help my child 75% of the time	23.5	20.6
	Group size of child meetings		
	Child attends meetings with a therapist individually	22.5	21.7
	Child attends meetings with a therapist and 5 other children	23.8	13.4
	Child attends meetings with a therapist and 10 other children	- 13.2	15.3
	Child attends meetings with a therapist and 15 other children	- 33.0	13.4
	Frequency of report card feedback		
	A homeschool note of the child's progress at school is provided as needed	- 6.7	24.4
	A homeschool note of the child's progress at school is provided monthly	- 0.6	24.4
	A homeschool note of the child's progress at school is provided weekly	15.3	18.4
	A homeschool note of the child's progress at school is provided daily	- 8.0	34.6
	Group size of parent meetings		
	Parent attends meetings with a therapist individually	18.2	17.6
	Parent attends meetings with a therapist and 5 other parents	22.6	9.1
	Parent attends meetings with a therapist and 10 other parents	- 10.6	16.3
	Parent attends meetings with a therapist and 15 other parents	- 30.2	8.4

Means and standard deviations associated with utility values for each attribute level. The utility value associated with the preferred level for each attribute is bolded

management strategies 75% of the time (vs. 50, 25%, and less than 25% of the time), and parents use behavior management strategies 50% of the time (relative to 75, 25%, and less than 25% of the time; Table 4).

# Discussion

This study examined mothers' preferences for components of school- and community-based services among parents of boys at risk of or diagnosed with ADHD. Results from this study contribute to the literature by showing that most mothers prefer a standard, evidence-based school intervention (preferred by 62% of sample) over a standard community-based intervention (preferred by 38% of the sample). A standard school-based program in this study involves teachers' daily implementation of behavior modification procedures, including monitoring of student's behavior and feedback on behavioral goals (Watabe et al., 2013). As such, results support the first hypothesis that school-based services would be preferred over community-based services. That said, parents only showed this preference when school-based services were more intensive. Findings show that if teachers are not able to be involved on a daily basis and are instead involved on a weekly basis, parents prefer a communitybased program (including weekly parent involvement) to a school-based program involving weekly teacher participation. One reason for these findings might be that parents estimate that children's needs require daily monitoring by some caregiver, and they prefer school-based programs in which the teacher is the caregiver of this intervention compared to community-based programs in which they themselves are the caregiver. However, if the teacher is not able to be involved at a daily frequency, they prefer to monitor and be involved themselves.

Parents also indicated that the standard school-based service could be optimized by ensuring that children practice self-control strategies most (i.e., 75%) of the time. This finding supports the second hypothesis. With children using self-control strategies, 80% of parents preferred the schoolbased service to the community service. Importantly, this change in preference occurred without parents desiring an increase in the frequency of child's participation in intervention meetings as this attribute was held constant across all of the conditions of the simulations. This means that parents would prefer that the child practice their skills on their own without requiring additional meetings with teachers, parents, or clinicians. This finding is important because many school-based practitioners or community clinicians may be under the impression that increase child-focused meetings must occur in order to enhance buy-in from parents. However, this finding implies that it is the daily practice of skills that the parent values, not the child's attendance in additional child meetings. This builds on findings showing that in general, social skills interventions are highly acceptable and considered socially valid to both parents and educators (Colton & Sheridan, 1998). The implication that parents care more about daily practice of skills is also consistent with Hart's (2016) findings that elementary teachers report using universal and targeted intervention strategies at a frequent rate, and some of these (e.g., classwide rules, weekly report card) involve students' acquisition and practice of rules and self-control skills. These findings also suggest that parents are likely comfortable with Tier 1 strategies (e.g., teacher's use of praise, classroom rules) or Tier 2 strategies applied to the whole classroom (e.g., "PAX Good Behavior Game") in which teachers reinforce students' use of self-control skills and good behavior in the moment it occurs (e.g., Domitrovich et al., 2010), which is consistent with prior research underscoring the acceptability of specific Tier 1 and 2 strategies (Girio & Owens, 2008). Taken together, findings suggest that if teachers were systematically given opportunities to teach rules to students and reinforce students' practice of skills, these services could positively impact children's behavior and match parents' preferences.

This study also contributes to the literature by showing that most mothers of boys at risk of ADHD preferred a service that maximized their child's outcome. Findings suggest that parents preferred services designed to "improve children's behavioral functioning," followed by programs designed to "improve children's social functioning." Parents were willing to give up services with desirable delivery features (e.g., phone coaching as needed and small group intervention meetings) in exchange for programs optimizing outcomes. Parents preferred interventions wherein their "children were taught to use self-control strategies" and those wherein "teachers used behavior management strategies with their child almost all the time."

Findings suggest that mothers in the sample wanted best outcomes for their child with moderate work exerted from their end. For example, they preferred services that maximized children's social and behavioral outcomes and involved 50% or less of their own effort in behavior management. This could be interpreted to mean that parents preferred to use behavioral management skills half the time they are with the child while still expecting their child to show major improvements in social and behavioral functioning. Additionally, it was more important to parents that avoid daily phone coaching than to see their child show academic success, as indicated by importance scores and utility values. They were, however, comfortable with phone coaching as needed. Taken together, these findings suggest that parents are trading off how much a service works with how much effort it takes. This is the first study to show that parents prefer exerting moderate (as opposed to intensive or modest) effort if it is associated with 75% improvement in children's behavioral, social, and academic outcomes.

The preferences of mothers in the current study were influenced less by content attributes than by outcome attributes. Specifically, parents in the current study seemed to prioritize children's improved outcomes over the skills that could facilitate these improvements. For instance, it was less important to mothers that children use self-control strategies than it was for them to show improved behavioral or social functioning. Parents in the study also valued less teachers' or their own use of behavior management strategies, despite a preference for improved behavioral, social, and academic outcomes. These findings contrast previous conjoint studies examining parents' preferences for outcome, process, and content attributes showing that many parents valued content and outcome attributes equally (Cunningham et al., 2008; Wymbs et al., 2016; Wymbs et al., 2017). One reason for this finding may be that parents do not know what is most effective so it is difficult to make content judgments, but they do know that they want improvement.

#### Implication of Study Findings

Results from this novel study highlight the importance of examining parents' preferences for a variety of school- and community-based services, the former of which are the most often provided and offer the greatest chance to minimize barriers to mental health care. Children do not often receive the care that they need (Kataoka et al., 2002), so it is crucial that parents' preferences for mental health services offered in schools be explored to increase program reach. Current findings highlight that parents prioritize aspects of school and community services that may have been previously overlooked. Indeed, they valued improvements in children's outcomes *although* they preferred to be moderately involved themselves. They preferred that children participate in weekly intervention meetings. They preferred schoolbased interventions in which the teacher was involved on a daily basis, and if this could not occur, they preferred a community intervention. They were interested in receiving a weekly (not daily) homeschool note of the child's progress, though this preference was less important than preference for outcomes and other service components. These findings are important to consider because of the costs incurred by schools to support each child with ADHD (roughly \$5000/

year in 2005 US dollars; Robb et al., 2011. However, most of these costs are attributed to the costs of special education services, some of them with limited evidence (Harrison, Bunford, Evans, Owens, 2013; Spiel, Evans, Langberg, 2014) and limited desirability of parents, according to this study.

For example, some schools require children with ADHD to attend daily social skills training, but there is a lack of documented effectiveness of these programs as stand-alone services, and parents in the current study seem to prefer children's involvement in weekly-not daily-intervention meetings. Because research shows that services with limited effectiveness can be frequently used possibly because of their face validity or high appeal to educators (Harrison et al., 2013), it stands to reason that services are also offered because of a belief that they would be appealing to parents, regardless of (a lack of) evidence. By using school-based interventions that are both effective at reducing symptoms and impairment and appealing to families, we could possibly reduce the number of children with ADHD who are referred to special education services and/or make special education interventions more effective. Further, it is possible that services, universal or targeted, might be offered in the general education setting, instead of special education services, and appropriate teacher responses within these services are associated with improvements in children's behavior (Owens et al., 2017). Additionally, research shows that teachers report using low-intensity, universal behavioral supports in their classroom (e.g., praise, classwide rules) over targeted strategies (e.g., daily homeschool note; Hart et al., 2016), the former of which might be more appealing to parents (based on our findings) and reduce costs.

These findings carry other implications for school mental health practitioners. Findings suggest that in order to maximize the appeal of school-based services to parents, teachers need to be involved on a daily basis. Their involvement could take the form of monitoring students' progress on goals and providing feedback on behavior (Watabe et al., 2013), such as implementation of a weekly daily report card (Hart et al., 2016) or the use of the Good Behavior Game (Domitrovich et al., 2010). If the teacher is unavailable to engage in these services, another educator, such as a school mental health professional, might assist in these responsibilities. Further, at the point of intervention planning with a child study team, the child's teacher or a school mental health professional (e.g., psychologist or school counselor) should consult with school professionals as well as parents to ensure that there is balance in the intensities of involvement of teachers, parents, and the children themselves in interventions. Notably, in light of findings indicating that school-based services encouraging students' ongoing use and practice of skills are desirable to parents, educators might prompt students to use their skills and provide brief feedback to the students when these skills are used. Importantly, this skill use does not necessitate an increased frequency of meetings—rather, brief feedback or reminders to practice skills may suffice.

It is important to remember that just because a parent (or another caregiver) has a preference for one service over another, a service should not necessarily be offered if it lacks evidence or is shown to be harmful. For example, in our clinical experience, many parents have requested play therapy for their child with acting out problems, but there is no evidence that this intervention is effective for this population of children (Evans et al., 2014a; Pelham, Chronis, & Wheeler, 1998; Pelham & Fabiano, 2008). As such, play intervention should not necessarily be offered just because of parents' preferences. Interventions should be offered that maximize and strike a balance between social validity, treatment acceptability, and effectiveness (Heubeck, Otte, & Lauth, 2016). Finally, clinicians need to balance parent preferences with evidence-based strategies, and when necessary (i.e., a non-evidence-based intervention is preferred), educate the parent in the hopes of better aligning parent preferences with evidence-based strategies.

#### **Limitations and Future Research**

There are limitations to the study that warrant future research. First, responses on discrete choice experiments (DECs) do not automatically translate to real-world service use (Wymbs et al., 2016). DCEs can more accurately predict actual behavior in the real world relative to more traditional approaches for predicting consumer behavior, but it remains uncertain whether DCE responses accurately predict participants' utilization of mental health services. Future research is needed to examine the relationship between preferences and real-world service use. Related, although parents completed pilot tests and reported afterward that they understood what was asked of them in choice tasks, we cannot be sure that they comprehended each item as intended. Future research that combined conjoint approaches with in-the-moment interviews or questionnaires using ecological momentary assessment could elucidate whether choice tasks in conjoint surveys are interpreted as intended by the investigator. Second, the small sample size, especially given that it includes a highly selective, well-educated group of treatment-seeking, white, same-gendered parents of boys from two-parent households, might not generalize to other groups of parents. It is possible that parents' choice to enroll in a summer program that included a parent workshop was a filter for those with certain preferences, potentially biasing the sample of parents. It is also possible that other caregivers (e.g., fathers, guardians) of girls show different patterns of preference. Thus, future research should include other groups of parents to form a more representative sample. Related, the small sample size precludes the ability to

examine responses of subsets of parents (i.e., parents of middle school versus elementary-aged children), but a worthy area of future research is to examine differences in parents' preferences based on age of the child. Additionally, this study measured some important attributes of content, process, and outcome associated with school- and community-based services, but other attributes (e.g., medication use) were not included. Finally, to address the potential for parents' limited knowledge about effective services, educational interventions about evidence-based strategies could be offered to families and, over time, it is possible that enhanced knowledge could lead to better alignment between their preferences and evidence-based services. An interesting future research direction could also assess whether the provision of an educational intervention to parents is associated with a change in parents' preferences before versus after the intervention.

# Conclusions

Parents in the current study preferred services that maximized children's social, behavioral, and academic outcomes for children at risk of ADHD. Simulation analyses predicted that most parents would prefer a school-based service including daily participation from the teacher over competing alternatives; if the teacher is not available on a daily basis, parents would prefer community-based programs in which they the parent are involved on a weekly basis. Simulations showed that most parents prefer programs that maximize their child's success and minimize their involvement as parents, but they are only willing to trade parent involvement if teacher involvement is high. To enhance uptake of mental health services for this at-risk population, school-based services that include daily monitoring of and feedback on students' progress by teachers are needed. If a teacher is not able to provide this level of involvement, another educator, such as a school mental health professional, might implement a program involving daily monitoring and feedback to optimize parent interest. Parents also prefer that their child use their self-control strategies almost all of the time. As such, school services that encourage students' daily use and practice of their skills-without necessarily increasing the frequency of child-focused meetings-would likely maximize appeal to parents. Overall, school-based services utilizing daily teacher involvement and encouraging students' continued use of self-control skills would most likely enhance parent buy-in.

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# **Compliance with Ethical Standards**

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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