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# Behavioral Parenting

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## From the Editor

### ADHD

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Welcome to another issue of Behavioral Parenting. In this issue we highlight abstracts on the topic of Attention Deficit Hyperactivity Disorder, which is a common diagnosis among school-age children. Kim Kahl provides a review of the literature in which she found that relatively little research on behavioral interventions has been conducted, despite the fact that research suggests a combination of medication and behavioral interventions works best. Following Kim's review are abstracts of several classic studies in the area of ADHD, with an emphasis on behavioral research.

Also in this issue we provide a variety of abstracts related to the general topic of behavioral parenting. These articles were published in the interim between the last Behavioral Parenting issue (December, 2003) and now.

Finally, Jorge Reyes reviews the featured article for this issue. Many of us have seen or heard on the news the devastating effects of children playing with firearms. Himle, Miltenberger, Flessner, and Gatheridge (2004) provide a very interesting approach to teaching safety skills to children in situations when gun play might otherwise occur. Jorge's review highlights many of the contributions of the study as well as some limitations, along with suggestions for future research.

Timothy R. Vollmer

## ADHD Literature Review

ADHD

Kim Kahl

Attention Deficit Hyperactivity Disorder (ADHD) is the most common behavior disorder in children. Approximately 3 to 5% of the school age population is diagnosed with ADHD (American Psychological Association, 1994). ADHD is characterized by numerous behavior problems such as impulsivity, disruption, inattention as well as deficits in social skills and academic performance (Williams, Chacko, Fabiano, & Pelham, 2001).

The two most effective evidence-based treatments for ADHD are stimulant medication and behavioral treatment (Williams et al., 2001). Several studies have shown that behavioral treatment can be as or more effective than medication and that a combination of medication and behavioral treatment is most effective (Pelham, 1989). Despite these findings, 80 to 90% of children diagnosed with ADHD receive pharmacological treatment, yet only a small number of these children receive behavioral treatment (Bosco & Robin, 1980). In addition, there are several limitations to using medication alone. First, many medications have only been evaluated on a short-term basis but the long-term effects have not been assessed (Swanson et al., 1995). Second, some medications are only in effect during school hours and therefore parents are unable to benefit from treatment effects. Third, medication may help to decrease problem behavior but may have no effect on academic performance (Williams et al. 2001). Behavioral treatment offers several potential solutions to the problems associated with medication. Unlike medication, behavioral treatments can be implemented continuously. In addition,

behavioral treatments can be implemented for a wide variety of responses that are unaffected by medication. For example, behavioral medications may be used to target specific academic or social skills that cannot be improved through medication (Williams et al, 2001). For these reasons, behavioral treatment may be an integral component for successful treatment of ADHD.

Behavioral treatments emphasize direct contingencies for problem behavior most commonly associated with ADHD. For example, ADHD is often characterized by high levels of impulsivity, or choosing smaller more immediate reinforcers over larger more delayed reinforcers (e.g., Rachlin, 1974). This type of responding can be problematic in academic situations because the individual may choose to engage in a more immediately reinforcing non-academic activity, such as video games, instead of completing academic tasks, such as homework. Several studies have successfully designed procedures to decrease impulsive responding in children with ADHD (e.g., Neef, Mace, & Shade, 1993; Binder, Dixon, & Ghezzi, 2000; Neef, Bicard, & Endo, 2001). For example, Binder, Dixon, and Ghezzi (2000) found that prior to treatment, all participants chose the smaller more immediate preferred item. However, the authors found that fading the delay to the larger preferred item resulted in decreases in impulsive responding. In addition to delay manipulations, other studies have shown that manipulating other parameters such as reinforcer quality and response effort can also decrease impulsive responding (e.g., Neef et al., 2001).

Some additional behavior problems associated with ADHD include inattentiveness, disruption, and other off-task behavior. Several studies have implemented token economies to decrease problematic off-task behavior and increase appropriate academic and social

responding (e.g., Hupp, Reitman, Northup, O'Callagan, & LeBlanc, 2002; Reitman, Hupp, O'Callagan, Gulley, & Northup, 2001; Trocki-ables, French, & O'Connor, 1993). For example, DuPaul, Guevremont, and Barkley (1992) used an apparatus called the Attention Training System (ATS; Gorson Systems, Inc., 1987) that delivered points contingent on engaging in academic activity and removed points contingent on inappropriate behavior. The authors found that the use of ATS resulted in increases in appropriate behavior such as completion of academic tasks and decreases in inappropriate off-task behavior. Similarly, Hupp et al. (2002) found that tokens plus a delayed reward increased sportsmanlike behavior in five individuals diagnosed with ADHD. Behavioral treatments have also been successful in reducing off-task behavior. Several studies have shown that differential reinforcement procedures are effective in decreasing problem behavior such as inattention or disruption in individuals with ADHD (Flood, Wilder, Flood, & Masuda, 2002; Northup et al., 1995). For example, Northup et al. (1995) found that peer attention contingent upon the nonoccurrence of problem behavior was effective in decreasing disruptive behavior in three participants.

Behavioral treatments have also been used to increase the frequency and accuracy of academic responding. Some studies have shown increases in academic performance under conditions of frequent performance feedback and individualized instruction pace (e.g., Pfiffner & Barkley, 1990). Peer tutoring, an instructional strategy where one student assists, instructs and provides feedback to another student, has also been successful in improving academic performance for individuals with ADHD (DePaul, Ervin, Hook, & McGoey, 1998; DePaul & Henningson, 1993). For example, DePaul et al. (1998) found that participants with ADHD who were peer-tutored showed

decreases in off-task behavior, increases in on-task behavior, and increases in academic performance.

Research has shown that behavioral treatments can effectively decrease problem behavior associated with ADHD such as impulsivity, inattention, and off-task behavior. These treatments have also been shown to increase appropriate social behavior and academic skills. Unfortunately, few individuals diagnosed with ADHD receive behavioral treatments despite this evidence. Therefore, future research should be directed at increasing the manageability of behavioral interventions as well as public knowledge of behavioral treatment options.

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- Hupp, S. D. A., Reitman, D., Northup, J., O'Callaghan, P., & LeBlanc, M. (2002). The effects of delayed rewards, tokens, and stimulant medication on sportsmanlike behavior with ADHD-diagnosed children. *Behavior Modification, 26*, 148-162.
- Neef, N. A., Bicard, D. F., & Endo, S. (2001). Assessment of impulsivity and the development of self-control in students with attention deficit hyperactivity disorder. *Journal of Applied Behavior Analysis, 34*, 397-408.
- Neef, N. A., Mace, F. C., & Shade, D. (1993). Impulsivity in students with serious emotional disturbance: The interactive effects of reinforcer rate, delay, and quality. *Journal of Applied Behavior Analysis, 26*, 37-52.
- Northup, J., Broussard, C., Jones, K., George, T., Vollmer, T. R., & Herring, M. (1995). The differential effects of teacher and peer attention on the disruptive classroom behavior of three children with a diagnosis of attention deficit hyperactivity disorder. *Journal of Applied Behavior Analysis, 28*, 227-228.
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- Swanson, J. M., McBurnett, K., Christian, D. L. & Wigal, T. (1995). Stimulant

medication and treatment of children with ADHD. In T. H. Ollendick & R. J. Prinz (Eds.), *Advances in Clinical Child Psychology*. (pp. 265-322). New York: Plenum Press.

Trocki-ables, P., French, R., & O'Connor, J. (2001). Use of primary and secondary reinforcers after performance of a 1-mile walk/run by boys with attention deficit hyperactivity disorder. *Perceptual and Motor Skills*, *93*, 461-464.

Williams, A., Chacko, A., Fabiano, G. A., & Pelham, W. E. (2001). Behavioral treatments for children with attention-deficit hyperactivity disorder. *Primary Psychiatry*, *8*, 67-72.

Chronis, A. M., Chacko, A., Fabiano, G. A., Wymbs, B. T., & Pelham, W. E. J. (2004). Enhancements to the behavioral parent training paradigm for families of children with ADHD: Review and future directions. *Clinical Child & Family Psychology Review*, *7*(1), 1-27.

Behavioral parent training (BPT) is one of the empirically supported psychosocial treatments for ADHD. Over many years and in many studies, BPT has been documented to improve both child ADHD behavior and maladaptive parenting behavior. In some studies, BPT has also been found to result in benefits in additional domains, such as parenting stress and child classroom behavior. However, the BPT literature on children selected as having ADHD lags behind research conducted on BPT for children selected as having oppositional defiant and conduct disorders (ODD and CD, respectively) with regard to examination of factors that may limit treatment attainment, compliance, and outcomes, such as single parenthood, parental psychopathology, and child comorbidity. Because of the high degree of comorbidity between ADHD and ODD/CD, it is difficult to separate the two BPT literatures. The parameters of BPT (e.g., format and setting), parent factors, and child factors that may contribute to treatment outcomes for families of children with ADHD are reviewed here and recommendations for future BPT research in the area of ADHD are made. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Chronis, Andrea M., Department of Psychology, University of Maryland, College Park, MD, US, achronis@psyc.umd.edu

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## ADHD Abstracts

### ADHD: Books, Chapters and Review Articles

Barkley, R. A. (Ed.). (1990). *Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment*. New York: Guilford.

Coker, K. H., & Thyer, B. A. (1990). School- and family-based treatment of children with attention-deficit hyperactivity disorder. *Families in Society*, *71*(5), 276-282.

Reviews findings in practice research that suggest increased interest and concern for treating the child with attention-deficit hyperactivity disorder (ADHD) within the family and for using social systems outside the family. Changing the interactions between parent and child is a significant focal point for treatment; early intervention is crucial. Interventions such as cognitive-behavioral and social skills training are examined. Analyzing and treating ADHD children in natural home and school environments can solve problems of maintenance and generalization that are encountered when treatment is provided only in agency-based settings. (PsycINFO Database

Record (c) 2003 APA, all rights reserved) For reprints: No reprint information available.

DuPaul, G. J., & Barkley, R. A. (1993). Behavioral contributions to pharmacotherapy: The utility of behavioral methodology in medication treatment of children with Attention Deficit Hyperactivity Disorder. *Behavior Therapy, 24*(1), 47-65.

The advantages of combining behavioral and psychopharmacological methodologies in the study and treatment of psychopathology are reviewed by focusing on a specific childhood disorder, attention deficit hyperactivity disorder (ADHD). The contributions of behavioral assessment techniques in evaluating children's medication response are delineated. Treatment approaches combining stimulant medications and behavior modification have been found superior for some children with ADHD. The dose or strength of each of these treatments must be varied in a systematic fashion for each child to obtain a comprehensive picture of response to this treatment combination. The use of medication and behavioral observation methods to dissect social interactions is illustrated. The utility of behavioral approaches to assessment and intervention in providing medication to children with ADHD can be used to guide research and applied efforts for combining these interventions in other clinical populations. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: George J. DuPaul, School Psychology Program, Lehigh University, 111 Research Drive, Bethlehem, PA 18015.

DuPaul, G. J., & Ervin, R. A. (1996). Functional assessment of behaviors related to attention-deficit/hyperactivity disorder: Linking assessment to intervention design. *Behavior Therapy, 27*(4), 601-622.

Provides an overview of the functional assessment procedure and its application to designing treatment strategies for children with Attention-Deficit/Hyperactivity Disorder (ADHD). The clinical evaluation process is reviewed, and evidence is presented which indicates that functional assessment procedures can lead to effective treatment decisions for ADHD children. The advantages and limitations of presently available functional assessment methods for clinical use in the treatment of ADHD are also discussed.

(PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: George J. DuPaul, Department of Education and Human Services, Lehigh University, 111 Research Drive, Bethlehem, PA 18015.

Luiselli, J. K. (1991). Assessment-derived treatment of children's disruptive behavior disorders. *Behavior Modification, 15*(3), 294-309.

The objective of assessment-derived treatment is to formulate therapeutic interventions that are based on an identification of variables that control the occurrence of clinical disorders. Concerns related to assessment-derived treatment of children's disruptive behavior disorders (attention deficit hyperactivity disorder, conduct disorder, oppositional defiant disorder) are discussed. The use of the Diagnostic and Statistical Manual of Mental Disorders-III--Revised (DSM-III--R), diagnostic interviewing, behavior checklists, and direct observational methodologies for purposes of conducting a functional behavioral analysis is reviewed. The roles of family variables and academic curriculum also are considered as components of a comprehensive assessment focus. A decision format that indicates the selection of therapeutic strategies as a function of identified controlling relationships is presented. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: James K. Luiselli, Psychological and Educational Resources Associates, 40 Bronson Way, Concord, MA 01742.

Swanson, J. M., McBurnett, K., Christian, D. L., & Wigal, T. (1995). Stimulant medications and the treatment of children with ADHD. *Advances in Clinical Child Psychology, 17*, 265-322.

Discusses the class of drugs labeled as stimulants, the neural and chemical basis of their psychoactive properties, and their pharmacologic characteristics with respect to treating children with attention deficit hyperactivity disorder (ADHD). The clinical use of 3 primary stimulants (methylphenidate, amphetamine, and pemoline) are described, including the typical clinical titration methods, dose-related effects on behavior and cognition, and the time course of available (approved and marketed) preparations of these drugs. Significant historical events that have affected the literature on stimulant pharmacotherapy are presented. A

synthesis of the literature is also provided, based on a "review of reviews" conducted for the US Department of Education. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: James M. Swanson, Department of Pediatrics, Child Development Center, University of California at Irvine, CA 92715.

Waschbusch, D. A., & Hill, G. P. (2001). Alternative treatments for children with attention-deficit/hyperactivity disorder: What does the research say? *Behavior Therapist*, *24*(8), 161-171.

Describes some of the more commonly encountered alternative treatments for attention deficit hyperactivity disorder (ADHD) and evaluates their research base. The authors organized the discussion of these treatments into three categories: promising treatments, unsupported treatments, and unexamined treatments. Included in the category of promising treatment, are treatments that were not identified as "empirically supported" but that have received some empirical support from methodologically sound research, are: nonstimulant medications, intensive behavioral treatment programs, and classroom-based intervention. Unsupported treatments are treatments that have been examined by methodologically sound research, and this research suggests the treatments are not effective. Treatments which fall into this category include cognitive training programs, dietary management, and nutritional and dietary supplements. Unexamined treatments are defined as those that have not been examined in a methodologically sound manner. Treatments discussed in this category are psychological treatments, neurological treatments, nutritional approaches, physiological treatments, and homeopathic remedies. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: No reprint information available.

Whalen, C. K., & Henker, B. (Eds.). (1980). *Hyperactive Children: The social ecology of identification and treatment*. New York: Academic Press.

## ADHD: Research Articles

Abramowitz, A. J., Eckstrand, D., O'Leary, S. G., & Dulcan, M. K. (1992). ADHD children's responses to stimulant medication and two intensities of a behavioral intervention. *Behavior Modification*, *16*(2), 193-203.

Examined the effects of a behavioral intervention alone and in combination with stimulant medication on the off-task behavior of 3 White boys (aged 10-11 yrs) with attention-deficit hyperactivity disorder (ADHD). Rates of off-task behavior in the classroom were examined in relation to 6 possible combinations of 2 doses of methylphenidate plus placebo and 2 "intensities" of teacher reprimands (immediate vs delayed). Results suggest that for some children with ADHD, a simple behavioral intervention implemented in its most intense form can achieve results comparable to those achieved with medication. Additionally, for some children medication can obviate the need for the most intense form of a behavioral intervention. Case-by-case assessment is necessary and feasible. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Ann Abramowitz, Ph.D., Psychiatry Section, The Emory Clinic, 1365 Clifton Road N.E., Atlanta, GA 30322.

Ajibola, O., & Clement, P. W. (1995). Differential effects of methylphenidate and self-reinforcement on attention-deficit hyperactivity disorder. *Behavior Modification*, *19*(2), 211-233.

Six boys aged 9-22 yrs with attention deficit hyperactivity disorder (ADHD) attended a daily morning 30-min tutoring class focusing on reading. Investigators used a modified Latin-square design in which each child began with a 5-day baseline phase followed by 6 10-day treatment phases that used drug placebo, noncontingent reinforcers, .3 mg/kg methylphenidate (MTH), .7 mg/kg MTH, and self-reinforcement in various combinations. Amount of academic performance was the major measure of outcome and the target behavior of self-reinforcement. Drug placebo and noncontingent reinforcers had no systematic impact. MTH had differential effects across the recorded behaviors. Self-reinforcement improved the target behavior; the mean effect size for self-reinforcement was 2.66. The combined effects of MTH and self-reinforcement on academic performance were

greater than either of the treatments given alone. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Paul W. Clement, Psychology Resource Consultants, 100 N. Hill Avenue, Suite 207, Pasadena, CA 91106-1907.

Ardoin, S. P., & Martens, B. K. (2000). Testing the ability of children with attention deficit hyperactivity disorder to accurately report the effects of medication on their behavior. *Journal of Applied Behavior Analysis, 33*(4), 593-610.

Children with attention deficit hyperactivity disorder (ADHD) are often treated with central nervous system stimulants, making the evaluation of medication effects an important topic for applied behavior analysts. Because assessment protocols emphasize informant reports and direct observations of child behavior, little is known about the extent to which children themselves can accurately report medication effects. Double-blind placebo-controlled procedures were used to examine whether 6 children (aged 10-13 yrs) with ADHD could recognize the effects of their medication. The children were given math worksheets to complete for 15 min during each of 14 sessions while on medication and placebo. Children completed a self-evaluation form at the end of each session, and ratings were compared to observed behavior and academic performance. Results indicated that 3 children were able to accurately report their medication status at levels greater than chance, whereas the accuracy of reports by all children was related to dosage level, differences in behavior, and the presence of adverse effects. The implications of these results for placebo-controlled research, self-monitoring of dosage levels, and accuracy training are discussed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Brian K. Martens, Department of Psychology, Syracuse University, 430 Huntington Hall, Syracuse, NY 13244-2340

Barkley, R. A., Fischer, M., Smallish, L., & Fletcher, K. (2004). Young adult follow-up of hyperactive children: antisocial activities and drug use. *Journal of Child Psychology & Psychiatry & Allied Disciplines, 45*(2), 195-211.

Background: Hyperactive/ADHD children are believed to be a greater risk for adolescent and young adult antisocial activity and drug use/abuse,

particularly that subset having comorbid conduct problems/disorder. Method: We report on the lifetime antisocial activities and illegal drug use self-reported at young adult follow-up (mean age 20-21 years; 13+ year follow-up) for a large sample of hyperactive (H; N=147) and community control (CC; N=73) children. Parent reports of childhood hyperactivity and conduct problems at study entry, parent and self-reports of ADHD and conduct disorder at adolescence, and parent reports of ADHD at young adulthood are examined for their contribution to antisocial behavior and drug use at adulthood. Results: More of the H group committed a variety of antisocial acts and had been arrested for doing so (corroborated through official arrest records) than did the CC group. The H group also committed a higher frequency of property theft, disorderly conduct, assault with fists, carrying a concealed weapon, and illegal drug possession, as well as more arrests. These activities reduced to two dimensions corresponding to predatory-overt and drug-related antisocial conduct... (PsycINFO Database Record (c) 2004 APA, all rights reserved) (Journal abstract) For reprints: Barkley, Russell A., Department of Health Professions, College of Health Professions, Medical University of South Carolina, 19 Hagood Avenue, 9th Floor (Room 910), Charleston, SC, US, barkleyr@musc.edu

Bicard, D. F., & Neef, N. A. (2002). Effects of strategic versus tactical instructions on adaptation to changing contingencies in children with ADHD. *Journal of Applied Behavior Analysis, 35*(4), 375-389.

Examined the effects of two types of instructions on the academic responding of four children with attention deficit hyperactivity disorder. Tactical instructions specified how to distribute responding between two concurrently available sets of math problems associated with different variable-interval schedules of reinforcement. Strategic instructions provided a strategy to determine the best way to distribute responding. Experimental sessions consisted of a learning session in which participants were provided with one type of instruction, followed by a test session in which no instruction was provided. The schedules of reinforcement were subsequently reversed during test sessions. When learning and test schedules were identical, the responding of all four participants closely matched the reinforcement schedules. When tactical instructions were provided and schedules were subsequently changed, responding often remained under the

control of the instructions. When strategic instructions were provided, responding more quickly adapted to the changed contingencies. Analysis of postsession verbal reports indicated correspondence between the participants' verbal descriptions (whether accurate or inaccurate) and their nonverbal patterns of responding. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Bicard, David F., Florida International U, ZEB 214, 11200 SW 8th Street, Miami, FL, US

Binder, L. M., Dixon, M. R., & Ghezzi, P. M. (2000). A procedure to teach self-control to children with attention deficit hyperactivity disorder. *Journal of Applied Behavior Analysis, 33*(2), 233-237.

Examined the use of a progressive delay procedure combined with verbal mediation to teach self-control to children (aged 3-5 yrs) with attention deficit hyperactivity disorder (ADHD). Results showed that when participants were initially given the choice between an immediate smaller reinforcer and a larger delayed reinforcer, all participants chose the smaller reinforcer. When slight delays to obtain a larger reinforcer were instated in conjunction with intervening verbal activity, all participants demonstrated self-control regardless of the content of the verbal activity. Results extend the findings of M. R. Dixon et al (1998), who showed that self-control can be increased through progressive delays in adult Ss. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Mark R. Dixon, Trinity Sevices, Inc., 100 North Gougar Road, Joliet, Illinois 60432, mdixonts@aol.com

Carlson, C. L., Pelham, W. E., Milich, R., & Dixon, J. (1992). Single and combined effects of methylphenidate and behavior therapy on the classroom performance of children with attention-deficit hyperactivity disorder. *Journal of Abnormal Child Psychology, 20*(2), 213-232.

24 boys (aged 6-12 yrs) with attention deficit-hyperactivity disorder participated in an 8-wk treatment program. Each S received placebo and 2 doses of methylphenidate (MPH; 0.3 mg and 0.6 mg) crossed with 2 classroom settings: (1) a behavior modification (BM) classroom, including a token economy system, time-out, and daily home report card and (2) a classroom setting not using these procedures. Dependent variables included

classroom observations of on-task and disruptive behavior, academic work completion and accuracy, and daily self-ratings of performance. Both MPH and BM alone significantly improved Ss' classroom behavior, but only MPH improved academic productivity and accuracy. Singly, behavior therapy and 0.3 mg MPH produced roughly equivalent improvements in classroom behavior. The combination of behavior therapy and 0.3 mg MPH resulted in maximal BM, which was nearly identical to that obtained with 0.6 mg MPH alone. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Caryn L. Carlson, Ph.D., Department of Psychology, University of Texas at Austin, Austin, TX 78712.

Carlson, C. L., & Tamm, L. (2000). Responsiveness of children with attention deficit-hyperactivity disorder to reward and response cost: Differential impact on performance and motivation. *Journal of Consulting & Clinical Psychology, 68*(1), 73-83.

Using a within-subject design and both high- and low-interest tasks, this study examined the effects of reward (R), response cost (RC), and no contingency (NR) on performance and motivation of 22 children with attention deficit-hyperactivity disorder (ADHD) and 22 controls. Dependent variables included performance measures, self-rated performance and motivation, and a new measure of behavioral motivation based on a 2-min postcontingency task. Both contingencies benefited some aspects of the performance of ADHD children; relative to R, RC showed stronger effects but at the expense of decreased self-rated motivation on the low-interest task. The performance of controls did not differ across tasks, whereas ADHD children performed relatively better on the high-interest task. Neither contingency decreased motivation measures relative to NR for either group. For ADHD children, motivational effects appeared to be influenced by self-perceptions of performance. (PsycINFO Database Record (c) 2003 APA, all rights reserved) (journal abstract) For reprints: Caryn L. Carlson, Ph.D., Department of Psychology, University of Texas at Austin, Mezes 330, Austin, TX 78712, carlson@psy.utexas.edu.

Chronis, A. M., Fabiano, G. A., Gnagy, E. M., Wymbs, B. T., Burrows-MacLean, L., & Pelham, J., William E. (2001). Comprehensive, sustained behavioral and pharmacological treatment for attention-deficit/hyperactivity disorder: A case study. *Cognitive & Behavioral Practice, 8(4)*, 346-358.

Treatment for attention-deficit/hyperactivity disorder (ADHD) must be long-term, be intensive, address functional impairment across important domains and settings, and be sensitive to individual differences. This case illustrates comprehensive, combined behavioral and pharmacological treatment for a 7-yr-old male child diagnosed with ADHD and conduct disorder over a period of 3 yrs. Specific treatment components included an intensive summer treatment program (STP), behavioral parent training, behavioral classroom interventions, individually titrated stimulant medication, and a cognitive-behavioral depression-prevention program for the child's mother. Although substantial improvements were found in the degree of functional impairment, this child remained impaired in many domains. This suggests that treatment for ADHD, particularly in severe cases such as this, must be intensive and ongoing. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Pelham, Jr., William E., SUNY Buffalo, Ctr for Children & Families, Diefendorf Hall, Room 229, 3435 Main Street, Bldg. 20, Buffalo, NY, US, pelham@acsu.buffalo.edu

Danforth, J. S. (1998). The outcome of parent training using the Behavior Management Flow Chart with mothers and their children with oppositional defiant disorder and attention-deficit hyperactivity disorder. *Behavior Modification, 22(4)*, 443-473.

The effects of parent training, using parameters established in the Behavior Management Flow Chart (J. S. Danforth, 1998), on mother behavior and on the disruptive behavior of 8 children (aged 4-7 yrs) who emitted behavior consistent with the diagnoses of both Oppositional Defiant Disorder and attention deficit hyperactivity disorder (ADHD) were evaluated. Parent training was conducted within a multiple baseline design across children. Direct observation of mother and child behavior, phone interviews, and standardized rating scales showed that training improved parenting behavior, reduced maternal stress, and reduced oppositional child behavior. A 6-mo followup revealed that parenting and child behavior remained stable. The results are

comparable with prior research (e.g., S. Pisterman et al, 1989) on behavioral parent training for families that have children with oppositional/hyperactive behavior. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Jeffrey S. Danforth, Ph.D., Department of Psychology, Eastern Connecticut State University, Willimantic, CT 06226, danforth@ecs.ctstaeu.edu.

Douglas, V. I., & Parry, P. A. (1994). Effects of reward and nonreward on frustration and attention in attention deficit disorder. *Journal of Abnormal Child Psychology, 22(3)*, 281-302.

Studied the effects of reward schedule (100%, 50%, and 30%) and termination of rewards (extinction) on 30 Ss (mean age 9.6 yrs) with attention deficit hyperactivity disorder (ADHD) and 30 normal Ss (mean age 9.5 yrs), using measures of frustration (speed/strength of lever pulling) and attention (reaction time [RT] to a light signal). ADHD Ss pulled harder on the lever than controls during extinction and on the lowest (30%) partial schedule, providing evidence that they respond with greater frustration than normals when expected rewards fail to appear. The groups did not differ on the attentional measure on 100% reward. The partial schedules appeared to have an alerting or motivating effect on the controls, so that they responded more quickly and consistently than ADHD Ss on the partial schedules. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Virginia I. Douglas, McGill University, Department of Psychology, 1205 Dr. Penfield Avenue, Montreal, Quebec, H3A 1B1, Canada.

DuPaul, G. J., Ervin, R. A., Hook, C. L., & McGoey, K. E. (1998). Peer tutoring for children with attention deficit hyperactivity disorder: Effects on classroom behavior and academic performance. *Journal of Applied Behavior Analysis, 31(4)*, 579-592.

Investigated the effects of classwide peer tutoring (CWPT) on the classroom behavior and academic performance of students with attention deficit hyperactivity disorder (ADHD). Typical instructional activities were contrasted with CWPT for 18 children (aged 6-11 yrs) with ADHD and 10 peer comparison students attending first- through fifth-grade general education classes. CWPT led to

increases in active engagement in academic tasks along with reductions in off-task behavior for most participants. Of students with ADHD, 50% exhibited improvements in academic performance in math or spelling during CWPT conditions, as measured by a treatment success index. Participating teachers and students reported a high level of satisfaction with intervention procedures. The results suggest that peer tutoring appears to be an effective strategy for addressing the academic and behavioral difficulties associated with ADHD in general education settings. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: George J. DuPaul, School Psychology Program, Lehigh University, 111 Research Drive, Bethlehem, PA 18015.

DuPaul, G. J., Guevremont, D. C., & Barkley, R. A. (1992). Behavioral treatment of attention-deficit hyperactivity disorder in the classroom: The use of the attention training system. *Behavior Modification, 16*(2), 204-225.

Investigated the efficacy of response-cost contingencies alone and in combination with directed-rehearsal procedures for managing the classroom behavior and academic productivity of 2 boys (aged 6-7 yrs) with attention-deficit hyperactivity disorder (ADHD). A within-S reversal design with multiple-baseline components across academic work periods (i.e., reading, language) was employed to evaluate each S's behavior and academic performance. Data were gathered via teacher ratings, behavioral observations, and academic performance measures. Response-cost contingencies led to marked improvements in each S's task-related attention and a reduction in other ADHD symptoms. Response-cost effects on academic productivity and differential effects associated with directed-rehearsal contingencies were equivocal. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: George J. DuPaul, Ph.D., Department of Psychiatry, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester MA 01655.

DuPaul, G. J., & Henningson, P. N. (1993). Peer tutoring effects on the classroom performance of children with Attention Deficit Hyperactivity Disorder. *School Psychology Review, 22*(1), 134-143.

Classwide peer tutoring procedures involve instructional procedures (e.g., provision of frequent, immediate feedback) that are known to be successful for children with attention deficit hyperactivity disorder (ADHD). The implementation of peer tutoring with a 7-yr-old male student with ADHD is described, with results indicating significant improvements in attention to instruction, task-irrelevant activity level, and acquisition of mathematics skills. Peer tutoring may be a viable adjunct and/or alternative to teacher-mediated behavioral interventions for ADHD. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: George J. DuPaul, Ph.D., Department of Counseling Psychology, School Psychology and Special Education, Lehigh University, Iacocca Hall, Bethlehem, PA 18015.

Erhardt, D., & Baker, B. L. (1990). The effects of behavioral parent training on families with young hyperactive children. *Journal of Behavior Therapy & Experimental Psychiatry, 21*(2), 121-132.

Assessed the strengths and limitations of a time-limited, family-based behavioral intervention for 2 male children (aged 5.2 and 5.8 yrs) with attention-deficit-hyperactivity disorder. One S was Filipino; the other S was Black. Families completed a 10-wk child management training program and attended a number of follow-up sessions. Parents completed such measures as the Child Behavior Checklist. Improvements were found in parents' confidence in their child management ability and knowledge of behavioral principles, in certain child behavior problems, in parental ratings of hyperactivity, and in the parent-child relationship. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Bruce L. Baker, Department of Psychology, UCLA, Los Angeles, CA 90024, USA

Ervin, R. A., DuPaul, G. J., Kern, L., & Friman, P. C. (1998). Classroom-based functional and adjunctive assessments: Proactive approaches to intervention selection for adolescents with attention deficit hyperactivity disorder. *Journal of Applied Behavior Analysis, 31*(1), 65-78.

Evaluated the utility of classroom-based functional and adjunctive assessments of problem behaviors for 2 adolescent boys (aged 13 and 14 yrs) who met diagnostic criteria for attention deficit hyperactivity disorder (ADHD) and comorbid

oppositional defiant disorder (ODD). For children with ADHD-ODD, environmental classroom variables, when systematically manipulated by teachers, were related to the occurrence and nonoccurrence of problem behaviors. Classroom interventions derived from information that was obtained during functional and adjunctive assessments and from subsequent analyses resulted in substantial reductions in problem behaviors. Teacher and student consumer satisfaction ratings indicated that the interventions were effective and feasible in the classroom setting. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Ruth A. Ervin, Department of Counseling Psychology, Western Michigan University, Kalamazoo, Michigan 49008-5195

Flood, W. A., Wilder, D. A., Flood, A. L., & Masuda, A. (2002). Peer-mediated reinforcement plus prompting as treatment for off-task behavior in children with attention deficit hyperactivity disorder. *Journal of Applied Behavior Analysis, 35*(2), 199-204.

Replicated and extended functional analysis procedures to assess off-task behavior exhibited by 3 10 yr old children with attention deficit hyperactivity disorder (ADHD) and examined the efficacy of peer-mediated reinforcement of alternative behavior plus prompting as a treatment. Functional analyses revealed that peer attention was one variable maintaining the off-task behavior exhibited by the 3 students. Peer-mediated reinforcement plus prompting was then used to reduce off-task behavior in a simulated classroom environment. Implications for future applications of this procedure with children diagnosed with ADHD are discussed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Wilder, David A., U of the Pacific, Dept of Psychology, Stockton, CA, US, dwilder@uop.edu

Ghosh, S., & Chattopadhyay, P. K. (1993). Application of behaviour modification techniques in treatment of attention deficit hyperactivity disorder: A case report. *Indian Journal of Clinical Psychology, 20*(2), 124-129.

Applied 4 behavior modification techniques (positive reinforcement, response cost, programmed learning, and Premack's principle) in

the treatment of attention deficit hyperactivity disorder (ADHD) in a 7-yr-old boy. The program was aimed at academic performance, on-task behavior, and cooperative and social behavior. Follow-up showed that the S was maintaining his behavioral gains with improved academic performance. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: No reprint information available.

Gulley, V., & Northup, J. (1997). Comprehensive school-based behavioral assessment of the effects of methylphenidate. *Journal of Applied Behavior Analysis, 30*(4), 627-638.

Individualized assessments of the effects of 3 doses of methylphenidate (MPH) were conducted for 2 male students (aged 10 and 11 yrs) with attention deficit hyperactivity disorder within each child's classroom using behavioral, academic, and social measures. A double-blind, placebo-controlled, multielement design was used to evaluate the results. Results suggest that at least 1 or more dosages of MPH were associated with some degree of improvement for both children in each area of functioning as compared to placebo. However, the degree of improvement at times varied substantially across dosage and area of functioning. Results suggest that MPH dosage and area of child functioning are critical assessment parameters and that controlled clinical trials are necessary to optimize the effectiveness of treatment with MPH for the individual child. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Veronica Gulley, Department of Psychology, 236 Audubon Hall, Louisiana State University, Baton Rouge, Louisiana 70803

Gulley, V., Northup, J., Hupp, S., Spera, S., LeVelle, J., & Ridgway, A. (2003). Sequential evaluation of behavioral treatments and methylphenidate dosage for hyperactivity disorder. *Journal of Applied Behavior Analysis, 36*(3), 375-378.

We used a sequential approach to evaluate the relative and combined effects of different types of behavioral treatments, as well as dosage of methylphenidate (MPH), on the disruptive behavior of 3 students who had been diagnosed with attention deficit hyperactivity disorder. Results showed that individualized behavioral treatments

produced decreases in disruptive behavior equivalent to MPH for all 3 participants and demonstrated creases the need to evaluate behavioral treatments and medication dosage on an individual basis. (PsycINFO Database Record (c) 2003 APA, all rights reserved) (journal abstract) For reprints: Gulley, Veronica, 9435 Tasmania Ave., Baton Rouge, LA, US

Habboushe, D. F., Daniel-Crotty, S., Karustis, J. L., Leff, S. S., Costigan, T. E., Goldstein, S. G., Eiraldi, R., & Power, T. J. (2001). A family-school homework intervention program for children with attention-deficit/hyperactivity disorder. *Cognitive & Behavioral Practice, 8*(2), 123-136.

Children with attention deficit hyperactivity disorder (ADHD) typically have multiple problems with homework performance that may contribute to academic skills deficits and underachievement. Specialized interventions to address the homework problems of children with ADHD are needed. A brief family-school training program to address the homework problems of children with ADHD is described. The Homework Success Program involves group parent training in cognitive and behavioral principles and strategies that have empirical support in the literature. This program involves increasing parent understanding of their child's behavior and training in behavioral techniques to improve academic productivity and behavioral functioning. In addition, an emphasis is placed on improving goal-setting skills and increasing parent-teacher collaboration to address homework problems. Procedures for incorporating children into the intervention program are also included. Suggestions are made for assessing progress and outcomes in academic and behavioral functioning and parent-child interactions. Case illustrations are presented to demonstrate methods that may be useful in evaluating program effectiveness and to describe the types of outcomes that may occur when this program is implemented. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Power, Thomas J., Children's Hosp of Philadelphia, Children's Seashore House, Dept of Pediatric Psychology, 3405 Civic Ctr Blvd, Philidelphia, PA, US, power@email.chop.edu

Hinshaw, S. P., & Melnick, S. (1992). Self-management therapies and attention-deficit hyperactivity disorder: Reinforced self-evaluation and anger control interventions. *Behavior Modification, 16*(2), 253-273.

Describes training procedures, potential benefits, and limitations of cognitive-behavioral intervention procedures for children with attention-deficit hyperactivity disorder (ADHD). Although self-instructional treatments are not adequate interventions for ADHD children, reinforcement- and rehearsal-based behavioral interventions can be combined with self-management approaches to supplement and extend the gains induced by behavioral procedures. The cases of 2 boys (aged 9-10 yrs) with ADHD focus on training in anger management and self-evaluation skills. When combined with pharmacologic and behavioral approaches, self-management procedures deserve consideration for the difficult social and behavioral problems of ADHD children. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Stephen P. Hinshaw, Department of Psychology, Tolman Hall, University of California, Berkeley, CA 94720

Hoza, B., Pelham, W. E., Sams, S. E., & Carlson, C. (1992). An examination of the "dosage" effects of both behavior therapy and methylphenidate on the classroom performance of two ADHD children. *Behavior Modification, 16*(2), 164-192.

Within the context of 2 case studies, the effects of 2 doses (.3 and .5 mg/kg b.i.d.) of methylphenidate (MPH) and behavioral interventions were examined. Ss were 2 White males (aged 10 yrs 11 mo and 11 yrs) with attention-deficit hyperactivity disorder (ADHD). A within-Ss design was used to demonstrate the importance of examining different doses of both types of treatments in determining the maximally effective treatment for a given child. One case illustrates the importance of evaluating medication response within the context of differing doses of behavior therapy. The other case demonstrates that difficult-to-manage cases are sometimes manageable using potent doses of both treatments simultaneously. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: No reprint information available.

Huang, H.-L., Chao, C.-C., Tu, C.-C., & Yang, P.-C. (2003). Behavioral parent training for Taiwanese parents of children with attention-deficit/hyperactivity disorder. *Psychiatry & Clinical Neurosciences*, *57*(3), 275-281.

Examined the effectiveness of a behavioral parent training program for Taiwanese parents of children with attention deficit/hyperactivity disorder (ADHD) in a Confucian environment. 14 ADHD preschoolers (aged 3-6 yrs) and their parents completed a 10-session parent training program. Parent ratings of ADHD/oppositional defiant disorder (ODD) symptoms and problem behaviors at home were collected at the 1st, 4th, 6th, 7th, and 10th sessions. Three instruments were used to evaluate treatment outcome: (1) the Disruptive Behavior Rating Scale-Parent Form (R. Barkley, 1997, 1998); (2) Child Attention Profile (R. Barkley, 1988); and (3) Home Situations Questionnaire (R. Barkley, 1998). Results show that both ADHD/ODD symptoms and home behaviors of the children improved significantly after the parent training. There was also a significant decline in the severity of symptoms and problem behaviors at home with the progression of training. These findings support the effectiveness of this parent training program for parents of ADHD children in an environment of Confucianism. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Chao, Chia-Chen, Graduate Inst of Clinical Behavioral Science, Chang Gung U, 259, Wen-Hwa 1st Road, Kweisan, Taoyuan, Taiwan, 333, ccchao@mail.cgu.edu.tw

Hupp, S. D. A., Reitman, D., Northup, J., O'Callaghan, P., & LeBlanc, M. (2002). The effects of delayed rewards, tokens, and stimulant medication on sportsmanlike behavior with ADHD-diagnosed children. *Behavior Modification*, *26*(2), 148-162.

Five children (aged 4-7 yrs) diagnosed with attention deficit/hyperactivity disorder participated in a summer program designed to evaluate behavioral and pharmacological treatments in a recreational setting. The effect of a contingency for increased sportsmanlike behavior, with and without the use of tokens, was examined during kickball games. The influence of stimulant medication was also examined for 3 of the children. A multiple-baseline, reversal design revealed that a delayed reward condition did not increase sportsmanlike behavior, whereas the addition of tokens (and praise) to the delayed reward increased sportsmanlike behavior for all 5

participants. Stimulant medication appeared to have very little influence on sportsmanlike behavior. Future directions for behavioral social skills interventions using a sports skills model are also discussed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: No reprint information available.

Johnson, C. R., Handen, B. L., Lubetsky, M. J., & Sacco, K. A. (1994). Efficacy of methylphenidate and behavioral intervention on classroom behavior in children with ADHD and mental retardation. *Behavior Modification*, *18*(4), 470-487.

Used a combination of an alternating treatment and double-blind placebo-controlled drug design to assess the independent and combined effects of 2 behavioral interventions and 2 doses of methylphenidate (MPH) in 3 children (aged 6-7 yrs) with attention deficit hyperactivity disorder (ADHD) and mental retardation (MR). Two of the 3 Ss responded positively to medication as measured by increased on-task behavior. The first behavioral intervention, a token economy for on-task behavior, was ineffective for increasing either on-task behavior or work accuracy when combined with placebo. However, improvement in work accuracy was realized with implementation of a 2nd behavioral intervention that specifically targeted accuracy independent of drug conditions. Findings highlight both the positive effects and limitations of the 2 treatment modalities for ADHD. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: No reprint information available.

Kayser, K. H., Wacker, D. P., Derby, K. M., & Andelman, M. S. (1997). A rapid method for evaluating the necessity for both a behavioral intervention and methylphenidate. *Journal of Applied Behavior Analysis*, *30*(1), 177-180.

Examined the effects of a behavioral intervention and methylphenidate (MPH) on inappropriate and sleep disturbance displayed by a 6-yr-old boy who had been diagnosed with attention deficit hyperactivity disorder (ADHD). Results show that the behavioral intervention was effective in reducing inappropriate behaviors to near-zero levels regardless of the presence or absence of MPH. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Krista H. Kayser,

Division of Developmental Disabilities, 251  
University Hospital School, University of Iowa, Iowa  
City, Iowa 52242

Murray, L. K., & Kollins, S. H. (2000). Effects of methylphenidate on sensitivity to reinforcement in children diagnosed with attention deficit hyperactivity disorder: An application of the matching law. *Journal of Applied Behavior Analysis, 33*(4), 573-591.

Examined sensitivity to reinforcement in 2 boys (aged 7 and 10 yrs) diagnosed with attention deficit hyperactivity disorder (ADHD) using the matching law to provide more precise and quantitative measurement of the construct that the behavior of children with ADHD is the result of decreased sensitivity to consequences compared to typical children. This experiment also evaluated the effects of methylphenidate (MPH) on sensitivity to reinforcement of children with ADHD. Ss completed math problems to earn tokens under 4 different variable-interval schedules of reinforcement under medicated vs nonmedicated conditions. Results show that, in the medicated condition, the matching functions for both Ss resulted in higher asymptotic values, indicating an overall elevation of behavior rate under these conditions. The variance accounted for by the matching law was also higher under the medicated conditions, suggesting that their behavior more closely tracked the changing rates of reinforcement while taking MPH compared to placebo. Under medicated conditions, the reinforcing efficacy of response-contingent tokens decreased. Results are discussed with respect to quantifying behavioral changes and the extent to which the drug interacts with prevailing contingencies (i.e., schedule values) to influence behavioral variability. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Scott H. Kollins, Department of Psychiatry, Duke University Medical Center, Box 3431, Durham, NC 27710

Neef, N. A., Bicard, D. F., & Endo, S. (2001). Assessment of impulsivity and the development of self-control in students with attention deficit hyperactivity disorder. *Journal of Applied Behavior Analysis, 34*(4), 397-408.

Examined a combined approach of manipulating reinforcer dimensions and delay fading to promote the development of self-control with 3 students (aged 9-11 yrs old) diagnosed with attention deficit hyperactivity disorder (ADHD). First, we administered a brief computer-based assessment to determine the relative influence of reinforcer rate (R), reinforcer quality (Q), reinforcer immediacy (I), and effort (E) on the students' choices between concurrently presented math problems. During each session, one of these dimensions was placed in direct competition with another dimension (e.g., RvI involving math problem alternatives associated with high-rate delayed reinforcement vs low-rate immediate reinforcement), with all possible pairs of dimensions presented across the 6 assessment conditions (RvQ, RvI, RvE, QvI, QvF, IvE). The assessment revealed that the choices of all 3 students were most influenced by immediacy of reinforcement, reflecting impulsivity. We then implemented a self-control training procedure in which reinforcer immediacy competed with another influential dimension (RA or QvI), and the delay associated with the higher rate or quality reinforcer alternative was progressively increased. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Neef, Nancy A., PAES, Coll of Education, Arps Hall, 1945 N. High St, Columbus, OH, US, neef.2@osu.edu

Neef, N. A., Mace, F. C., & Shade, D. B. (1993). Impulsivity in students with serious emotional disturbance: The interactive effects of reinforcer rate, delay, and quality. *Journal of Applied Behavior Analysis, 26*(1), 37-52.

Conducted 2 studies extending basic matching research on self-control and impulsivity to the investigation of choices of 2 female students (aged 13 and 19 yrs) diagnosed as seriously emotionally disturbed. In Study 1, the interaction between unequal rates of reinforcement and equal vs unequal delays to reinforcer access (RA) on performance on concurrently available sets of math problems was examined. Ss' time allocation was sensitive to the relative rate of reinforcement when RA was immediate for both response alternatives; however, when the response alternatives were associated with unequal delays to RA, the Ss demonstrated impulsivity. In Study 2, the interactive effects of reinforcer rate, quality, and delay to RA were examined. With one S, reinforcer quality overrode the effects of both reinforcer rate and delay to RA. The other S tended

to respond exclusively to the alternative associated with immediate access to reinforcers. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Nancy A. Neef, Graduate School of Education, University of Pennsylvania, 3700 Walnut St., Philadelphia, PA 19104-6216

Northup, J., Broussard, C., Jones, K., & George, T. (1995). The differential effects of teacher and peer attention on the disruptive classroom behavior of three children with a diagnosis of attention deficit hyperactivity disorder. *Journal of Applied Behavior Analysis, 28*(2), 227-228.

Conducted functional analyses of classroom disruption during contingent teacher and peer attention conditions for 2 7-yr-old boys and a 9-yr-old girl with attention deficit hyperactivity disorder (ADHD). Attention provided by peer confederates appeared to function as a distinct form of positive reinforcement for all 3 children. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: John Northup, Department of Psychology, 236 Audubon Hall, Louisiana State University, Baton Rouge, LA 70803

Northup, J., Fusilier, I., Swanson, V., Huete, J., Bruce, T., Freeland, J., Gulley, V., & Edwards, S. (1999). Further analysis of the separate and interactive effects of methylphenidate and common classroom contingencies. *Journal of Applied Behavior Analysis, 32*(1), 35-50.

Evaluated separate and interactive effects between common classroom contingencies and methylphenidate (MPH) on disruptive and off-task behaviors for 4 male children (aged 7-8 yrs) with a diagnosis of ADHD. Analogue conditions consisting of contingent teacher reprimands, brief time-out, no interaction, and alone were conducted in a multielement design. Medication status (MPH or placebo) was alternated across days in a superordinate multielement design. Results indicate that (1) the behavioral effects of MPH were influenced by one or more of the analogue conditions for each participant, and (2) time-out was associated with zero or near-zero levels of both disruptive and off-task behavior for 3 of the 4 participants during MPH and placebo conditions. Implications for the clinical effectiveness of MPH and possible behavioral mechanisms of action of MPH in applied settings are discussed. (PsycINFO

Database Record (c) 2003 APA, all rights reserved) For reprints: John Northup, Department of Psychology, 236 Audubon Hall, Louisiana State University, Baton Rouge, LA 70803

Paniagua, F. A. (1992). Verbal-nonverbal correspondence training with ADHD children. *Behavior Modification, 16*(2), 226-252.

Evaluated the applicability of verbal-nonverbal correspondence-training procedures in the management of 5 boys (aged 6-10 yrs) with attention-deficit hyperactivity disorder (ADHD). Two Ss also met criteria for conduct problems. Ss participated in 1 of 3 correspondence-training procedures: (1) reinforcement of do-report, (2) reinforcement of report-do, and (3) reinforcement set-up on report. A changing-criterion design with multiple-baseline features was used with all Ss. Consistently lower levels of hyperactivity and conduct problems were noted during the introduction of each procedure. Treatment effects generalized to the classroom and were maintained at posttraining follow-up. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Freddy A. Paniagua, Division of Child and Adolescent Psychiatry, University of Texas Medical Branch, Galveston, TX 77550.

Pelham, W. E., Carlson, C. L., Sams, S. E., & Vallano, G. (1993). Separate and combined effects of methylphenidate and behavior modification on boys with attention deficit-hyperactivity disorder in the classroom. *Journal of Consulting & Clinical Psychology, 61*(3), 506-515.

Evaluated the separate and combined effects of behavior modification and 2 doses of methylphenidate (MPH; 0.3 and 0.6 mg/kg) compared with baseline (no behavior modification and a placebo) on the classroom behavior and academic performance of 31 attention deficit hyperactivity disorder (ADHD) boys attending a summer treatment program. Results revealed significant effects of both interventions, with the mean effect size of medication being more than twice as great as that of behavior modification. Relatively small incremental value was gained by the higher dose of medication or the addition of behavior modification, compared with the effects of the low dose of MPH. In contrast, the addition of either dose of MPH resulted in improvement beyond

the effects of behavior modification alone. These group effects reflected those obtained in analyses of individual differences. Furthermore, comparisons of individual responsiveness showed that boys who responded to one treatment also responded to the other. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: William E. Pelham, Jr., Western Psychiatric Institute and Clinic, 3811 O'Hara Street, Pittsburgh, PA 15213.

Posavac, H. D., Sheridan, S. M., & Posavac, S. S. (1999). A cueing procedure to control impulsivity in children with attention deficit hyperactivity disorder. *Behavior Modification, 23*(2), 234-253.

This study tested the efficacy of a cueing procedure for improving the impulse regulation of four 8-yr-old boys with Attention Deficit Hyperactivity Disorder (ADHD) during social skills training. Impulse regulation was defined as raising hands before speaking. Effects on collateral behaviors (i.e., talking out of turn) were also assessed. A reversal design was used. Behavioral data collected by independent observers suggested that all subjects demonstrated positive changes in impulse regulation (i.e., an increase in the frequency with which subjects raised their hand before speaking). Likewise, the treatment effects appeared to have produced positive effects on a behavior not directly targeted for intervention (i.e., talk outs). In general, behavioral changes were considered to be socially valid and the treatment agents viewed the cueing procedure very positively. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Susan M. Sheridan, University of Nebraska-Lincoln, Educational Psychology, 220 Bancroft Hall, Lincoln, NE 68588-0345.

Powell, S., & Nelson, B. (1997). Effects of choosing academic assignments on a student with attention deficit hyperactivity disorder. *Journal of Applied Behavior Analysis, 30*(1), 181-183.

The effects of choosing academic assignments on the undesirable behaviors manifested by a male 2nd grader with attention deficit hyperactivity disorder (ADHD) were analyzed. This study extended research by G. Dunlap et al (see record 1995-07652-001) on choice making as a form of antecedent control. A reversal design showed that

undesirable behaviors decreased when the S was given a choice of academic assignments. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Shawn Powell, School Psychology Program, Department of Professional Psychology, University of Northern Colorado, Greeley, Colorado 80639

Rapport, M. D., Loo, S., Isaacs, P., & Goya, S. (1996). Methylphenidate and attentional training: Comparative effects on behavior and neurocognitive performance in twin girls with attention-deficit/hyperactivity disorder. *Behavior Modification, 20*(4), 428-450.

Evaluated the effectiveness of 4 doses (5-, 10-, 15-, and 20-mg) of methylphenidate (MPH) and attentional training (AT) on the behavior and neurocognitive performance of twin, 6-yr-old females with attention deficit hyperactivity disorder (ADHD). Response was evaluated in the context of a single-S, placebo-controlled, reversal design to facilitate contrasts between pharmacological and behavioral interventions, and to allow for comparisons between cognitive and behavioral changes across conditions. MPH and AT were effective interventions for improving the behavior and neurocognitive performance (Continuous Performance Task and Matching Unfamiliar Figures Task) of both Ss. Treatment effectiveness was demonstrated by a high stability in behavior and neurocognitive performance for both Ss across the placebo and 3 baseline phases contrasted with active treatment conditions. Implications for clinical management of females with ADHD are discussed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Mark D. Rapport, Ph.D., Professor of Clinical Child Psychology, Department of Psychology, University of Hawaii, 2430 Campus Road, Gartley Hall, Honolulu, HI 96822, largo@unuhix.uhcc.hawaii.edu.

Reid, M. J., & Webster-Stratton, C. (2001). The incredible years parent, teacher, and child intervention: Targeting multiple areas of risk for a young child with pervasive conduct problems using a flexible, manualized treatment program. *Cognitive & Behavioral Practice, 8*(4), 377-386.

Young children who present for treatment with oppositional-defiant disorder (ODD) and conduct

disorder (CO) frequently exhibit these symptoms across settings and often show comorbid symptoms of attention-deficit/hyperactivity disorder (ADHD) and/or internalizing symptoms such as anxiety or depression. Parent training programs to treat these children must be flexible and comprehensive enough to address these issues. This article outlines a case in which the Incredible Years Parent, Teacher, and Child Training programs were used to treat a 6-yr-old boy, John, with ODD. His problems were pervasive and occurred at home, at school, and with peers. In addition to the ODD symptoms, John exhibited symptoms of ADHD as well as significant anxious and depressed behaviors. This case study outlines how a multimodal, manualized treatment can be applied flexibly to attend to individual family needs and address issues of comorbidity. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Reid, M. Jamila, U Washington, Parenting Clinic, 1107 N.E. 45th St., Suite 305, Seattle, WA, US, mjreid@u.washington.edu

Reid, R., & Maag, J. W. (1994). How many fidgets in a pretty much: A critique of behavior rating scales for identifying students with ADHD. *Journal of School Psychology, 32*(4), 339-354.

Describes behavior rating scales and difficulties in the use of cutoff scores to identify students with attention deficit hyperactivity disorder (ADHD) and how problems with interobserver agreement hamper the validity of rating scales and the subsequent conclusions that can be drawn about students' behavior. Students with ADHD present refractory problems that may involve the school psychologist in assessment and diagnosis. Rating scales commonly are used, sometimes in conjunction with other techniques, for assessing and diagnosing ADHD. They often are presented as an objective way to quantify the severity of a child's behavior in comparison with a normative standard. Because rating scales have become such an integral component in the identification of children with ADHD, school psychologists should understand the limitations associated with this methodology. Recommendations for obtaining more reliable and valid information from rating scales are presented. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Robert Reid, Department of Special Education and Communication Disorders, 202 Barkley Memorial Center, Lincoln, NE 68583-0732.

Reitman, D., Hupp, S. D. A., O'Callaghan, P. M., Gulley, V., & Northup, J. (2001). The influence of a token economy and methylphenidate on attentive and disruptive behavior during sports with ADHD-diagnosed children. *Behavior Modification, 25*(2), 305-323.

Three children (aged 4-7 yrs) diagnosed with attention deficit hyperactivity disorder (ADHD) participated in a summer program designed to evaluate the influence of stimulant medication and a token economy on attentive and disruptive behavior during kickball games. Attentive and disruptive behavior were assessed using an interval coding system, and daily ratings on the ADHD Index of the Conners Teacher Rating Scale-Revised were also obtained. A multielement reversal design was used, and the results indicate that both interventions independently improved attentive behavior and decreased disruptive behavior for the Ss. Contrary to other research, when the token economy and medication were compared in isolation, the token system appeared more effective in reducing disruptive behavior for 2 of the 3 Ss. In addition, the token system generally enhanced the effects of stimulant medication. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: No reprint information available.

Smith, M. D., & Barrett, M. S. (2000). Parenting training for families of girls with attention deficit hyperactivity disorder: An analysis of three cases. *Child & Family Behavior Therapy, 22*(4), 41-54.

Examined the home behavior and maternal perceptions of girls with attention deficit hyperactivity disorder (ADHD), before, during and after a parent training intervention. Parent training is a psychoeducational approach that instructs parents and other caregivers in cognitive-behavioral management techniques which can then be taken into the home and used to address child behavior problems. Three families having a daughter with ADHD (aged 10-11 yrs) completed the study. Parent ratings of behavior and emotional status were collected and observations of parent and child home behaviors were made. Observational and questionnaire data both show that child compliance improved in 2 out of 3 families. Results also indicate that parent ratings of child behavior agreed with behaviors observed in the home. Emotional improvement, and some lessening of the core ADHD symptoms, were also

reported. These results suggest that parents in this study accurately reported changes in child behavior and that children made both emotional and behavioral gains as a result of the parent training intervention. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Michael D. Smith, Center for AIDS Intervention Research, Department of Psychiatry and Behavioral Medicine, Medical College of Wisconsin, 2071 North Summit Avenue, Milwaukee, WI 53202, mdsmith@mcw.edu.

Smith, M. D., & Barrett, M. S. (2002). The effect of parent training on hyperactivity and inattention in three school-aged girls with attention deficit hyperactivity disorder. *Child & Family Behavior Therapy, 24*(3), 21-35.

Parent training is often used to treat non-compliance and social problems in Attention Deficit Hyperactivity Disorder. M. D. Smith and M. S. Barrett (2000) found that a parent training intervention led to improved compliance and core ADHD symptoms in 3 school-aged girls. The current study extended findings from Smith and Barrett (2000) by directly examining changes in hyperactivity and inattentiveness in the same 3 girls (age 10, 11, and 11). Five child behaviors indexing inattention and hyperactivity were assessed from home observations of parent-child interactions made before, during, and after the parent training program. Body Fidgeting (gross motor movements and leaving one's seat) declined significantly. It was the only child behavior variable correlated with parent reports of attention, behavior, and emotional problems on the Child Behavior Checklist. Off-Task behaviors grew worse over the course of parent training. Such findings suggest that parent training programs may narrowly focus on overt behaviors at the expense of other symptoms. Further, it may be that increasing parent intervention with some child behaviors (e.g., fidgeting) reduces the family's ability to manage other ADHD-related problems (e.g., inattention). (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Smith, Michael D., Plymouth State Coll, Dept of Psychology, MSC#31, Hyde Hall, Plymouth, NH, US

Solanto, M. V. (1990). The effects of reinforcement and response<sup>^</sup>cost on a delayed response task in children with attention deficit hyperactivity disorder: A research note. *Journal of Child Psychology & Psychiatry & Allied Disciplines, 31*(5), 803-808.

Examined whether the symptoms of increased inattentiveness, activity, and impulsiveness found in children with attention deficit hyperactivity disorder can be explained as a result of reduced sensitivity to reinforcement. 20 children (aged 4-11 yrs) with a diagnosis of attention deficit disorder with hyperactivity and 18 matched normal controls were tested on a delayed response task and a measure of impulsiveness, under conditions of positive reinforcement and of punishment in the form of response-cost. The contingencies each improved performance compared to baseline but did not differ significantly from each other. Neither contingency affected the groups differentially, thus failing to provide support for the reinforcement hypothesis. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Dr. Mary V. Solanto, Division of Developmental & Behavioral Pediatrics, Schneider Children's Hospital, Long Island Jewish Medical Center, New Hyde Park, NY 11042, USA

Stewart, K. G., & McLaughlin, T. F. (1992). Self-recording: Effects of reducing off-task behavior with a high school student with an attention deficit hyperactivity disorder. *Child & Family Behavior Therapy, 14*(3), 53-59.

Evaluated the effects of self-recording in reducing off-task behavior with a 15-yr-old male high school student labeled as having attention deficit hyperactivity disorder (ADHD). The S emitted low rates of attending and was enrolled in a self-contained classroom for the behaviorally disordered. Off-task data were gathered in the S's special education classroom setting. An ABAB single-S replication design was employed to evaluate effects of self-monitoring. Results indicate a decrease in off-task behavior within the classroom setting. Opinions provided by the other school staff suggested a perceived lack of generalization of treatment gains to other courses in which the S was enrolled. Ratings by a student observer indicate that the severity of disruptions declined during the self-monitoring phases. Possible reasons for this outcome are discussed. Practical implications for the use of the procedures in a secondary classroom are presented. (PsycINFO

Database Record (c) 2003 APA, all rights reserved)  
For reprints: T. F. McLaughlin, Department of  
Special Education, Gonzaga University, Spokane,  
WA 99258-0001.

Swenson, N., Lolich, E., Williams, R. L., &  
McLaughlin, T. F. (2000). The effects of structured  
free-time on request compliance and on-task  
behavior of a preadolescent with ADHD. *Child &  
Family Behavior Therapy, 22(1)*, 51-59.

Evaluated the effects of a contingent structured  
free-time on request compliance, and on-task  
behavior for a 12-yr-old male with attention deficit  
hyperactivity disorder (ADHD). A multiple baseline  
design was employed to evaluate the impact of the  
free-time procedures on attention to task and  
compliance. The S earned 5 minutes of free-time  
for each third of the observations he as task  
compliant. The child also earned 1 minute of free-  
time for each observation during which he was on-  
task. Free-time consisted of completing jobs for  
the teacher such as cleaning the chalkboard,  
decorating the resource room, making signs,  
organizing tapes, or playing educational games on  
the computer. The overall outcome indicates  
increases in compliance and on-task behavior  
during the structured free-time condition. It is  
concluded that these procedures were effective  
and easy to implement in a special education  
resource room setting for 16 wks. (PsycINFO  
Database Record (c) 2003 APA, all rights reserved)  
For reprints: R. L. Williams, Director, Special  
Education Program, Gonzaga University, Spokane,  
WA 99258-0001.

Trocki-ables, P., French, R., & O'Connor, J. (2001).  
Use of primary and secondary reinforcers after  
performance of a 1-mile walk/run by boys with  
attention deficit hyperactivity disorder. *Perceptual  
& Motor Skills, 93(2)*, 461-464.

Examined 3 different types of reinforcers (token  
economy, verbal praise, and token economy  
combined with verbal praise) on cardiorespiratory  
performance during a 1-mile/1.6 km walk/run test.  
Based on visual inspection of time across 8 exercise  
sessions for each type of reinforcement technique,  
the 3 techniques were mildly associated with  
improvement of the cardiovascular performances of  
5 young boys (aged 8-10 yrs) with attention deficit  
hyperactivity disorder (ADHD). Specific

reinforcement techniques improved time for this 1-  
mile walk/run by the Ss. (PsycINFO Database  
Record (c) 2003 APA, all rights reserved) For  
reprints: French, Ron, Texas Woman's U, Dept of  
Kinesiology, P.O. Box 425647, Pioneer Hall 208D,  
Denton, TX, US

Umbreit, J. (1995). Functional assessment and  
intervention in a regular classroom setting for the  
disruptive behavior of a student with attention  
deficit hyperactivity disorder. *Behavioral  
Disorders, 20(4)*, 267-278.

Describes a 3-phase assessment and intervention  
study involving an 8-yr old boy with attention  
deficit hyperactivity disorder (ADHD) who attended  
regular 3rd-grade classes at his local elementary  
school. During various academic instruction, S  
frequently displayed disruptive behaviors that  
rarely occurred during the rest of the school day.  
The 1st phase, a brief functional (analog) analysis,  
identified that S's disruptive behaviors were  
maintained by escape from task demands. The 2nd  
phase, a curriculum-based assessment, revealed  
that S's disruptive behavior occurred most  
frequently during specific seating and grouping  
arrangements. The 3rd phase examined the  
effectiveness of an intervention derived from the  
assessments. Results show an immediate reduction  
in disruptive behavior and an increase in  
appropriate behavior that lasted throughout the  
data collection period. (PsycINFO Database Record  
(c) 2003 APA, all rights reserved) For reprints: John  
Umbreit, Department of Special Education and  
Rehabilitation, College of Education, University of  
Arizona, Tucson, AZ

Walker, C. J., & Clement, P. W. (1992). Treating  
inattentive, impulsive, hyperactive children with  
self-modeling and stress inoculation training. *Child  
& Family Behavior Therapy, 14(2)*, 75-85.

Ss were 6 1st- and 2nd-grade boys diagnosed with  
attention deficit hyperactivity disorder (ADHD).  
There were 3 treatment packages: self-modeling of  
distraction and then recovery of on-task behavior  
(SM of R), self-modeling of sustained on-task  
behavior despite distractions (SM), and stress  
inoculation training (SI). The target behaviors were  
peer relations and on-task behavior. Investigators  
administered 1 phase of each treatment to each  
child so that the order of the 3 treatments

balanced across the set of single-S investigations. Collapsing results across all Ss, treatments, and measures, the mean effect size (ES) was 0.93. For SM of R, ES was 0.53; for SM, ES was 1.19; and for SI, ES was 1.07. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Chyrl J. Walker, Clackamas Family Counseling Services, 8800 S.E. Sunnyside Road, Suite 119, Clackamas, OR 97015.

Whalen, C. K., & Henker, B. (1991). Therapies for hyperactive children: Comparisons, combinations, and compromises. *Journal of Consulting & Clinical Psychology, 59*(1), 126-137.

Comparative treatment studies of attention-deficit hyperactivity disorder (ADHD) are impeded by methodological quandaries, constricted focus, and the heterogeneity of ADHD children, research designs, measures, and treatment responsiveness. Comparisons are drawn among 3 major treatment modalities for ADHD: stimulant treatments, primarily methylphenidate; behavioral treatments, including contingency management and parent training; and cognitive-behavioral or self-regulation therapies. We identify a dozen " . . . abilities," such as communicability, controllability, and constrainability, that compel consideration and that convert either-or questions about the single best treatment into more comprehensive assessment and intervention strategies. The profusion of problems called ADHD mandates multimodal approaches not only to optimize therapeutic impact but also to inform theories of developmental psychopathology and therapeutic change. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Carol K. Whalen, Social Ecology, University of California, Irvine, CA, 92717.

Woltersdorf, M. A. (1992). Videotape self-modeling in the treatment of attention-deficit hyperactivity disorder. *Child & Family Behavior Therapy, 14*(2), 53-73.

Videotape self-modeling (VSM) uses videotapes, with maladaptive behaviors removed via editing, to allow Ss to view themselves as they might behave in the future. In this study 4 boys (aged 9-10 yrs) with attention-deficit hyperactivity disorder

(ADHD) watched edited videotapes of themselves. Four behaviors were targeted for modification: fidgeting, distractibility, vocalization, and math performance. A 4-phase, multiple-baseline design introduced the VSM treatment and titrated its removal over a 5-mo period. Results indicate that VSM is an effective and durable modality for reducing behavioral symptoms and for increasing math productivity in grade-school-age male children with ADHD. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: No reprint information available.

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## Behavioral Parenting Abstracts

### Behavioral Parenting Updates: Books, Chapters and Review Articles

Chronis, A. M., Chacko, A., Fabiano, G. A., Wymbs, B. T., & Pelham, W. E. J. (2004). Enhancements to the Behavioral Parent Training Paradigm for Families of Children With ADHD: Review and Future Directions. *Clinical Child & Family Psychology Review, 7*(1), 1-27.

Behavioral parent training (BPT) is one of the empirically supported psychosocial treatments for ADHD. Over many years and in many studies, BPT has been documented to improve both child ADHD behavior and maladaptive parenting behavior. In some studies, BPT has also been found to result in benefits in additional domains, such as parenting stress and child classroom behavior. However, the BPT literature on children selected as having ADHD lags behind research conducted on BPT for children selected as having oppositional defiant and conduct disorders (ODD and CD, respectively) with regard to examination of factors that may limit treatment attainment, compliance, and outcomes, such as single parenthood, parental psychopathology, and child comorbidity. Because of the high degree of comorbidity between ADHD and ODD/CD, it is difficult to separate the two BPT literatures. The parameters of BPT (e.g., format and setting), parent factors, and child factors that may contribute to treatment outcomes for families of children with ADHD are reviewed here and

recommendations for future BPT research in the area of ADHD are made. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Chronis, Andrea M., Department of Psychology, University of Maryland, College Park, MD, US, achronis@psyc.umd.edu

### Behavioral Parenting Updates: Research Articles

Ardoin, S. P., Martens, B. K., Wolfe, L. A., Hilt, A. M., & Rosenthal, B. D. (2004). A method for conditioning reinforcer preferences in students with moderate mental retardation. *Journal of Developmental and Physical Disabilities, 16*(1), 33-51.

Critical to the effectiveness of any positive behavioral intervention is the use of preferred stimuli that are likely to function as reinforcers. When preferred items cannot be used on a continuous basis, are prone to satiation, or are inappropriate for use in a given setting, alternate steps must be taken to ensure reinforcer potency. In this 2-experiment study we assessed accuracy of pictorial choice preference assessment (PCPA) and examined 2 methods for conditioning reinforcing properties to low preference items. Participants included three 12-year-old students with mild or moderate mental retardation. Only partial support for the predictive validity of PCPA was provided in Experiment 1, and conditioning effects were minimal and short lived. Results of Experiment 2 suggested that pairing low preferred items with a choice of multiple, highly preferred items may be an effective means of establishing the former as conditioned reinforcers. (journal abstract) For reprints: Ardoin, SP, Univ S Carolina, Dept Psychol, Sch Psychol Program, Columbia, SC 29208 USA, spardoin@yahoo.com

Baghdadli, A., Pascal, C., Grisi, S., & Aussilloux, C. (2003). Risk factors for self-injurious behaviours among 222 young children with autistic disorders. *Journal of Intellectual Disability Research, 47*(8), 622-627.

The aim of this study was to identify risk factors for self-injurious behaviours (SIBs) in children with autistic disorders. The occurrence of SIB was examined in comparison with the following

variables: chronological age, sex, adaptive skills, speech level, associated medical condition, degree of autism and parental social class. The subjects were 222 children aged under 7 years and all of them fulfilled the ICD-10 criteria for infantile autism. Retrospective data were collected on demographic characteristics and medical condition. Children were assessed in terms of speech, degree of autism and adaptive skills in communication, socialization and daily living skills domains. Results indicated that 50% of the children experienced SIB and 14.6% had severe SIBs. Lower chronological age, associated perinatal condition, a higher degree of autism and a higher daily living skills delay were risk factors of SIBs but parental class, sex and epilepsy were not. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Baghdadli, A., Child and Adolescent Psychiatry Department, Clinique Peyre-Plantade, Centre Hospitalier Universitaire de Montpellier, 291 avenue du Doyen Giraud, Cedex 5, 34295, Montpellier, France, cent-ress-autisme@chu-montpellier.fr

Bagner, D. M., Fernandez, M. A., & Eyberg, S. M. (2004). Parent-child interaction therapy and chronic illness: A case study. *Journal of Clinical Psychology in Medical Settings, 11*(1), 1-6.

We examined the outcome of parent-child interaction therapy (PCIT) for a child diagnosed with Oppositional Defiant Disorder (ODD) and cancer. "Robert," a 4-year-old Caucasian male, showed significant and meaningful changes in his behavior over the course of 13 weeks of PCIT, and Robert no longer met diagnostic criteria for ODD following treatment. His scores on the Eyberg Child Behavior Inventory and the Achenbach Child Behavior Checklist were in the clinical range before treatment and in the normal range at the conclusion of treatment. His mother also reported dramatic improvements in Robert's behavior during medical visits. Physician and social worker reports were consistent with her report. Such anecdotal data may have implications for the generalization of compliance to the medical setting for children with chronic illnesses. The results of this case study should prompt further investigation of parent-training interventions for children with chronic illnesses and disruptive behavior. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Bagner, Daniel M., Department of Clinical and Health Psychology, University of Florida, Box 100165, Gainesville, FL, US, dbagner@hp.ufl.edu

Barkley, R. A., Fischer, M., Smallish, L., & Fletcher, K. (2004). Young adult follow-up of hyperactive children: antisocial activities and drug use. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 45(2), 195-211.

Background: Hyperactive/ADHD children are believed to be a greater risk for adolescent and young adult antisocial activity and drug use/abuse, particularly that subset having comorbid conduct problems/disorder. Method: We report on the lifetime antisocial activities and illegal drug use self-reported at young adult follow-up (mean age 20-21 years; 13+ year follow-up) for a large sample of hyperactive (H; N=147) and community control (CC; N=73) children. Parent reports of childhood hyperactivity and conduct problems at study entry, parent and self-reports of ADHD and conduct disorder at adolescence, and parent reports of ADHD at young adulthood are examined for their contribution to antisocial behavior and drug use at adulthood. Results: More of the H group committed a variety of antisocial acts and had been arrested for doing so (corroborated through official arrest records) than did the CC group. The H group also committed a higher frequency of property theft, disorderly conduct, assault with fists, carrying a concealed weapon, and illegal drug possession, as well as more arrests. These activities reduced to two dimensions corresponding to predatory-overt and drug-related antisocial conduct... (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Barkley, Russell A., Department of Health Professions, College of Health Professions, Medical University of South Carolina, 19 Hagood Avenue, 9th Floor (Room 910), Charleston, SC, US, barkleyr@musc.edu

Bingham, C. R., & Shope, J. T. (2004). Adolescent developmental antecedents of risky driving among young adults. *Journal of Studies on Alcohol*, 65(1), 84-94.

This study examined the longitudinal patterns of adolescent psychosocial behavior and substance use of five risky driving groups. In the method, longitudinal data were gathered from 2,085 subjects (1,110 women) surveyed in young adulthood and at least once previously in high school (i.e., 10th and/or 12th grade). Based on young adult data, participants were classified into five groups differing in type and level of risky driving. Analyses compared the adolescent psychosocial and substance use development of the participants in the risky driving groups. Results

showed that a low level of parental monitoring, greater parental permissiveness, a weaker social bond and high levels of and rapid increases in substance use characterized the developmental trajectories of young adult risky drivers. It was concluded that these developmental traits identify individuals who are likely to endanger themselves and others through risky driving and who should receive early interventions to reduce the likelihood of subsequent risky driving. (PsycINFO Database Record (c) 2004 APA, all rights reserved) For reprints: Bingham, C. Raymond, Social and Behavioral Analysis, Transportation Research Institute, University of Michigan, 2901 Baxter Road, Ann Arbor, MI, US, rbingham@umich.edu

Cortesi, F., Giannotti, F., Sebastiani, T., & Vagnoni, C. (2004). Cosleeping and Sleep Behavior in Italian School-Aged Children. *Journal of Developmental & Behavioral Pediatrics*, 25(1), 28-33.

The prevalence and predictors of cosleeping were investigated in 901 healthy school-aged children. Parent reports on the Children's Sleep Habits Questionnaire and Child Behavior Checklist were used to assess children's sleep and behavioral problems. Regular, long-lasting cosleeping was present in 5% of our sample. Cosleepers rated higher on the Children's Sleep Habits Questionnaire total score and Bedtime Resistance, Sleep Anxiety, Nightwakings, and Parasomnias subscales than solitary sleepers. No significant behavioral problems were found in cosleepers. Regression results showed that low socioeconomic status, one parent who is a shiftworker, one-parent families, one parent who coslept as a child, prolonged breastfeeding, and previous and current sleep problems significantly predicted cosleeping. The high incidence of parents reporting having coslept as a child also suggested a lifestyle choice. Thus, cosleeping seems to reflect a parent's way to cope with sleep problems, and the long persistence of this practice may be related to the lifestyle of families. (PsycINFO Database Record (c) 2004 APA, all rights reserved) For reprints: Cortesi, Flavia, U Rome "La Sapienza", Dept of Developmental Neurology & Psychiatry, Ctr of Pediatric Disorders, via dei Sabelli, 108, 00185, Rome, Italy, flavia.cortesi@uniroma1.it

DeRoma, V. M., Lassiter, K. S., & Davis, V. A. (2004). Adolescent involvement in discipline decision making. *Behavior Modification, 28*(3), 420-437.

This study examined the influence of (a) low, medium, or high adolescent involvement (degree to which adolescent input was solicited in determining consequence) in discipline decisions and (b) parental versus adolescent focus of impact of behavior problem (parent emphasized inconvenience to either self or adolescent). After viewing videotaped vignettes of disciplinary interactions, high school students (N = 95) rated how close they would feel toward the parent, how fair they felt the intervention was, and the degree to which they would feel respected by the parent. Adolescents also provided ratings of anger and self-esteem, as well as how willing they would be to accept/abide by the consequences. Overall, significantly more favorable ratings were found for interactions with (a) higher levels of invited adolescent involvement and (b) the parent as the focus of impact. Findings suggest the importance of encouraging adolescent involvement in discipline and the value of refraining from emphasizing adverse impact to adolescent. For reprints: DeRoma, VM, The Citadel, Dept Psychol, Charleston, SC 29409 USA

Dihoff, R. E., Brosvic, G. M., Epstein, M. L., & Cook, M. J. (2004). Provision of feedback during preparation for academic testing: Learning is enhanced by immediate but not delayed feedback. *Psychological Record, 54*(2), 207-231.

Students prepared for classroom examinations by completing practice tests, with selected items from these practice tests repeated, in either the original or in a modified wording, on classroom examinations and a final examination. The availability of immediate self-corrective feedback on Study 1 practice tests (0, 3, or 6 practice tests) was varied, while in Study 2, the timing of feedback provided during practice tests (immediate, end of test, 24-hour delay, control) was varied. Performance on examinations was elevated by the provision of immediate feedback on practice tests in both studies, especially when test items were presented in their original wording, with some generalization observed on items presented in a modified wording. Predictions made in accordance with the interference-perseveration hypothesis and the delay-retention effect were not supported. These results demonstrate considerable

potential for immediate self-corrective feedback, delivered during test preparation through the Immediate Feedback Assessment Technique, to enhance performance on classroom examinations and to promote the retention of factual information during the academic semester. (journal abstract) For reprints: Brosvic, GM, Rider Univ, Dept Psychol, Lawrenceville, NJ 08648 USA, Brosvic@Rider.edu

Durand, V. M., Christodulu, K. V., & Koegel, R. L. (2004). Description of a sleep-restriction program to reduce bedtime disturbances and night waking. *Journal of Positive Behavior Interventions, 6*(2), 83-91.

The authors describe a behavioral intervention designed to reduce sleep problems without increasing disruption at bedtime or throughout the evening. Sleep restriction was used to reduce the bedtime and nighttime sleep problems of two children, a 4-year-old girl with autism and a 4-year-old girl with developmental delay. Sleep restriction involved reducing the number of hours each child slept while maintaining a consistent bedtime and awake time. Once the program was successful, the amount of sleep was faded back to an age-appropriate level. The sleep-restriction programs appeared to result in the elimination of bedtime disturbances and the reduction of nighttime awakenings. The authors discuss the effectiveness of this behavioral intervention for the treatment of sleep disturbances in children with developmental disabilities. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Christodulu, Kristin V., Department of Psychology, University at Albany, SUNY, Social Science 251, 1400 Washington Avenue, Albany, NY, US, kvc@cas.albany.edu

Dutra, L., Campbell, L., & Westen, D. (2004). Quantifying Clinical Judgment in the Assessment of Adolescent Psychopathology: Reliability, Validity, and Factor Structure of the Child Behavior Checklist for Clinician Report. *Journal of Clinical Psychology, 60*(1), 65-85.

The aim of this study was to assess the reliability and validity of the Child Behavior Checklist (CBCL) as completed by doctoral-level clinicians in the treatment of adolescents. We asked 294 randomly selected, experienced psychiatrists and

psychologists to describe a patient aged 14 to 18 in treatment for personality pathology. Clinicians completed the CBCL (parent-report version) and measures of adaptive functioning, personality pathology, and family and developmental history, which served as criterion variables to test the validity of the CBCL as completed by clinicians. Most CBCL scales demonstrated acceptable reliability. Validity estimates were impressive, and the data revealed clinically meaningful associations between specific CBCL scale scores and developmental and family history variables. Confirmatory factor analysis showed that the factorial structure of the clinician-report CBCL resembled that of the parent-report CBCL, with the exception of a substantially lower correlation between higher order internalizing and externalizing factors. The data suggest that clinical judgment can be both reliable and valid when quantified using psychometrically sound instruments. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Dutra, Lissa, Department of Psychology, Center for Anxiety & Related Disorders, Boston University, 648 Beacon Street, 4th Floor, Boston, MA, US, ldutra@bu.edu

English, C. L., & Anderson, C. M. (2004). Effects of familiar versus unfamiliar therapists on responding in the analog functional analysis. *Research in Developmental Disabilities, 25*(1), 39-55.

The analog functional analysis involves the manipulation of pre-determined antecedent and consequent events and typically is conducted by trained experimenters. Inclusion of idiosyncratic variables in the analog functional analysis may affect responding. Inclusion of caregivers is one potential antecedent that may affect problem behavior. This study directly examined the role of caregivers as therapists conducting sessions in the analog functional analysis. This goal was accomplished by conducting analog functional analyses with four participants with developmental disabilities and evaluating the extent to which differential patterns of responding were obtained when caregivers conducted sessions versus experimenters. Also, to evaluate the extent to which variables affecting behavior in the natural environment were present in the analog, information about events associated with problem behavior in the natural environment was collected with the Functional Analysis Interview (R. O'Neill, R. Horner, R. Albin, K. Storey, and J. Sprague, 1989) with caregivers and by asking caregivers to

collect scatter plot data (Touchette, MacDonald, and Langer, 1985). For 3 of 4 Ss, different patterns of responding were observed when caregivers vs experimenters conducted the functional analysis. (PsycINFO Database Record (c) 2004 APA, all rights reserved) For reprints: Anderson, Cynthia M., Department of Psychology, West Virginia University, Box 6040, Morgantown, WV, US, cindy.anderson@raail.wvu.edu

Feldman, M. A., Atkinson, L., Foti-Gervais, L., & Condillac, R. (2004). Formal versus informal interventions for challenging behaviour in persons with intellectual disabilities. *Journal of Intellectual Disability Research, 48*(1), 60-68.

Although effective, humane treatments exist for persons with intellectual disabilities (ID) who have challenging behaviour, little research has examined the extent to which clients receive formal, documented vs. undocumented interventions. Caregivers (of 625 persons with ID living in community and institutional residences in Ontario, Canada) were interviewed to examine the prevalence of different types of interventions. Overall, 55% of the 2506 different interventions (for 1464 target behaviours) were informal (i.e. lacking documented input from a professional, written intervention plans, and systematic evaluation). No significant differences emerged on formality of intervention across participant gender, age, level of ID, and type of residence. There were significantly more informal than formal behavioural interventions and counselling/psychotherapy, and no significant difference in the overall prevalence of formal and informal intrusive procedures. Behaviour control medications were paired more often with formal (67%) than informal interventions for dangerous behaviours... (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Feldman, Maurice A., Department of Child and Youth Studies, Brock University, St Catharines, ON, Canada, L2S 3A1, Maurice.Feldman@brocku.ca

Ferguson, A., Ashbaugh, R., O'Reilly, S., & McLaughlin, T. F. (2004). Using Prompt Training and Reinforcement to Reduce Transition Times in a Transitional Kindergarten Program for Students with Severe Behavior Disorders. *Child & Family Behavior Therapy, 26*(1), 17-24.

This article examines prompt training and reinforcement to decrease the amount of time between routine transitions within a self contained transitional kindergarten. A comparison between baseline results for two kindergarten classes for students with behavior disorders and that of prompting plus reinforcement produced an overall decrease in transition time across transitional settings. The use of physical prompting by consequences was found to be an easily implemented and effective set of strategies to reduce the amount of time between transitions in the preschool classroom. Weaknesses in the present research as well as suggestions for future research are provided. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: McLaughlin, T. F., Gonzaga U, Dept of Special Education, Spokane, WA, US, tmclaughlin@soe.gonzaga.edu

Field, C. E., Nash, H. M., Handwerk, M. L., & Friman, P. C. (2004). A modification of the token economy for nonresponsive youth in family-style residential care. *Behavior Modification, 28*(3), 438-457.

Out-of-home treatment for youth with conduct problems is increasing rapidly in this country. Most programs for these youth deliver treatment in a group format and commonly employ some version of a token economy. Despite widespread evidence of effectiveness, a substantial minority of treated youth fail to respond. Participants for this study were 3 youth who were nonresponsive to treatment provided in a family-style residential care program with a comprehensive token economy. Our approach to the "nonresponse" of these youth involved modifications of the frequency and immediacy of their access to the backup rewards earned with tokens. We evaluated the effects of the modifications with a treatment-withdrawal experimental design. Dependent measures included two indices of youth response to treatment: intense behavioral episodes and backup rewards earned. Results showed substantial improvement among these indices during treatment conditions. For reprints: Field, CE, Father Flanagans Boys Home, Clin Serv, Boys Town, NE 68010 USA

Freeman, K. A., & Dexter-Mazza, E. T. (2004). Using self-monitoring with an adolescent with disruptive classroom behavior - Preliminary analysis of the role of adult feedback. *Behavior Modification, 28*(3), 402-419.

Current research supports the effectiveness of self-monitoring strategies for addressing academic and behavioral challenges within educational settings. Although variations in procedures exist, frequently implementation of self-monitoring involves some form of adult feedback as a method of establishing accurate self-monitoring. To date, however, researchers have not systematically evaluated whether adult feedback is a necessary component for self-monitoring to be effective. In the current investigation, the influence of adult feedback on the effectiveness of self monitoring was analyzed. The participant was a 13-year-old student receiving educational services in a special education school at a residential facility for youth with conduct problems. The effectiveness of self-monitoring with and without adult feedback was compared. Results suggest that adult feedback may be an important component for establishing self-monitoring as an effective intervention for behavior problems exhibited in academic settings. For reprints: Freeman, KA, Oregon Hlth Sci Univ, Dept Pediat, Child Dev & Rehabil Ctr, Portland, OR 97201 USA

Friman, P. C., Woods, D. W., Freeman, K. A., Gilman, R., Short, M., McGrath, A. M., & Handwerk, M. L. (2004). Relationships between tattling, likeability, and social classification - A preliminary investigation of adolescents in residential care. *Behavior Modification, 28*(3), 331-348.

Little research has been published on tattling, even less on its social impact, and we found none directly investigating tattling by adolescents. This study assessed the extent to which tattling, as perceived by peers and caregivers of adolescents in a residential care program, was associated with various dimensions of social status and other behavioral correlates. Eighty-eight adolescent participants rated their housemates on likeability, perceived rates of tattling, and other behavioral descriptors. In addition, caretakers also rated each youth in terms of perceived tattling. On the basis of likeability ratings, participants were classified into one of five categories: popular, average, controversial, neglected, and rejected. Results showed a significant negative correlation between likeability and perceived tattling rates. In addition,

youth classified as socially rejected were more likely to be perceived by both their peers and care providers as engaging in high rates of tattling. (journal abstract) For reprints: Friman, PC, Father Flanagans Boys Home, Outpatient Behav Pediat & Family Serv, Boys Town, NE 68010 USA

Hawton, K., Hall, S., Simkin, S., Bale, L., Bond, A., Codd, S., & Stewart, A. (2003). Deliberate self-harm in adolescents: a study of characteristics and trends in Oxford, 1990-2000. *Journal of Child Psychology & Psychiatry, 44*(8), 1191-1198.

Background: Deliberate self-harm (DSH) is a major healthcare problem in adolescents. Identification of targets for prevention and treatment requires ongoing monitoring of trends and characteristics of those involved. Method: Using data from the Oxford Monitoring System for Attempted Suicide, we have examined trends and characteristics in adolescents aged 12-18 years presenting to a general hospital because of DSH between 1990 and 2000. Results: The numbers of presentations by females increased during the study period. An association of DSH with school stress was suggested by there being fewer presentations during the school holiday periods, the largest number in term times occurring on Mondays, and study problems being common. Self-poisoning was involved in more than 90% of episodes. Paracetamol overdoses decreased following legislation on pack sizes of analgesics. Antidepressant overdoses increased during the study period, in keeping with the rise in prescriptions. Drug misuse increased markedly in the boys, as did a history of violence to others. Being a victim of violence increased in girls. Suicide intent was higher in males. Problems faced by the adolescents showed marked gender differences, and differed between age groups and between those carrying out their first DSH... (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Hawton, Keith, Centre for Suicide Research, University of Oxford, Department of Psychiatry, Warneford Hospital, Headington, OXF, United Kingdom, OX3 7JX, hawton@psych.ox.ac.uk

Himle, M. B., Miltenberger, R. G., Flessner, C., & Gatheridge, B. (2004). Teaching safety skills to children to prevent gun play. *Journal of Applied Behavior Analysis, 37*(1), 1-9.

Research has shown that children often engage in gun play when they find a firearm and that this behavior is often involved in unintentional firearm injuries. Previous research has shown existing programs to be ineffective for teaching children safety skills to reduce gun play. This study examined the effectiveness of a behavioral skills training (BST) program supplemented with in situ training for teaching children safety skills to use when they find a gun (i.e., don't touch, leave the area, tell an adult). Eight 4- to 5-year-old children were trained and assessed in a naturalistic setting and in a generalized setting in a multiple baseline across subjects design. Results showed that 3 of the children performed the skills after receiving BST, whereas 5 of the children required supplemental in situ training. All children in the study learned to perform the skills when assessed in a naturalistic setting and when assessed in a generalization setting. Performance was maintained at 2- to 8-week follow-up assessments. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Miltenberger, Raymond G., Department of Psychology, North Dakota State University, Fargo, ND, US, ray.miltenberger@ndsu.nodak.edu

Hughes, C., Fowler, S. E., Copeland, S. R., Agran, M., Wehmeyer, M. L., & Church-Pupke, P. P. (2004). Supporting high school students to engage in recreational activities with peers. *Behavior Modification, 28*(1), 3-27.

The authors investigated the effects of an intervention package to support five high school students with extensive support-needs to initiate and engage in recreational activities with general-education peers in their physical education classes. The intervention components were (a) assessing participants' recreational activity goals, (b) teaching self-prompting using a picture book, (c) programming common stimuli, and (d) asking participants to assess daily performance and evaluate daily goal achievement. The intervention was associated with increases in participants' initiation of and engagement in recreational activities with general-education peers, as well as increases in ratings of quality of interaction. In addition, participants typically assessed with accuracy their performance of recreational

activities and whether they had achieved their recreational goals. Findings are discussed with respect to future research and practice. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: No reprint information available.

Kramer, T. L., Phillips, S. D., Hargis, M. B., Miller, T. L., Burns, B. J., & Robbins, J. M. (2004). Disagreement between parent and adolescent reports of functional impairment. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 45(2), 248-259.

Objective: Adolescents' functional impairment has become increasingly important as a criterion for diagnosis and service eligibility as well as a target of therapeutic intervention in mental health settings. This study examines three critical issues in measuring functioning: 1) agreement between parent and adolescent reports of functioning, 2) explanations for disagreement, and 3) clinicians' ratings of functioning compared with parent and adolescent reports. Methods: Agreement between parent and adolescent reports of functioning was estimated using the kappa statistic and conditional agreement in a sample of 258 adolescents. Rates of and reasons for expected disagreements between informants were explored in semi-structured interviews (n=43). ANOVA was calculated for clinician ratings for parent-adolescent pairs categorized on the basis of their agreement or disagreement on impairment. Finally, the independent contribution of parents' or adolescents' reports of impairment on clinician ratings of functioning was examined. Results: From 12% to 97% of problems reported by one informant were denied by the other. Agreement was particularly poor for questions about relationships with friends, peers' delinquent behaviors, and leisure activities... (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Kramer, Teresa L., Centers for Mental Healthcare Research, Department of Psychiatry, University of Arkansas for Medical Sciences, 5800 W 10th St., Suite 605, Little Rock, AR, US, kramerteresal@uams.edu

Lannie, A. L., & Martens, B. K. (2004). Effects of task difficulty and type of contingency on students' allocation of responding to math worksheets. *Journal of Applied Behavior Analysis*, 37(1), 53-65.

This study investigated students' allocation of responding as a function of task difficulty and type of reinforcement contingency (i.e., accuracy based or time based). Four regular education fourth-grade students were presented with two identical stacks of easy and then difficult math worksheets using a reversal design. Regardless of condition, completing problems from each stack of worksheets was reinforced according to a different contingency; one required correct completion of math problems (accuracy based) and one required on-task behavior (time based). Results suggested that 3 of the 4 students preferred the accuracy-based contingency when given easy material and the time-based contingency when given difficult material. One student allocated more responding to the accuracy-based contingency when given easy problems but did not show a clear preference for either contingency with difficult problems. The implications of these findings for designing reinforcement-based programs for tasks of varying difficulty are discussed. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Martens, Brian K., Department of Psychology, Syracuse University, 430 Huntington Hall, Syracuse, NY, US

Lerman, D. C., Vorndran, C., Addison, L., & Kuhn, S. A. C. (2004). A rapid assessment of skills in young children with autism. *Journal of Applied Behavior Analysis*, 37(1), 11-26.

Educational interventions based on the principles of behavior analysis are highly effective for establishing skills in young children with autism. As a first step in program development, the child's current skill level is determined by evaluating performance on tasks drawn from a preestablished curriculum. However, few specific guidelines have been delineated for conducting these skills assessments or interpreting the results. In this study, we evaluated an efficient methodology for conducting skills assessments. Six children who had been diagnosed with autism participated. The relative efficacy of two assessment packages--one containing several reinforcement procedures and one containing several potentially effective prompts--was evaluated across two to three skills for each child using multiple baseline and reversal designs. Results suggested that the methodology

was useful for matching targeted skills to appropriate interventions. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Lerman, Dorothea C., Louisiana State University, 236 Audubon Hall, Baton Rouge, LA, US, dlerman@lsu.edu

Lohrmann, S., Talerico, J., & Dunlap, G. (2004). Anchor the Boat: A classwide intervention to reduce problem behavior. *Journal of Positive Behavior Interventions, 6(2)*, 113-120.

Universal interventions are designed to systematically teach and reinforce consistent behavioral expectations. The purpose of this study was to provide an example of a group contingency classwide intervention called Anchor the Boat that operationally defined behavioral expectations, taught those expectations using teacher-directed instruction and role playing, and reinforced students when they met the behavioral criteria. Ten students attending a fourth- and fifth-grade learning-support classroom participated in the study. A multiple baseline design across three subject areas (i.e., reading, language arts, math) was used to evaluate the effects of the program on three target behaviors: talk outs, out of seat, and incomplete assignments. Following the classwide intervention, a substantial and steady decrease in level and rate was observed for talk-out behavior across all three classes. However, results for incomplete assignments and out-of-seat behavior are ambiguous and inconclusive. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Lohrmann, Sharon, 355 George St., PO Box 2688, New Brunswick, NJ, US, sharon.lohrmann@umdjnj.edu

Mildon, R. L., Moore, D. W., Dixon, R. S., & Koegel, R. L. (2004). Combining noncontingent escape and functional communication training as a treatment for negatively reinforced disruptive behavior. *Journal of Positive Behavior Interventions, 6(2)*, 92-102.

Research has shown that noncontingent escape (NCE) and functional communication training (FCT) can be effective treatments for challenging behavior. One limitation of the NCE procedure is the failure to provide explicit contingencies for learning an alternative adaptive behavior.

Additionally, problems can arise with a FCT procedure. In this study, FCT was superimposed on an existing NCE schedule in an attempt to maintain the advantages of each procedure while removing known limitations. The data showed that with NCE plus FCT, rates of disruptive behavior remained at near zero levels while compliance with task demands and appropriate verbal responses increased to levels significantly above baseline. The authors discuss the effectiveness of the procedure for addressing the limitations of each intervention. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Mildon, Robyn L., Victorian Parenting Centre, 24 Drummond St., Carlton South, VIC, Australia, 3053, robyn@vicparenting.com.au

Mueller, M. M., Edwards, R. P., & Trahan, D. (2003). Translating multiple assessment techniques into an intervention selection model for classrooms. *Journal of Applied Behavior Analysis, 36(4)*, 563-573.

Translating current research to school-based clinical practice highlights issues not often encountered in laboratory settings. With the assistance of a consultant, teachers conducted functional analyses, brief multielement treatment comparisons, and controlled treatment evaluations under naturalistic conditions in the classroom. Teachers also provided input on treatment selection. Treatment integrity data collected throughout the study suggested that teachers implemented analyses and treatments with high integrity. The functional analysis outcomes combined with effectiveness and acceptability data led to the selection of interventions that reduced problem behavior in the classrooms for each of 3 children. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Mueller, Michael M., May South, 1770 The Exchange, Suite 140, Atlanta, GA, US, mmueller@mayinstitute.org

Mueller, M. M., Piazza, C. C., Moore, J. W., Kelley, M. E., Bethke, S. A., Pruett, A. E., Oberdorff, A. J., & Layer, S. A. (2003). Training parents to implement pediatric feeding protocols. *Journal of Applied Behavior Analysis, 36(4)*, 545-562.

Four different multicomponent training packages were evaluated to increase the treatment integrity

of parents implementing pediatric feeding protocols. In Study 1 we exposed 3 parents to a training package that consisted of written protocols (baseline), verbal instructions, therapist modeling, and rehearsal training. Results suggested that the package was successful in increasing treatment integrity of the feeding protocols to high levels. Study 2 investigated three different parent-training packages comprised of components used in Study 1. Two parents were exposed to written protocols, verbal instructions, and modeling; 2 parents were exposed to written protocols, verbal instructions, and rehearsal; and 2 parents were exposed to written protocols and verbal instructions. Results of Study 2 showed that each parent-training package produced very high treatment integrity. Followup data in the clinic and home for 5 participants suggested that the results were durable for up to 3 months. These results demonstrate a first step in the transfer and application of research findings into routine clinical practice because we evaluated several methods for training parents to implement behavioral feeding protocols, and we demonstrated that these methods resulted in high levels of... (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Piazza, Cathleen C., Marcus Institute, 1920 Briarcliff Road, Atlanta, GA, US

O'Connell, M. L., Freeman, M., Jennings, G., Chan, W., Greci, L. S., Manta, I. D., & Katz, D. L. (2004). Smoking cessation for high school students: Impact evaluation of a novel program. *Behavior Modification*, *28*(1), 133-146.

This pilot study was designed to evaluate the feasibility and the impact of a smoking-cessation program that would meet the specific needs of high school students. Feedback from focus groups conducted with adolescent smokers at a Connecticut high school was used to develop a tailored intervention. Intervention components included commonly used behavioral strategies, with additional options to assist students to quit smoking, including use of bupropion, concomitant support for parent smoking cessation, stress management, and physician counseling. On completion, 20 of the 22 enrolled students remained committed to quitting. Twenty-seven percent of students quit smoking and 69% of those who continued to smoke reduced the number of cigarettes smoked per day by an average of 13. Providing additional options to students and additional support for concomitant parental cessation may enhance the appeal of adolescent

smoking-cessation programs. Further investigation into efficacy of bupropion use for adolescent cessation is warranted. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: No reprint information available.

Puddy, R. W., & Jackson, Y. (2003). The Development of Parenting Skills in Foster Parent Training. *Children & Youth Services Review*, *25*(12), 987-1013.

This study examined the effectiveness of the Model Approach to Partnerships in Parenting/Group Selection and Participation of Foster and/or Adoptive Families (MAPP/GPS) foster parent training program in teaching potential foster parents parenting skills. Parents were tested on three measures assessing goals and objectives of the training program as well as parenting skills necessary to address the demanding behaviors of foster children. In comparison to a control group of foster parents whom had not participated in any training program, the results indicated that the MAPP/GPS program did not adequately prepare foster parents according to its own program-identified goals nor did it adequately prepare foster parents to manage behavior problems in foster children. Trained foster parents improved in only four of 12 program-identified goals and in only three of 22 basic parenting skills. The MAPP/GPS program serves more as a decision tool to assist potential foster parents in making the decision to foster rather than prepare them to manage behavior problems in foster children. Implications and improvements for foster parent training are discussed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) (journal abstract) For reprints: Jackson, Yo, 2006 Dole Human Development Ctr, Dept of Psychology, 100 Sunnyside Ave, Lawrence, KS, US, yjackson@ku.edu

Putnam, R. F., Handler, M. W., Ramirez-Platt, C. M., & Luiselli, J. K. (2003). Improving student bus-riding behavior through a whole-school intervention. *Journal of Applied Behavior Analysis*, *36*(4), 583-590.

We describe a multicomponent intervention to improve bus-riding behavior of students attending an urban public school. The intervention was developed with technical assistance consultation that emphasized collaboration among students,

school personnel, and bus drivers. The primary intervention procedures were identifying appropriate behaviors during transportation ("bus rules"), training bus drivers to deliver positive reinforcement, and rewarding student performance through a weekly school-based lottery. Disruptive bus behaviors, as measured by discipline referrals and suspensions, decreased with intervention relative to baseline phases in an ABAB reversal design. These positive results were maintained over the long term, with school personnel assuming responsibility for intervention in the absence of ongoing consultation. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Luiselli, James K., The May Institute Inc., One Commerce Way, Norwood, MA, US, jluiselli@mayinstitute.org

Reed, G. K., Piazza, C. C., Patel, M. R., Layer, S. A., Bachmeyer, M. H., Bethke, S. D., & Gutshall, K. A. (2004). On the relative contributions of noncontingent reinforcement and escape extinction in the treatment of food refusal. *Journal of Applied Behavior Analysis, 37*(1), 24-42.

In the current investigation, we evaluated the relative effects of noncontingent reinforcement (NCR), escape extinction, and a combination of NCR and escape extinction as treatment for the reeding problems exhibited by 4 children. For each participant, consumption increased only when escape extinction was implemented, independent of whether NCR was present or absent. These results were consistent with prior research suggesting that positive reinforcement alone is insufficient for increasing consumption, and that escape extinction often is necessary to increase and maintain food acceptance. However, NCR appeared to decrease inappropriate behavior for some participants. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Piazza, Cathleen C., Marcus Institute, 1920 Briarcliff Road, Atlanta, GA, US, Cathleen.Piazza@marcus.org

Roane, H. R., Kelly, M. L., & Fisher, W. W. (2003). The effects of noncontingent access to food on the rate of object mouthing across three settings. *Journal of Applied Behavior Analysis, 36*(4), 579-582.

Object mouthing is associated with several potential deleterious side effects. In the current investigation, we modified the use of noncontingent access to competing items (food) and evaluated the effects of the treatment on object mouthing across three settings. Results demonstrated reductions in mouthing associated with the modified treatment. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Roane, Henry R., Marcus Institute, 1920 Briarcliff Road, Atlanta, GA, US

Sayal, K., Taylor, E., & Beecham, J. (2003). Parental Perception of Problems and Mental Health Service Use for Hyperactivity. *Journal of the American Academy of Child & Adolescent Psychiatry, 42*(12), 1410-1414.

Objective: To examine predictors of parental perception of hyperactivity as a serious problem and its role in determining the use of specialist mental health services. Method: A community sample of 5- to 11-year-old children with pervasive hyperactivity (n=93) was identified. Children whose parents perceived the hyperactivity as a serious problem were compared with those whose parents did not. Predictors of parental perception of problem and the roles of this and child and parent clinical factors in predicting service use were examined. Results: Controlling for child and parental mental health, the strongest predictor of parental perception of problems was the financial impact of the child's behavior on either parent's work (odds ratio [OR]=17.43; 95% confidence interval [CI] 3.52-86.40). Other effects on the parent's working ability were also important. Parental perception of problems was the strongest predictor of service use (OR=9.85; 95% CI 1.42-68.50). Conclusions: The effects of child behavior difficulties on perceptions of caregivers are multidimensional. The impact of hyperactivity on parents' work and family finances is substantial. Mental health service use is increased if these impacts reach the threshold for the parent to perceive the child's behavior as a problem. (PsycINFO Database Record (c) 2003 APA, all rights

reserved) (journal abstract) For reprints: Sayal, Kapil, Department of Child Psychiatry, Institute of Psychiatry, Box P085, Denmark Hill, London, United Kingdom, SE5 8AF, k.sayal@iop.kcl.ac.uk

Sears, H. A. (2004). Adolescents in rural communities seeking help: who reports problems and who sees professionals? *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 45(2), 396-404.

This study examined whether adolescents who were at various stages of the help-seeking process differed on demographic characteristics, use of informal helpers, and markers of emotional and behavioral adjustment. Youths (N=644; Grades 7-12) living in three rural communities completed a survey at school. Three comparisons were made: teenagers who reported having serious problems versus few or no problems in the past year; teenagers who felt that they did or did not need professional help with these problems; and teenagers who had or had not sought professional help. Rural youths with serious problems were more likely to be girls and to be living with someone other than a parent, were less likely to talk to family members about problems, and reported more negative emotional and behavioral adjustment. Teenagers who perceived a need for professional help also reported poorer emotional and behavioral adjustment. Adolescents who sought professional help were more likely to be in senior high, were less likely to talk to others about problems, and were lower on anxiety. Rural adolescents' demographic characteristics, use of informal helpers, and markers of emotional and behavioral adjustment each contribute to our understanding of their help-seeking behavior. (PsycINFO Database Record (c) 2004 APA, all rights reserved) For reprints: Sears, Heather A., Department of Psychology, University of New Brunswick, Bag Service #45444, Fredericton, NB, Canada, hsears@unb.ca

Umbreit, J., Lane, K. L., & Dejud, C. (2004). Improving classroom behavior by modifying task difficulty: Effects of increasing the difficulty of too-easy tasks. *Journal of Positive Behavior Interventions*, 6(1), 13-20.

This study examined the effects of increasing task difficulty when inadequately challenging tasks are

assigned. Jason, a 10-year-old, typically developing Caucasian boy, attended a fourth-grade general education classroom at a public elementary school. During independent academic assignments in math and reading, Jason often talked with other students, kicked his seat or the one in front of him, or wandered around the classroom. His teacher considered these behaviors to be very disruptive. The study was conducted in two phases. In Phase 1, a functional behavioral assessment identified that Jason's problem behaviors (a) occurred when he had completed his assignment and (b) resulted in his gaining access to preferred activities. In Phase 2, a function-based intervention (providing more challenging academic assignments) resulted in improvements in Jason's behavior. Both Jason and his teacher gave the intervention very positive acceptability ratings. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Lane, Kathleen L., Department of Special Education, Peabody College, Vanderbilt University, Box 328, Nashville, TN, US

van Vonderen, A. (2004). Effectiveness of immediate verbal feedback on trainer behaviour during communication training with individuals with intellectual disability. *Journal of Intellectual Disability Research*, 48(3), 245-251.

The effect of immediate verbal feedback on trainer behavior during communication training sessions with individuals with intellectual disability (ID) was assessed. Trainers were six undergraduate university students majoring in psychology. The procedure consisted of interrupting the sequence of trials of training by the supervisor and then giving brief corrective feedback. Feedback was focused on the accuracy of the following procedural aspects: (1) entry behavior; (2) prompt level and order of presenting response prompts; (3) use of reinforcement; (4) pace of presenting trials; and (5) if this occurred, handling trainee's disruptive behavior during training. Data were collected in a nonconcurrent multiple baseline design. Results indicated a statistically significant increase of the percentage correct trainer behavior as compared to the baseline phase. Maintenance of effect of feedback was recorded during post-training and follow-up. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: van Vonderen, A., Department of Special Education, University of Nijmegen, 6500 HE, Nijmegen, Netherlands, annemarievanvonderen@hotmail.com

Wahler, R. G., Vigilante, V. A., & Strand, P. S. (2004). Generalization in a child's oppositional behavior across home and school settings. *Journal of Applied Behavior Analysis, 37*(1), 43-51.

A 9-year-old clinic-referred boy, his mother, and his teacher were observed in 38 home and 38 school sessions on the same days. Categories of the boy's oppositional behavior and the inappropriate social attention of his mother and teacher were graphed to visually inspect changes during baseline, a parent-training phase, a follow-up phase, and a final parent-training booster phase. Parent-training phases produced reductions in the mother's inappropriate attention and in the boy's oppositional behavior, whereas the follow-up and baseline phases were associated with higher rates of these categories. Generalization occurred in the school across these home phases, as seen in the increase in rates of the boy's problem behavior, despite the lack of change in his teacher's attention. Correlational analyses of proportion scores reflecting the boy's home-school oppositional behavior and mother-teacher social attention suggested his responsiveness to relative changes in adult social contingencies across settings. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Wahler, Robert G., Department of Psychology, University of Tennessee, 227-C Austin Peay Bldg., Knoxville, TN, US

Wallace, M. D., Doney, J. K., Mintz-Resudek, C. M., & Tarbox, R. S. F. (2004). Training educators to implement functional analyses. *Journal of Applied Behavior Analysis, 37*(1), 89-92.

The present study examined the use of an instructional workshop for training educators to conduct functional analyses. Results indicated that 2 of 3 participants met the accuracy criterion following group training, whereas 1 participant required direct verbal feedback. During generalization probes, one participant accurately conducted sessions with a student in her classroom. (PsycINFO Database Record (c) 2004 APA, all rights reserved) (journal abstract) For reprints: Wallace, Michele D., Psychology Department/296, University of Nevada, Reno, NV, US, allacem@unr.edu

Wilson, H. W., & Donenberg, G. (2004). Quality of parent communication about sex and its relationship to risky sexual behavior among youth in psychiatric care: a pilot study. *Journal of Child Psychology & Psychiatry & Allied Disciplines, 45*(2), 387-395.

As part of a larger longitudinal study examining AIDS-risk behavior among adolescents in psychiatric care, this pilot study investigated the relationship between parent communication about sex and sexual risk-taking among treatment-seeking adolescents. Adolescents reported their risky sexual behavior (e.g., inconsistent condom use, sex with multiple partners), and parents reported how frequently they bring up topics related to sex, HIV/AIDS, and birth control. Parents and adolescents participated together in videotaped discussions of fictional vignettes describing situations related to sex, birth control, and AIDS/HIV. Quality of the parent-teen discussions was coded based on a system developed by Whalen, Henker, Hollingshead, and Burgess (1996) to code AIDS-related discussions. Quality but not frequency of parent-teen communication was associated with adolescent sexual risk-taking, and ethnic differences in communication were found. Findings from this pilot investigation underscore the importance of studying the relationship between parent-teen communication and risky sexual behavior among troubled youth and provide direction for the development of family-based intervention programs that focus on parental behavior during conversations with teens. (PsycINFO Database Record (c) 2004 APA, all rights reserved) For reprints: Wilson, Helen W., University of Illinois at Chicago, Institute for Juvenile Research (MC 747), 840 S. Wood St., Chicago, IL, US, hwilson@psych.uic.edu

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## Behavioral Parenting Featured Article Review

### Reducing Gun Play

Jorge Reyes

Himle, M. B., Miltenberger, R. G.,  
Flessner, C. & Gatheridge, B.  
(2004). Teaching safety skills to  
children to prevent gun play.  
*Journal of Applied Behavior  
Analysis, 37*, 1-9.

This study evaluated the effectiveness of a behavioral skills training program along with in situ training (training in the test situation) for teaching children how to respond safely when they encounter a gun. According to the authors, recent statistics released by the Centers for Disease Control and Prevention (2001) reported that each year between 1993 and 1998, over 1,500 children were injured or killed unintentionally by firearms in the United States. Furthermore, the majority of these injuries were shown to have resulted from gun play by one or more children. Few studies to date have attempted to teach safety skills to children and most have shown limited results in terms of skill acquisition and generalization to new situations (e.g., Hardy, Armstrong, Martin & Strawn, 1996). Previous studies utilizing a behavioral skills training program have shown favorable results for skill acquisition but not generalization to situations in which the children had not been trained (e.g., Himle, Miltenberger, Gatheridge, & Flessner, 2004). The present study was

designed to address some limitations of prior research using behavioral skills training by incorporating one-on-one training, repeated measures of skill acquisition, and strategies to promote generalization.

Eight children ranging in age from 4-5 years participated in the study. The targeted safety skills consisted of not touching the firearm, leaving the immediate area of the firearm, and telling an appropriate adult about the presence of the firearm. Each of these possible responses were categorized as least to most appropriate and assigned numeric values ranging from 0-3 with 3 being the most appropriate criterion response. For example, a participant earned a score of 0 if they touched the firearm and a score of 3 if they did not touch the firearm, left the room, and told an adult.

The training was evaluated using a multiple baseline across subjects design. Baseline conditions were conducted in a room at the children's school. Before each session, a disabled firearm was placed on a shelf in the room and the participant was left to play in the room for 5 min. The participant's behavior was recorded via a hidden videocamera. Following baseline assessments, the behavioral skills training was implemented, and consisted of instruction, modeling, rehearsal, and praise or corrective feedback. Participants were required to demonstrate perfect responding in the presence of a firearm (i.e., score of 3) during post-training assessments for three consecutive sessions. On individual training days, if the participant did not meet the criteria, booster sessions were conducted involving further review and practice. If the participants still failed to meet criteria after the initial training plus booster sessions, in situ training was conducted. This phase involved training in the assessment conditions and consisted of additional modeling, instructions,

corrective feedback and descriptive praise.

Once the participants met criteria, they were required to demonstrate appropriate responding in 5 different scenarios in an attempt to facilitate generalization. Each scenario involved different instructions, novel hiding places for the firearms, variety in the size and shape of the firearms, and the presence of different adults (e.g., unfamiliar and familiar people). Additionally, generalization was tested in a simulated situation at the participant's home. Each situation was specifically tailored to the participant's home setting and sessions were conducted with a novel experimenter in the presence of the participant's parent. If the participant did not perform the skill at the criterion level, training was conducted in the home. Generalization assessments were conducted with 6 of the participants (2 of the participants moved away) from 2 weeks to 2 months after the last training session for each participant.

The results showed that the participant's baseline scores varied from 0 to 1. One participant achieved criterion responding after completing only the initial behavioral skills training. Two participants required additional booster sessions and five participants required in situ training to meet criterion. All of the participants performed at criterion levels during the generalization assessments. Only one of the participants required additional in-home training during the generalization assessments.

Taken as a whole, this study demonstrated the effectiveness of behavioral skills training and in situ training for teaching children how to respond in a safe manner when encountering a firearm. During baseline sessions, half of the participants handled the firearm at least once and did not engage in the other targeted behaviors of leaving the area and telling an adult.

Although the participants required different levels of training, all of the participants eventually learned and demonstrated the appropriate responses. In addition, the generalization assessments also showed that the participants were able to demonstrate the appropriate responses under novel conditions.

One limitation of this study discussed by the authors involves the fact that the children were only assessed under conditions in which they were alone. Given that fact the potential for peers to be very influential, it would be important to investigate what effects their presence may have in these types of situations. Furthermore, the age of the peer could also be a potentially important variable that may influence how another child may react. Another potential limitation concerns the fact that all of the firearms used in the study were handguns. While handguns may be the most likely to be encountered, it may also be important to vary the type of firearm, in addition to size and shape, used during training and testing conditions to further facilitate generalization.

One aspect of particular interest in this study was the use of a rating system to categorize the appropriateness of responding. This type of system has been used in previous studies (see Poche, Brouwer, & Swearingen, 1981) and seems to be an effective and practical way to help operationalize target responses. Future studies could incorporate the use of such systems and apply them to a wide variety of situations and skills training procedures. Overall, this study represents an important application and extension of behavior analytic methodology to a problem of practical importance.

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