A BRIEF COMPONENT ANALYSIS OF POTENTIAL TREATMENT PACKAGES IN AN OUTPATIENT CLINIC SETTING WITH YOUNG CHILDREN

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The purpose of this study was to develop outpatient clinic assessments that allowed us to assess multiple treatment variables, produce relatively quick effects, and isolate active treatment components. Assessment began by evaluating a treatment package consisting of antecedent and consequence variables followed by a component analysis to determine the separate effects of the treatment variables. Three examples of the findings are presented.

DESCRIPTORS: outpatient clinic, component analysis, behavior problems, behavioral pediatrics

Brief versions of functional analyses have been used in outpatient clinics to identify potentially effective treatments for children with behavior disorders (Cooper et al., 1992; Harding, Wacker, Cooper, Millard, & Jensen-Kovalan, in press). Harding et al. (in press) conducted the assessment by arranging the conditions within a hierarchy and sequentially adding antecedent and consequence variables into the assessment conditions until an effective treatment package was identified. One possible disadvantage of this model is that the therapists (parents) may be "unsuccessful" for a large portion of the assessment until an effective treatment package is identified. Therefore, our purpose was to develop an approach to assessment that would assess multiple treatment variables and would also produce relatively quick, effective results. To achieve this goal we developed a treatment package that included specific directions to reduce task demands (Harding et al., in press) and the use of parental attention and preferred activities (Cooper et al., 1992) as positive reinforcers. When the package was effective in improving child behavior, we conducted a component analysis to analyze the separate effects of the treatment components.

METHOD: Participants and setting. The investigation included three selected evaluations of children between the ages of 21 months and 8 years ($M = 5$ years 6 months) who were patients in the Behavior Management Clinic (see Cooper et al., 1992, for a description). The 3 children were selected because they best demonstrated the utility of the assessment approach and were representative of the three patterns of behavior observed across assessments.

Response definitions and measurement. *Appropriate child behavior* was defined as working on assigned tasks, following directions, looking at the speaker or task while receiving directions, and asking questions relevant to the task or directions. Six categories of *parent behavior* were scored by the observers as measures of procedural integrity and included general directions, specific directions, offering preferred activities, delivering preferred activities, delivering praise or positive attention, and delivering reprimands (see Harding et al., in press, for a description of these variables). During each 2- to 6-min session, data on parent behavior were recorded using a 9-s partial-interval procedure, and data on child behavior were collected using a 10-s momentary time-sampling procedure. The mean for procedural integrity was 82% (range, 14% to 100% across conditions). Integrity measures below 70% occurred in 3 of 19 conditions. Interval-by-interval observer agreement for child behavior, assessed in 71% of the sessions, ranged from 87% to 100% ($M = 94\%$).

Experimental design and procedures. The experimental design was a multielement design (Cooper et al., 1992) that consisted of a series of rapidly changing assessment conditions. The assessment began with two control conditions in which the best and worst child behaviors were expected, respectively: (a) free play (FP) and (b) general directions/discussion (GD/DIS). During the free-play condition, the child was given access to preferred activities (e.g., toys, books, crayons), and the parent was instructed to play with the child without demands or reprimands. In the general directions/discussion condition, the parent gave the child a nonpreferred task (e.g., worksheet) with a very general directive (e.g., "You need to do this"), and provided attention only for inappropriate behavior. Following the two control conditions, the treatment package, consisting of specific directions (SD), differential reinforcement of appropriate behavior (DRA), and contingent access to preferred activities (PA), was assessed. If the child's behavior improved, a mini-reversal was conducted by implementing a second control condition (general directions plus all behavior was ignored, GD/IG) followed, again, by the treatment package. When the reversal analysis was completed, we conducted a component analysis to analyze separately the role of task directions (specificity) and positive reinforcement (attention and preferred activities) on child behavior. In the component analysis, individual treatment components were systematically removed and then replaced within a mini-reversal format to determine which components were critical for controlling appropriate behavior.

RESULTS AND DISCUSSION: Results of the reversal design shown in the figure demonstrate improved behavior across participants when the treatment package was implemented. These results extend the procedures of Cooper et al. (1992) and Harding et al. (in press) and show that parents serving as therapists can positively affect their children's behavior very quickly in an outpatient clinic.

The subsequent component analysis was necessary for identifying the singular and interactive effects of the two classes of variables studied. As shown in the figure, three patterns or combinations of variables were identified: (a) both specific directions and positive reinforcers were needed (Andy), (b) only positive reinforcers were needed (Matt), and (c) either specific directions or positive reinforcers were effective (Jerome). Identification of active treatment variables might allow us

to “streamline” our treatment packages and provide recommendations (and training) only for those variables identified as necessary to improve child behavior. Taken together, a brief assessment of a treatment package plus a component analysis of treatment components appear useful for outpatient evaluations. Future researchers should further test the validity of this assessment approach by evaluating the effectiveness of treatments identified via assessment in home and school settings.

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