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## From the Editor

### Token Systems

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Welcome to another issue. In this issue we highlight abstracts on the topic of token economies, which are commonly used by parents and in classrooms. Elizabeth Athens has provided a brief review of the literature on token economies. It is interesting that very little recent research has been conducted in this realm. Yet, virtually every school in America has classrooms that use some variation of a token system. In addition, parents frequently use token systems for chore charts and so on. What can behavior analysts say about this widely used application of conditioned reinforcement? Athens has identified several empirically based recommendations, but also suggests that much more work needs to be done in order to fully understand how to implement token systems in the best possible manner.

In each issue, we also have one featured article. In this issue, Claire St. Peter reviews a recent study by Gershater-Molko, Lutzker, and Wesch (2003). Large-scale evaluations of behaviorally based intervention strategies are extremely rare. This article is one of few to explore the overall efficacy of such a model for interventions with parents who are at risk for committing child abuse. St. Peter discusses the innovative features of the study and also makes recommendations for future research on child abuse interventions.

Timothy R. Vollmer

## Token Systems Literature Review

### Token Systems

Elizabeth S. Athens

Implementing a token economy involves using a tangible item, referred to as a reinforcer, to increase appropriate behavior and/or reduce inappropriate behavior. There are several advantages to using a token economy. For example, tokens bridge the delay between a target behavior and back-up reinforcement, can usually be given at any time or place, and may be carried anywhere, making it easy to immediately reinforce appropriate behavior (Kazdin & Bootzin, 1972). Researchers have identified several important components of a token economy. First, all target behavior must be identified and defined. Second, the type of tokens and back-up reinforcers must be determined. Third, the production schedule, which is the total number of tokens that may be earned by engaging in target behavior, and the exchange schedule, which is the total cost of the back-up reinforcers in relation to the tokens earned, must be determined (Phillips, 1968). Finally, this information should be made available to the participant.

A variety of items have been used as tokens; they are usually chosen according to ease of use. Some commonly used items include poker chips (e.g., Mandelker, Brigham, & Bushell Jr., 1970), and points on an index card (e.g., Phillips, 1968). Tokens have been used to increase household chores completion (Jason, 1985; Phillips, 1968), to improve academic performance (McGinnis, Friman, & Carlyon, 1999), to decrease television viewing (Jason, 1985; Wolfe, Mendes, & Factor, 1984), to decrease the amount of bickering, teasing, and whining among

siblings (Christopherson, Arnold, Hill, & Quilitch, 1972), as well as to decrease the response latency between an instruction and compliance (Fjellstedt & Sulzer-Azaroff, 1973), among others.

The production and exchange schedules for tokens are important parameters. The production schedule is the total number of tokens that may be earned by engaging in target behavior (Phillips, 1968). Key to the production schedule is the clear definition of the target behavior to be reinforced (followed by a token) or punished (followed by a token removal). This allows instances of target behavior to be easily reinforced or punished. For example, one target behavior identified by Christopherson et al. (1972) was inappropriate bickering, defined as verbal arguments above the volume of normal speaking voice between children. Bickering cost the children a token. In this study, the target behavior was defined in writing and then posted on each child's bedroom door. Examples of behavior listed included bickering, which cost the children 10 points each occurrence, and cleaning the bathroom, which produced 10 points.

Researchers have used various exchange schedules. For example, Phillips (1968) conducted a study in a home-style rehabilitation setting, where the cost of the back-up reinforcers varied according to the apparent changes in interest so that more preferred items cost more. In addition, exchange was made possible at the end of each week for access to privileges the next week. This differs from a study by Jason (1985), which targeted decreased television viewing in two children. In this study, two children earned tokens for social behavior and could exchange one token for a half hour of television viewing at any time of day. An important point in determining the cost of back-up reinforcers is to make the cost low enough to be obtainable, and high

enough to see the desired amount of the target behavior. In the Jason (1985) study, 30 minutes of chores or engagement in social behavior such as riding bikes resulted in one token.

Identifying back-up reinforcers is another important component in the implementation of a token economy. Myers (1960) and Myers, Craig, and Myers (1961) found that tokens could acquire secondary reinforcement properties. Tokens acquire these properties when paired with back-up reinforcers that are preferred items or events. If the back-up reinforcers have been previously freely available reinforcers, Kazdin and Bootzin (1972) cautioned that minor resistance might be observed following the implementation of contingent reinforcement. These cautions were based on one of only a few published reports of such resistance (e.g., Lachenmeyer, 1969). More commonly reported is the lack of resistance following implementation of the token economy. For example, Phillips (1969) observed increases in appropriate behavior using back-up reinforcers in the form of items and events naturally available in the home that appeared important to the children, items such as snacks and tools and events such as watching television, and riding a bicycle. No resistance was reported. A study by Wolfe et al. (1984) showed that when using tokens to decrease television viewing, the child showed few outbursts of temper as a result of television restriction. Kazdin and Bootzin (1972) argued that resistance may be a more common problem than reported, however, thus calling for further empirical examination. These authors recommended that, should resistance be a problem, involving the child in choosing the back-up reinforcer and developing the contingencies might aid in reducing such resistance. An additional method used to reduce resistance involves using a multiplicity of back-up reinforcers (Eriksson, Gotestam,

Melin, & Ost, 1975; Hupp, Reitman, Northup, O'Callaghan, & LeBlanc, 2002; O'Leary & Becker, 1967). Additional benefits to using multiple back-up reinforcers include the increase in the likelihood of the child finding something preferred each time tokens are exchanged, as well as the possible decrease of effects of satiation relative to back-up reinforcers.

A concern when implementing a token economy is the maintenance of the behavioral effects following conclusion of a token economy. Behavioral maintenance is often anecdotally reported in studies, however there is a paucity of empirical research on the subject. For example, O'Leary and Becker (1967) reported that following use of both verbal praise and token reinforcement there was anecdotal evidence that the children's appropriate behavior generalized to other school situations where a token economy was not in effect. These researchers used the method of pairing verbal praise and token reinforcement in an attempt to facilitate subsequent maintenance so that when tokens were eliminated, verbal praise might still function as a conditioned reinforcer (Locke, 1969). As another method of enhancing behavioral maintenance, Kazdin and Bootzin (1972) recommended following the Allyon and Azrin (1968) procedure of teaching only behavior that would continue to be reinforced after training. Typical target behavior of token economies, such as academic skills and appropriate social behavior, meet this criterion.

Token economies can be highly effective in reducing inappropriate behavior and increasing appropriate behavior. There are a number of procedural components that may be manipulated when implementing a token economy; however, several recommendations have been made above concerning commonly effective

techniques. Further research is needed on resistance and behavioral maintenance.

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## Token Systems Abstracts

### Token Systems: Books, Chapters and Review Articles

Ayllon, T., & Azrin, N. (1968). *The token economy: A motivational system for therapy and rehabilitation*. New York: Appelton-Century-Crofts.

Corrigan, P. W. (1991). Strategies that overcome barriers to token economies in community programs for severe mentally ill adults. *Community Mental Health Journal*, 27, 17-30.

Describes the token economy (TE) as an effective strategy for treatment of severe mentally ill inpatients. Several barriers have prevented facile transfer of TE strategies from inpatient settings to community programs: outpatient access to competing reinforcers, supplemental income that helps outpatients to purchase these reinforcers, weakening of the efficacy of response costs, limited hours of the day in which day treatment contingencies apply, and interference of contingency contracts by family or friends. These barriers can be obviated by replacing response costs with alternative interventions, providing reinforcers cheaply, and including other systems in the development and implementation of token contingencies. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Patrick W. Corrigan, Camarillo UCLA Clinical Research Center for Schizophrenia and Psychiatric Rehabilitation, Box 6022, Camarillo, CA 93011-6022.

Corrigan, P. W. (1995). Use of token economy with seriously mentally ill patients: Criticisms and misconceptions. *Psychiatric Services*, 46, 1258-1263.

Presents common criticisms of the use token economies in the milieu management of treatment programs for adults and children with severe mental illness. Detractors argue that token economies are ineffective, that their benefits do not readily generalize to other settings, that token

economies do not foster individualized treatment plans, that participating in a token economy is humiliating, that token economies are abusive, that concerns about milieu management are unimportant and irrelevant to treatment delivery in the 1990s, and that effective token economies are impractical. Empirical evidence is presented to rebut these misconceptions and criticisms. Three steps in establishing a token economy include identifying target behavior, establishing contingencies for each target, and defining the exchange rules for using the token store. (PsycINFO Database Record (c) 2000 APA, all rights reserved) Patrick W. Corrigan, University of Chicago Center for Psychiatric Rehabilitation, 7230 Arbor Drive, Tinley Park, IL 60477.

Glynn, S. M. (1990). Token economy approaches for psychiatric patients: Progress and pitfalls over 25 years. *Behavior Modification*, 14, 383-407.

Token economies are among the most well-validated and effective behavioral treatments for schizophrenia and other serious psychiatric disorders. However, their use in clinical and research settings has declined from a peak in the early 1970s. Reasons for this decrease in use include staff resistance, reduced length of inpatient admissions, greater emphasis on community-based treatments, economic constraints, and legal and ethical challenges. Nevertheless, a small but enthusiastic group of proponents still conducts token economy research and treatment. Important topics pertaining to the token economy remain to be addressed. These include specifying its remedial components, developing strategies to promote generalization and maintenance of treatment gains, and creating better methods to identify patients who would benefit most from participating in these programs. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Shirley M. Glynn, West Los Angeles VA Medical Center (Brentwood Division), B151-J, 11301 Wilshire Blvd., Los Angeles, CA 90073.

Kazdin, A. E., & Bootzin, R. R. (1972). The token economy: An evaluative review. *Journal of Applied Behavior Analysis*, 5, 343-372.

Proposes that, although the token economy has several advantages, there are obstacles that may

impede its implementation and therapeutic efficacy, including staff training, client resistance, circumvention of the contingencies, and nonresponsiveness of Ss. Studies employing token programs with psychiatric patients, retardates, children in classroom settings, delinquents, and autistic children are reviewed. Although token economies are successful while in operation, the issue of generalization of behavior gains or resistance to extinction has not been given careful consideration. Inasmuch as generalization is perhaps the most crucial issue, several procedures are presented that are designed to facilitate maintenance of performance when reinforcement is withdrawn. Methodological suggestions for investigations on token reinforcement in applied settings are presented. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Alan E. Kazdin, Department of Psychology, The Pennsylvania State University, University Park, PA 16802.

Williams, B. F., Williams, R. L., & McLaughlin, T. F. (1989). The use of token economies with individuals who have developmental disabilities. *Monographs of the American Association on Mental Retardation*, 12, 3-18.

The present review examined the educational and psychological research, specifically for applications of token economies with people with mental retardation, autism, and other developmental disabilities. This research considered (a) strategies for implementing token systems, (b) advantages of token economies, (c) instances of token implementation with people of developmental disabilities, and (d) reasons for the lack of use of token economies. (PsycINFO Database Record (c) 2000 APA, all rights reserved) No reprint information available.

### Token Systems: Research Articles

Adams, C. D., Girolami, M. A., Joseph, K. E., Sauvageot, S. A., & Slater, H. (2002). Use of a token reinforcement system to promote appropriate behavior at a pediatric burn summer camp. *Journal of Burn Care & Rehabilitation*, 23, 297-304.

Child behavior management can be an important concern in conducting summer camps for pediatric burn patients, because many of these patients have a history of significant behavioral difficulties. To be efficient, a flexible camp-wide behavior management system, such as a token economy, would be ideal. In this article we discuss the concept and principles of a token reinforcement system and outline how this intervention was applied to our pediatric burn summer camp across 2 consecutive years. We also provide a description of modifications made for the second camp, based on counselor ratings of and our experience with the token system during the first camp. Results from counselor assessments indicated that after using the token system, counselors' perceptions of its utility (e.g., effective in decreasing problem behavior in campers, useful in making behavior management easier) increased significantly across both years. For reprints: Christina D. Adams, PhD, Department of Psychology, West Virginia University, PO Box 6040, Morgantown, WV.

Bailey, J. S., Timbers, G. D., Phillips, E. L., & Wolf, M. M. (1971). Modification of articulation errors of pre-delinquents by their peers. *Journal of Applied Behavior Analysis*, 4, 265-281.

Gave 9 pre-delinquent peers in "achievement place" (a community based family style rehabilitation program based on a token economy) points (token reinforcement) to modify the articulation errors of a 12- and a 13-yr-old boy. In Exp. I, using a multiple base-line experimental design, error words involving the /l/, /r/, /th/, and /ting/ sounds were successfully treated by both a group of peers and by individual peers. Generalization occurred to words that were not trained. The peers used modeling, peer approval, contingent points, and feedback. Results indicate that peers can function as speech therapists without instructions, feedback, or the presence of an adult. Payment of points to peers for detecting correct articulations produced closer agreement with the E than payment for finding incorrect articulations. Results were replicated in Exp. II. Peer speech correction procedures resulted in some generalization to the correct use of target words in sentences and significant improvements on standard tests of articulation. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Jon S. Bailey, Psychology Department, Florida State University, Tallahassee, FL 32306.

Brown, B. (1985). An application of social learning methods in a residential programme for young offenders. *Journal of Adolescence*, 8, 321-331.

Describes the development of a partial replication of the achievement place approach by K. A. Kirigin et al (1979) in a community-oriented, behavioral residential program for young offenders in London. The program incorporates a token economy, a school program, teaching interactions, and self-government. Successful outcomes are described for 5 of 8 delinquents 1st admitted to the program, and factors associated with success are identified. Two process research projects evaluating effectiveness of training in social reinforcement for residential care staff are discussed. (22 ref) (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Dr. B. Brown, Institute of Psychiatry, Orchard Lodge Regional Resource Center, William Booth Road, Anerley, London SE20 8EG.

Carton, J. S., & Schweitzer, J. B. (1996). Use of a token economy to increase compliance during hemodialysis. *Journal of Applied Behavior Analysis*, 29, 111-113.

Reports the effects of using a token economy to treat noncompliant behavior in a 10-yr-old male hemodialysis patient. The patient had previously failed to comply with vascular access cleansing prior to hemodialysis, initiation of hemodialysis, and procedures during hemodialysis such as blood pressure measurements and exercises designed to reduce risk of muscle cramps. Baseline and token economy conditions were alternated in an ABAB design. Results indicate that the intervention increased compliant behavior during both treatment phases. The token system was faded gradually over the course of several weeks. Compliance was maintained at 3- and 6-mo follow-up observations. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: John S. Carton, Division of Medical Psychology, Box 3362, Duke University Medical Center, Durham, NC 27710.

Cavalier, A. R., Ferretti, R. P., & Hodges, A. E. (1997). Self-management within a classroom token economy for students with learning disabilities. *Research in Developmental Disabilities*, 18, 167-178.

Evaluated the effectiveness of a self-management system used in a classroom-wide token economy based on a levels system (S. W. Smith & D. T.

Farrell, 1993) in reducing inappropriate verbalizations of 2 13-yr-old male middle-school students with learning disabilities. The levels system (LS) consists of a hierarchy of levels in which students must meet increasingly demanding standards of behavior before advancing through the hierarchy. The LS was used in a self-contained classroom and targeted the acquisition and maintenance of academic skills and social behaviors with the goal of integrating the students into an inclusive classroom. The 2 students showed little or no progress within the LS because of a very high rate of inappropriate verbalizations. Therefore, a self-management system that involved training on the accuracy of self-recording these verbalizations was added to the LS for these students. In addition, the investigator discussed with these students the consequences of inappropriate behavior and socially appropriate behavioral alternatives. A multiple-baseline-across-subjects experimental design revealed that the intervention resulted in a substantive reduction in inappropriate verbalizations, as well as greater progress through the LS. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Albert R. Cavalier or Ralph P. Ferretti, Department of Educational Studies, University of Delaware, Newark, DE 19716.

Charlop-Christy, M. H., & Haymes, L. K. (1998). Using objects of obsession as token reinforcers for children with autism. *Journal of Autism and Developmental Disorders*, 28, 189-198.

Assessed the effectiveness of using objects of obsession as token reinforcers to increase task performance for 3 children with autism (9.2 and 9.0 yr old males and a 7.9 yr old female). The use of obsessions as tokens (e.g., letter W, a picture of a train) was compared with the use of typical tokens (e.g., stars, happy faces). A multiple baseline design across children with a reversal within child was used. Data were collected on percentage correct of task responses and on the occurrence of inappropriate behaviors during work sessions. Results indicate that percentage correct on task performance was higher when objects of obsession were used as tokens as opposed to when typical tokens were used. Concomitant decreases in inappropriate behaviors during work sessions were also noted. Results are discussed in terms of primary vs secondary reinforcement and the effects of saliency and novelty of the reinforcing stimuli. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Marjorie H. Charlop-Christy, Department of Psychology, Claremont McKenna College, Claremont, CA 91711.

Christophersen, E. R., Arnold, C. M., Hill, D. W., & Quilitch, H. R. (1972). The home point system: Token reinforcement procedures for application by parents of children with behavior problems. *Journal of Applied Behavior Analysis*, 5, 485-497.

Investigated the effects of token reinforcement in 2 families in which parents, with a total of 5 5-10 yr. olds, were taught to administer a token economy within their homes. Parents received instruction in specifying desired social and chore behaviors, communicated these behavioral goals to their children, recorded data on their occurrence, and managed a point system backed with reinforcers normally found in the home. The program successfully modified 15 problem behaviors in Family 1 and 6 in Family 2. In addition, the parents rated all 21 behavior changes as significant improvements. These studies indicate that some cooperative parents need only a small amount of professional help to learn to manage their children's behavior problems with token reinforcement procedures. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Edward R. Christopherson, Department of Human Development, University of Kansas, Lawrence, Kansas 66044.

Cicero, F. R., & Pfadt, A. (2002). Investigation of a reinforcement-based toilet training procedure for children with autism. *Research in Developmental Disabilities*, 23, 319-331.

Independent toileting is an important developmental skill which individuals with developmental disabilities often find a challenge to master. Effective toilet training interventions have been designed which rely on a combination of basic operant principles of positive reinforcement and punishment. In the present study, the effectiveness of a reinforcement-based toilet training intervention was investigated with three children with a diagnosis of autism (aged 6, 4, and 4 yrs; 2 male, 1 female). Procedures included a combination of positive reinforcement, graduated guidance, scheduled practice trials and forward prompting. Results indicated that all procedures were implemented in response to urination accidents. All three participants reduced urination accidents to zero and learned to spontaneously request use of the bathroom within 7-11 days of training. Findings suggest that the proposed procedure is an effective and rapid method of toilet training, which can be implemented within a structured school setting with generalization to the home environment. (PsycINFO Database Record (c)

2002 APA, all rights reserved) For reprints: Frank R. Cicero, Eden II Programs, 150 Granite Ave., Staten Island, NY 10303; email: fcic7@aol.com.

Comaty, J. E., Stasio, M., & Advokat, C. (2001). Analysis of outcome variables of a token economy system in a state psychiatric hospital: A program evaluation. *Research in Developmental Disabilities*, 22, 233-253.

Describes the outcome of a token economy treatment applied to 2 distinct patient populations on the same unit of a state psychiatric hospital: individuals with a dual diagnosis of mental retardation and a Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) Axis I diagnosis of either (a) a severe behavior disorder (BD) or (b) a serious and persistent psychiatric disorder (PD). Results showed that patients in the PD group were more likely to complete the treatment (17/20) than those in the BD group (17/31) who were more likely to be terminated from the program (14/31). Individuals who did not complete the program were distinguished early, within the first 3 weeks of treatment. These noncompleters received significantly more fines and earned significantly fewer tokens than those who completed the program. At an average of 2.7 yrs post-discharge, there was no difference in the proportion of PD (12/16) and BD completers (9/11) and BID noncompleters (3/7) remaining in the community. These data show that diverse populations of patients can be treated within the same token economy program, thereby improving cost effectiveness. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Joseph E. Comaty, Eastern Louisiana Mental Health System, Jackson, Louisiana; email: jcomaty@dhh.state.la.us.

Fabry, B. D., Mayhew, G. L., & Hanson, A. (1984). Incidental teaching of mentally retarded students within a token system. *American Journal of Mental Deficiency*, 89, 29-36.

Six moderately to severely mentally retarded students (aged 12.75-22.17 yrs) were taught to name sight words during the token-exchange periods of a token-reinforcement system. Words appeared on 25% of the tokens, and an S was given 2 opportunities to name a word written on a token before the token could be exchanged. Sequential teaching of new sets of sight words via a multiple-baseline design was used to evaluate the

procedure. Five of the 6 Ss acquired sight-word vocabularies. The data support the contention that token-exchange periods may be used for educational purposes; they may also serve as a means of programming generalization. The effectiveness of this procedure may be related to developmental level. (29 ref) (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Bernard D. Fabry, Father Flanagan's Boys Home, Boys Town, NE 68010.

Fjellstedt, N., & Sulzer-Azaroff, B. (1973). Reducing the latency of a child's responding to instructions by means of a token system. *Journal of Applied Behavior Analysis*, 6, 125-130.

Modified the response latency of following directions by an 8-yr-old boy from a class for emotionally disturbed children by the contingent application of a token system. To demonstrate reinforcer effectiveness, a multiple base-line approach was used. Measures were obtained for the time elapsed between presentation of verbal directions and 5 performances: (a) entering the experimental room, (b) putting toys away, (c) beginning academic work, (d) putting toys away again, and (e) returning to the classroom and completing preparations for leaving school. These 5 measures were placed on the token system at 3 different times. Results demonstrate that 4 of the 5 performances were clearly affected by the token system as their response latency for following directions decreased substantially. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Dr. Beth Sulzer-Azaroff, Behavioral Sciences and Community Health, University of Connecticut Health Center, Hartford, CN 06105.

Higson, P. J., Woods, P. A., Tannahill, M. M., & Ellis, N. C. (1985). The role of meals as a reinforcing event in a token economy programme. *British Journal of Psychiatry*, 147, 170-174.

Examined the effect of introducing meals as a nontoken or free item on the performance of patients who were participants in a token economy program (TEP) for the hospitalized chronically mentally ill that had previously used meals as a token event. Ss were 9 long-stay females in a TEP serving a total of 16 female patients. Nursing staff administered the TEP in the normal manner during a 12-wk period. Subsequently, Ss were informed that they would no longer be required to pay for their meals with tokens and were provided meals

on a noncontingent basis for a 12-wk period. Following this experimental period, the 2 12-wk conditions were repeated. Results indicate that while free meals produced a slight increase in the actual number of meals eaten, there were no systematic effects on Ss' performance of domestic and social activities and self-help skills. It is suggested that one way to resolve ethical dilemmas with regard to the selection of back-up events in a TEP would be to identify idiosyncratic and novel events that would function as reinforcers but would not be associated with the manipulation or removal of patients' natural rights. (23 ref) (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: P. J. Higson, North Wales Hospital, Denbigh, Clwyd, LL16 5SS.

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.

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) 2002 APA, all rights reserved) No reprint information available.

Jason, L. A. (1986). Using a token-actuated timer to reduce television viewing. *Journal of Applied Behavior Analysis*, 18, 269-272.

A 13-yr-old Black girl who watched an excessive amount of TV was provided a behavioral program featuring a token-actuated timer. Tokens, given freely during baseline and earned with prosocial

activities during intervention, were used to activate the TV for 30-min periods. The token-exchange system effectively reduced TV viewing, and the reductions were maintained at 2 follow-up points. The principal contribution of the present study is the development and evaluation of an electronically controlled device that was used to check the accuracy of parent-reported data. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Leonard A. Jason, Psychology Department, 2219 N. Kenmore Ave., De Paul University, Chicago, IL 60614.

Kahng, S., Boscoe, J. H., & Byrne, S. (2003). The use of escape contingency and a token economy to increase food acceptance. *Journal of Applied Behavior Analysis, 36*, 349-353.

Escape (termination of a meal) and token-based differential reinforcement of alternative behavior were used as reinforcement to increase acceptance of food. A 4-year-old girl who had been admitted to an inpatient unit for the treatment of food refusal participated in the study. Using a changing criterion design, the number of bites accepted and consumed was gradually increased to 15 bites per meal. These data suggest that, in some cases, escape may be a potent reinforcer for food acceptance. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Sun Woo Kahng, Department of Behavioral Psychology, Kennedy Krieger Institute, 707 N. Broadway, Baltimore, Maryland 21205; email: Kahng@kennedykrieger.org.

Lachenmeyer, C. W. (1969). Systematic socialization: Observations on a programmed environment for the habilitation of antisocial retardates. *Psychological Record, 19*, 247-257.

Discusses the efficacy of a token economy in controlling the behavior of 12 delinquent retardates. The basic problem was crucial uncontrolled contingencies that determined much inmate and attendant behavior toward inmates. Areas of more effective control are discussed and it is concluded that a modification of the technique involved would be necessary and sufficient to correct these problems. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Charles W. Lachenmeyer, Department of Sociology, University of North Carolina, Chapel Hill, NC 27514.

Lehrer, P., Schiff, L., & Kris, A. (1970). The use of a credit card in a token economy. *Journal of Applied Behavior Analysis, 3*, 289-291.

For reprints: Paul Lehrer, Psychological Clinic, Rutgers University, New Brunswick, NJ.

LePage, J. P. (1999). The impact of a token economy on injuries and negative events on an acute psychiatric unit. *Psychiatric Services, 50*, 941-944.

A token economy was introduced on an acute care unit in a rural hospital, and rates of negative events were compared before and after implementation. Negative events were defined as patient and employee injuries that were not accidents. Unauthorized absences and use of emergency medications were also counted as negative events. Rates of negative events were calculated over 2 4-month periods, before and after the token economy was introduced on a 24-bed acute care unit that housed the hospital's neo-adult program for patients aged 18-20 yrs. The unit also served as an admitting unit for patients over 20 yrs old. When the analysis was controlled for unit census and the number of neo-adults, an analysis of covariance indicated that the number of negative events fell significantly after the token economy was introduced, from 129 in the 4 months before implementation to 73 after implementation, a 43% reduction. Both staff and patient injuries were significantly reduced. A small increase in use of emergency medications was noted, but it was not statistically significant. Findings support the use of the token economy in acute settings to improve the unit milieu by reducing negative events. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Dr. LePage, West Virginia University School of Medicine and Sharpe Hospital, P.O. Box 1127, Weston, WV 26452; email: jslpage@labyrinth.net.

Locke, B. J. (1969). Verbal conditioning with the retarded: Reinforcer, sex of subject, and stimulus pacing. *American Journal of Mental Deficiency, 73*, 616-620.

48 mild and moderately retarded Ss with whom prior verbal conditioning attempts had been unsuccessful were exposed to variations in the reinforcing consequence and the pattern of presenting stimulus materials with separate replications for male and female Ss. Using a Taffel type of task, the reinforcing properties of the social consequence "good" were compared with tokens exchangeable for money or a variety of

trinkets in factorial combinations with a fixed vs. a variable rate of stimulus exposure. Extensive verbal conditioning effects were obtained with tokens but no significant effects were associated with the social reinforcement, sex of S, or stimulus exposure rate. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Parsons Research Center Library, Parsons, KS.

Mandelker, A. V., Brigham, T. A., & Bushell, D. (1970). The effects of token procedures on a teacher's social contacts with her students. *Journal of Applied Behavior Analysis*, 3, 169-174.

Observed a group of 6 kindergartners daily during a 20-min handwriting lesson. Ss were divided into 2 groups (A and B) of 3 each. 5 conditions were imposed sequentially: (a) base line without tokens, (b) contingent tokens for Group A, noncontingent tokens for Group B, (c) contingent tokens for Group B, noncontingent tokens for Group A, (d) reinstatement of condition b, and (e) contingent tokens for both groups. It was consistently observed that the teacher's rate of social contact with higher with Ss receiving the contingent tokens than with those who received noncontingent tokens. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Don bushell, Jr., Department of Human Development, University of Kansas, Lawrence, Kansas 66044.

Mangus, B., Henderson, H., & French, R. (1986). Implementation of a token economy by peer tutors to increase on-task physical activity time of autistic children. *Perceptual and Motor Skills*, 63, 97-98.

Data generated from the implementation of a token economy with 5 7-11 yr old autistic children were graphed for visual inspection of the raw data and means. Findings show that 4 Ss improved their time on task on the balance beam in at least 1 of the intervention phases; the other S did not improve during the intervention phases, but there was a positive slope in the final intervention phase. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Dr. Brent Mangus, School of HPERD, University of Nevada, Las Vegas, 4505 Maryland Parkway, Las Vegas, Nevada 89154.

Mann-Feder, V. R. (1996). Adolescents in therapeutic communities. *Adolescence*, 31, 17-28.

Compared the course of change of 2 groups of conduct disordered adolescents in 2 theoretically distinct residential treatment programs: a therapeutic community and a modified token economy. In all, 288 clients (aged 14-18 yrs old) were assessed on multiple measures at 3 points in the treatment process in a repeated measures design. Results indicate that, despite an overall trend toward improvement in both groups, there was little difference between the rates of progress over time. Dropouts and nondropouts could be differentiated only by a small number of baseline scores and the amount of family contact during placement. The need is expressed for qualitative research focusing on the interaction of client attitudes and perceptions and the underlying components of treatment modalities. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Varda Mann-Feder, D.Ed., Department of Applied Social Science, Concordia University, 1455 De Masionneuve West, Montreal, Quebec, Canada HG3 IM8.

McGinnis, J. C., Friman, P. C., & Carlyon, W. D. (1999). The effect of token rewards on "intrinsic" motivation for doing math. *Journal of Applied Behavior Analysis*, 32, 375-379.

This study used a multielement baseline design to analyze the effects of token rewards delivered contingent upon completion of math problems by 2 middle-school boys. Time spent on math and number of work pages completed increased (with high accuracy) during reward conditions and were maintained during fading and withdrawal. At follow-up, time spent and work pages completed remained well above baseline for 1 boy and fell below for the other, while accuracy remained high and ratings of liking math were the highest possible for both boys. Overall, the results are inconsistent with warnings about use of token rewards to motivate children. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Patrick C. Friman, Youthcare Building, Boys Town, Nebraska 68010; email: frimanp@boystown.org.

McLaughlin, T. F., & Malaby, J. (1972). Intrinsic reinforcers in a classroom token economy. *Journal of Applied Behavior Analysis*, 5, 263-270.

Used an inexpensive, easily managed token economy for 1 yr. in a normal combined 5th and 6th grade classroom with 25-29 pupils. Data were collected for the entire academic performance in spelling, language, handwriting, and math for that year. During a base-line period, assignment completion was variable. Introduction of a token economy with a point exchange every 5 days increased assignment completion and decreased variability of performance. An application of a token economy that had a point exchange averaging 4 days was accompanied by an assignment completion rate that approximated 100%. A reinforcement contingency for quiet behavior rather than for assignment completion was accompanied by a marked diminution of assignment completion. A reintroduction of the token reinforcement for assignment completion again increased that behavior. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Thomas F. McLaughlin, Columbia Elementary School, East 3817 Sanson, Spokane, WA 99207.

Miller, R. P., & Cosgrove, J. M. (1990). An appeals system for fines received by adolescents in a token economy. *Adolescence*, 24, 989-995.

Describes a system in which adolescents (aged 12-18 yrs) participating in a token economy at a state hospital were allowed to appeal fines received from staff. Appeals were heard weekly by a board composed of 3 residents and a psychology intern. Although almost half the fines were upheld, there were practically no more complaints of unfairness, and denials of responsibility declined drastically. The number of residents appealing fines fell from an average of 4/wk to less than 1/wk after the system had been in effect for 11/2 mo. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Robert P. Miller, Ph.D., Senior Staff Psychologist, Pain Management Program, Tampa General Rehabilitation Center, Tampa General Hospital, Davis Island, Tampa, FL 33606.

Myers, N. A. (1960). Extinction following partial and continuous primary and secondary reinforcement. *Journal of Experimental Psychology*, 60, 172-179.

This study was concerned with the extinction of an operant response in children following partial and regular primary and secondary reinforcement procedures. It was found that tokens can be established as strong secondary reinforcers in preschool children. In addition, partial secondary reinforcement during conditioning is shown to lead to greater resistance to extinction than continuous secondary reinforcement. The results are discussed in terms of a discrimination hypothesis for secondary reinforcement. (PsycINFO Database Record (c) 2000 APA, all rights reserved) No reprint information available.

Myers, N. A., Craig, G. J., & Myers, J. L. (1961). Secondary reinforcement as a function of the number of reinforced trials. *Child Development*, 32, 765-772.

The extinction behavior of preschool children following varying numbers of reinforced trials was examined in an operant situation. When a button on the nose of a clown was pressed, a token was delivered from the clown's mouth. Inserting the token in a slot on the clown's face and pressing a second button on the nose yielded a piece of candy from the mouth. There were 12 groups of 8 Ss each differing in reinforcement and extinction procedures. Each child received either 2, 4, 8, or 16 training trials with either token and candy reinforcement or candy alone, followed by 5 minutes of extinction. There were no differences due to the number of training trials or secondary reinforcement. From Psyc Abstracts 36:05:5FD65M. (PsycINFO Database Record (c) 2000 APA, all rights reserved) No reprint information available.

O'Leary, K. D., & Becker, W. C. (1967). Behavior modification of an adjustment class: A token reinforcement program. *Exceptional Children*, 33, 637-642.

A base rate of deviant behavior was obtained for the 8 most disruptive children in a 3rd grade adjustment class. In a token reinforcement program, the children received teacher's ratings which were exchangeable for reinforcers such as candy and trinkets. With the introduction of the token reinforcement program, an abrupt reduction in deviant behavior occurred. Delay of reinforcement was gradually increased to 4 days without increase in deviant behavior. The program was equally successful for all children observed, and anecdotal evidence suggests that the children's appropriate behavior generalized to other school

situations. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: No reprint information available.

Phillips, E. L. (1969). Achievement place: Token reinforcement procedures in a home-style rehabilitation setting for "pre-delinquent" boys. *Journal of Applied Behavior Analysis, 1*, 213-223.

Token reinforcement procedures were designed to modify the behavior of 3 pre-delinquent boys residing in a community-based, home-style rehabilitation setting. Points (the tokens) were redeemable for various privileges such as visiting their families, watching TV, and riding bicycles. Points were given by the house-parents contingent upon specified appropriate behavior and taken away for specified inappropriate behavior. The frequencies of aggressive statements and poor grammar decreased while tidiness, punctuality, and amount of homework completed increased. It was concluded that a token reinforcement procedure, entirely dependent upon back-up reinforcers naturally available in a home-style treatment setting, could contribute to an effective and economical rehabilitation program for pre-delinquents. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Elery L. Phillips, University of Kansas, 23 East Eleventh St., Lawrence, Kansas 66044.

Reisinger, J. J. (1972). The treatment of "anxiety-depression" via positive reinforcement and response cost. *Journal of Applied Behavior Analysis, 5*, 125-130.

Implemented a target behavior program, structured within a token economy project, to modify the behavior of an institutionalized 20-yr-old female patient who exhibited excessive rates of crying and no smiling responses. To affect both responses concurrently, token costs were made contingent upon crying and token payments and/or social reinforcements were provided for smiling. Results indicate both the feasibility of eliminating anxiety-depression within an institutional environment and the efficacy of treatment procedures 14 mo. after discharge. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: James J. Reisinger, Department of Psychology, George Peabody College for Teachers, Nashville, TN 37203.

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*, 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) 2002 APA, all rights reserved) No reprint information available.

Reynolds, L. K., & Kelley, M. L. (1997). The efficacy of a response cost-based treatment package for managing aggressive behavior in preschoolers. *Behavior Modification, 21*, 216-230.

Examined the effectiveness of a response cost multicomponent treatment package for improving the classroom behavior of 4 3-5 yr old aggressive male preschoolers. Using a multiple baseline design, teachers implemented the response cost system during 2 phases, and observational data was collected during baseline and treatment conditions. The system required teachers to remove smiley faces contingent on Ss' aggressive behavior. Each face loss was accompanied by a reprimand. If the S retained at least 1 smiley face at the end of the observation period, the S was allowed to choose a reward. Child ratings of treatment satisfaction and teacher ratings using the Intervention Rating Profile-15 before and after treatment were measured. Results show that the response cost treatment package substantially decreased aggressive behavior in all Ss and was a highly acceptable classroom treatment to teachers and parents. (PsycINFO Database Record (c) 2000 APA, all rights reserved) No reprint information available.

Rimmerman, A., Finn, H., Schnee, J., & Klein, I. (1991). Token reinforcement in the psychosocial rehabilitation of individuals with chronic mental illness: is it effective over time? *International Journal of Rehabilitation Research*, 14, 123-130.

The main purpose of this project was to determine whether the addition of the token economy reinforcement to the regular treatment modalities (medication therapy and psychotherapy) improved the following outcome measures: re-hospitalization rate, NYPC (agency) therapeutic goals, symptomatology, social integration activities and ADL skills. The research was carried out over a period of 18 months. Subjects were 617 individuals diagnosed as having chronic mental illness. They lived in three adult homes in New York, two of which were on a token economy programme, while the third served as a quasi-control group. The findings suggest that while medication therapy and psychotherapy have different effects in respect to the various outcome measures, the addition of the token economy programme resulted in positive, albeit marginal, gains to all outcome measures. For reprints: A. Rimmerman, School of Social Work, Bar Ilan University, Ramat Gan, Israel 52000.

Sisson, L. A., & Dixon, M. J. (1986). Improving mealtime behaviors through token reinforcement: A study with mentally retarded behaviorally disordered children. *Behavior Modification*, 10, 333-354.

Evaluated the effectiveness of a token reinforcement program in improving mealtime behaviors of 4 mentally retarded, behaviorally disordered children (aged 4 yrs 8 mo to 15 yrs), using a multiple baseline design across behaviors. Participants were residents on an inpatient psychiatric hospital program for children. Target behaviors included appropriate utensil use, appropriate napkin use, chewing with mouth closed, and good posture. Training was implemented in a group setting and consisted of verbal instructions, modeling, manual prompts, and token reinforcement delivered at preprogrammed variable intervals signaled by a tape recording. Results show acquisition of target behaviors in 20 to 40 sessions. Further, behavioral gains were judged to be clinically significant by a group of independent observers. (PsycINFO Database Record (c) 2000 APA, all rights reserved) No reprint information available.

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.

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) 2002 APA, all rights reserved) For reprints: Dr. Ron French, Texas Woman's University, Department of Kinesiology, P.O. Box 425647, Pioneer Hall 208D, Denton, TX 76204.

Walker, H. M., & Buckley, N. K. (1972). Programming generalization and maintenance of treatment effects across time and across settings. *Journal of Applied Behavior Analysis*, 5, 209-224.

Investigated the effects of 1 control and 3 experimental strategies in facilitating generalization and maintenance of treatment effects on 44 3rd-6th grade problem children after 2 mo. in a token-economy classroom. At the conclusion of treatment, Ss were randomly assigned to 1 of 3 maintenance strategies or a control group and returned to their regular classrooms. Maintenance strategies were peer reprogramming, equating stimulus conditions between the experimental and regular classrooms, and teacher training in behavior management techniques. Strategies were implemented in the regular classroom for a 2-mo period and then terminated. Results indicate a powerful treatment effect produced by the token economy. Behavior maintenance effects following treatment were also obtained. The mean per cent appropriate behavior for the peer reprogramming and equating stimulus conditions strategies was significantly greater than the mean for the control Ss. Teacher training and control group means were not significantly different. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: Hill M. Walker, Department of Special Education, College of Education, University of Oregon, Eugene, OR.

Wolfe, D. A., Mendes, M. G., & Factor, D. (1984). A parent-administered program to reduce children's television viewing. *Journal of Applied Behavior Analysis*, 17, 267-272.

Tested a parent-administered program to reduce TV viewing of elementary school-aged children in 5 8-12 yr olds from 3 families who were heavy viewers of TV. Ss were given 20 unearned tokens each week by their parents, which they could exchange for up to 10 hrs of viewing time. Each S earned a gold token for viewing in accordance with the rules for 4 consecutive weeks, which was exchanged for a reward. Parents were given instructions to follow the program independently. Data on hours of TV viewing, homework, and reading were recorded each day by one or both parents. A multiple-baseline analysis of the effects of the TV reduction program indicated that Ss reduced their baseline TV viewing by more than half once the program was implemented and that they continued to maintain these changes 6 mo and 1 yr after the program was discontinued. Reading time increased for all Ss, whereas effects on homework varied across Ss. Results support the effectiveness of a parent-administered program for non-behavior-problem children who watch excessive amounts of TV. (PsycINFO Database Record (c) 2000 APA, all rights reserved) For reprints: David A. Wolfe, Department of Psychology, The University of Western Ontario, London, Ontario N6A 5C2.

programs and their associated research. Characteristics of the program are noted. Goals of the parent programs are to promote parent competencies and strengthen families. The authors hypothesized that because parents are the most powerful, and potentially malleable, influence on young children's social development, intervening with parents would be the strategic first step. Studies have shown that parent training is highly promising as an effective therapeutic method for producing significant behavior change in children with high-risk behaviors and with high-risk socioeconomically disadvantaged populations. These findings provide support for the theory that parenting practices play a key role in children's social and emotional development. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Carolyn Webster-Stratton, Department of Family and Child Nursing, University of Washington, Seattle, WA.

Kazdin, A. E. (2003). Problem-solving skills training and parent management training for conduct disorder. In A. E. Kazdin & J. R. Weisz (Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 241-262). New York: Guilford Press.

Discusses problem-solving skills training and parent management training for conduct disorder (CD) for children (aged 2-13 yrs). The treatment provided include cognitive problem-solving skills training (PSST) and parent management training. These are provided individually to children and families rather than in group format. Parent-management training (PMT) refers to procedures in which parents are trained to alter their child's behavior in the home. PMT focuses on altering parent-child interactions and includes several characteristics. It also focuses on child performance at school. Both PSST and PMT emphasize changing how individuals perform. Both draw heavily on learning theories and research findings. Treatment is assessed and evaluated. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Alan E. Kazdin, Child Study Center, Yale University School of Medicine, New Haven, CN.

Collett, B. R., Ohan, J. L., & Myers, K. M. (2003). Ten-year review of rating scales. V: Scales assessing attention-deficit/hyperactivity disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 1115-1137.

## Behavioral Parenting Abstracts

### Behavioral Parenting Updates: Chapters and Review Articles

Webster-Stratton, C., & Reid, M. J. (2003). The incredible years parents, teachers and children training series: A multifaceted treatment approach for young children with conduct problems. In A. E. Kazdin & J. R. Weisz (Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 224-240). New York: Guilford Press.

Outlines the Incredible Years Training Series, targeted at parents, teachers, and children (aged 2-8 yrs). This chapter reviews these training

This article summarizes information on scales assessing attention-deficiency/hyperactivity disorder (ADHD) in children and adolescents. The authors sampled articles on ADHD over the past decade. Several popular older ADHD measures have recently been revised, and new ADHD scales have been developed. The authors selected primarily ADHD scales based in the DSM-IV construct of ADHD that also have multiple literature citations. They then reviewed their psychometric properties. Those with adequate psychometric functioning plus considerable literature citations, known wide usage in clinical practice, or a current niche are presented here. Several rating scales consistent with the DSM-IV conceptualization of ADHD are now available for use in both home and school settings. Many of the instruments demonstrate solid psychometric properties and a strong normative base. However, some popular scales have not been adequately investigated. Some measures are restricted to the comprehensive assessment of ADHD, whereas others also include symptoms of other disorders. The potential applications for these scales with youths diagnosed with ADHD are broad. Rating scales can reliably, validly, and efficiently measure DSM-IV-based ADHD symptoms in youths. They have great utility in research and clinical work, assist treatment planning, and help to ensure accountability in practice. For reprints: Dr. Myers, Division of Child Psychiatry CH-14, Children's Hospital and Regional Medical Center, Box 5371, 4800 Sand Point Way, N.E., Seattle, WA 98105; email: kathleen.myers@seattlechildrens.org.

### Behavioral Parenting Updates: Research Articles

Bagner, D. M., & Eyberg, S. M. (2003). Father involvement in parent training: When Does It Matter? *Journal of Clinical Child and Adolescent Psychology*, 32, 599-605.

We examined the impact of father involvement on treatment. Participants were 107 families enrolled in parent-child interaction therapy (PCIT), including 56 involved-father (IF) families, 16 uninvolved-father (UF) families, and 35 absent-father (AF) families. All groups showed improvements during treatment to within the average range on the Eyberg Child Behavior Inventory (ECBI), although mothers from AF families reported better treatment outcome than mothers from IF families. Improvements occurred

on the Beck Depression Inventory (BDI) and the Parenting Stress Index (PSI) as well, but there were no group differences. At a 4-month follow-up, mothers in IF families maintained treatment gains on the ECBI. In contrast, mothers in AF families reported significant decline at follow-up, although their scores remained within the normal range. Results suggest that father participation in treatment may not affect immediate treatment outcome but may help to maintain the beneficial effects of PCIT. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Sheila M. Eyberg, Department of Clinical and Health Psychology, P.O. Box 100165, University of Florida, Gainesville, FL 32610-0165; email: seyberg@hp.ufl.edu.

Bradley, S. J., Jadaa, D.-A., Brody, J., Landy, S., Tallett, S. E., Watson, W., Shea, B., & Stephens, D. (2003). Brief psychoeducational parenting program: An evaluation and 1-year follow-up. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 1171-1178.

Despite recognition of the need for parenting interventions to prevent childhood behavioral problems, few community programs have been evaluated. This report describes the randomized controlled evaluation of a four-session psychoeducational group for parents of preschoolers with behavior problems, delivered in community agencies. In 1998, 222 primary caregivers, recruited through community ads, filled out questionnaires on parenting practices and child behavior. Parents were randomly assigned to immediate intervention or a wait-list control. The intervention comprised three weekly group sessions and a 1-month booster, the focus being to support effective discipline (using the video 1-2-3 Magic) and to reduce parent-child conflict. Using an intent-to-treat analysis, repeated-measures analyses of variance indicated that the parents who received the intervention reported significantly greater improvement in parenting practices and a significantly greater reduction in child problem behavior than the control group. The gains in positive parenting behaviors were maintained at 1-year follow-up in a subset of the experimental group. This brief intervention program may be a useful first intervention for parents of young children with behavior problems. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Dr. Bradley, Department of Psychiatry, Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, Canada M5G 1X8; email: susan.bradley@sickkids.ca.

Coren, E., Barlow, J., & Stewart-Brown, S. (2003). The effectiveness of individual and group-based parenting programmes in improving outcomes for teenage mothers and their children: A systematic review. *Journal of Adolescence*, *26*, 79-103.

Notes that there is evidence from a range of studies showing adverse child outcomes for the children of teenage parents. This literature review examined the effectiveness of individual and/or group-based parenting programs in improving psychosocial and developmental outcomes in teenage parents (aged <20 yrs) and their infants. The findings of the review are based on 14 studies that used varying study designs, and are therefore limited. The results suggest, however, that parenting programs can be effective in improving a range of psychosocial and developmental outcomes for teenage mothers and their children. Further research is suggested. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Jane Barlow, Institute of Health Services, Health Services Research Unit, University of Oxford, Old Road, Headington, Oxford OX3 7LF, UK; email: jane.barlow@dphpc.ox.ac.uk.

Ducharme, J. M., Harris, K., Milligan, K., & Pontes, E. (2003). Sequential evaluation of reinforced compliance and graduated request delivery for the treatment of noncompliance in children with developmental disabilities. *Journal of Autism and Developmental Disorders*, *33*, 519-526.

Errorless compliance training is a recently developed approach that has been demonstrated to be effective in treating severe oppositional behavior in children. In conjunction with several ancillary techniques, the approach comprises two fundamental components: reinforcement for child compliance and delivery of requests in a four-level hierarchy, from requests that yield high levels of compliance to those that yield low levels. To determine the relative contribution of each component, four children with developmental disabilities and severe oppositional behavior were observationally assessed in baseline and then treated using reinforcement following each instance of compliance to parental requests. Following this first treatment phase, we used the graduated request hierarchy in conjunction with reinforced compliance. Results indicated that use of reinforcement for compliance in isolation was ineffective in bringing about clinically significant improvements in child compliance. The addition of the graduated request hierarchy appeared to be associated with substantial changes in child

compliance that maintained in follow-up assessments. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Joseph M. Ducharme, Department of Human Development and Applied Psychology, University of Toronto, 252 Bloor Street, Toronto, Ontario M5S 1V6, Canada.

Galboda-Liyanage, K. C., Prince, M. J., & Scott, S. (2003). Mother-child joint activity and behaviour problems of pre-school children. *Journal of Child Psychology and Psychiatry*, *44*, 1037-1048.

A cross-sectional postal survey of a representative, population-based sample of 800 mothers of 3.5-yr-old children living in an outer London Borough was carried out to assess the association between mother-child joint activity and behavior problems of preschool children. The response rate was 70%. Lower levels of mother-child joint activity remained independently associated with behavior problems of preschool children both on a binary and a continuous scale after adjusting for a wide range of household, maternal and child circumstances. The association between low levels of mother-child joint activities and behavior problems of the children was stronger in the presence of social problems in the family. Possible causal pathways and directions for future research and intervention are discussed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Stephen Scott, Reader in Child Health & Behaviour, Department of Child & Adolescent Psychiatry, Institute of Psychiatry, De Crespigny Park, Camberwell, London SE5 8AF, UK; email: Stephen.Scott@iop.kcl.ac.uk.

Gershater-Molko, R. M., Lutzker, J. R., & Wesch, D. (2003). Project SafeCare: Improving health, safety, and parenting skills in families reported for, and at-risk for child maltreatment. *Journal of Family Violence*, *18*, 377-386.

Project SafeCare was a 4-year, in-home, research and intervention program that provided parent training to families of children at-risk for maltreatment, and families of children who were victims of maltreatment. Parents were trained in treating children's illnesses and maximizing their own healthcare skills (Health), positive and effective parent-child interaction skills (Parenting), and maintaining low hazard homes (Safety). The effectiveness of these training components was evaluated as the change in the parents' scores on roleplay situations for child health problems,

hazards present in the home, and the frequency and quality of parent-child interactions during activities of daily living. Statistically significant improvements were seen in child health care, home safety, and parent-child interactions. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: John Lutzger, Division of Violence Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 4770 Buford Highway, Mail Stop K-60, Atlanta, GA 30341; email: [jlutzker@cdc.gov](mailto:jlutzker@cdc.gov)

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*, 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) For reprints: Raymond G. Miltenberger, Department of Psychology, North Dakota State University, Fargo, North Dakota 58105; email: [ray.miltenberger@ndsu.nodak.edu](mailto:ray.miltenberger@ndsu.nodak.edu).

Hartman, R. R., Stage, S. A., & Webster-Stratton, C. (2003). A growth curve analysis of parent training outcomes: Examining the influence of child risk factors (inattention, impulsivity, and hyperactivity problems), parental and family risk factors. *Journal of Child Psychology and Psychiatry, 44*, 388-398.

Parent training is one of the most effective treatments for young children with conduct problems. However, not every family benefits from this approach and approximately 1/3 of children remain in the clinical range at follow-up assessments. Hierarchical linear modeling methods were used to examine the effects of child attentional, parental and familial risk factors upon the efficacy of a parent training program to decrease boys' conduct problems. Mothers of 81

boys (aged 4-7 yrs) exhibiting conduct problems attended a parent training program which lasted 22 to 24 wks. Treatment effectiveness was assessed at 1 mo and 1 yr post treatment. Results indicated significant decreases in observations of mothers' negative parenting interactions with their children and decreases in their conduct problems according to mother reports and independent observations at home. Boys with elevated ratings of attentional problems in addition to conduct problems showed similar benefits from the parent training program as the boys who did not have attentional problems. This study suggests that parent training is equally effective for boys with both conduct problems and attentional problems as it is for boys with conduct problems without these attentional problems. (PsycINFO Database Record (c) 2003 APA, all rights reserved) 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 and Clinical Neurosciences, 57*, 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: Chia-Chen Chao, PhD, Graduate Institute of Clinical Behavioral Science, Chang Gung University, 259, Wen-Hwa 1st Road, Kweisan, Taoyuan 333; email: [ccchao@mail.cgu.edu.tw](mailto:ccchao@mail.cgu.edu.tw).

Hudson, A. M., Matthews, J. M., Gavidia-Payne, S. T., Cameron, C. A., Mildon, R. L., Radler, G. A., & Nankervis, K. L. (2003). Evaluation of an intervention system for parents of children with intellectual disability and challenging behaviour. *Journal of Intellectual Disability Research, 47*, 238-249.

**Background:** Signposts is a flexible intervention system for families of children who have intellectual disability and challenging behaviour. The Signposts materials include eight information booklets, a workbook and videotape for parents, and a series of instructional manuals for therapists. The system was designed so that it can be delivered in several different ways, i.e. group support, telephone support and self-directed modes. **Methods:** The present study was an evaluation of these three modes of delivery and involved 115 mother-child dyads. **Results:** Following the use of the Signposts materials in parent training programmes, the subjects reported that they were less stressed, felt more efficacious about managing their children's behaviour, were less hassled about meeting their own needs and that their children's behaviour had improved. Additionally, families generally reported high levels of satisfaction with the content and delivery of the materials. **Conclusions:** Finally, there were minimal differences among the three modes of delivery on the measures used, although families who used the self-directed mode were less likely to complete the materials. Implications of these results for service delivery are discussed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) No reprint information available.

Jones, D. J., Forehand, R., Brody, G., & Armistead, L. (2003). Parental monitoring in African American, single mother-headed families: An ecological approach to the identification of predictors. *Behavior Modification, 27*, 435-457.

Parental monitoring is considered an essential parenting skill. Despite its relevance to a range of child and adolescent outcomes, including the prevention of conduct problems and substance use, there has been little empirical attention devoted to examining the antecedents of parental monitoring. Building on Brofenbrenner's ecological model, this study examined the association between the ecological context in which families reside and parental monitoring across two waves of data separated by 15 months. Findings were consistent across increasingly conservative sets of hierarchical multiple regression analyses. Whether the

neighborhood was rural or urban and the level of maternal depressive symptoms predicted parental-monitoring behavior concurrently and longitudinally as well as change in parental monitoring over time. Monitoring increased over the 15-month interval more in urban areas than rural areas and among mothers with lower levels of depressive symptoms. Clinical implications and directions for future research are discussed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Deborah J. Jones, Department of Psychology, Life Sciences Building, P.O. Box 6040, West Virginia University, Morgantown, WV 26505; email: Deborah.Jones@mail.uwv.edu.

Kahng, S., Boscoe, J. H., & Byrne, S. (2003). The use of escape contingency and a token economy to increase food acceptance. *Journal of Applied Behavior Analysis, 36*, 349-353.

Escape (termination of a meal) and token-based differential reinforcement of alternative behavior were used as reinforcement to increase acceptance of food. A 4-year-old girl who had been admitted to an inpatient unit for the treatment of food refusal participated in the study. Using a changing criterion design, the number of bites accepted and consumed was gradually increased to 15 bites per meal. These data suggest that, in some cases, escape may be a potent reinforcer for food acceptance. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Sun Woo Kahng, Department of Behavioral Psychology, Kennedy Krieger Institute, 707 N. Broadway, Baltimore, Maryland 21205; email: Kahng@kennedykrieger.org.

Kazdin, A. E., & Whitley, M. K. (2003). Treatment of parental stress to enhance therapeutic change among children referred for aggressive and antisocial behavior. *Journal of Consulting and Clinical Psychology, 71*, 504-515.

This study evaluated a parent problem-solving (PPS) intervention designed to augment the effects of evidence-based therapy for children referred to treatment for aggressive and antisocial behavior. All children (N=127, ages 6-14 years) and their families received problem-solving skills training (PSST), and parents received parent management training (PMT). Families were randomly assigned to receive or not to receive an additional component (PPS) that addressed parental stress over the

course of treatment. Children improved with treatment; the PPS intervention enhanced therapeutic change for children and parents and reduced the barriers that parents experienced during treatment. The implications of the findings for improving evidence-based treatment as well as the limitations of adding components to treatment are detailed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Alan E. Kazdin, Child Study Center, Yale University School of Medicine, P.O. Box 207900, New Haven, CT 06520-7900.

Kratochwill, T. R., Elliott, S. N., Loitz, P. A., Sladeczek, I., & Carlson, J. S. (2003). Conjoint consultation using self-administered manual and videotape parent-teacher training: Effects on children's behavioral difficulties. *School Psychology Quarterly*, 18, 269-302.

This research involved comparing the effectiveness of two different approaches of conjoint consultation using a manual versus a videotape series as the main components of joint training parents and teachers to treat children's behavioral difficulties. Children exhibiting externalizing or internalizing behavioral problems who attended Head Start Programs were targeted for this intervention. During the first 2 years of the project, a manual-based program was conducted. The last 3 years of the project involved delivery of the parent-teacher training program through a series of videotapes and accompanying manuals. Children were randomly assigned to either an experimental or no treatment control group. The effectiveness of the intervention within the experimental group was assessed primarily through a pretest-posttest, experimental-control, group repeated-measures design. Direct behavioral observations did not indicate clinically relevant improvements in behavior; however, parents' and teachers' goal attainment reports characterized students as meeting their overall behavior goals. Parents and teachers also reported high rates of treatment acceptability and satisfaction with the manual and videotape treatment programs. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Thomas R. Kratochwill, School Psychology Program, 1025 West Johnson St., University of Wisconsin-Madison, WI 53706; email: tomkat@educatio.wisc.edu.

McDonald, M. E., & Hemmes, N. S. (2003). Increases in social initiation toward an adolescent with autism: reciprocity effects. *Research in Developmental Disabilities*, 24, 453-465.

Level of spontaneous social initiating by three adult caregivers toward a youth with autism was studied during a program to increase the youth's level of social initiating. The adult participants were three staff members of a program for individuals with autism; they were assigned to the classroom of the youth participant, but none was directly involved in his educational program. Under a multiple-baseline across subject design, in combination with a multi-element design, the youth's social initiations toward each adult were systematically reinforced. Two sessions were conducted daily: one in which prompts, token reinforcers, and verbal praise for the youth's social behavior were presented (baseline and training sessions), and one in which prompts were absent and only verbal praise was presented (probe sessions). Frequency of spontaneous initiating toward the youth increased for each adult during treatment when the youth's frequency of initiating toward a given adult increased. It was higher during training vs. probe sessions, where level of social initiating by the youth was also higher. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Mary E. McDonald, The Graduate Center and Queens College, City University of New York, and The Genesis School, 270 Washington Ave., Suite 6, Plainview, NY 11804; email: SDRSR@aol.com (M.E. McDonald).

McGill, P., Teer, K., Rye, L., & Hughes, D. (2003). Staff reports of setting events associated with challenging behavior. *Behavior Modification*, 27, 265-282.

This study identified the setting events reported by caregivers as more and less likely to be associated with challenging behaviors of people with intellectual disabilities. 65 staff (aged 18-63 yrs) working with 22 individuals (aged 13-54 yrs) were interviewed using a setting event inventory. Some setting events (e.g., being in a crowded room) were reported as strongly associated with challenging behavior, some (e.g., one-to-one support) as strongly associated with its absence. Some (e.g., day of week) were reported to be largely "inert"; many were idiosyncratically associated with occurrence, absence, or inertness. Different categories of setting events contributed different amounts to reported variation in challenging behavior. The inventory described

here, or modified versions, may help identify relationships between setting events and challenging behaviors. The relationships reported in this study suggest ways in which service provision might be modified to help prevent challenging behavior. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Peter McGill, Tizard Centre, University of Kent at Canterbury, Canterbury, Kent, UK CT2 7LZ; email: p.mcgill@ukc.ac.uk.

Morrell, J., & Murray, L. (2003). Parenting and the development of conduct disorder and hyperactive symptoms in childhood: A prospective longitudinal study from 2 months to 8 years. *Journal of Child Psychology and Psychiatry, 44*, 489-508.

Investigated the early processes involved in the development of symptoms of conduct disorder (CD) and hyperactivity. The study employed a prospective design, over a period from 2 mo to 8 yrs, on 59 mothers and their children. Detailed observational data of early and later mother-child interactions were collected, infant prefrontal function (A and not B task) was assessed, and symptoms of child CD and hyperactivity were rated by maternal report at age 5 and 8 yrs. Emotional dysregulation on the A not B task at 9 mo predicted symptoms of CD at 5 and 8 yrs, and delayed object reaching times on the same task predicted hyperactive symptoms at 5 yrs. These 2 developmental trajectories were associated with distinct patterns of early parenting that were strongly influenced by infant gender. Thus, in boys early emotional dysregulation was predicted by rejecting and coercive parenting, and delayed reaching on the A not B task by coercive parenting, whereas in girls only continuity from earlier infant behaviour could be demonstrated. There was strong continuity between these early infant behaviours and later child disturbance that was partially mediated by parenting for CD symptoms (maternal hostile parenting in boys, and maternal coercive parenting in girls). (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Julian Morrell, Winnicott Research Unit, Department of Psychology, University of Reading, 3 Earley Gate, PO Box 238, Reading RG6 6AL, UK; email: julian.morrell@psych.ox.ac.uk.

Najdowski, A. C., Wallace, M. D., Doney, J. K., & Ghezzi, P. M. (2003). Parental assessment and treatments of food selectivity in natural settings. *Journal of Applied Behavior Analysis, 36*, 383-386.

This study evaluated the effects of a parent-conducted functional analysis and treatment consisting of differential reinforcement of an alternative behavior, escape extinction, and demand fading on food selectivity in a young child with autism. Increases in food acceptance at home and in a restaurant were obtained. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Michele D. Wallace, Department of Psychology/296, University of Nevada, Reno, Reno, Nevada 89557; email: wallacem@unr.edu.

Noell, G. H., Whitmarsh, E. L., VanDerHeyden, A. M., Gatti, S. L., & Slider, N. J. (2003). Sequence instructional tasks: A comparison of contingent and noncontingent interspersal of preferred academic tasks. *Behavior Modification, 27*, 191-216.

This study compared two strategies for increasing accurate responding on a low-preference academic task by interspersing presentations of a preferred academic task. Five children attending a preschool program for children with delayed language development participated in this study. Preferred and nonpreferred tasks were identified through a multiple-stimulus, free-operant preference assessment. Contingent access to a preferred academic task was associated with improved response accuracy when compared to noncontingent access to that activity for three students. For one student, noncontingent access to the preferred activity led to improved response accuracy, and one student's analysis suggested the importance of procedural variety. The implications of these findings for use of preference assessments to devise instructional sequences that improve student responding are discussed. (PsycINFO Database Record (c) 2003 APA, all rights reserved) No reprint information available.

Peterson, L., Tremblay, G., Ewigman, B., & Saldana, L. (2003). Multilevel selected primary prevention of child maltreatment. *Journal of Consulting and Clinical Psychology, 71*, 601-612.

Few treatment studies and even fewer primary prevention studies have demonstrated successful reduction of child maltreatment. Successful preventive interventions have often been lengthy and expensive; shorter programs have been didactic and ineffective. The present investigation relied on a 7-level model of successful parenting to mount a time-limited, "selected" prevention effort

with high-risk mothers. This program included modeling, role-playing, Socratic dialogue, home practice, and home visits. The study demonstrated effective intervention at every level of the model, including improvements in (a) parenting skills, (b) developmentally appropriate interventions, (c) developmentally appropriate beliefs, (d) negative affect, (e) acceptance of a responsible parent role, (f) acceptance of a nurturing parent role, and (g) self-efficacy. Directions for future research are considered. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: George Tremblay, Department of Clinical Psychology, Antioch New England Graduate School, 40 Avon Street, Keene, NH, 03431; email: george\_tremblay@antiochne.edu.

Piazza, C. C., Patel, M. R., Gulotta, C. S., Sevin, B. M., & Layer, S. A. (2003). On the relative contributions of positive reinforcement and escape extinction in the treatment of food refusal. *Journal of Applied Behavior Analysis, 36*, 309-324.

We compared the effects of positive reinforcement alone, escape extinction alone, and positive reinforcement with escape extinction in the treatment of the food and fluid refusal of 4 children who had been diagnosed with a pediatric feeding disorder. Consumption did not increase when positive reinforcement was implemented alone. By contrast, consumption increased for all participants when escape extinction was implemented, independent of the presence or absence of positive reinforcement. However, the addition of positive reinforcement to escape extinction was associated with beneficial effects (e.g., greater decreases in negative vocalizations and inappropriate behavior) for some participants. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Cathleen C. Piazza, Marcus Institute, 1920 Briarcliff Road, Atlanta, Georgia 30329.

Randazzo, K. v. D., Landsverk, J., & Ganger, W. (2003). Three informants' reports of child behavior: Parents, teachers, and foster parents. *Journal of the American Academy of Child and Adolescent Psychiatry, 42*, 1343-1350.

Objective: To evaluate whether disagreements in reporting child behavior problems between biological parents and foster parents and teachers are related to depressive symptoms in the biological parent. Method: Child Behavior

Checklists and Teacher's Report Forms were completed by parents, foster parents, and teachers on 95 foster children between ages 5 and 16 during 1990-1991. Depressive symptoms in biological parents were assessed using the Center for Epidemiologic Studies Depression Scale. Structural equation modeling was used to estimate the relation between parental depressive symptoms and the discrepancies between their reports and those of two other informants. Results: In both the internalizing and externalizing behavior models, a significant relation was found between parents' depressive symptoms and their discrepancies in reporting, but not with child behavior. This relation was stronger for internalizing than externalizing models. Conclusions: Using foster parents (and teachers) as informants offered a unique opportunity to view the reports of biological parents in comparison to two independent reports. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Dr. Randazzo, 1375 Surfwood Lane, San Diego, CA 92154; email: kvrand@cox.net.

Reid, D. H., DiCarlo, C. F., Schepis, M. M., Hawkins, J., & Stricklin, S. B. (2003). Observational assessment of toy preferences among young children with disabilities in inclusive settings: Efficiency analysis and comparison with staff opinion. *Behavior Modification, 27*, 233-250.

Numerous investigations have demonstrated means of assessing preferences among students and adults with disabilities. In contrast, there has been little attention on preference identification among young children. We evaluated a preference assessment with 7 toddlers and preschoolers with disabilities in inclusive programs. First, identification of toy-play preferences was compared across three assessments that varied in amount of toy-play behavior sampled and time required for implementation (5-, 10-, and 15-session assessments). Second, results of the assessments were compared to staff opinion. Results indicated the most efficient assessment identified preferences that generally were consistent with preferences identified with the less time-efficient assessments. Results also indicated staff reports did not consistently indicate which toys were played with most frequently. Overall, results demonstrate an efficient means of determining preferences among young children with disabilities in inclusive settings. Results also suggest that staff opinion should not be relied on exclusively to determine preferences. (PsycINFO Database Record

(c) 2003 APA, all rights reserved) For reprints: Dennis H. Reid, Carolina Behavior Analysis and Support Center, P.O. Box 425, Morganton, NC 28680.

Tang, J.-C., Patterson, T. G., & Kennedy, C. H. (2003). Identifying specific sensory modalities maintaining the stereotypy of students with multiple profound disabilities. *Research in Developmental Disabilities, 24*, 433-451.

In Experiment 1, analogue functional analyses were conducted to identify the functions of stereotypy for six students with multiple profound disabilities. Results indicated that stereotypy (a) occurred across conditions, (b) occurred primarily when alone, or (c) occurred during all sessions except in the Control condition. Experiment 2 analyzed stereotypy while masking visual, auditory, or tactile sensory consequences. Results showed that stereotypy was maintained by visual stimulation, tactile stimulation, or was undifferentiated across conditions. In Experiment 3, we showed that stereotypy could be reduced by providing competing sensory stimulation. In Experiment 4, stereotypy that was undifferentiated in Experiment 1 was analyzed using a concurrent operants procedure. Results showed that stereotypy was not multiply determined, but occurred to produce visual sensory stimulation. Our findings are discussed in terms of the sensory and social reinforcers that maintain stereotypy, assessment procedures used to identify those reinforcers, and the interpretation of assessment results. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: Craig H. Kennedy, Department of Special Education, Box 328, Peabody College, Vanderbilt University, Nashville, TN 37203; email: craig.kennedy@vanderbilt.edu.

Venning, H. B., Blampied, N. M., & France, K. G. (2003). Effectiveness of a standard parenting-skills program in reducing stealing and lying in two boys. *Child & Family Behavior Therapy, 25*, 31-44.

Children's stealing and lying are problems commonly experienced by families. If persistent, these behaviors have negative consequences for the children, their families, schools, and the community. Despite this, there is a paucity of research into effective interventions for stealing and lying. This study examined the effectiveness of a standard parent-training program (Triple-P Level 4) in reducing stealing and lying in two boys, and

measured changes in their mothers' adjustment and perceptions of child and family functioning. Parent suspicions of stealing and lying by their sons decreased during the intervention and were absent at a 10-week follow-up. Mothers reported reduced depression, anxiety, and stress, and increases in their sense of parenting competence following training. The number and intensity of reported child behavior problems decreased to nonclinical levels for one family but remained elevated for the other. (PsycINFO Database Record (c) 2003 APA, all rights reserved) For reprints: The Haworth Document Delivery Service: 1-800-HAWORTH; email: docdelivery@haworthpress.com.

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## Behavioral Parenting Featured Article Review

Project SafeCare

Claire St. Peter

Gershater-Molko, R. M., Lutzker, J. R., & Wesch, D. (2003). Project SafeCare: Improving health, safety, and parenting skills in families reported for, and at-risk for child maltreatment. *Journal of Family Violence, 18*, 377-386.

Gershater-Molko, Lutzker, and Wesch (2003) evaluated the effectiveness of a 4-year program called Project SafeCare. This program was aimed at reducing or preventing child maltreatment, and was a systematic replication of a long-term intervention program, Project 12-Ways. Although several factors have been shown to affect the probability of child abuse or maltreatment, Project SafeCare targeted three factors specifically related to parenting skills: child health care, parent-child interactions, and home safety.

Families referred to Project SafeCare had either recently been reported for child maltreatment to the Department of Children and Family Services (DCFS), or were identified by a local hospital as at-risk for child maltreatment. To participate in the project, the family must have had target children between infancy and age 5, lived in the local service area, and been at risk for physical abuse or neglect. Although 266 families initially participated in the project, 245 of these families failed to complete the training. The authors did not provide a thorough explanation for the high dropout rate, but they suggested that it may be due to certain population characteristics of families at risk, such as increased stressors or decreased resources.

All caregivers were trained to identify and treat child health problems, make the home environment safer, and increase appropriate parent-child interactions. Each training phase involved baseline observations followed by a maximum of six training sessions, which consisted of modeling, parent practice, and feedback.

The dependent variable of interest changed across phases, although all dependent variables were related to parent behavior. For the health phase, parental responses to different health situations during three role-playing scenarios were scored as the percentage of correct responses completed. For the safety phase, the authors used changes in scores on the Home Accident Prevention Inventory-Revised (HAPI-R; Mandel et al., 1998) as the primary dependent measure. The HAPI-R is a checklist of common household hazards, and includes categories such as sharp objects, fire hazards, and poisonous substances. Two dependent measures were used for the parent-child interaction phase. First, the authors recorded the percentage of appropriate engagement in activities, according to

Planned Activities Training (PAT; Sanders & Dadds, 1982). Second, observers recorded several topographies of parent and child responses during a variety of activities, including eye contact, touching, appropriately giving instructions, and the child's compliance with instructions.

The results showed that the training used in Project SafeCare increased appropriate identification and treatment of common childhood illnesses, decreased children's access to unsafe items, and increased positive parenting skills for the families that completed the program. The data showed a clear differentiation between the mean levels of the dependent variables before and after training. As the authors mentioned, little empirical work has been conducted on the efficacy of these caregiver training packages. This study demonstrated that simple modeling, practice, and feedback procedures, conducted over a relatively short period of time, are effective at changing parenting behavior.

The attrition rate during this study is a substantial concern, as only 10% of the initially-enrolled participants completed all phases of the training. High attrition rates pose a problem for the large-scale implementation of effective behavioral parenting programs, as each dropout may cost the program significant amounts of both time and money, yet the family does not gain the full benefit of the service. Future research should examine the factors contributing to attrition, so that changes could be made to promote program participant retention.

Future research should also examine the effects of this training procedure using a single-subject design. Although the authors were careful to operationally define and directly observe responses in this study, the data were aggregated across participants and presented in terms of percentages. Analyzing the changes in an individual parent's behavior as a

function of the training package may yield useful additional information. For example, an analysis of performance trends for individuals could be a useful tool for determining the appropriate length for a particular phase. In the present study, all phases included a maximum of six training days. It would be interesting to note at what point in the training the parents acquire the necessary skills; it could be the case that fewer sessions are required, or that including more training sessions would increase the percentage of parents who meet a competency criterion.

### References

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