



Implementing an Incentive System as Part of a Treatment Package for Elimination Disorders

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Introduction

- Incentive systems used in the treatment of Elimination Disorders are typically set up to positively reinforce children for having dry nights or bowel movements in the toilet (Friman & Jones, 1998).
- While incentive systems are recommended in reviews of the literature, very few authors describe in detail how to pair rewards with other Elimination Disorder treatment components.
- The purpose of this study is to demonstrate how simple reward or incentive systems can be used in conjunction with standard treatment components for children with nocturnal enuresis (NE) or functional encopresis (FE).
- Specifically, we examined the effectiveness of individualized reward systems for children with NE or FE who did not respond to a standard treatment package initially presented without a reward.

Method

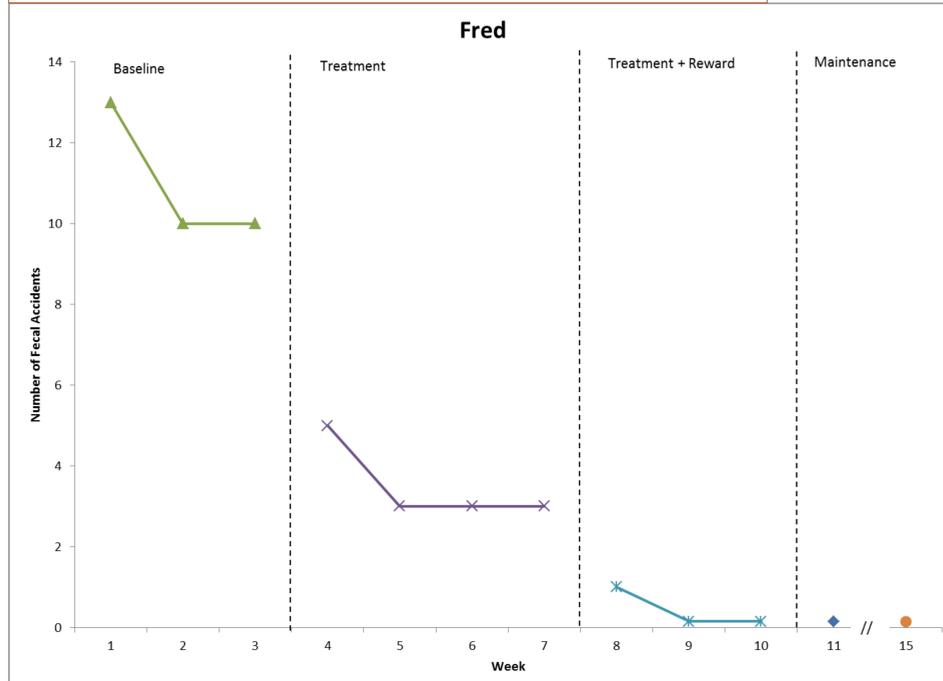
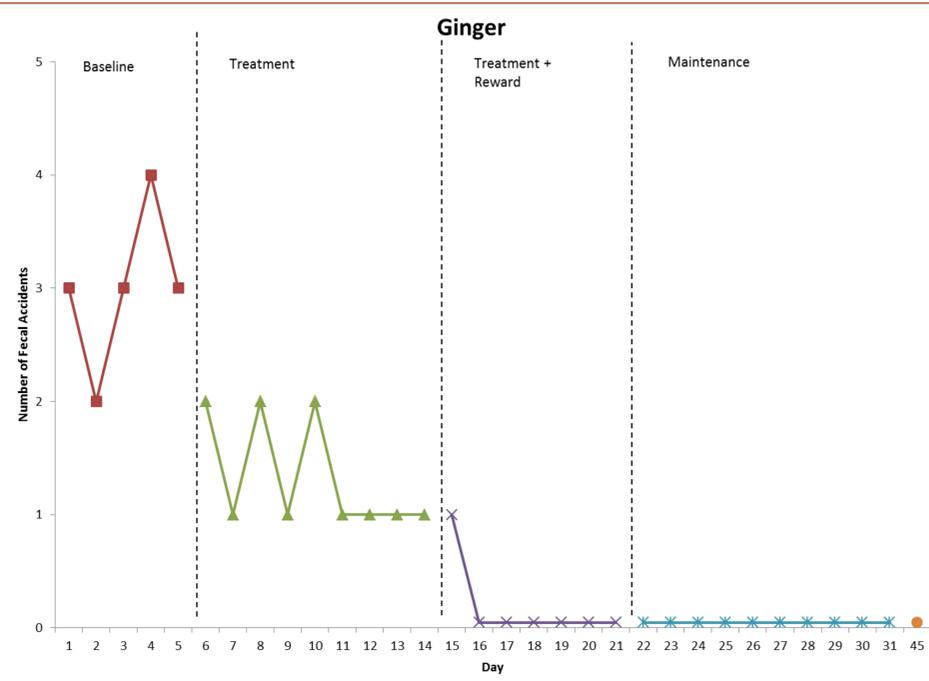
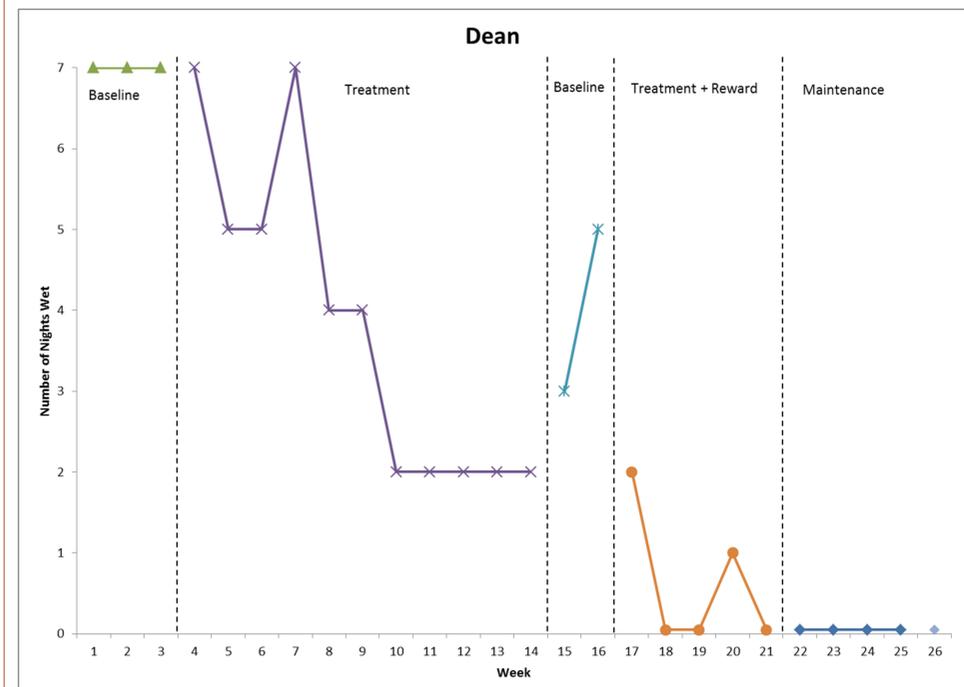
- Participants were three 7-year-old children referred to an outpatient clinic by their primary care physician. All were typically developing children with cognitive abilities estimated in the average to above average range.
- Dean: Nocturnal Enuresis; never achieved nighttime urinary continence
- Ginger: Functional Encopresis; constipation managed with Miralax
- Fred: Functional Encopresis; constipation managed with Miralax
- Following baseline, each participant was exposed to a standard treatment package.
- NE: urine alarm + responsibility training (i.e., child takes responsibility for changing and washing sheets & clothes)
- FE: Miralax + regularly scheduled toilet sits at home & school (1-min., several times per hour) + responsibility training + increases in fluids/fiber.

Method (continued)

- When standard treatment package failed to sufficiently decrease frequency of nighttime wetting or fecal accidents, an individualized incentive system was developed.
- Incentive systems rewarded participants for dry nights or successful bowel movements in the toilet.
- There were no negative consequences (i.e., punishment) for wet nights or fecal accidents.
- Dean
 - Dot-to-Dot reward system was implemented whereby Dean was allowed to connect two dots for each dry night.
 - When all the dots were connected, he earned the prize.
- Fred
 - A tangible version of the Dot-to-Dot reward system was used with Fred.
 - Instead of connecting dots, Fred earned 1-8 Lego® pieces for every successful bowel movement in the toilet. Each piece was put together to make a larger Lego® kit (i.e., Space Shuttle). Dean's father determined how many pieces were earned based on piece size and importance to the set.
- Ginger
 - A Grab-Bag reward system was implemented whereby Ginger earned one "pull" from the bag following a successful bowel movement in the toilet.
 - Rewards in the Grab-Bag included tangible items (e.g., toys, candy, pictures printed off from computer) and extra privileges (e.g., time on iPad, television viewing).
 - There were fewer "big ticket" items (e.g., doll, sleepover).

Method (continued)

- For Fred & Ginger, an ABCA design was used to measure the effects of the interventions. For Dean, an ABACA design was used.
- Reliability of the dependent variables was assessed by having both parents and the child separately record fecal accidents or wet nights. Interobserver agreement was 100%.
- Treatment fidelity was assessed by having both parents and the child separately complete an intervention protocol checklist. TF was 100%.



Results & Discussion

- Individualized incentive systems, implemented as part of a standard treatment for NE or FE, helped reduce the frequency of fecal accidents or wet nights to zero levels for all participants.
- Results suggest that combining an incentive system with commonly prescribed interventions can have a profound influence on clinical outcomes for children with elimination disorders who do not respond fully to standard treatment packages.
- Furthermore, social acceptability questionnaires completed by parents and participants found the incentive systems easy to implement and important in the overall intervention.
- Keeping children motivated to continue participating in treatment is especially important when targeting NE or FE, as these treatments frequently involve many components and require the child to engage in several effortful behaviors.
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