

*FUNCTIONAL ANALYSIS AND TREATMENT OF
ELOPEMENT FOR A CHILD WITH ATTENTION
DEFICIT HYPERACTIVITY DISORDER*

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We conducted a functional analysis of elopement in an outdoor setting for a child with a diagnosis of attention deficit hyperactivity disorder. A subsequent treatment consisting of noncontingent attention and time-out was demonstrated to be effective in eliminating elopement. Modifications of functional analysis procedures associated with the occurrence of elopement in a natural setting are demonstrated.

DESCRIPTORS: elopement, functional analysis, attention deficit hyperactivity disorder, stimulant medication

Previous research on the treatment of elopement is limited, and treatments have rarely been based on functional analyses (Piazza et al., 1997; Tarbox, Wallace, & Williams, 2003). Piazza et al. conducted functional analyses of elopement for 3 children with developmental delays in a controlled experimental setting to reduce potential harm to the participants. However, it is unclear how representative of the natural environment such analogue conditions may be. Tarbox et al. conducted assessment and treatment for elopement in enclosed settings where the behavior naturally occurred, showing the efficacy of extending functional analysis methodology for elopement to a natural setting. Thus far, all assessment and treatment conditions in previous research on elopement have been conducted indoors, despite the fact that children may engage in elopement in outdoor settings. We conducted functional analysis and treatment procedures for elopement during an outdoor sports activity for a child with attention deficit hyperactivity disorder (ADHD).

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METHOD

Participants and Setting

Marie was a 5-year-old girl enrolled in a summer program for children with a diagnosis of ADHD and showed average intellectual functioning. The summer program included a kickball game in an open field each day. Eleven children participated in these games, and all experimental procedures were conducted in this setting.

Response Definitions and Data Collection

Elopement was defined as running more than 1 m away from the kicking area or designated base when it was not functional to the game. An instance of elopement began when Marie was 1 m or more away from the designated area and ended when she returned to the base or kicking area. In every instance in which Marie was retrieved, the therapist returned Marie to her designated area. All sessions were videotaped, and two independent observers subsequently recorded the duration of each occurrence of elopement. The total duration of elopement was then determined for each session and was divided by session length (5 min) to obtain a percentage of the session time that elopement occurred. Interobserver agreement was collected on duration of occurrence of elope-

ment for 25% of all sessions and averaged 97.2% (range, 92.5% to 100%).

Functional Analysis and Treatment

Attention, escape, and control conditions were conducted. Marie was required to be within 1 m of her designated game position (e.g., home or third base) and be oriented towards the game. This requirement was constant across all conditions. Staff members monitored the perimeter of a larger area surrounding the kickball game to prevent her (or any of the other children) from leaving the general area.

During the attention condition, after each occurrence of elopement, Marie was retrieved using physical guidance that included extensive contact (e.g., rubbing her shoulders and tickles). After being retrieved, the therapist made eye contact and provided a neutral verbal statement (e.g., "Marie, what are you doing?"). All other behaviors were ignored. The purpose of this condition was to evaluate verbal and physical attention as positive reinforcement for elopement. During the escape plus time-out condition, after elopement, Marie was retrieved and provided with the minimal amount of physical contact necessary to return her to the designated game area (e.g., one hand placed firmly on her arm while looking away). After retrieval, Marie was seated on the ground facing away from the game for 30 s. The therapist withheld eye contact and made no verbal statement following elopement. Escape sessions were extended in length by 30 s for each elopement. During the control condition, the therapist provided noncontingent attention (NCA) in the form of praise and tickles approximately every 30 s and ignored elopement. To remove the demand that she be engaged in the game (i.e., remain in the designated game position), Marie was not retrieved during this condition. The other staff on the perimeter of the field would have prevented her from leaving the larger

area, but this was never necessary. Rather, during this condition Marie returned to the designated area without physical guidance when elopement was ignored and NCA was provided. The purpose of this condition was to provide a control or comparison condition for the attention and escape conditions by providing attention noncontingently and removing the general task demand. Conditions were conducted in a multielement design.

The functional analysis indicated that elopement was reinforced by attention (see below). Therefore, the attention condition of the functional analysis was used as the treatment baseline. Treatment consisted of NCA and time-out contingent on elopement. NCA consisted of praise and tickles and was provided approximately every 15 s. Time-out consisted of 30 s in a penalty box (a 1.2 m by 1.2 m area used as a time-out area for any participant who engaged in problem behavior during the game). Marie could view the game from the penalty box but could not leave it, and all staff and peer attention was withheld.

RESULTS AND DISCUSSION

Figure 1 shows the results of the functional analysis and the treatment evaluation. The duration of elopement is presented as a percentage of each 5-min session. The duration of elopement was consistently higher in the attention condition and was always low in the escape and control conditions during the functional analysis. Initial treatment results show an immediate and substantial reduction in elopement. The results of a brief reversal to the attention condition were similar to baseline, and a return to treatment again resulted in very low levels of elopement, with no elopement occurring during the final six treatment sessions.

Overall results provide a systematic replication of the procedures of Piazza *et al.*

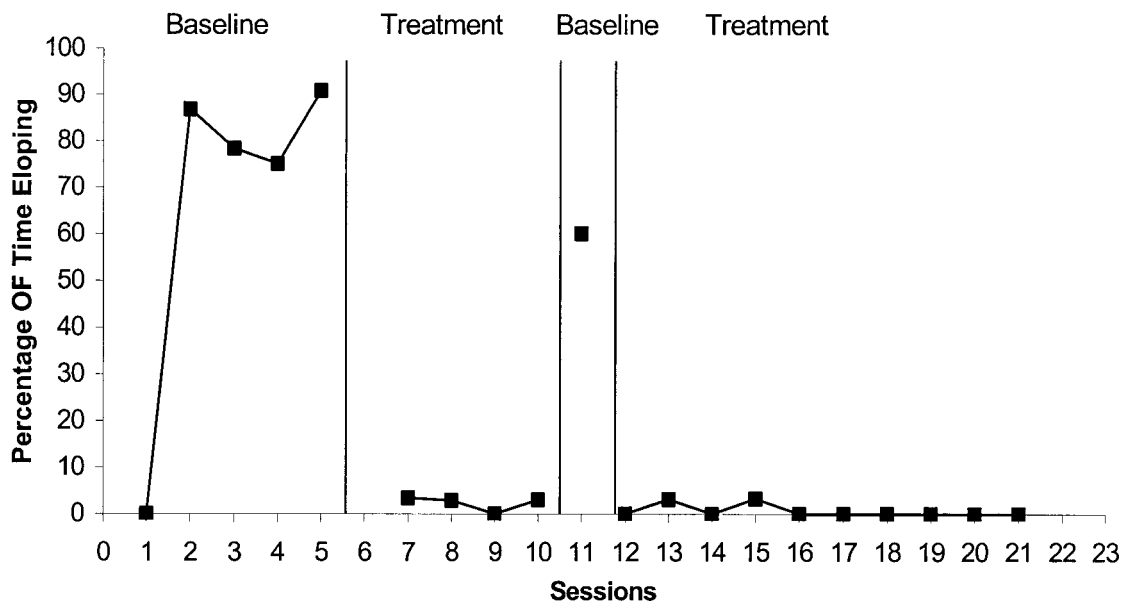
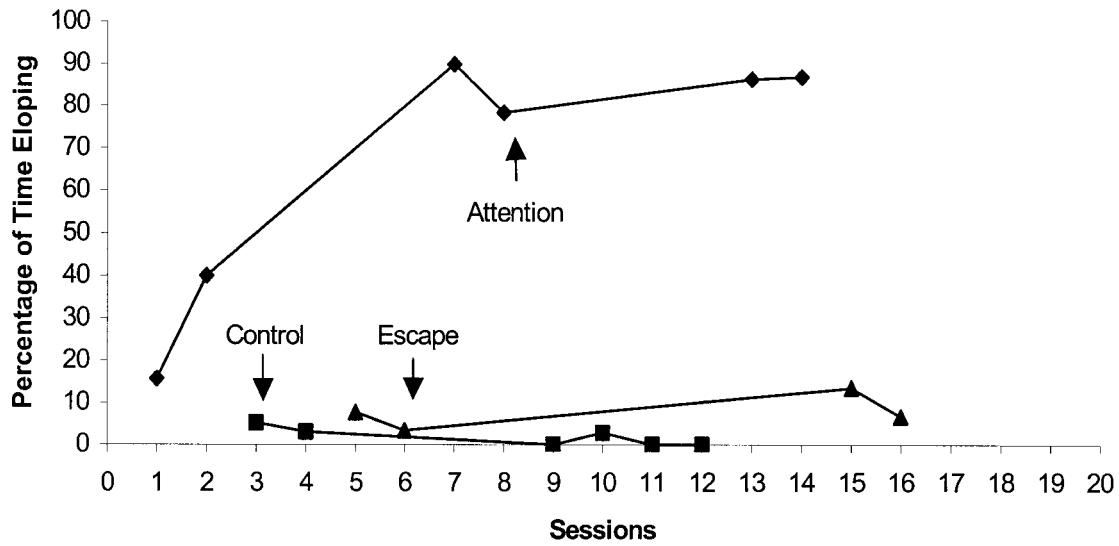


Figure 1. Duration of elopement, expressed as the percentage of session time, during the functional analysis (top panel) and treatment evaluation (bottom panel).

(1997). This study extends previous literature by demonstrating the potential to conduct modified functional analysis procedures for a child with ADHD in a natural setting in which elopement occurred. Results also replicated the findings of both Piazza et al.

and Tarbox et al. (2003) showing that NCA can be an effective treatment for elopement. The current study's treatment consisted of both NCA and time-out; therefore, it is not possible to evaluate the separate effects of each of these components. Future research

should evaluate what components of treatment are most effective in reducing elopement. One limitation of this study is that it is difficult to quantify precisely the attributes of attention such as eye contact, tickles, and maximal and minimal physical contact. Similarly, it might have been preferable to retrieve Marie during the control condition so that a minimal amount of physical contact would have been constant across conditions. Future research might focus on further extending functional analysis and treatment methods for elopement to other naturalistic

settings and populations to further extend the generality of results.

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- Received February 5, 2003*
Final acceptance February 17, 2004
Action Editor, Mark O'Reilly