ABSTRACT

This report discusses the outcomes of a study that investigated a procedure designed to help manage children with attention deficit hyperactivity disorder (ADHD) in out-of-home settings. Forty-four parents of children (ages 5-10) diagnosed with ADHD hyperactive-impulsive or combined types participated. Portions of the Barkley Home Situations Questionnaire were used to measure the degree of the children's management problems in out-of-home settings. The subjects were randomized into a treatment group in which parents receive instruction to implement a procedure for managing the children's behavior in out-of-home settings and a control group. The procedure consisted of setting clear and specific rules for the child, establishing positive and negative consequences for following the rules, reminding the child right before entering the situation, and administering the appropriate consequences afterwards. After a period of 1 to 2 weeks, the subjects were re-evaluated. T-tests revealed that at the onset of the study the children in both groups exhibited a similar level of management problems in out-of-home situations, but after the implementation of the procedure, the children in the treatment group exhibited significant reduction in management problems in these settings compared with the children in the control group. (Author/CR)
Reducing ADHD children’s management problems in out-of-home settings.

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This study investigated a procedure designed to help manage ADHD children in out-of-home settings (restaurants, stores, etc.). Forty four parents of children between the ages of five and ten (previously diagnosed with ADHD, Hyperactive-Impulsive or Combined types) participated in the study. Portions of the Barkley Home Situations Questionnaire were used to measure the degree of the children’s management problems in out-of home settings. The subjects were randomized into a treatment group (where the parents received instructions to implement the procedure for managing the children’s behavior in out-of-home settings) and a control group (where the parents did not receive these instructions). After a period of one to two weeks, the subjects were reevaluated with the same portions of the Barkley Home Situations Questionnaire. T-tests revealed that at the onset of the study the children in both groups exhibited a similar level of management problems in out-of-home situations, but after the implementation of the procedure the children in the treatment group exhibited significant reduction in management problems in these settings as compared with the children in the control group. Implications of these findings are discussed.
Children with Attention-Deficit Hyperactivity Disorder (particularly the Hyperactive-Impulsive and Combined types) frequently exhibit management problems. Some of the most significant of these occur in out-of-home settings, such as restaurants, stores, during religious services, etc. While behavioral contracts and other behavior management techniques have been found effective in improving the management of ADHD children at home and in school (see, for example, Kapalka 1999, 2000, 2001a, 2001b, 2001c), the out-of-home settings listed above have rarely, if ever, received attention in research literature. Popular and respected behavior management programs (for example, Barkley, 1997, 2000), recommend a procedure in which a parent sets one or two clear and specific rules for the child, establishes a positive and negative consequences for following the rules, reminds the child right before entering the situation, and administers the appropriate positive or negative consequences afterwards. While anecdotal evidence exists that this procedure helps reduce management problems in out-of-home settings, no empirical data is available to support this claim. The present study intended to research this procedure.

Hypothesis

Based on recommendations from parenting programs and the research that behavioral programs in general reduce the ADHD children’s management problems, it was hypothesized that the procedure described above will, in fact, reduce the management problems in out-of-home situations.

Method

Subjects

The subjects for this study were 44 parents of children between the ages of five and ten, previously diagnosed with ADHD, Hyperactive-Impulsive or Combined types, patients of a private, outpatient mental health counseling center in suburban New Jersey. The community served by this facility includes primarily two-parent homes in which both parents are employed, and the socioeconomic level of the community is primarily lower middle-class. If the children were on medications, the dosage was not changed for the duration of this study, and for the two-week period immediately preceding this study. In this manner, any likelihood that behavioral changes were due to medication issues (rather than the behavioral program) was minimized. The subjects have previously completed at least six sessions of an ADHD parenting program (as described in Kapalka 1999, 2000, 2001a, 2001b, 2001c), but none of the previous portions specifically addressed problems in out-of-home situations. Sixty subjects initially started the ADHD parenting program. After drop-outs, 47 subjects entered the portion of the program that involved this study, and 44 subjects completed this study.

Instrument

The Home Situations Questionnaire (HSQ, Barkley, 1997) was used as the instrument for measuring the extent of the children’s problems with non-compliance. It is a rating scale, filled out
by a parent, in which the parent identifies which of 16 situations commonly encountered at home present the parent with frequent, chronic management problems, and for each problem situation the parent is asked to rate the severity of that problem, on a scale from one (mild) to nine (severe). The HSQ is then scored by averaging out the scores for (only) the problematic situations. Two scores are then compared to the normative data: The total number of problem situations that the parent is encountering, and the mean severity score for those situations. Barkley (1987) reported adequate reliability and validity data for the HSQ, and much research has confirmed HSQ's clinical relevance and utility in identifying the severity of children's behavioral problems (see Barkley, 1987, 1997 for a review).

Although HSQ includes ratings for 16 behaviors, some of the situations are not directly related to non-compliance with direct commands and may be coded by the parent as problematic for other reasons (such as hyperactivity, etc.). Therefore, only four of the problems that most directly relate to non-compliance with commands were scored for the purpose of this study (items number 8, 9, 10 and 15). In addition, the scoring procedure was modified. As discussed above, the HSQ is normally scored by totaling only the rating scores for those situations seen by the parent as problematic, and only these scores are then averaged for the overall mean score. Consequently, if a situation is not seen as problematic, it is not counted in the overall total. In this way, changes in the HSQ may be difficult to compare between administrations, as some problem situations may, in fact, resolve, but if other problem situations remain at a high level, the mean severity score will not change. For the purpose of this study, however, it was important to account for all of the situations included in this study, even if a given situation was no longer seen as problematic on a post-test. Consequently, scores for the four items outlined above were averaged even if one of the items was no longer problematic on a post-test (in which case that item was assigned a score of zero). While this procedure deviates somewhat from the conditions under which the HSQ was standardized and researched, it was believed that the deviation was not severe enough as to render it unreliable or invalid.

Procedure

All subjects were initially administered the Home Situations Questionnaire (Barkley, 1997) to obtain a baseline level of the children's problems in target situations (the pre-test). Then, on a rotating basis, the subjects were assigned into one of two treatment groups. Parents in group one (N=23) completed the implementation of a behavioral contract at home and received one additional session in which they were instructed to implement the above-described procedure for managing the children's behavior in out-of-home settings. The settings were limited to a trip to the store (such as a supermarket or a department store), a restaurant (such as McDonald's or similar), religious services, or to visit a friend or a relative (or to have a friend or relative visit the subject's home) with the duration of each setting limited to 30 to 60 minutes and a minimum ratio of one adult to every two children. The parents were advised to participate in two to three of such outings per week. The parents in group two (N=21) also completed the implementation of a behavioral contract, but proceeded onto a different step in treatment (addressing problems with in-home transitions). However, they were also requested to participate in the outings described above in order to establish a baseline for a future step in treatment. After a period of one to two weeks, the groups were reevaluated with the same portions of the Barkley Home Situations Questionnaire.
Results

The t-test of the pre-test scores indicated that there were no significant differences between the groups at the onset of the study.

The t-test of the post-test scores revealed significant results — the treatment group evidenced significant reduction in severity of the children's behavioral problems in the target situations (as tested with the HSQ). Consequently, the hypothesis of the present study was confirmed. The results of the t-tests are provided in Appendix I.

Discussion

The technique investigated herein appears to be effective in addressing management problems in out-of-home settings, but the small sample size and limited subject pool (most subjects were middle-class Caucasians in two-parent homes) limit the degree to which these findings can be generalized onto the population at large. Moreover, whether or not such gains can be maintained over time has not been demonstrated thus far. However, a number of interventions are used to help parents successfully manage the behaviors of ADHD children, and addressing problems in out-of-home settings is only one of many child management techniques that are taught to parents of ADHD children. As such, the ultimate effectiveness of this procedure can only be evaluated in conjunction with the other child management skills that are utilized by the parents. This study suggests that the procedure described herein may be a useful component of a comprehensive behavior management program.
References


Appendix I

Results of t-tests

### Pre-test

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<th>Mean</th>
<th>Std. Dev.</th>
<th>t( (42) )</th>
<th>Sig.</th>
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<tr>
<td>Author(s):</td>
<td>GEORGE M. KAPALKA</td>
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