

Evidence-Based ADHD Treatment With a Spanish-Speaking Latino Family

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Though data support effective treatments for attention-deficit hyperactivity disorder (ADHD), little research examining these interventions with ethnic minority families exists. Thus, the current case study focuses on a Spanish-speaking, Latino family assessed and treated in a university-based ADHD clinic implementing evidence-based treatment. In addition to discussing the course of treatment, this case study highlights some of the challenges faced when treating ethnic minority families and identifies several lines of research needed to fully explore ethnicity and treatment outcomes in child psychotherapy.

Keywords: *ADHD; Latino; culturally competent treatment*

1 Theoretical and Research Basis

Attention-deficit hyperactivity disorder (ADHD) is one of the most commonly diagnosed mental health disorders in children (American Psychiatric Association, 2000). The long-term, developmental trajectory suggests that children with ADHD continue to experience debilitating symptoms into adulthood and are at greater risk for developing new problems (Barkley, Murphy, & Kwasnik, 1996; Biederman et al., 2005; Flory, Molina, Pelham, Gnagy, & Smith, 2006). Fortunately, there are effective treatments for ADHD (Hoza, Kaiser, & Hurt, 2008; Pelham & Fabiano, 2008; Swanson, McBurnett, Christian, & Wigal, 1995). However, most mental health treatment outcome studies to date have not included enough ethnic minority children to determine whether evidence-based interventions generalize to these families (Forehand & Kotchick, 1996; Miranda et al., 2005; Weisz, Huey, & Weersing, 1998). From a public health perspective, it seems particularly important to examine effective mental health treatments for Latino children, as they are one of the fastest growing ethnic minority groups in the United States (U.S. Census Bureau, 2003); are estimated to have a greater prevalence of several mental health problems than other children (MMWR, 2000, as cited in Kataoka, Zhang, & Wells, 2002); often do not receive the services they need to be consistent, and when they do, their families are more likely to prematurely terminate treatment (Huey, 1998, as cited in McCabe, 2002; McCabe et al., 1999).

Evidence-Based Treatment for Childhood ADHD

As mentioned, research supports two evidence-based treatments for childhood ADHD—psychosocial and pharmacological interventions (Hoza et al., 2008; Pelham et al.,

1998; Swanson et al., 1995). In their reviews, Pelham and colleagues (1998) and Hoza and colleagues (2008) identified two empirically supported psychosocial treatments for ADHD—behavioral parent training and classroom interventions. The specific content covered in parent training may vary slightly depending on the program and/or family. However, in general, it consists of 8 to 12 sessions that include psychoeducation about ADHD and behavioral principles and development of specific parenting strategies. Sessions are skill-based and cover topics such as giving effective instructions, using time out, attending and praising positive behavior, ignoring mildly negative behavior, establishing a token economy, and implementing a classroom intervention (Anastopoulos & Farley, 2003; Barkley, 1998). Research demonstrating effectiveness of behavioral parent training has found improvements in a variety of outcome measures, including reductions of child behavior problems (e.g., decreased hyperactivity), improved parent–child interactions (e.g., increased child compliance) and discipline as well as decreased parenting stress and increased parenting efficacy (Hoza et al., 2008; Pelham et al., 1998). Classroom interventions, such as the daily report card involve defining specific, measurable, functional problems in the classroom (e.g., an inability to complete seat work); setting initial goals determined by baseline behavior; shaping behaviors over time; and establishing a home-based reward program (Pelham, 2002). Research demonstrating effectiveness of behavioral classroom interventions has shown that both in-class response cost programs and daily report card interventions decrease behavior problems and improve academic performance (Barkley, 1998).

In addition, pharmacological interventions have been successfully used to treat ADHD since the 1950s, with central nervous system stimulants, such as Ritalin, being most commonly prescribed. In the last two decades, several reviews have been published demonstrating the effectiveness of stimulants in treating ADHD and related symptoms. These reviews consistently suggest that stimulants result in positive, short-term effects. Specifically, parents and teachers report a reduction in ADHD symptoms and a reduction in other disruptive behavior disorder symptoms, such as aggression and oppositional behavior (Swanson et al., 1995).

Evidence-Based Parent Management Training With Ethnic Minority Families

Though current research supports two effective treatments for ADHD, little work has been conducted to determine whether these findings generalize to ethnic minority families. In fact, the only study examining effects of ethnicity on treatment outcomes in children with ADHD is based on data from the Multimodal Treatment Study of Children with ADHD (MTA), a multisite, intent-to-treat study of ADHD interventions, including behavioral treatment, medication management, and combined treatment. Arnold and colleagues (2003) found that after controlling for socioeconomic factors, both African American and Latino families had similar treatment outcomes as White families when examining ADHD and oppositional defiant disorder (ODD) symptomatology. Though this is an important first step, these findings need replication, especially since Latino families who participated in the MTA may not be representative of Latino families in the United States. They were fluent in English and agreed to be assigned to any one of four treatment conditions, including

medication only. This suggests that they may have been more acculturated than predominantly Spanish-speaking, Latino parents who do not consider medication an acceptable treatment option. Several studies have found that Latino children are less likely than White children to receive psychotropic medications (Leslie et al., 2003; Safer & Malevar, 2000), and cultural differences related to parental beliefs about the cause of mental illness may at least partially explain these differences (Yeh, Hough, McCabe, Lau, & Garland, 2004).

Though no other studies examining ethnicity and ADHD treatment outcomes have been reported, a few studies examining the role of ethnicity in parent management programs for ODD and conduct problems have been conducted (Barrera et al., 2002; McCabe, Yeh, Garland, Lau, & Chavez, 2005; Pantin et al., 2003). Though quite limited, this research provides initial support for both standard evidence-based parent management programs and culturally modified programs as effective interventions for ethnic minority families, but more work is needed in this area.

Providing Culturally Competent Mental Health Services

Based on their review of current literature examining culturally competent mental health services, Callejas, Nesman, Mowery, and Gamache (2006) presented recommendations related to three areas—service access, availability, and utilization. These recommendations include using culturally or linguistically appropriate referral procedures; implementing bicultural practices of engagement; conducting culturally or linguistically appropriate assessments; involving the entire family in both the assessment and intervention phases; assessing levels of family support and stress; and identifying and eliminating barriers to treatment, such as stigma associated with seeking mental services, poverty and lack of health insurance, transportation and scheduling difficulties, and language differences (Flores, Abreu, Olivar, & Kastner, 1998; Kouyoumdjian, Zamboanga, & Hansen, 2003).

Thus, the goal of the current article is to provide a case study of a Spanish-speaking, Latino family assessed and treated in a university-based ADHD clinic implementing evidence-based treatment. The family's clinician was a White, female doctoral student whose Spanish fluency was limited. Therefore, an interpreter was present throughout the assessment and treatment process. In an initial effort to provide the family with both effective and culturally sensitive services, several modifications to the standard assessment and treatment process were made. First, bicultural practices of engagement were employed. The clinician maintained regular contact with the parents via phone calls between the assessment and treatment phase, as well as between sessions. Consistent with the goal of conducting a culturally or linguistically appropriate assessment, all assessment measures were purchased or translated to Spanish, and the same interpreter was present during the assessment and throughout treatment. Fortunately, evidence-based assessment and treatment of childhood ADHD (Anastopoulos & Farley, 2003; Barkley, 1998; Pelham, 2002) require extensive family involvement. The assessment process is both multimethod and multiinformant, requiring much information to be gathered from the parents, including information related to current sources of support and stress. Similarly, a large part of the intervention, specifically, parent management training, focuses on working directly with parents with the goal of teaching them skills that can be used to better manage their children's behavior. Finally, to address barriers to treatment, sessions were scheduled to accommodate the mother's work schedule,

services were provided using a sliding-fee scale, an interpreter was provided at no expense to the family, and sessions were extended to provide additional time for rapport building and translation of material. Despite our attempts to provide both effective and culturally sensitive services, we believe that additional modifications to treatment, which will be discussed after presenting the case, need to be made and empirically tested. Our hope is that this family's case will encourage and guide further research examining ethnicity and child psychotherapy outcomes by highlighting some of the challenges faced and the need for culturally sensitive mental health treatment.

2 Case Introduction

“Maria,” an 8-year-old Latina girl, was referred to a university-based ADHD clinic by her school social worker due to challenges in the classroom. At the time of assessment, she was experiencing impairment at home and school, including difficulties with social relationships and academic performance. Maria had no previous history of psychological assessment or treatment. However, both her first- and second-grade teachers reported similar problematic behaviors in their classrooms.

3 Presenting Complaints

Primary concerns identified at home included difficulty following parental instructions and inability to complete her homework and routines without multiple reminders. Specifically, her mother reported that it often took Maria several hours to complete her homework because she would become distracted by other things. Similarly, the mother indicated that Maria was not able to complete her morning or bedtime routines unless she walked her through them step by step. Primary concerns identified at school included difficulty staying quiet when silence was necessary and difficulty remaining seated and on task during independent work times. Specifically, the teacher reported that Maria required many reminders to not talk to her peers during lessons and seatwork times. She also indicated that the child completed little work at school because she was typically walking around the room or doodling when independent work was assigned. According to her mother, several of these behaviors were present from a young age but seemed to worsen once Maria began school.

4 History

Family History

Maria was adopted by family members when she was approximately 18 months old. However, she had been under her adopted parents' care since she was 2 weeks old. Her parents were born and raised in Mexico and had lived in the United States for approximately 10 years when the assessment was completed. Though Maria's mother understood

and spoke some English, neither parent was fluent in English. The primary language spoken at home was Spanish. Maria's mother graduated from high school, her father completed the sixth grade, and both parents worked as laborers. Her father frequently had to leave the family to pursue job opportunities. Her mother identified herself as the primary caretaker and disciplinarian. When asked about family relationships, she reported wanting to improve her relationship with Maria, indicating that it had become quite strained over the last several years.

Educational/Social History

Maria was born in the United States and began learning English when she started kindergarten at a bilingual elementary school. At the time of assessment, she was in the third grade and still attending a bilingual school with instruction in both English and Spanish. Her teacher reported that her academic performance was far below to somewhat below grade level depending on the subject. She also reported that Maria had a difficult time getting along with her peers, and as a result, had few friends and participated in a weekly social skills group at school.

Developmental/Medical History

The mother reported that Maria achieved her developmental milestones on time. No significant medical problems were noted.

5 Assessment

Overview of Assessment

As part of the initial assessment, Maria's mother responded to an unstructured interview focused on the presenting problem and history and the Parent Structured Interview for Disruptive Behavior Disorders (Pelham, 2002), a semistructured diagnostic interview aimed at diagnosing ADHD, ODD, and conduct disorder (CD). Both interviews were completed with assistance of an interpreter. In addition, the mother completed a number of measures assessing child behavior, including the Child Behavior Checklist/6-18 (CBCL; Achenbach & Rescorla, 2001) and Parent/Teacher Disruptive Behavior Disorders (DBD) Rating Scale (Pelham, Gnagy, Greenslade, & Milich, 1992). Maria's parents individually completed the Alabama Parenting Questionnaire (APQ; Shelton, Frick, & Wootton, 1996); Parenting Stress Index-Short Form (PSI-SF; Abidin, 1995); Parenting Sense of Competence Scale (PSOC; Gibaud-Wallston & Wandersman, 1978, as cited in Johnston & Mash, 1989); and Confusion, Hubbub, and Order Scale (CHAOS; Matheny, Wachs, Ludwig, & Phillips, 1995), measures assessing parenting practices, parenting stress, parental efficacy, and family chaos, respectively. Spanish versions of the CBCL/6-18, PSI-SF, and PSOC were completed. Unfortunately, the other measures were not available in Spanish. Therefore, English versions of all other measures were completed with assistance of an interpreter. The current teacher responded to a brief interview focused on identifying functional problems in the

classroom and completed the Teacher Report Form/6-18 (TRF; Achenbach & Rescorla, 2001) and DBD (Pelham et al., 1992), measures assessing a range of child behaviors. Finally, Maria completed the Children's Depression Inventory (CDI; Kovacs, 1992) and Multidimensional Anxiety Scale for Children (MASC; March, 1997), which are self-report measures of depressive and anxiety symptoms, respectively.

Parent Report of Child Behavior

Maria's mother completed the Spanish version of the CBCL/6-18 (Achenbach & Rescorla, 2001), a 112-item parent-report measure of internalizing and externalizing behaviors, which yields a number of broadband and narrowband scores, and the DBD (Pelham et al., 1992), a 45 item parent-report measure consisting of the *DSM-IV-TR* symptoms of ADHD, ODD, and CD. Research demonstrates that the Spanish version of the CBCL has adequate internal consistencies for broadband scores (.89-.94) and for most narrowband scores (.65 or greater) and good validity (Rubio-Stipec, Bird, Canino, & Gould, 1990). Similarly, research has found acceptable internal consistencies for the DBD, ranging from .68 to .96 for maternal reports of inattention, hyperactivity/impulsivity, ODD, and CD (Gerdes & Hoza, 2006) and suggests appropriateness of this measure as a diagnostic tool for school-aged children with ADHD (Owens & Hoza, 2003).

Maria's profile on the CBCL/6-18 resulted in clinically significant elevations for internalizing ($t = 71$, >98th percentile), externalizing ($t = 73$, >98th percentile), and total problems ($t = 72$, >98th percentile). Examination of syndrome scales suggested that she was displaying behaviors consistent with clinically significant levels of anxiety/depression ($t = 78$, >97th percentile), attention problems ($t = 73$, >97th percentile), aggressive behavior ($t = 78$, >97th percentile), and subclinical levels of thought problems ($t = 68$, 97th percentile). These scores are consistent with her profile on the DBD. Scores on this measure can be derived by tallying symptoms rated as pretty much or very much present or by computing a mean of relevant items. Using the tally method, her mother endorsed seven inattentive, seven hyperactive/impulsive, and two ODD symptoms as pretty much or very much present. Using the mean method, Maria received a mean of 2.22 on the ADHD symptom items (range = 0-3) and a mean of 0.75 on the ODD symptom items (range = 0-3).

Teacher Report of Child Behavior

Maria's teacher completed the TRF/6-18 (Achenbach & Rescorla, 2001), the teacher version of the CBCL, and the DBD (Pelham et al., 1992). Good reliability and validity have been demonstrated for the TRF/6-18. Internal consistencies for broadband scores are .90 to .97 and for narrowband scores are .72 to .95 (Achenbach & Rescorla, 2001). Similarly, good reliability and validity for the DBD have been found, with internal consistencies ranging from .89 to .97 for teacher reports of inattention, hyperactivity/impulsivity, and ODD symptoms (Gerdes & Hoza, 2006; Owens & Hoza, 2003).

Maria's profile on the TRF/6-18 resulted in clinically significant elevations for externalizing ($t = 75$, >98th percentile) and total problems ($t = 75$, >98th percentile) and a borderline elevation for internalizing problems ($t = 63$, 90th percentile). Syndrome scales suggested that she was experiencing clinically significant attention problems ($t = 88$, >97th percentile).

and rule-breaking ($t = 73$, >97th percentile) and aggressive behavior ($t = 74$, >97th percentile), as well as borderline levels of somatic complaints ($t = 65$, 93rd percentile) and social problems ($T = 67$, 96th percentile). This is consistent with Maria's profile on the DBD. Her teacher endorsed seven inattentive, nine hyperactive/impulsive, two ODD, and one CD symptom as pretty much or very much present (ADHD, $M = 2.56$; ODD, $M = 1.25$).

Self-Report of Depressive and Anxiety Symptoms

With the interpreter available if needed, Maria completed the CDI (Kovacs, 1992), a 27-item self-report measure of depressive symptoms, and the MASC (March, 1997), a 39-item self-report measure of anxiety symptoms. Both measures have demonstrated acceptable internal consistencies (.70s to .80s) and good validity (Kovacs, 1992; March, 1997). Despite the fact that Maria's mother reported clinically elevated symptoms of anxiety/depression and her teacher reported borderline levels of internalizing problems, she did not report such symptoms. Neither her CDI (total t score = 46) or MASC (total t score = 56) suggested elevated levels of internalizing problems. When this was further discussed with Maria's parents, they reported that these behaviors had recently developed after a close family member who had been living in the home moved out, and they suggested that they may be temporary.

Parenting/Family Functioning

Both parents individually completed several measures assessing parenting/family factors. The APQ (Shelton et al., 1996) is a 42-item parent-report measure assessing parenting practices, resulting in five domains, including involvement, positive parenting, poor monitoring/supervision, inconsistent discipline, and corporal punishment. Research has found adequate reliability and validity for most subscales, with internal consistencies ranging from .46 to .80 (Shelton et al., 1996). Based on the mother's responses, she perceived herself as being involved in Maria's life (39, range = 10-50) and engaging in positive parenting (30, range = 6-30). She also reported low levels of poor monitoring/supervision (10, range = 10-50) and corporal punishment (5, range = 3-15) and moderate levels of inconsistent discipline (16, range = 6-30). According to the parenting efficacy subscale of the PSOC (Gibaud-Wallston & Wandersman, 1978, as cited in Johnston & Mash, 1989), a 7-item parent-report measure of parental efficacy with good internal consistency (.76) and validity (Johnston & Mash, 1989), Maria's mother reported feeling moderately efficacious as a parent (4.57, range = 1-6). Despite this, she also reported high levels of parenting stress on the Spanish version of the PSI-SF (Total PSI = 99, 95th percentile). Solis and Abidin (1991) reported good internal consistencies for the broad domains of the PSI (.88 to .94) and good validity with a Latino sample. Finally, her responses on the CHAOS (Matheny et al., 1995), a 15-item parent-report measure of environmental chaos in the home with good internal consistency (.79) and validity (Dumas et al., 2005; Matheny et al., 1995), suggested little chaos in the home (28, range = 15-90). Maria's father's responses on the APQ suggested that he was somewhat involved in her life (31) and engaged in positive parenting (25); he also reported low levels of poor monitoring/supervision (15), inconsistent discipline (9), and corporal punishment (5). Finally, he reported feeling extremely efficacious as a

parent (6.00), experiencing low levels of parenting stress (50, <10th percentile), and perceiving the family home as nonchaotic (33).

6 Case Conceptualization

Diagnosis and Feedback

The Parent Structured Interview for Disruptive Behavior Disorders (Pelham, 2002) was used for making diagnostic decisions. This is a semistructured interview consisting of the *DSM-IV-TR* symptoms for ADHD, ODD, and CD broken down by setting (i.e., home, school, other) or situation (e.g., with peers, siblings, parents) depending on the item. Parents rate each symptom as not a problem or as a mild, moderate, or severe problem. A graduate-level clinician and faculty expert on childhood ADHD make final decisions regarding severity of each symptom based on parental report during the interview, parent and teacher reports on the DBD (Pelham et al., 1992), presenting problems, and clinical observations. Symptoms judged to be moderate or severe problems are considered endorsed. Using this method, eight symptoms of inattention, eight symptoms of hyperactivity/impulsivity, two symptoms of ODD, and one symptom of CD were endorsed. Thus, Maria met criteria for ADHD, combined type.

No additional diagnoses were warranted based on the assessment. However, several additional concerns, including a possible learning disorder, as well as mood/anxiety problems surfaced as part of the assessment. Prior to treatment beginning, a feedback session was conducted. During this session, diagnoses, recommendations, and psychoeducation were provided. In addition to recommendations regarding Maria's ADHD, which are in the Treatment Planning section that follows, several other recommendations were made, including having the school complete a learning disorder evaluation using Spanish versions of intelligence and achievement tests and reassessing Maria's mood/anxiety levels at the end of treatment to determine whether further assessment and treatment for internalizing problems was needed. As part of the psychoeducation, use of stimulant medications was also discussed. Research related to effectiveness of medication for ADHD was presented, and Maria's parents were informed that medication would be recommended as a supplement to the behavioral intervention if it did not result in sufficient improvements alone.

Finally, compliance tracking was introduced at the feedback session. The parents were instructed to choose a period during the day (e.g., the morning or bedtime routine) when they normally give Maria four to five different instructions. They were provided with a compliance tracking sheet and were instructed to make a tally mark in one column for each instruction they gave and a tally mark in another column for each instruction that was followed during the chosen time. This allowed Maria's clinician to compute a percentage (number of instructions followed/number of instructions given) representing her daily compliance through treatment.

Treatment Planning

Overview of evidence-based treatment. As mentioned, current research supports two evidence-based treatments for ADHD: psychosocial and pharmacological interventions

(Hoza et al., 2008; Pelham & Fabiano, 2008; Swanson et al., 1995). As Maria's parents were opposed to putting her on medication, the clinic's focus on psychosocial treatments was quite appealing to them. In an effort to address both home and school concerns, the clinic implements both behavioral parent training and classroom interventions based on Pelham's (2002) program for children with ADHD. Both of these interventions rely on the successful identification of measurable, functional problems in the home and at school. With this in mind, several home- and school-based treatment goals were formed at the onset of treatment.

Treatment goals. Three home-based treatment goals were established based on the primary concerns identified at home and on baseline data that were collected as part of treatment: (1) Maria will comply with 80% of parental instructions, (2) She will start her homework without argument and will complete her homework with two or fewer instructions to remain on task, and (3) Maria will complete her morning routine with two or fewer reminders. Three school-based treatment goals were also established based on the primary concerns identified at school: (1) Maria will remain quiet when silence is necessary with two or fewer reminders, (2) She will remain seated and on task during morning independent work times with one or fewer reminders, and (3) She will remain seated and on-task during afternoon independent work times with one or fewer reminders.

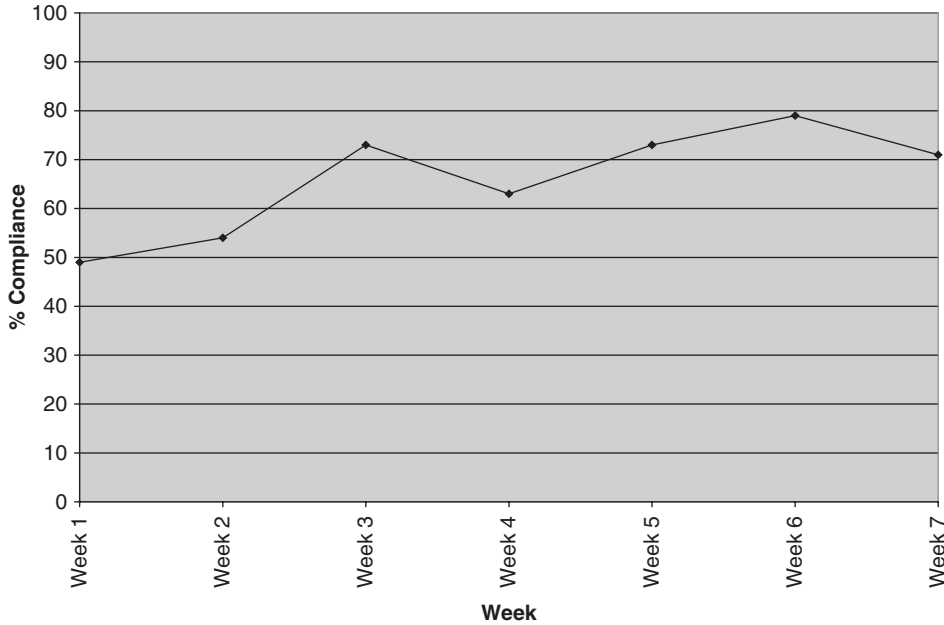
7 Course of Treatment and Assessment of Progress

Course of Treatment

Home-based intervention. To achieve Maria's home-based goals, her clinician proposed seven parent training sessions, including establishing a daily report card, giving effective instructions, using time out, establishing a token economy for homework hour, engaging in positive reinforcement, extending the token economy, planning ahead strategies, and taking over the DRC. As the sessions were focused on teaching the parents how to implement behavioral strategies, Maria did not attend these sessions. To facilitate communication and rapport-building, the same interpreter who was present during the assessment was also present for each parent training session. In addition, all session handouts were forward and back translated to ensure accuracy and understandability.

The first session focused on establishing a daily report card (DRC) at school with a home-based reward program. Before discussing the DRC, Maria's clinician reviewed her compliance tracking from the previous week and learned that compliance was approximately 50%. In addition to explaining how a DRC works and reviewing a draft of Maria's DRC, the clinician also worked with the parents to begin creating a home-based reward menu for the DRC. The DRC will be discussed further when summarizing the school-based intervention. Homework before the next session included finishing the reward menu and continuing to track compliance. Before ending the session, the clinician informed the parents that she had spoken with the school psychologist, and Maria had been placed on the waiting list to receive a learning disorder evaluation in Spanish.

Figure 1
Weekly Compliance



The second session began with a review of the week and a homework check-in. The mother reported that Maria's father would no longer be able to attend sessions due to a work conflict. Though this was a set back, the mother emphasized that Maria's father was supportive of her continuing with treatment and that he regretted that he was unable to attend sessions. She agreed to set aside time each week to review session material with the father. During the homework check-in, the mother indicated that she was unable to complete the reward menu. However, she did continue to track her compliance, which showed mild improvement (see Figure 1). After finalizing the DRC reward menu, the remainder of the second session focused on teaching Maria's mother to give more effective instructions. During this session, the clinician introduced 10 points to consider when giving instructions, including breaking multistep instructions down, being specific about what they wanted Maria to do, and phrasing instructions as statements not questions. Before the session ended, the mother also practiced turning ineffective instructions into effective instructions and was encouraged to identify several things she needed to improve upon when giving Maria instructions. She appeared to understand all material, asked appropriate questions, and identified several areas she could improve upon. Homework included giving more effective instructions and continuing to track compliance.

After reviewing the week and previous homework, the next session focused on providing the mother with a consistent consequence to give when Maria did not follow parental instructions. Specifically, she was taught how to administer an escalating/reducible time out, which involves not only increasing the time spent in time out if Maria is uncooperative,

but also reducing the time if she serves the time out immediately and appropriately. The clinician discussed the basics of time out, thoroughly reviewed the escalating/reducible time out procedure, and role played with Maria's mother to ensure that she understood how to correctly administer time out. The mother expressed that she thought this procedure would work well. In addition to tracking compliance, she was asked to begin keeping a log of time outs earned.

The fourth session began with a review of the week and a homework check-in. Maria's compliance continued to show slow but steady improvement (see Figure 1), and use of time outs appeared to be effective. In addition, the mother reported that sharing the session information with the father was effective and that both of them were seeing improvements in Maria's behavior. The focus of this session was on establishing a token economy for homework hour. The clinician explained the basics of establishing a token economy and worked with the mother to tailor the system to homework hour by creating rules for homework hour and defining ways in which chips could be earned and lost during this time. It was agreed that Maria would earn chips for beginning her homework without an argument and for each assignment she completed with at least 80% accuracy. She would lose chips for being off task and for repeated noncompliance. The clinician and mother also began working on a weekly reward menu for chips earned during homework hour. Maria's mother was instructed to continue tracking compliance and logging time outs, as well as finishing the reward menu.

Following a review of the week and homework, the next session focused on finalizing the token economy reward menu and discussing positive reinforcement. The child's behavior was clearly improving. However, we considered this session to be pivotal in improving Maria's relationship with her mother and emphasized the need to provide positive feedback on a regular basis. Her mother was receptive to this and agreed it was something she needed and wanted to work on. Maria's clinician reviewed the basics of positive reinforcement, discussed the rationale for attending and ignoring, and worked with the mother on identifying specific ways to verbally and nonverbally praise her daughter. In addition, time was spent identifying the positive alternative behaviors for several negative behaviors that Maria's mother wanted to have decreased. Homework included tracking compliance, logging time outs, implementing the token economy during homework hour, and praising Maria for positive behaviors.

The sixth session again began with a review of the week and a homework check-in. Maria's mother reported using the strategies learned up to this point. The compliance and time out log suggested that her mother was being more consistent, and the token economy had been implemented and seemed to be motivating Maria to complete her homework more independently. In addition, Maria's mother appeared to be working diligently at providing her daughter with more positive reinforcement and stated how much more pleasant interacting with her had become. The current session focused on teaching Maria's mother to extend the token economy to include other tasks, such as routines and chores. However, it was agreed that the mother would wait for a longer period, running several weeks to a month, before making these additions to the token economy, given the number of new strategies currently being implemented. The remainder of the session was spent discussing several planning-ahead strategies, including transitional warnings and when-then statements. No new homework was assigned.

The final session focused on taking over the DRC and reviewing strategies and goals. Since this session occurred shortly after Maria's school year ended, more focus was placed on teaching the mother how to start a new DRC in the fall. The clinician discussed how/when to contact Maria's new teacher, how to decide on new DRC goals and track baseline for them, and how to update the reward menu. Maria's mother expressed understanding and asked appropriate questions. She was also encouraged to contact the clinician in the fall if she needed assistance getting the DRC implemented. Part of the session was spent briefly reviewing the major strategies learned during treatment, including giving effective instructions, consistently using time out and the token economy, and providing positive reinforcement. Finally, Maria's treatment goals were reviewed and progress was discussed.

In summary, the mother attended seven parent training sessions after the feedback session. Unfortunately, the father was only able to attend the first session, but was supportive of the mother continuing with treatment and was invested in learning the skills from Maria's mother. Other than two cancellations due to work conflicts, the mother regularly attended sessions and consistently completed session homework. Maria's status at termination will be discussed further after reviewing the course of treatment for the school-based intervention.

School-based intervention. To achieve Maria's school-based goals, the clinician had six consultation meetings with the teacher to discuss goals for the DRC and to follow up on its progress. The original consultation meeting was focused on identifying and defining three to four functional problems the child was having in the classroom. As mentioned previously, the teacher reported that Maria was having difficulty staying quiet and remaining seated and on-task during independent work times. The teacher was asked to track these behaviors for one week to determine how frequently they were occurring. Baseline tracking was used to set the original goals for each target. Because the premise behind the DRC was to shape Maria's behavior over time, the original goals were set so she would need to show slight improvement over baseline to receive a "yes" for each target.

Maria's DRC was implemented during the third week of treatment and was maintained until the school year ended, which was approximately 4 weeks after it was initiated. In general, her teacher was consistent about completing the DRC. Maria was consistent about bringing it home, and her parents were consistent about allowing her to choose a reward from the DRC reward menu. Unfortunately, given the timing, Maria's original goals were never made more difficult since the school year ended before it was appropriate to make such changes.

Assessment of Progress

Overview. In addition to monitoring progress related to treatment goals, several outcome measures were administered posttreatment to determine whether there were any improvements in Maria's behavior and in parenting/family functioning. Specifically, Maria's mother completed the DBD (Pelham et al., 1992) to assess improvements in ADHD and ODD symptoms. Both parents individually completed the APQ (Shelton et al., 1996); PSI-SF (Abidin, 1995); PSOC (Gibaud-Wallston & Wandersman, 1978, as cited in Johnston &

Table 1
Assessment Results at Preintervention and Postintervention

Outcome/Source	Measure	Preintervention	Postintervention
Child behavior			
DBD Rating Scale (M scores)			
Parent	ADHD	2.22	1.33
	ODD	0.75	0.13
Teacher	ADHD	2.56	—
	ODD	1.25	—
Parenting/family functioning			
PSOC (M scores)			
Mother	Parental efficacy	4.57	5.14
Father	Parental efficacy	6.00	5.00
PSI-SF (Raw scores, Percentile)			
Mother	Total stress	99.00 (95th)	57.00 (<20th)
Father	Total stress	50.00 (<10th)	66.00(40th)
APQ (Raw scores)			
Mother	Involvement	39.00	47.00
	Positive parenting	30.00	28.00
	Poor monitoring/supervision	10.00	10.00
	Inconsistent discipline	16.00	7.00
	Corporal punishment	5.00	5.00
Father	Involvement	31.00	35.00
	Positive parenting	25.00	28.00
	Poor monitoring/supervision	15.00	12.00
	Inconsistent discipline	9.00	7.00
	Corporal punishment	5.00	3.00
CHAOS (M scores)			
Mother	Total	28.00	23.00
Father	Total	33.00	30.00

Note: DBD Rating Scale = Disruptive Behavior Disorder Rating Scale; ADHD = Attention-Deficit/Hyperactivity Disorder; ODD = Oppositional Defiant Disorder; PSOC = Parenting Sense of Competence Scale; PSI-SF = Parenting Stress Index–Short Form; APQ = Alabama Parenting Questionnaire; CHAOS = Confusion, Hubbub, and Order Scale.

Mash, 1989); and CHAOS (Matheny et al., 1995) to assess changes in parenting practices, parenting stress, parental efficacy, and family chaos, respectively. The teacher was also given the DBD. However, it was not completed or returned prior to summer vacation beginning. Finally, Maria completed the CDI (Kovacs, 1992) and MASC (March, 1997) to reassess her mood and anxiety levels, respectively.

Parent-report measures. As Table 1 indicates, Maria's mother's responses on the DBD suggested significant improvement in her daughter's behavior. Means for both ADHD and ODD symptom items had dramatically decreased since the assessment. The mother also reported improvement in parenting/family functioning. She perceived herself as a more

efficacious parent and reported a significant reduction in parenting stress at the end of treatment. In addition, though Maria's mother reported being involved in her daughter's life on pretreatment measures, she reported even higher levels of involvement on posttreatment measures. Although slightly lower at posttreatment, positive parenting remained high. Poor monitoring and use of corporal punishment were unchanged and remained low. Finally, Maria's mother reported engaging in less inconsistent discipline and reported an even less chaotic home environment at the conclusion of treatment (see Table 1).

Unfortunately, posttreatment measures completed by Maria's father were not as universally positive. Although, we were not completely surprised by this because Maria's father did not participate in treatment after the first parent training session due to work conflicts. Importantly, small but positive changes were noted on most parenting/family factors. He reported higher levels of involvement and positive parenting and lower levels of poor monitoring, inconsistent discipline, corporal punishment, and chaos on posttreatment versus pretreatment measures. Larger changes were noted for parenting efficacy and stress. However, they were not in the desired direction. Maria's father actually reported feeling less efficacious and experiencing more parenting stress at the conclusion of treatment (see Table 1).

Treatment goals. Finally, weekly homework completed by Maria's mother was used to evaluate outcome. She tracked Maria's compliance throughout treatment and began tracking her daughter's behavior during homework hour once the token economy was implemented. As Figure 1 demonstrates, compliance improved from approximately 50% at the start of treatment to above 70% at the end of treatment. In addition, her mother reported that Maria was generally losing less than four chips for off-task behavior during homework hour. As mentioned previously, the token economy had not been extended to the morning routine at the time of termination, so she had not made progress toward her final home-based goal.

At the end of the school year, Maria generally was meeting original DRC targets of remaining quiet with four or fewer reminders and remaining seated and on task during independent work times with two or fewer reminders. Thus, she was making good progress toward each of her school-based treatment goals, which was considered quite promising since the DRC had not yet been implemented for a month when the school year ended.

Reassessment of internalizing symptoms. As recommended, Maria's mood and anxiety were reassessed at the conclusion of treatment. Her profiles on the CDI (t score = 39) and MASC (t score = 49) did not suggest elevations for mood or anxiety problems. This is consistent with her mother's report at the end of treatment indicating that the symptoms she had noted in Maria following the departure of a close family member from the home had remitted on their own with time.

8 Complicating Factors

As referenced throughout this case study, several complicating factors were present. The primary complication that arose was the language difference that existed between Maria's

mother and clinician. The mother's dominant language was Spanish and the clinician's was English. To overcome this barrier, an interpreter was brought in to assist with the assessment and treatment. Maria's mother expressed gratitude for this gesture, and the clinician and mother were able to develop nice rapport.

An additional complicating factor was the lack of paternal participation in treatment. Unfortunately, due to his work schedule, Maria's father was not able to attend sessions. When the mother shared this information with the clinician, they discussed the importance of reviewing session material with the father every week to ensure that both parents were correctly and consistently implementing the parenting skills. Both parents appeared dedicated to learning the skills, and the mother reported reviewing all material with the father each week. However, posttreatment measures examining parenting stress and efficacy suggested that Maria's mother benefited more from treatment than her father.

9 Managed Care Considerations

Because Maria was treated at a sliding-fee scale clinic, there were no considerations related to managed care.

10 Follow-Up

A booster session was scheduled approximately 4 weeks after the final treatment session. At this time, the mother reported that she and Maria's father were still actively using parenting strategies learned in treatment and that their daughter was still responding well to them. Due to the school year ending before treatment was completed, the DRC had already been discontinued. Maria's mother confirmed that she intended on reinitiating a DRC in the fall when the school year began. Thus, the remainder of the session was spent reviewing the materials she was given outlining how to establish and maintain a DRC in the fall. Given Maria's continued progress, a future booster session was not scheduled. However, the clinician confirmed that she would follow-up with Maria's mother once the school year started to answer any questions she may have and to assist with the new DRC if needed. The mother was also encouraged to contact the clinic at any time if she needed anything.

11 Treatment Implications of the Case

In closing, Maria's case generally was considered a success. At the conclusion of treatment, she had made significant progress toward her treatment goals and was experiencing a reduction in ADHD and ODD symptoms. In addition, her mother reported improvements in parenting/family functioning. She reported engaging in more consistent discipline, feeling more efficacious, and experiencing less parenting stress. Unfortunately, Maria's father did not experience much improvement. In fact, he reported feeling less efficacious and experiencing more parenting stress than at the onset of treatment. This is certainly one

of the most concerning aspects of Maria's case, probably was due to the fact that Maria's father was unable to participate in sessions with the mother. It seems crucial for clinicians to find ways to increase father involvement and engagement in treatment.

Despite lack of paternal involvement, we believe that Maria's case provides initial support that evidence-based treatment for ADHD can be effective for Spanish-speaking, Latino families if necessary modifications are made. Perhaps one of the most important adaptations involves taking steps to overcome the language barrier, which may seem obvious but can be challenging. Finding a good interpreter who understands the treatment and who is present from the assessment to the closing session is not an easy task, nor is properly translating not only assessment measures, but also session handouts. We would also argue that the ideal situation would involve using a bilingual clinician rather than an interpreter, which would certainly make rapport-building less effortful. In addition, more research is needed to determine whether translated measures maintain their original reading level and psychometric properties.

12 Recommendations to Clinicians and Students

We encourage clinicians and students to familiarize themselves with current research on how to provide culturally competent mental health services, such as the work of Callejas and colleagues (2006), and to attempt to make appropriate modifications to the assessment and treatment process, such as employing competent interpreters or bilingual clinicians, using translated assessment and treatment materials, and offering greater flexibility in the scheduling of treatment sessions and the payment of services.

Perhaps more important, we encourage clinicians, students, and clinical researchers to empirically test effects of these modifications and others. We desperately need large-scale, systematic research to determine whether making adaptations to evidence-based treatment improves retention, engagement, and outcomes of ethnic minority families in psychotherapy. Current research demonstrates that Latino and other ethnic minority families experience a number of barriers to treatment (Flores et al., 1998; Kouyoumdjian et al., 2003) and tend to be less engaged in and more likely to prematurely drop out of treatment (Huey, 1998, as cited in McCabe, 2002; McCabe et al., 1999, Kazdin, Holland, & Crowley, 1997).

As a result, the last decade has seen an increase emphasis on the need for culturally sensitive mental health interventions for ethnic minority children and their families (Sue, 1998), with some suggesting that culturally modified interventions may result in both increased family participation and retention, as well as improved treatment outcomes (Kumpfer, Alvarado, Smith, & Bellamy, 2002). However, with few exceptions (McCabe et al., 2005), we are unaware of research comparing standard evidence-based treatment to culturally modified treatment to determine whether adaptations would actually result in greater retention and engagement of and treatment outcomes for ethnic minority families.

In addition to modifications already discussed as part of this case study, additional adaptations may include tailoring treatment to include an emphasis on important cultural values, such as *familismo*, *personalismo*, and *machismo*. Latinos place a high value on close family relationships, as well as interpersonal relationships (Kouyoumdjian et al., 2003; Miranda, Azocar, Organista, Munoz, & Lieberman, 1996; Santiago-Riveria, Arredondo, &

Gallardo-Cooper, 2002). Thus, it may be important to involve extended family members in treatment and to set aside a portion of each session to establish and maintain good rapport with families (McCabe et al., 2005). In addition, support and respect for traditional gender roles is commonly found in Latino families (Koss-Chiono & Vargas, 1999; Santiago-Riveria et al., 2002). Consistent with this, mothers are traditionally perceived as providers of caregiving and parenting, whereas fathers are perceived as financial providers of the family (Koss-Chiono & Vargas, 1999; Santiago-Riveria et al., 2002). Latino culture also emphasizes machismo. Fathers make major family decisions (Miranda et al., 1996; Santiago-Riveria et al., 2002), which highlights the need for engaging them in the treatment process (McCabe et al., 2005).

In closing, the current case study and the little research available (Arnold et al., 2003) suggest that evidence-based treatment for ADHD can be effective for ethnic minority families if the families remain in treatment. Unfortunately, research also suggests that these families are less engaged in and more likely to prematurely drop out of treatment (Huey, 1998, as cited in McCabe, 2002; McCabe et al., 1999, Kazdin et al., 1997). Despite the fact that researchers have been emphasizing the need for culturally sensitive mental health treatment (Sue, 1998), no published studies to date have compared culturally modified treatments to standard evidence-based treatments in ethnic minority groups (Miranda et al., 2005) to determine whether cultural modifications increase family retention and engagement and improve treatment outcomes. We argue that this is a much needed area of research that will certainly inform clinicians on how to provide the best care possible to ethnic minority families.

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