

*THE EFFECTS OF DIFFERENT ADULTS AS
THERAPISTS DURING FUNCTIONAL ANALYSES*

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The differential effects of caregivers and inpatient staff members as therapists on behavior were evaluated within a reversal design. Results indicated that problem behaviors were higher in the presence of caregivers relative to inpatient staff. These results are discussed in terms of how antecedent stimuli can affect functional analysis outcomes.

DESCRIPTORS: functional analysis, severe behavior disorders, discriminative stimuli

The success of functional analysis procedures (e.g., Iwata, Dorsey, Slifer, Bauman, & Richman, 1982/1994) has led to a number of new questions, such as how to evaluate ambiguous results. One hypothesis for ambiguous results is that the antecedent stimuli incorporated in the assessment are not the same as those correlated with problem behavior in the natural environment. For example, Carr, Yarbrough, and Langdon (1997) demonstrated that for some individuals, idiosyncratic variables (e.g., presence or absence of a tangible item) can alter assessment results. If behavior is under highly restricted stimulus control, idiosyncratic variables might influence behavior only in the presence of specific stimuli. If these variables influence response rate but not behavioral function, this change would not be of great concern to clinicians. However, if the identified behavioral function changes relative to presence or absence of stimuli, the relation between antecedent variables and functional analysis outcomes might warrant closer inspection. The purpose of this study was to

evaluate whether the use of a child's caregiver as therapist during a functional analysis would result in different behavioral patterns relative to a functional analysis conducted by clinic staff. We chose this variable because of all the antecedent variables, the presence or absence of the caregiver might be among the most salient for a child.

METHOD

Participants and Setting

The 3 participants had been admitted to a short-term (12-day) inpatient unit for assessment and treatment of severe behavior problems. Ralph (13 years old) had been admitted for assessment and treatment of aggression and self-injurious behavior (SIB). He had been diagnosed with autism, was verbal (vocally and with the aid of an augmentative communication device), and functioned in the mild range of mental retardation. Ben (5 years old) had been admitted for assessment and treatment of SIB. Ben was verbal and functioned in the moderate to severe range of mental retardation. Other than general developmental delays, he carried no other specific diagnoses at the time of admission. Adam (5 years old) had been admitted for assessment and treatment of aggression. Adam was nonverbal, had been diagnosed with autism, and functioned in the severe range of mental retardation.

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The caregivers consisted of the children's parents and grandparents. Each parent or grandparent was the custodial guardian. For Ralph and Ben, their biological mother served as caregiver. For Adam, his biological grandmother served as caregiver. All sessions were observed via video monitoring, with sessions conducted in a room equipped with work and leisure materials. Presence of clinic staff or caregiver varied across phases of the functional analysis.

Recording and Interobserver Agreement

For Ralph, data were recorded using a 6-s partial-interval recording system and are reported as percentage of intervals. For Ben and Adam, data were recorded on laptop computers using the "Observe" program (Communtech International) and are reported as responses per minute. All the data were collected by trained graduate students or behavior specialists. For Ralph, the target behaviors were aggression (hitting, kicking, pushing, or biting the therapist) and SIB (biting fingers). For Ben, the target behavior was SIB (slapping the side of his face with hand). For Adam, the target behavior was aggression (grabbing and twisting the therapist's arm). On at least 20% of sessions, two independent observers collected data, with agreement scores averaging above 90% (agreement scores are available upon request).

Experimental Design and Procedure

A multielement design was used to assess the effect of various environmental contingencies on behavior, with a reversal design used to evaluate the effect of different therapists.

Functional analysis. The functional analyses were based on those of Vollmer, Marcus, Ringdahl, and Roane (1995) and consisted of attention, tangible, escape, and control conditions for Ben and Adam. An alone condition was added to Ralph's analysis be-

cause sensory consequences were a possible maintaining variable. Sessions were 10 min in length for Ralph and 5 min in length for Ben and Adam. When the caregiver served as therapist, a clinic staff member remained in the room to provide coaching, but the caregivers provided all consequences for behavior. When a clinic therapist conducted the sessions, the caregiver was not present. The only change across phases was the presence of the caregiver delivering the consequences.

RESULTS AND DISCUSSION

The top panel of Figure 1 displays the results for Ralph. When Ralph's caregiver served as therapist, problem behavior was observed most frequently during the escape and tangible conditions ($M = 5\%$ during escape sessions; $M = 2\%$ during tangible sessions). His caregiver was then replaced with a staff member. During the ensuing sessions, problem behavior was rarely observed ($M = 0.2\%$ during escape sessions; $M = 0\%$ across all other conditions). An increase in problem behavior during escape sessions was correlated with Ralph's caregiver resuming her role as therapist ($M = 4\%$). A brief return to a staff member as therapist resulted in problem behavior decreasing to zero. Problem behavior occurred following a final return to caregiver as therapist ($M = 6\%$ during escape sessions).

The middle panel of Figure 1 displays the results for Ben. Initially, problem behavior occurred during the attention and escape conditions ($M = 0.8$ responses per minute during the attention condition and 0.7 during the escape condition). When a staff member replaced Ben's caregiver as therapist, problem behavior was observed only during the attention condition, but at a lower rate (0.4 vs. 0.8 responses per minute). A return to the caregiver as therapist resulted in problem behavior increasing during both the at-

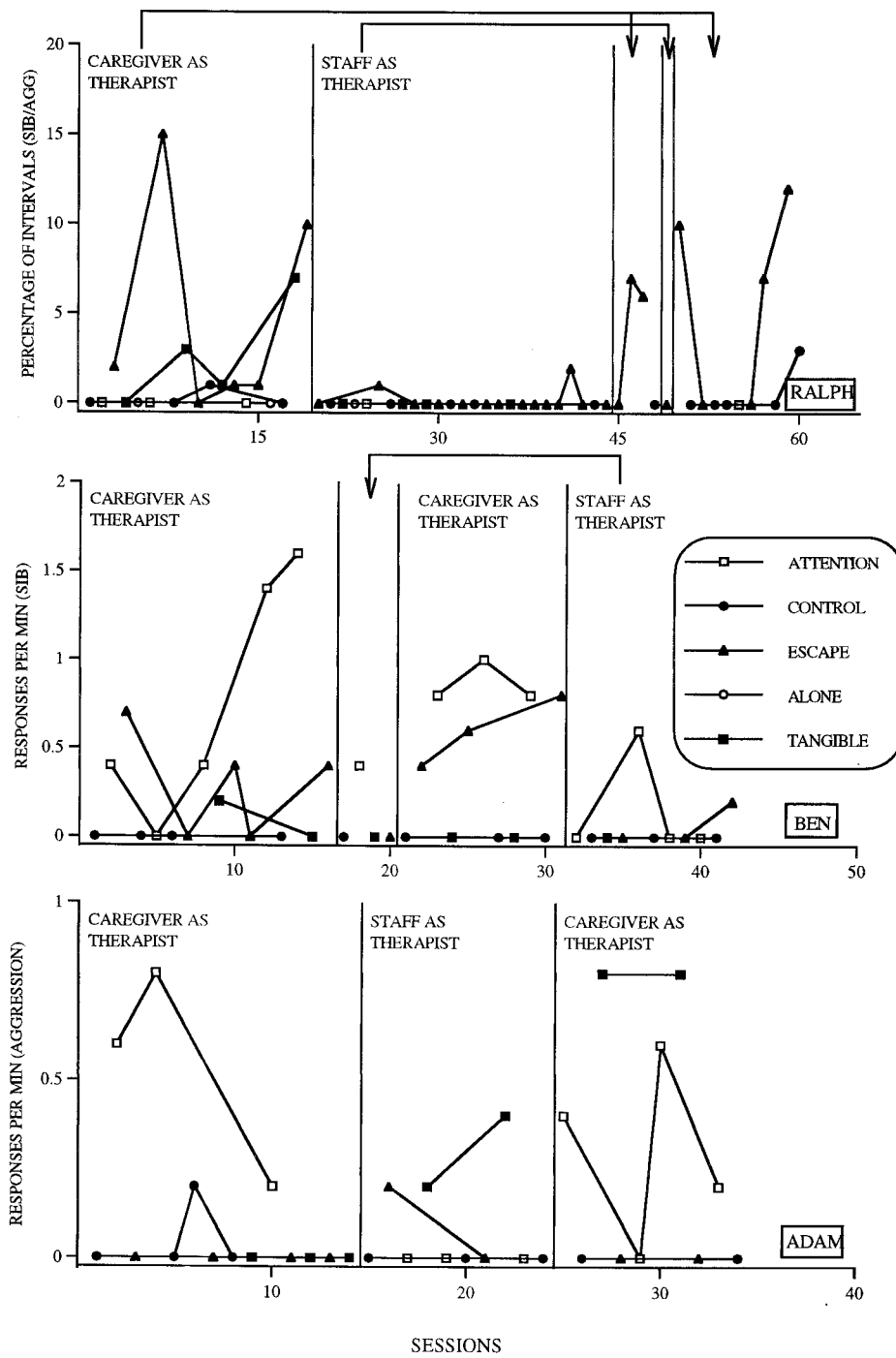


Figure 1. Percentage of intervals and number of responses per minute of problem behavior during functional analyses.

tention ($M = 0.9$ responses per minute) and escape ($M = 0.6$ responses per minute) conditions. During a return to a staff member as therapist, behavior decreased to near-zero levels ($M = 0.2$ during attention and 0.1 during escape).

The bottom panel of Figure 1 displays the results for Adam. Problem behavior was most frequently exhibited during the attention condition ($M = 0.5$ responses per minute) when Adam's caregiver served as therapist. During the staff phase, problem behavior was exhibited most frequently during the tangible condition ($M = 0.3$ responses per minute). A return to caregiver as therapist resulted in increased problem behavior during attention ($M = 0.3$ responses per minute) and tangible conditions ($M = 0.8$ responses per minute).

The results of this study demonstrated that problem behavior varied not only as a function of environmental contingencies (i.e., escape, attention, etc.) but also as a function of therapist. Specifically, problem behavior was more prevalent when a caregiver served as therapist during a functional analysis than when a staff member served as therapist. From a clinical standpoint, these results are important in that they demonstrate the importance of including caregivers when assessing behavioral function. The results of this study are not meant to imply that caregivers should always be included in the functional analysis. However, they do in-

dicating that the therapist may be one potential variable that needs to be evaluated.

From a conceptual standpoint, these results indicate that adults may serve as a discriminative stimulus for problem behavior. These findings should not be surprising given that the caregiver has presumably been correlated with the behavior and its environmental consequences. An alternative explanation may be that the presence of different adults (caregivers or staff members) altered the establishing operations relevant to the functional reinforcers. As a result, behavior was more likely to occur in the presence of the caregiver relative to the staff member. The brief nature of the current study does not allow for a definitive explanation, and may provide an area for future research.

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