Short-Term Treatment of Children With Encopresis

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To examine the effectiveness of a short-term behavioral treatment of encopresis, 52 encopretic children were evaluated and treated according to a standardized protocol. The treatment was highly effective, with a significant decrease in soiling during the first month (P<0.01). Of the children who began treatment, 84.6% successfully reached the criterion of 2 consecutive weeks with no soiling accidents in a mean time of 28 days, and 78.8% successfully completed an additional 7-week phaseout period. The evaluations provided rich descriptive information regarding the characteristics of encopretic children. In agreement with the literature, no specific pattern of behavioral pathology was apparent.

Encopresis in childhood and adolescence is a disabling condition that can result in both physiological and psychological distress. Parents are angered by the problem, teachers are repelled, and peers often ridicule the child who soils. This leaves the encopretic patient feeling ashamed, frustrated, and helpless in response to persistent fecal soiling. Specifically, there is evidence that children with encopresis have diminished self-esteem, and associated familial and behavioral problems. Although the distress and turmoil associated with encopresis have long been recognized, research suggests no characteristic pattern of behavioral pathology related to encopresis. Further, research has not established the etiology of encopresis, although psychodynamic, medical, and learning models are those most often cited.

From the psychodynamic perspective, encopresis traditionally has been conceptualized as a highly intractable symptom signifying serious emotional psychopathology and requiring long-term treatment. However, in the more recent work of behaviorally oriented clinicians and pediatric gastroenterologists, short-term treatments have been reported as effective. Some of these short-term treatments have included contact with a mental health professional, but others have

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involved only the pediatrician or pediatric gastroenterologist.

Our article describes clinical evidence supporting a short-term treatment for encopresis in children. We review the treatment program and the clinical evaluations of children who were treated for encopresis in order to provide a descriptive characterization of these patients.

Presentation of Encopretic Patients

Forty-nine male (mean age=7.6 years) and three female (mean age=10.3 years) children between 3 and 17 years of age participated in the treatment program. This predominance of male encopretics is consistent with previous research.\textsuperscript{2,15,16} The mean age of patients is somewhat older than that reported in the literature.\textsuperscript{15} The two subjects under 4 years of age might have been considered to have immediate training problems due to their age, rather than functional encopresis; however, they were accepted into the treatment program after the evaluative process indicated that they displayed similar characteristics to young encopretic children. Inclusion criteria for treatment were persistent fecal soiling in places not appropriate for that purpose, with at least one such event per week. Soiling had to be functional in nature with no apparent organic cause such as neurogenic megacolon or anatomic megacolon. There were no additional exclusion criteria. All of the children had primary encopresis, and none had gone for more than 6 months without a soiling accident. Only four of the children had no history of previous medical treatment efforts for soiling with either a family practitioner or a pediatric gastroenterologist. All of the children were outpatients referred consecutively to the Encopresis Service of Schneider Children’s Hospital of Long Island Jewish Medical Center from the New York metropolitan and Long Island communities between January 1986 and December 1988 with a presenting problem of fecal soiling.

Three of the patients in the treatment program maintained prior ongoing therapy for other behavior- or school-related problems throughout their treatment at the Encopresis Service. Two patients were referred for family treatment in addition to the Encopresis Service, and one of the two was also referred to child protective services for physical abuse. No adjunctive therapy was offered to the other patients. Approximately half of the patients had prior psychological treatment with soiling as a presenting problem. This may have skewed this population to be more difficult treatment cases than the norm and may explain the older mean age of this population.

Upon medical examination, 44 of the children were retentive (or constipated), and 25% (13 patients) were impacted (i.e., having a hard immovable mass of stool in the colon) and required cleansing enemas. The younger patients reported having large stools that were painful to pass. For three of these patients, the pain was associated with a reported fear of toileting. The majority of encopretics ages 6 years and older reported that they had trouble sensing the need to defecate and had difficulty distinguishing gas from defecation. They often denied knowing whether or not they had had an accident until it was pointed out to them.

There seemed to be two subgroups of children who did not recognize when they had soiled. For some children in this sample, this appeared to be a defensive avoidance or denial of the problem. Such children also tended to hide their soiled underclothes. Conversely, other children readily cooperated in cleaning themselves when they were shown that they had soiled. While recent research suggests that encopretics do not have impaired rectal sensation,\textsuperscript{17} for the cooperative children there may be a diminished perception of soiling due to habituation to the symptom.

Usually, soiling was reported as occurring at home in the late afternoon or early evening. Only two patients reported having
accidents while asleep; one of the two soiled exclusively while asleep. Sixteen patients reported having accidents in school at least once in the past academic year, and almost all the patients reported at least one episode of soiling in a public place. Although it usually occurred in the home, soiling rarely was related to a particular preceding event such as stress, anger, excitement, or exhaustion. Further, there was no characteristic history of stressful events occurring around bowel training; as might be expected, however, parents often reported that their encopretic child either was slow to train or was difficult to train. Sixteen patients (30.1%) also presented with nocturnal enuresis, and eight of these had diurnal enuresis as well.

A clinical evaluation was performed consisting of a psychological evaluation, a structured encopresis interview, and an open-ended psychosocial history and mental status exam performed by a board-certified child and adolescent psychiatrist. The encopresis interview (G. Fireman and R.S. Wilner 1986, unpublished) contains questions concerning bowel and bladder functioning; diet; family and social behavior, beliefs, and interactions concerning the symptom; other problem areas for child and family; and therapeutic goals.

The evaluation revealed no consistent clusters of associated behavior problems or concomitant diagnoses, and only a few patients presented with severe behavior problems. One 7-year-old male had a nonrelated congenital abnormality, a 16-year-old male was in concurrent treatment for substance abuse, and a 9-year-old male smeared his feces on walls and furniture in the home. The most frequent problems reported were learning disabilities; however, slightly less than 10% of the patients required special education classes. Most of the patients reported some degree of social difficulty with peers attributable to the encopresis. While some would initially deny being troubled by the symptom (some of the younger patients would even deny having encopresis), upon further contact most children complained of distress, sadness, and embarrassment in relation to the symptom. They would also recite the numerous advantages they foresaw in not soiling (such as reduced tension in the home, no discomfort, wearing light-colored clothes, feeling better about themselves, not getting teased). However, older encopretics, having lived with the symptom for years, were often skeptical regarding the efficacy of the treatment program. Despite this skepticism or an initial denial of the problem, most children said they were highly motivated for treatment.

Parents tended to view their encopretic child as stubborn and immature, and they often perceived the encopresis as due to some underlying emotional problem. However, many parents also reported that if this symptom were removed there would be no other significant psychological problems with the child. Parents seemed to associate a wide range of problems with their child and in their family to the child's soiling. As a result, parents often maintained the belief that the "cure" of their child's soiling would resolve or greatly diminish other problems in the household. Although families often displayed poor communication concerning the symptom, there were no characteristic patterns of family pathology. Clearly upset by the problem, almost all parents reported at least one episode in which they lost control, used corporal punishment, or yelled in response to an incident of soiling. Parents were particularly upset when their child denied having soiled and when hidden underwear was found. All parents were troubled by the odor of the feces and by the frequent cleaning of soiled clothing.

**Treatment**

Parents were asked to record baseline data on the patient's frequency of soiling for 2 weeks prior to the first treatment contact. The treatment program involved one visit with a pediatric gastroenterologist for a physical
examination to rule out organic causes and to prescribe the procedure to remove impaction when necessary. Next, the patient was seen by a board-certified child and adolescent psychiatrist for the psychosocial history and mental status exam. After this visit, the patient was given three appointments with a behaviorally trained therapist at approximately 1-week intervals.

The first visit consisted of an extensive information-gathering interview. This included additional psychosocial history and a detailed history of the symptom. In addition, parents and child were provided with information regarding the etiology, incidence, and characteristic problems of living with encopresis.

During the second visit, the therapist described proper nutrition to aid defecation. Then, with the aid of baseline data and information regarding the family's daily routine, a daily toileting schedule was developed. The child was to receive material rewards for defecation at the scheduled time and for having no soils throughout the day. When accidents occurred, the child was to be responsible for cleaning soiled clothes, and a penalty was to be imposed.

The specific reinforcements were determined individually through a therapist-mediated discussion between the parent and the child. Some typical rewards were money, special foods, baseball cards, and selected activities with a parent. Penalties were restricted to actions that would not interfere with prosocial development. Examples of acceptable penalties that were chosen are reduction in television time, required readings, and added chores. While the use of penalties is controversial regarding its therapeutic value for children, it was included as a means to control, direct, and minimize parental anger and frustration toward the child for the symptom. When the child was unable to defecate, laxatives or suppositories could be used. Parents and child were instructed to keep a daily record of toileting and soiling behavior.

The third visit was to review the events of the first week of the treatment program and resolve any difficulties or misunderstandings that may have occurred. After the third visit, parents maintained the prescribed treatment plan with the support of weekly telephone contact to maintain compliance and motivation (G. Fireman and R.S. Wilner 1986, unpublished). Additional psychotherapy was used only in the cases of the three children who continued in ongoing treatment and the two children mentioned above who were referred for supplementary family treatment.

A criterion of 2 consecutive weeks with no accidents was required before the gradual phasing out of treatment could be initiated. During phaseout, the patient had to remain accident free for 7 additional weeks after meeting the criterion. Thus, the minimum time to completion of treatment was 9 weeks after the second therapy visit. If an accident occurred during phaseout, the patient was required to add 2 additional weeks without accidents to the phaseout period. If more than one accident occurred, the patient had to restart the program. If a patient did not reach the criterion after 3 months, he or she was referred for additional treatment.

**Treatment Results**

Parents were asked to record on a calendar a base rate of soiling for the 2 weeks prior to treatment (first contact with the behavior therapist). The base rate ranged from 2 accidents per week to 3 accidents per day (mean=17.1 per 14 days, SD=11.6). During the first 2 weeks of treatment the mean number of soils decreased to 3.1 soils over 2 weeks (SD=3.2), and during the next 2 weeks the number of soiling accidents dropped to a mean of 1.8 (SD=2.8); see Figure 1. A multiple analysis of variance (time by treatment) indicated that there was a significant decrease in soiling in the first month of treatment: $F(2,102) = 80.9$, $P < 0.01$. This decrease in soiling behavior was significant from base rate to the first 2 weeks of treatment: $F(1,51) = 76.02$, $P < 0.01$, and from the end of the first
FIGURE 1. Mean number of soils

![Graph showing mean number of soils over time.]

2 weeks pretreatment: 17.1
Treatment weeks 1 – 2: 3.1
Treatment weeks 3 – 4: 1.8

FIGURE 2. Number of patients at each phase of treatment

![Graph showing number of patients at each phase of treatment.]

Entered treatment: 52
Completed treatment: 47
Reached criterion: 44
Completed phaseout: 41
2 weeks to the second 2 weeks of treatment: 
\( F(1,51) = 11.27, P < 0.01. \)

Of the 52 patients who began treatment, 5 patients (9.6%) prematurely dropped out of treatment (see Figure 2). The reasons given for dropping treatment were unique to each family (e.g., family illness, reported satisfaction with partial success), and there were no common characteristics that distinguished these families from the rest of the population. The rate of 9.6% is low compared with dropout rates for other treatments of childhood and adolescent problems.\(^8\) Although it is difficult to provide an explanation for this low rate given the multiple factors involved in the premature termination of treatment, a probable factor is the extremely brief nature of the intervention.

In the remaining 47 patients, only 3 (6.6%) did not reach the criterion within the 3-month time period. These patients, too, had no common characteristics that distinguished them from the rest of the population. However, each of these 3 patients was soiling less often than when he started treatment. One patient went from 3 soils a week to 1 soil every other week, and another patient reduced his soiling from once a day to once every other week. The third and most dramatic case was a 9-year-old male who began the program by soiling 3 or more times a day and smearing his feces on walls and furniture. After 3 months of treatment in conjunction with his private ongoing long-term treatment, he had reduced his soiling to once per week and was no longer smearing his feces. Thus, 84.6% (\( n = 44 \)) of all those who began treatment successfully reached the criterion of 2 consecutive weeks with no soiling accidents. The mean time needed by the patients to reach the criterion was 28 days (SD = 15.08).

Two patients who reached the criterion subsequently dropped out of treatment during the phaseout period. The parents felt that their children were cured and therefore no longer needed weekly telephone contact. One 6-year-old male patient did not successfully complete the phaseout period. He began the treatment soiling 3 times a week and reached the criterion in 42 days, but then began soiling once every other week for the next 5 months. The family was offered additional treatment, which they declined, reasoning that the patient’s accidents were infrequent and primarily “just slight smudges.” The remaining 41 patients (78.8% of those who began treatment) successfully completed the phaseout period in a mean time of 80.8 days (SD = 53.3). Thus, the total treatment time after the second visit was a mean of 108.8 days (SD = 59.15). With such a high rate of completion, there were no significant differences in success rate according to age, frequency of soiling, or presence of impaction.

A small follow-up telephone contact was conducted approximately 1 year after treatment with 15 randomly selected patients who had successfully completed treatment; at that time, 14 patients had remained soil free and 1 patient continued to soil on an occasional basis (once every 2 to 3 weeks). Five of the children in the follow-up sample had been impacted, and none of these children had relapsed. The one child who continued to have difficulties had been a constipated frequent soiler without impaction. The specific factors contributing to continued soiling are difficult to extrapolate given information on only one child.

**Discussion**

With this behaviorally based short-term treatment program, there was a dramatic reduction in soiling from the base rate to the first 2 weeks of treatment, and this decrease continued during the subsequent weeks in treatment. Although the initial reduction in soiling was most likely due to increased attention and pharmacological intervention (i.e., cleansing enemas, laxatives), these seem insufficient in explaining the children’s continued reduction of soiling and eventual maintenance of soil-free behavior. Forty-one...
of the children who began treatment successfully concluded the extended phaseout period of treatment. This seems important when we consider that all but 2 of these patients reported previous treatment efforts, none of which resulted in cessation of soiling for more than 3 weeks. It seems that, as in earlier studies of short-term treatments,\textsuperscript{14,19} the children’s continued success may be due to their education regarding the symptom, improved family communication about the symptom, and the principles of behavioral reinforcement and self-monitoring.

Regarding the descriptive analysis, there were no related concordant diagnoses and no evident associated clinical patterns. Although there were reports of poor communication regarding the symptom, denial of the symptom, stubbornness, and delayed toilet training, the patients and their parents did not consistently report other significant behavioral or interpersonal concerns. Rather, as found in prior studies,\textsuperscript{4} they presented with a range of minor psychological problems. While troublesome, these problems lacked the severity to require specific treatment interventions.

The diversity of underlying psychological causes of encopresis typically reported in the literature may be the result of the broad range of associated features presented by this population. From this sample, there appears to be no single pathological cluster associated with the encopretic child. Further, once a pattern of retention and soiling is established, the importance of physiological factors cannot be overlooked. Regardless of what the underlying causes of encopresis may be, however, the behavioral antecedents maintaining the problem need to be identified and an effective structured treatment initiated.

This short-term treatment program, which can be administered either by a mental health professional or a physician with training in learning principles, alleviated soiling in an average of 28 days. While the indication for short-term treatment of encopresis is positive, the question must be raised regarding what treatment factors and their integration are operative in alleviating the symptom. Further study, including experimental control, comparison to other treatment strategies, and comprehensive follow-up, is needed for a more complete characterization of encopresis and its effective treatment.

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References