

*ASSESSMENT AND TREATMENT OF ELOPEMENT:
A REPLICATION AND EXTENSION*

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The current investigation replicated and extended the assessment and treatment methodology of elopement. The environmental variables that maintained elopement were identified in each case, and successful treatments were implemented for the 3 participants in settings that were similar to those in which elopement occurred.

DESCRIPTORS: elopement, extinction, functional analysis, functional communication training, noncontingent reinforcement

Although elopement (running or walking away from a caregiver without consent) is a serious problem exhibited by individuals with developmental disabilities, there has been minimal research conducted on the assessment and treatment of this behavior. Piazza et al. (1997) conducted functional analyses and subsequent reinforcer assessments to identify the variables that maintained 3 participants' elopement. The current investigation conducted functional analyses and developed treatments for elopement based on the procedures described by Piazza et al. Moreover, all analyses were conducted in settings that resembled those in which elopement typically occurred and utilized the participants' primary caregivers as therapists.

METHOD

Participants and Setting

Three individuals participated. Ethan was a 6-year-old boy who had been diagnosed with Asperger's syndrome; Mick was a 28-year-old man who had been diagnosed with

profound mental retardation and a seizure disorder; and Robert was a 39-year-old man who had been diagnosed with severe mental retardation. Prior to treatment, all participants required constant supervision due to the severity of their elopement.

A caregiver (Ethan's mother and staff members for Mick and Robert) had been previously trained to serve as the therapist for the functional analysis based on the procedures described by Iwata et al. (2000). Prior to the treatment evaluations, caregiver training consisted of describing the sessions to the caregiver and conducting role-play. In addition, a bug-in-the-ear device (Ethan's mother) or vocal feedback (Mick's and Robert's staff) was used to maintain the integrity of the treatment procedures. During the treatment evaluation for Ethan, the experimenter initially served as the therapist, and treatment effects were subsequently generalized to the caregiver. For Mick and Robert, the caregivers served as the therapists during all analyses.

Based on caregiver reports, sessions were conducted in situations that were analogous to the typical setting in which elopement occurred. For Ethan, all sessions were conducted in an enclosed public area (e.g., indoor mall), and for Robert and Mick, sessions were conducted at a table in their vocational day program. All sessions were 10

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min in length, and four to eight sessions were conducted daily.

Response Measurement and Reliability

Frequency data were collected on the occurrence of elopement and communication. *Elopement* was defined as any movement away from the therapist more than 1.5 m without permission. *Communication* was defined as stating “toy store please” (Ethan) or handing a communication card to the therapist (Mick). A second observer independently collected reliability data during 35% of sessions. Agreement scores were calculated by dividing the length of the session into consecutive 10-s intervals and comparing observers’ records. The smaller number of responses was divided by the larger number of responses in each interval; these fractions were summed, divided by the total number of intervals in the session, and multiplied by 100%. Mean agreements for elopement for Ethan, Mick, and Robert during the functional analysis were 92%, 93%, and 95%, respectively. During the treatment evaluation, mean agreements on elopement were 95%, 97% and 93%, for Ethan, Mick, and Robert, respectively. Mean agreement for communication was 95% for Ethan and 99% for Mick.

Functional Analysis

A modified functional analysis was conducted based on the procedures described by Iwata, Dorsey, Slifer, Bauman, and Richman (1982/1994) and Piazza *et al.* (1997). However, an alone condition was omitted because the target behavior could not be emitted in the absence of another individual. In addition, during the demand condition, Robert and Mick completed vocational tasks (e.g., putting pegs in a board) using the standard three-step prompting hierarchy, whereas Ethan was presented with only vocal demands on a fixed-time (FT) 30-s schedule (e.g., “you need to walk with me”). The

functional analysis was conducted in a multiple-element design.

Across all conditions, participants were retrieved in the following manner. During the attention condition, contingent on elopement the therapist regained hand contact (Ethan) or guided the participant back to the table (Mick and Robert) while delivering reprimands such as “don’t run away, you may get lost.” During the tangible condition, contingent on elopement Ethan gained access to the toy store for 30 s and Mick received one potato chip. At the end of the respective reinforcement intervals, the therapist regained hand contact and guided Ethan out of the toy store or guided Mick back to his seat. During the control condition, the therapist regained hand contact at the next scheduled delivery of attention (attention was provided on an FT 30-s schedule during this condition). Finally, during the demand condition the therapist regained hand contact with the participant at the end of the 30-s escape interval.

Treatment Evaluation

Functional communication training (FCT) was implemented in a multiple baseline design for Ethan and Mick. During FCT, independent communication was differentially reinforced and elopement was blocked. Noncontingent reinforcement (NCR) was implemented within a reversal design for Robert. During NCR, Robert received continuous access to attention. Contingent on elopement, a 5-s changeover delay was implemented in which attention was delayed for 5 s and Robert was guided back to the table.

Confederate Procedure

Across all sessions, a confederate followed the participant at a distance to ensure that he remained safe during intervals in which the therapist was not attending. For all 3 participants, the primary safety concern was

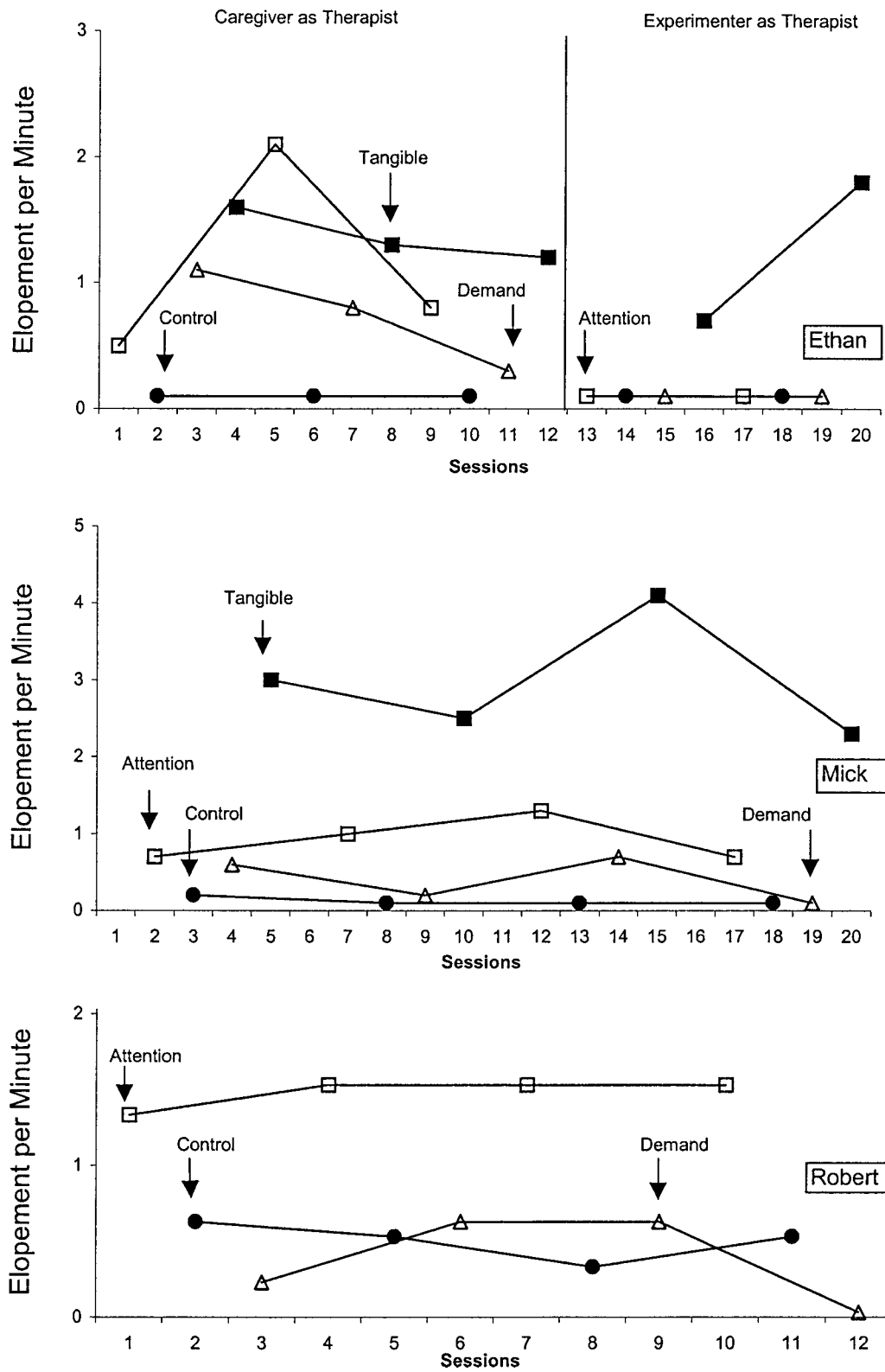


Figure 1. Elopement responses per minute during functional analyses for Ethan, Mick, and Robert.

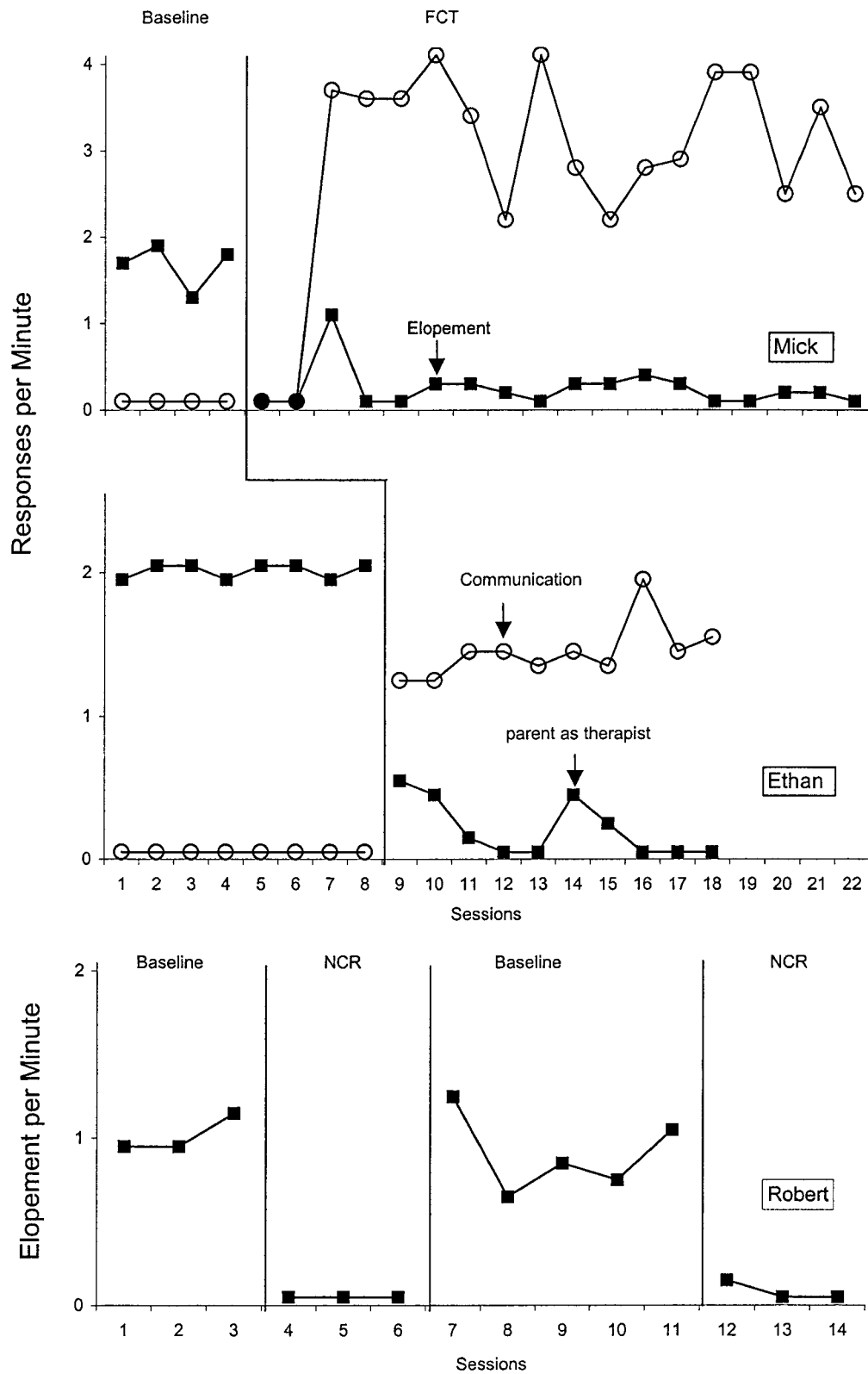


Figure 2. Elopement and communication responses per minute during the FCT analysis for Mick and Ethan, and elopement responses per minute during the NCR analysis for Robert.

exiting the building or coming in contact with an individual who was not involved in the experiment (e.g., a stranger may have confounded the results). It should be noted that the participants never attempted to exit the building and never made contact with a stranger. The confederates did, however, interact with individuals who were not involved in the investigation when it appeared that they were about to interact with the participants.

RESULTS AND DISCUSSION

Results of the initial functional analysis for Ethan revealed higher rates of elopement in the tangible condition ($M = 1.2$ responses per minute; top panel of Figure 1), suggesting that elopement was maintained by positive reinforcement in the form of access to the toy store. Results of the additional functional analysis sessions (conducted by the experimenter) supported the initial hypothesis ($M = 1.0$ responses per minute in the tangible condition). Mick demonstrated high levels of elopement during the tangible condition ($M = 2.8$ responses per minute; middle panel of Figure 1), and Robert demonstrated high rates of elopement during the attention condition ($M = 1.5$ responses per minute; bottom panel of Figure 1).

During baseline sessions of the treatment evaluation for Ethan and Mick, high levels of elopement ($M = 1.9$ and $M = 1.5$ responses per minute, respectively) and no communication were observed (Figure 2). Low levels of elopement were displayed by both participants during the treatment analysis ($M = 0.1$ and $M = 0.1$ responses per minute, respectively) and high levels of communication were observed ($M = 1.2$ and $M = 3.4$ responses per minute, respectively). During baseline sessions for Robert (Figure 2), high rates of elopement were observed ($M = 1.0$ responses per minute), and elopement did not occur during the initial NCR

phase ($M = 0$ responses per minute). These results were replicated during the reversals to baseline ($M = 0.9$ responses per minute) and NCR ($M = 0.03$ responses per minute).

The current results replicated the findings of Piazza et al. (1997) by demonstrating the effective assessment and treatment of elopement. Moreover, this investigation was conducted on an outpatient basis by caregivers in settings in which elopement typically occurred. Conducting assessment and treatment sessions under familiar stimulus conditions may take advantage of naturally occurring contingencies and may facilitate treatment generalization.

Retrieval of participants is an inherent limitation in a functional analysis of elopement, and may be a potential confounding effect in that retrieval is associated with attention delivery (e.g., physical contact). In the current investigation, sessions were designed to minimize this potential problem; specifically, there was never a period of more than 30 s in which the therapist did not have scheduled contact with the participant, and a confederate was present to ensure the participants' safety without the therapist providing unscheduled attention. Due to the operational definition of elopement, another limitation was the lack of a condition to test if elopement was maintained by automatic reinforcement.

It should be noted that slightly different results were achieved when the caregiver served as the therapist than when the experimenter served as the therapist during Ethan's functional analysis. It is possible that Ethan's history with his caregiver may have contributed to the lesser degree of differentiation during the sessions that the caregiver conducted. The potential influence of caregivers as therapists should be examined in future research.

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