

# Enhancing the Individualized Education Programs of Children with ADHD Using a Daily Report Card Procedure

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## INTRODUCTION

- Approximately one in twenty elementary school-aged children are diagnosed with attention-deficit hyperactivity disorder (ADHD; APA, 2000).
- Children with ADHD exhibit developmentally inappropriate levels of attention, impulse control, and activity modulation, and these behaviors result in significant academic and social impairments in school settings, including poor academic productivity and achievement, disruption of classroom functioning, and negative social interactions with teachers, other school staff, and peers.
- Because of the substantial costs of ADHD for the school system, effective interventions aimed at improving academic performance, achievement, and social behavior are needed.
- Due to these issues and needs, many children with ADHD receive school-based services under the Individuals with Disabilities Education Act (IDEA).
- These special education services might include behavioral and learning interventions to assist with academic progress. Schools must create, implement, and evaluate individualized education plans (IEP) for the student, which may include contingency management strategies, parent training, academic interventions, or some combination of both (U.S. Department of Education, 2000).
- It is estimated that the costs associated with educating students with ADHD in special education placements number in the billions of dollars per year (Chambers, Shkolnik, & Perez, 2003; Forness & Kavale, 2002; Pelham, Foster & Robb, 2007).
- Notably, these costs are likely an underestimate of the costs of ADHD in special education settings, as they do not reflect hidden costs (e.g., time spent disciplining students, overseeing in-school suspensions or office-based time out, contacting parents; Pelham et al., 2007).

## DAILY REPORT CARDS FOR CHILDREN WITH ADHD

- The treatment of ADHD in school settings is notable in that there are explicit psychosocial interventions that are evidence-based for schools. Foremost amongst these is the daily report card (DRC; DuPaul & Eckert, 1997; Fabiano et al., under review; Pelham & Fabiano, under review; Pelham, Wheeler, & Chronis, 1998).
- The DRC is an operationalized list of a child's target behaviors and includes specific criteria for meeting each behavioral goal.
- Teachers provide immediate feedback to the child regarding target behaviors on the DRC, as well as liberal praise for working toward and/or meeting DRC goals.
- The DRC is sent home with the child each day, and parents provide home-based privileges contingent on meeting DRC goals.
- Thus, the home and school are linked on a daily basis, a critical consideration for children in special education placements where consistency and coordination across settings is essential (Dussault, 1996; Koegel & Koegel, 1996). A sample DRC is listed below:

Child Name:	Teacher:	Parent:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Follows class rules (no more than 3 rule violations per period)	Y	N	Y	N	Y	N	Y	N	Y
Completes reading assignments within the designated time	Y	N	Y	N	Y	N	Y	N	Y
Completes reading assignments at 80% accuracy	Y	N	Y	N	Y	N	Y	N	Y
Completes with teacher requests (no more than 3 instances of noncompliance per period)	Y	N	Y	N	Y	N	Y	N	Y
Gets along with peers (no more than 3 instances of teasing per period)	Y	N	Y	N	Y	N	Y	N	Y
Returned completed homework	N/A	Y	N	Y	N	Y	N	Y	N
Attends each class (or 95% attendance)	Y	N	Y	N	Y	N	Y	N	Y
Follows across rules (2 or fewer violations)	Y	N	Y	N	Y	N	Y	N	Y
Total Number of Years	Y	N	Y	N	Y	N	Y	N	Y
Teacher's Initials									
Comments:									

The DRC has long been used effectively to treat ADHD, monitor outcomes, and open a daily line of communication between teachers and the child's parent (DuPaul & Eckert, 1997; DuPaul & Stoner, 2004; Kelley, 1990; O'Leary & Pelham, 1978; O'Leary, Pelham, Rosenbaum, & Price, 1976; Pelham, unpublished data; Pelham, Fabiano, & Massetti, 2005; Pelham et al., 2001, Pelham, Wheeler, & Chronis, 1998; U.S. Department of Education, 2004), and it is a procedure aligned with a long tradition of using contingency management with children with disruptive behavior in educational settings (e.g., Hops & Walker, 1988).

Please email Greg Fabiano (fabiano@buffalo.edu) if you are interested in obtaining a copy of this presentation or download it from the Center for Children and Families website:  
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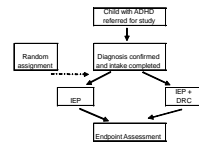


## PARTICIPANTS

- The study will include 60 children diagnosed with ADHD who currently had IEPs in school (i.e., 30 participants per cohort). Children are between 6-12, in grades 1-6, and had an IQ  $\geq 80$ .
- Recruited via radio and newspaper advertisements, mailings, and notices distributed in schools.

## PROCEDURES

- Participants were randomly assigned to: (1) IEP as usual; or (2) IEP + Behavioral Consultation as shown in the Figure below:



- Baseline measures were collected at the beginning of the school year (approximately October) and endpoint measures were collected at the end of the school year (approximately May).

## STUDY TREATMENT CHARACTERISTICS

**IEP alone group:** Consultants will conduct an initial meeting with each teacher of children in the IEP alone group. During this meeting, consultants and teachers will use the IEP and any other related information to construct an Individualized Target Behavior Evaluation (ITBE; Pelham, Fabiano, & Massetti, 2005). The ITBE will be completed by the teacher each day and used as a measure of weekly functioning. The ITBE will not be sent home to the child's parents. Teachers in the IEP alone group will be instructed to work with the child the same way they would with any other child who has an IEP.

**IEP + DRC group:** Students assigned to the IEP + DRC group will have a consultant assigned to the student for the duration of the school year. The consultant will:

- Construct a DRC that targets IEP goals and objectives. This DRC is sent home each day to the child's parent(s).
- The consultant works with the parent(s) to construct a home-based reward system that contingently reinforces positive DRC outcomes on a daily basis.
- The consultant also meets with the parent(s) to review strategies to assist with timely and accurate homework completion (Anesko & O'Leary, 1982; Power, Karustis, & Habboushe, 2001).
- After the initial meetings with the child's teacher, consultants meet monthly with the teacher (and parent if available) to provide feedback on the child's behavior during the month using a graphical representation of the child's DRC performance. This information is used for data-driven decision making

## MEASURES

The table below summarizes the source and measures used in each domain assessed.

Domain	Source	Measure
Academic domain	Child	Individual Academic Achievement Tests
	Blind Observer	Classroom observational system
Behavioral domain	Blind Observer	Classroom observational system
	Parent	IRRS IEP SSRS
Teacher	IRRS IEP SSRS	IRRS IEP SSRS
	Unobtrusive behavioral measures	Disruptive referrals Parent contacts/week

IRRS=Impairment Rating Scale. SSRS= Social Skills Rating Scale.  
Other measures include the Student-Teacher Relationship Scale (Birch & Ladd, 1998; Pianta, 1997), an end of year rating of progress on IEP goals and objectives, and parent and teacher satisfaction.

## PARTICIPANT CHARACTERISTICS FROM COHORT 1

	Behavioral Consultation	Monitoring
N	16	14
Age	8.06	7.71
Race		
Caucasian	88%	64%
African-American	13%	21%
Asian	0%	0%
Native American	0%	0%
Mixed race	0%	14%
Other	0%	0%
Ethnicity		
Hispanic/Latino	0%	14%
Not Hispanic/Latino	100%	86%
ADHD diagnosis		
Inattentive	25%	7%
Hyperactive/impulsive	0%	7%
Combined	75%	86%
Oppositional Defiant Disorder	69%	64%
Conduct Disorder	13%	29%
Disability Category		
OHI	50%	50%
LD	25%	7%
EBD	6%	36%
SLI	13%	7%
MD	6%	0%

Notes: ADHD=Attention-deficit/hyperactivity disorder. OHI=Other Health Impaired. LD=Learning Disabled. EBD=Emotionally and Behaviorally Disturbed. SLI=Speech/Language Impairment. MD=Multiple Disabilities. Groups were not significantly different from one another on any demographic category ( $p > .05$ ).

\*Two children randomly assigned to the monitoring group who dropped out are not included in the table. One family dropped out at randomization after being assigned to the monitoring group. One family decided to quit the study after the teacher told them she did not want to be involved.

## TREATMENT INTEGRITY OUTCOMES FROM COHORT 1

- Thirty-two children were randomized into the study, and 30 have participated in the first year, yielding a participation rate of 94%.
- 100% of initial teacher visits to establish the ITBE or DRC were completed.
- 100% of parents in the IEP+DRC group attended three parent sessions to establish home rewards for the DRC and discuss and implement parenting strategies for homework time.
- Teachers completed the ITBE each day and sent a copy for each day of the week to the researcher each day. In the DRC group, teachers sent the DRC home to provide the parent feedback, and the parent wrote in the reward provided and signed it each evening. The DRC was then sent back to the teacher, and a copy sent to the researcher each day. The DRC itself, and the parent-provided reward listed will be used as a manipulation check for the DRC group.
- Classroom observations were also conducted monthly across groups and they collected information on child behavior (i.e., on-task and disruptive) as well as teacher behavior (i.e., child-directed feedback/consequences, number of praise statements issued to the child).

## DISCUSSION

- This study is one of the first to investigate the development of an intervention specifically for children with ADHD in special education placements. The study is currently investigating the efficacy of an enhancement to special education services for children with ADHD based on evidence-based interventions for the disorder.
- The second cohort is currently being recruited and participation for this cohort will be completed in June of 2008. At that time outcome analyses will be conducted to determine the effectiveness of the enhanced intervention relative to treatment as usual for children with ADHD in special education settings.

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