Acta Academica 2001 33(2): 110-126

Stefanie Badenhorst, Gertie Pretorius & Anita Stuart

Encopresis: a holistic approach

Summary

Encopresis is an often under-reported and poorly researched complexity. Earlier treatment followed either a medical or a psychological approach, with little acknowledgement of the social factors involved. Only recently has the biopsychosocial model been recognised. The purpose of this study was to evaluate the effectiveness of the holistic treatment model with regard to the prevalence of encopresis, depressive symptomatology, parental involvement and the self-image of the children. The experimental group received treatment during the study while the control group received treatment only after completion of the post-tests. The study demonstrated a relatively high success rate using the holistic treatment approach.

Enkoprese: 'n holistiese benadering

Enkoprese is 'n dikwels ongerapporteerde en min nagevorsde kompleksiteit. Vroeëre behandeling is oorsaaklik terugherlei na die mediese of die sielkundige verklaringsmodelle. Sosiale faktore is meestal misken totdat 'n klemverskuiwing na die biopsigososiale benadering plaasgevind het. Die navorsingsdoel was om die effektiwiteit van 'n holistiese benadering te evalueer ten opsigte van die voorkoms van enkoprese, depressie-simptome, ouerlike betrokkenheid en selfbeeld van die kind. Die eksperimentele groep het die terapeutiese intervensie ontvang terwyl die kontrolegroep slegs na voltooiing van natoetsing die terapie ontvang het. Die natoetsingresultate dui op 'n hoë suksessyfer met die holistiese terapeutiese benadering.

Ms S Badenhorst, 5 Scholtz St, Strand 7140; Prof H G Pretorius & Prof A D Stuart, Dept of Psychology, Rand Afrikaans University, P O Box 524, Auckland Park 2006; E-mail: rpr@lw.rau.ac.za

Encopresis or faecal soiling can be described as a gastro-intestinal disorder resulting in the voluntary or involuntary passage of stool in the clothes (Barker 1988: 191), or other inappropriate places (Levine 1975: 412; Seth & Heyman 1994: 621). In children, the onset usually occurs after bowel control has been established (Bakwin & Bakwin 1972: 544) at approximately three to four years of age (Chaney 1995: 360). When a child has previously learned regular control but discontinues this behaviour, the condition is referred to as secondary encopresis; when a child has never achieved bowel control, it is labelled primary encopresis (Waksman 1983: 271). According to the DSM-IV (American Psychiatric Association 1994), the problem has to occur at least once a month for at least three months before a diagnosis of encopresis can be made.

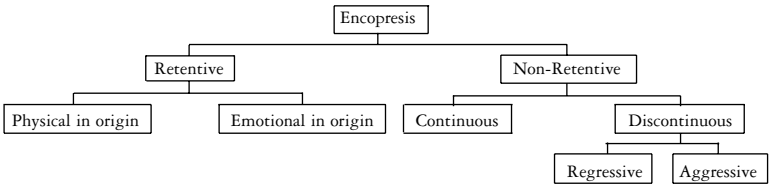
Encopresis is a perplexing problem for many parents, paediatricians, teachers and mental health specialists. Experience indicates that parents often think their child's condition is unique. However, studies reveal that encopresis is prevalent in up to 3% of the general paediatric population, with boys being affected three to four times more than girls (Levine 1975: 412-413; Stark *et al* 1997: 620). Even at 10 to 12 years of age, more than one child in every 100 will present with a soiling problem (Buchanan 1992: 2). As a result of the humiliating nature of the problem, the condition is probably more under-reported than is generally recognised.

1. Literature review

The causes of encopresis are many and varied, and it is often difficult to distinguish between the primary and secondary causative factors. Encopresis is often accompanied by constipation (Fritzgerald 1975: 348-9) and may be caused by organic disorders such as Hirschsprung's disease, other illnesses or neurological abnormalities. Eighty percent of all encopretic cases are characterised by chronic constipation, stool impaction and leakage of faecal material (Buchanan 1992: 2). Retention of stool may have a psychological or a physiological (medical) explanation. Various opinions exist on the causes of constipation. It may result from a number of factors, such as learned behaviour during toilet training, a genetic predisposition towards decreased bowel mo-

tility, food intolerance, certain medication, or such disorders as anal sphincter abnormalities (Loening-Baucke 1984: 1300-2). For ease of reference the different types of encopresis are illustrated in Figure 1.

Figure 1: The etiology of soiling in children (Barker, 1988:192)



Non-retentive encopresis can be continuous, when bowel control has never been established, or discontinuous, when soiling starts after a period of successful bowel control. Continuous encopresis often occurs in children who are poorly cared for and who lack proper toilet training (Barker 1988: 190-2). Neurological problems may also be associated with non-retentive encopresis (Buchanan 1992: 89). Discontinuous encopresis is usually caused by emotional factors and may manifest itself as either "regressive" or "aggressive" behaviour. The problem is often associated with disturbed relationships (Barker 1988: 192), with stressful events such as the loss of a parent, the birth of a sibling, a traumatic entry into school (Levine 1975: 413-4) or with early negative bowel-related experiences (Buchanan 1992: 99). Other behavioural aspects such as eating habits and toilet routine may aggravate the problem (Clayden & Agnarsson 1991: 63-7). The etiology of encopresis is best understood as an interaction of multiple physiological and psychological factors (Stark *et al* 1997: 620-2) within the social system (Lindenbaum & Clark 1983: 452-4). The forces in the family, school and other social systems may lead to the creation or maintenance of the problem (Lindenbaum & Clark 1983: 449).

In trying to control the soiling problem, the parents may restrict the child's social interaction by depriving it of contact with friends, school outings or family holidays (Dawson *et al* 1990: 183). Parents often experience the soiling problem as an embarrassment, and view the child's behaviour as intentional and naughty. Family relationships are strained because of anger, frustration, disgust and shame. This is experienced not only by the parents, but also by the child (Silver 1996: 417). It is hard to imagine a social or physical problem

more devastating to the child's sense of personal worth and dignity than the inability to control one of the most basic of human functions. A child who has a soiling problem lives in fear of losing control of his bowels and will therefore "hold on" in an attempt to solve his problem, which results in further soiling (Buchanan 1992: 123-5). It is not surprising that many children with a soiling problem become withdrawn from social situations. The consequences of soiling can therefore have a significant effect on a child's social and emotional development.

Soiling problems in children are difficult conditions to deal with from a professional point of view. Interventions have typically followed either a medical or a psychological approach. The medical intervention includes rectal clean-out and/or stool softeners (Schmitt & Mauro 1992: 224-8) as well as bio-feedback training (Iwata *et al* 1995: 232-4; Loening-Baucke 1990: 218-22). Additional behavioural interventions of daily routine and dietary adjustment combined with positive reinforcement may also form part of the treatment (Nabors & Morgan 1995: 49-51; Wright & Walker 1977: 1043-5). Psychological intervention focuses on a behavioural approach with positive reinforcement of appropriate behaviour as well as components of negative consequences (Stark *et al* 1990: 175-8). Other therapeutic methods include non-directive play therapy (Cuddy-Casey 1997: 221-3), cognitive behavioural play therapy (Knell & Moore 1990: 55-6), hypnotherapy, as well as the use of metaphors (Wynne 1987: 12-5). Rarely have medical and psychological treatment approaches included or integrated components of each other's treatments. Referrals for psychological intervention are typically made after a succession of medical failures (Stark *et al* 1997: 620-1). The use of either medical or psychological intervention alone is not always effective (Reimers 1996: 470). Studies in specialised centres report treatment successes in only two-thirds of cases (Berg & Vernon-Jones 1964: 466).

A combined approach towards managing encopresis tends to be the exception rather than the rule, despite evidence in the research literature of a higher success rate with combined medical and behavioural efforts (Reimers 1996: 470-6; Stark *et al* 1997: 630-2). Other approaches promote additional individual and family therapy (Dawson *et al* 1990: 185-9). Despite the fact that encopresis is a problem

which causes great distress, and which is relatively common and often resistant to treatment, there has been comparatively little research on the subject. There is a need for the development of effective treatment models and evaluation of such models.

2. Aims and objectives of the study

For the purposes of this study, the focus was on children with a gastro-intestinal disorder, specifically psychogenic encopresis. Even with positive evidence of stress and emotional conflict as causative factors of encopresis, the possibility of organic disease still exists (Steinhauer 1990: 330-2), and this was therefore included in the research.

The aim of this study was to develop an effective treatment model in an effort to save the child from unsuccessful exposure to various treatment remedies. The specific aim was to develop a holistic intervention approach, taking into account various approaches, not only the medical approach. Furthermore, the aim was to apply this holistic approach and to evaluate the success rate of the intervention regarding encopretic occurrence, depressive symptomatology, parental involvement and self-image. The information gained may allow comparison with existing treatment models and encourage further research into encopresis. In the following section the nature of the holistic treatment intervention will be discussed.

3. Holistic treatment intervention

The intervention developed by the researcher for this study involves an initial interview, assessment (a battery of tests as discussed below) and treatment processes. These components are inseparable. In most cases, six to eight sessions were necessary to complete the therapy. A one-month follow-up appointment was arranged, followed by another three months.

During the initial interview the biographical questionnaire was completed (see section on Measuring Instruments) by the therapist with the co-operation of the parents and in the case of older children, the subjects' own input. In all cases the child involved is usually present as it is important for him/her to understand the purpose of the

visit and the process. In the initial interview the procedures are explained to the family.

In this study, therapy was tailored for each child, depending on the contributing and causative factors of the soiling problem. The holistic approach takes into account physical, cognitive, emotional and behavioural aspects within the framework of the social system, and their reciprocal influences. Consideration of the whole system, and pacing of the family members and other relevant people involved, is essential. Therapy can commence after an initial examination by a medical doctor to rule out the possibility of any physical dysfunction.

The five aspects of the holistic treatment model will now be discussed.

3.1 Physical aspects

The referral by the medical doctor ensures that no obvious medical disorder is present. In this study, in cases of no specific needs, and when the findings suggested mild impaction, the treatment started with stool softeners (mineral oil) or other laxatives carefully controlled by the parents. Mineral oil (between one teaspoon and one tablespoon) was prescribed with an increase in dosage until regular bowel movement was achieved. Smaller children responded well to Dufelex powder in yoghurt or with cereal in the morning. In cases of severe impaction, discussion with the medical doctor was indicated.

3.2 Behavioural aspects

Toilet routine and good eating habits with an increase in fruit juice and fibre in the diet were indicated in some cases. Positive reinforcement for having good bowel movement in the toilet, in the form of verbal praise and approval, was recommended. A neutral and no-blame attitude towards soiling accidents was advocated. Negative reinforcement was excluded from this model, although getting the child to help in the cleaning process was promoted in the context of the logical consequences of behaviour and taking responsibility.

Phobic behaviour was associated with the soiling problem in some cases, and in these instances desensitisation was used, namely using a doll or toy bear which is gradually exposed to the feared situation until the child is happy to join in.

3.3 Cognitive aspects

Cognitive therapy was used in conjunction with behavioural methods to replace irrational thoughts with positive ones. To facilitate this process, a story or metaphor was used. For example, in the case of regression, a story involving an elephant family helped the child to understand a sibling's birth and deal with it in a positive way, and to clear up confusion about family relationships. In all cases, the story must fit the child's situation in order for the child to identify with it.

3.4 Emotional aspects

The emphasis in the study was often transferred from the symptom and focused instead on the child's emotions, especially in cases of severe trauma. Play therapy, using drawings, paint or clay, helped such children to express their feelings of anger, sadness, fear or rejection. Offering acceptable ways of expressing emotions can contribute greatly to the healing process. The therapist can share the child's fantasies in his expression of feelings, empower him/her by becoming a "giant" or "superman" and hence achieve what the child would like to achieve. After catharsis, reframing and reintegration of the experience is an important part of the therapy.

In dealing with trauma, restabilisation is essential in order to restore feelings of safety and to ensure progress. The use of hypnotic age-progression for older children is particularly helpful. Other techniques, such as Gestalt therapy, writing a letter or the empty chair technique, are also effective ways in which older children can express unresolved emotions. With smaller children, a metaphor or story with puppets or soft toys is more useful. Through modelling, using a doll or animal, the child can develop acceptable ways of dealing with emotions.

3.5 The social system

In cases of disturbed family relationships, the problem is initially addressed individually with the relevant family members and then with the whole family. In this study, a family session was usually indicated to allow family members to express their feelings and to improve mutual understanding. The influence of the social system was always

taken into consideration and the goal was to help the child to become a well-adjusted individual in all aspects of his life.

4. Research methodology

A sample (N = 38) was made up of referrals following diagnosis by a medical doctor. Inclusion criteria were: children between the ages of four and fourteen, regardless of race, gender or socio-economic status. Further criteria included no documented mental retardation and no untreated neurological or gastro-intestinal dysfunction as evidenced by history and physical examination. For practical reasons the group was drawn from Gauteng and surrounding geographical areas. The final sample consisted of 38 children, 31 boys and seven girls, all aged between four and fourteen years. One was black, one coloured and the rest white.

The intervention took place over the period June 1996 to June 1998. A pre-test, post-test control group design was used, in which participants were assigned according to age to allow for matching and equal distribution between the experimental and control groups. The experimental group received treatment and the control group did not. The two groups were compared prior to intervention and after the intervention on terms of the composite variables: encopresis, level of depression, parental involvement and self-image. The post-test design allows for assessment of the change resulting from the intervention.

The Mann-Whitney Test was used to demonstrate the difference between the experimental and control groups (pre- and post-test) regarding the variables depressive symptomatology, negative self-image, positive involvement of father and mother, and negative involvement of father and mother. The McNemar Test was used to demonstrate the difference between pre-test and post-test scores for encopresis. The Wilcoxon Signed-Ranks Test was used to demonstrate the difference between pre-test and post-test scores in terms of the variables depressive symptomatology, negative self-image, positive involvement of father and mother, and negative involvement of father and mother for both groups.

4.1 Measuring instruments

For inclusion in the research project, a diagnosis of encopresis by the medical doctor referring the child was essential. A biographical questionnaire was used to gather relevant information during the first interview with the parents. The pre- and post-tests involved an evaluation of depression, based on the Reynolds Child Depression Scale (RCDS); an evaluation of parental involvement, based on the Bene Anthony Family Relations Test; and an evaluation of self-image, based on the Human Figure Drawings (HFD).

The biographical questionnaire in this study included historical data from birth, development, onset of the problem and previous treatment, as well as family relations, socialisation and events related to the problem. This information was used only for therapeutic purposes.

The RCDS is a brief paper-and-pencil self-report measure of depressive symptomatology and is easy to administer (Reynolds 1981: 5). The test consists of 30 items, 29 of which use a four-point likert-type response format (weighted from 1 to 4 points) and one item which uses a response format consisting of five faces describing emotions ranging from happy to sad (weighted 1 to 5 points). Certain items are reverse-scored, which provides a check for response-sets and inconsistent responding. The child is asked to indicate whether the symptom-related item has occurred almost never, sometimes, a lot of the time, or all of the time. The items elicit current symptoms and will indicate psychopathological signs of a depressive disorder.

The Bene Anthony Family Relations Test is an indirect method of obtaining information which allows freedom of expression without the interference of guilt (Bene & Anthony 1976: 13). The test indicates objectively, reliably and rapidly the direction and intensity of the child's feelings towards the various members of his family as well as his estimate of their reciprocal regard for him. The scoring shows how much of each kind of feeling the child has assigned to each member of his family. The total number of items used for any one person indicates the measure of emotional involvement with that person.

The HFD is an easy to administer paper-and-pencil projective test. For the purposes of this study, the 30 emotional indicators (Koppitz 1968: 35) were listed and when a specific indicator was pre-

sent, one mark was given. The marks were then added to give a total score. A high score indicated a higher frequency of emotional indicators (poor self-image), while a low score was an indication of fewer emotional indicators, suggesting a better self-image. The post-test indicated whether any improvement had taken place, with regard to the occurrence of encopresis, depressive symptomatology, parental involvement or self-image.

5. Results

With regard to encopresis, only the prevalence of the problem was measured; when the participant was symptom-free for at least one month, the problem was regarded as solved. After the three-month follow-up session participants were evaluated to re-assess the success rate. All but one of the participants improved significantly, to such an extent that the encopresis cleared up completely, the exception being one referred for further medical evaluation. Table 1 demonstrates the statistically significant difference between the pre- and post-test severity index of encopresis for the experimental group.

Table 1: Pre-test, post-test severity index of encopresis of the experimental group

	Pre-test encopresis and post-test encopresis
N	19*
Exact Sig C2-tailed	.000**

* significant at the 0.5% level

** significant at the 0.1% level

With regard to depression, the pre- and post-test scores on the RCDS were compared; the decrease in the symptom score being used as the indicator of improvement of depressive symptomatology. In all participants depressive symptomatology declined.

To measure self-image, the emotional indicators on HFD were used. A reduction of emotional indicators demonstrates an improvement in self-image; therefore the decrease of the score was an indication of improvement. All participants, except one, showed improvement with lower scores on the emotional indicators.

With regard to parental involvement, positive and negative involvement of the father and mother was measured, after which a comparison was made between the pre- and post-test scores. All par-

ticipants' fathers became more positively involved except for one child who has no father. With regard to the mothers, all mothers became more positively involved except in the case of one child who experienced her mother's involvement as the same as before the intervention. The experimental group was then compared with the control group to give an indication of the efficacy of the intervention. There was a highly significant difference between the two groups in terms of depression ($p=0.012$) as well as with regard to the other variables of negative self-image, positive parental involvement and negative parental involvement ($p= 0.000$). Table 2 shows the significance of the difference between the post-test scores of the experimental and control groups on the six variables.

Observation over several years of working with children's disorders demonstrates that parents often initially seek help for an everyday problem or a more general problem such as poor school performance, socialisation problems or poor self-image, and only mention the encopresis incidentally. Older children displaying behavioural or emotional problems have often been found to have suffered from encopresis earlier in their lives. It is hypothesised that in such cases one symptom has been replaced by another symptom.

The child with a soiling problem is probably not as rare as is generally thought. If the wide geographical distribution of participants in the sample is analysed, there appears to be a reluctance to report the problem. Disturbed family relations were present to some extent for most of the participants, whether primary or secondary to the encopresis. The improvement in parental involvement after intervention was remarkable and confirms that relationships in these families were disturbed. Observed situations which were not statistically analysed showed that very few of the children presented with symptoms of neglect or lack of effective toilet training. Lack of proper training may result in encopresis, although too much pressure can also be an etiological factor.

Table 2: Significance of the difference between the post-test scores of the experimental and control groups on the six variables.

Variable	Experimental group N-19		Control group N=19		Mann-Whitney U	Z	P
	Mean rank	Sum of ranks	Mean rank	Sum of ranks			
Depressive sympto-matology	14.97	284.50	24.03	456.50	94.500	-2.519	.012*
Negative self-image	13.03	247.50	25.97	493.50	57.500	-3.642	.000**
Positive father involvement	26.58	505.00	12.42	236.00	46.000	-4.038	.000**
Positive mother involvement	26.61	505.50	12.39	235.50	45.500	-4.051	.000**
Negative father involvement	12.68	241.00	26.32	500.00	51.000	-3.891	.000**
Negative mother involvement	12.34	234.50	26.66	506.50	44.500	-4.101	.000**

* significant at the 0.5% level

** significant at the 0.1% level

The lower numbers of children presenting with encopresis in the black population gives rise to speculation that this could possibly result from less pressure on toilet training. Various questions arise regarding this assumption, such as the influence of westernisation. As regards other etiological factors, of the 38 participants, two (5.26%) had a verified history of sexual abuse, and another three (7.89%) had suspected but unproven histories of such abuse. Of the 38 participants, only two (5.26%) were from a lower income group; the rest from average to above-average income groups. As a result of the working environment and referral sources, most of the children were from the English and Afrikaans-speaking white population and very few from other population groups. Only 18.25% of the referrals were

girls. This corresponds with the finding in the literature that boys are more affected by encopresis than girls.

Only one participant in the experimental group, a four-year-old girl, did not respond positively to the treatment. She was referred to a gastro-enterologist for further evaluation. The other 18 participants all responded positively to the treatment without any relapses after three months. Regarding the variables of depressive symptomatology, self-image, and parental involvement, all participants improved significantly. The high success rate in terms of the prevalence of encopresis and the improvement on the other variables can be attributed to the nature of the approach. The treatment was tailored to individual needs, addressing the specific factors contributing to the problem.

The fact that up to one-third of patients fail to improve (Buchanan 1992: 2) on various other treatment remedies may result from misdiagnosis of the primary problem or the application of predetermined treatment models regardless of the specific nature of the problem. The complex and multi-factorial etiology of encopresis suggests that the poor success rate could be due to a rigid approach.

6. Limitations

The relatively small sample (N = 38) did not allow for random assignment of participants. The fact that a convenient sample was used does not guarantee representivity and this limits generalisation of results to the population at large. The results are therefore only applicable to the present study. However, they can be expected to hold for other children with the same problem. Non-random assignment further runs the risk of having non-equal groups. The similarity of the two groups with regard to the variables prior to the intervention assures results as an effect of the intervention and therefore promotes the value of the study. The fact that the group consisted mostly of white children means that generalisation is limited with regard to other race groups.

7. Recommendation

Comparative studies regarding race difference may be valuable. Other relevant information regarding gender, age, socio-economic status, the marital status of parents and the involvement of step-pa-

rents deserves further evaluation. Long-term follow-up studies on family history and on the prevalence of the same or other gastrointestinal problems in any of the parents or grandparents could also be valuable. The lack of institutions in South Africa addressing the problem on a multi-professional level also warrants further attention. In South Africa, only one hospital has a unit specialising in this problem and that not specifically on a multi-professional level. The unit focuses on bowel evacuation with very little attention to the emotional factors involved. The value of its work cannot be denied and deserves recognition, especially for the child with faecal impaction. Nevertheless, specialised units can offer not only expertise on different levels but also the opportunity for contact with others suffering similar problems, which can be of therapeutic value.

8. Conclusion

In the past, treatment of encopresis was fragmented and one-sided. The present study attempted to collate different perspectives by developing a holistic approach, thus promoting a higher success rate in the treatment of encopresis. In comparison to other studies on this subject, the relatively large number of participants promoted the value of the study and the applicability of the treatment model. There is every confidence that this study will encourage further research on this subject.

Bibliography

AMERICAN PSYCHIATRIC ASSOCIATION
1994. *Diagnostic and statistical manual of mental disorders*. 4th ed. Washington, DC: APA.

BAKWIN H & R M BAKWIN
1972. *Behaviour disorders in children*. New York: Saunders.

BARKER P
1988. *Basic child psychiatry*. London: Blackwell.

BENE E & J ANTHONY
1976. *Manual for the family relations test*. London: England Educational Research.

BERG I A & K VERNON-JONES
1964. Functional faecal incontinence in children. *Archives of Disease in Childhood* 39: 465-72.

BUCHANAN A
1992. *Children who soil: assessment and treatment*. Chichester: Wiley.

CHANEY C A
1995. A collaborative protocol for encopresis management in school-aged children. *Journal of School Health* 65(9): 360-4.

CLAYDEN G S & U AGNARSSON
1991. *Constipation in childhood*. Oxford: Oxford University Press.

CUDDY-CASEY M
1997. A case study using a child-centered play therapy approach to treat enuresis and encopresis. *Elementary School Guidance and Counselling* 31: 220-5.

DAWSON P M, K GRIFFITH & K M BOEKE
1990. Combined medical and psychological treatment of hospitalised children with encopresis. *Child Psychiatry and Human Development* 20: 181-9.

FRITZGERALD J F
1975. Encopresis, soiling, constipation: what's to be done. *Pediatrics* 56: 348-9.

HERBERT M
1991. *Clinical child psychology, social learning, development and behaviour*. Chichester: Wiley.

IWATA G, N IWAI, M R NAGASHIMA & R FUKATA
1995. New biofeedback therapy in children with encopresis. *European Journal of Pediatric Surgery* 5(4): 231-4.

KNELL S M & D J MOORE
1990. Cognitive-behavioral play therapy in the treatment of encopresis. *Journal of Clinical Child Psychology* 19(1): 55-60.

KOPPITZ E
1968. *Psychological evaluation of children's human figure drawings*. New York: Grune.

LEVINE M D
1975. Children with encopresis: a descriptive analysis. *Pediatrics* 56(3): 412-6.

LINDENBAUM S & D CLARK
1983. Towards an integrative approach to psychotherapy with children. *American Journal of Orthopsychiatry* 53(3): 449-59.

LOENING-BAUCKE V A
1984. Abnormal recto-anal function in children recovered from chronic constipation and encopresis. *Gastroenterology* 87(6): 1299-304.

1990. Modulation of abnormal defecation dynamics by biofeedback treatment in chronically constipated children with encopresis. *Journal of Pediatrics* 116: 214-27.

NABORS L & S B MORGAN
1995. Treating retentive encopresis: dietary modification and behavioral techniques. *Child and Family Behavior Therapy* 17(1): 47-58.

POPPER C W & R J STEINGARD
1994. *Disorders usually first diagnosed in infancy, childhood or adolescence*. New York: Basic Books.

REIMERS T M
1996. A biobehavioral approach toward managing encopresis. *Behavior Modification* 20(4): 469-79.

REYNOLDS W M
1989. *Reynolds Child Depression Scale: professional manual*. Odessa, Florida: Psychological Assessment Resources.

SCHMITT B D & R D MAURO
1992. Encopresis: 20 management mistakes. *Patient Care* 26(13): 221-31.

SETH R & M B HEYMAN
1994. Management of constipation and encopresis in infants and children. *Pediatric Gastroenterology* 23(4): 621-35.

SILVER E
1996. Family therapy and soiling. *Journal of Family Therapy* 18(4): 415-32.

STARK L J, L C OPIPARI, D L DONALDSON, M B DANOVSKY, D A RASILE, & A F DELSANTO
1997. Evaluation of a standard protocol for retentive encopresis: a replication. *Journal of Pediatric Psychology* 22(5): 619-33.

STARK L J, A SPIRITO, A V LEWIS & K J HART
1990. Encopresis: Behavioral parameters associated with children who fail medical management. *Child Psychiatry and Human Development* 20(3): 169-79.

STEINHAUER P D
1990. Resistances to the biopsychosocial approach: individual, familial, and systemic. *Developmental and Behavioral Pediatrics* 11(6): 330-32.

WAKSMAN S A
1983 A multi-model treatment for secondary psychogenic encopresis: a case study. *Psychological Reports* 53: 271-73.

WRIGHT L & E WALKER
1977. Treatment of the child with psychogenic encopresis. *Clinical Pediatrics* 16(11): 1042-5.

WYNNE E
1987. Storytelling in therapy and counseling. *Children Today* 16: 11-5.