

Occupational Therapy Based on Ayres Sensory Integration in the Treatment of Retentive Fecal Incontinence in a 3-Year-Old Boy

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MeSH TERMS

- fecal incontinence
- occupational therapy
- sensation disorders

OBJECTIVE. We present the case report of a 3-yr-old boy with retentive fecal incontinence and sensory overresponsivity. Sensory integration theory was used to address the overresponsivity affecting the child's ability to acquire age-appropriate toileting habits. We describe the 7 mo of treatment and 3 mo of follow-up in occupational therapy.

METHOD. We analyzed a retrospective chart review of daily defecation log outcome data and parent interview.

RESULTS. Notable improvements in acquiring age-appropriate toileting habits were documented and measured using daily defecation logs. Improvements in sensory processing were documented using the Sensory Profile and corroborated improvements in the child's ability to participate in toileting routines and parent report of improved quality of life.

CONCLUSION. Occupational therapy using Ayres Sensory Integration® was a useful framework for addressing this child's toileting habits. This case explicates occupational therapy using data-driven intervention principles to address the relationship among sensory processing, behavior, and occupational performance.

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Chronic constipation is a common problem among children, and it accounts for as many as 30% of referrals to pediatric gastroenterologists (Sonnenberg & Koch, 1989). Different factors have been associated with the development of constipation in children, and the behavior of withholding stool appears to be one of the most common (Tabbers, Boluyt, Berger, & Benninga, 2011).

Fecal incontinence (FI) almost always accompanies chronic constipation and profoundly affects a child's social and emotional development (Joinson, Heron, Butler, & von Gontard, 2006). Children with FI have been documented to have higher levels of anxiety (Hesapçioğlu, Goker, Aktepe, Topbaş, & Kandil, 2009) and lower quality of life than healthy peers and children who have other types of gastrointestinal disorders (Youssef, Langseder, Verga, Mones, & Rosh, 2005).

Conventional medical management (CMM), which consists of stool softeners,

laxative and enema therapy as needed, and parent education, is the most recommended treatment (Tabbers et al., 2011). Small rewards and praise as incentives for appropriate defecation are also a usual part of CMM. However, follow-up studies on current treatment methods have revealed that only about 50% of patients are free of complaints and off laxatives after 6–12 mo of treatment (Pijpers, Bongers, Benninga, & Berger, 2010). Specific behavioral treatments are often recommended in managing retentive FI in children who are resistant to CMM alone, but evidence has not supported the use of elaborate behavioral programs. One rigorous study evaluated the effectiveness of behavior therapy combined with laxative use in comparison with CMM alone and did not find evidence to support this approach (van Dijk et al., 2008).

The unique contribution of this case report is that we consider that difficulty in

processing and integrating sensory information, specifically sensory over-responsivity, may contribute to retentive FI. Sensory-based approaches that include some of the components of Ayres Sensory Integration[®] (ASI), such as body massage, have been associated with improved bowel function (Silva, Cignolini, Warren, Budden, & Skowron-Gooch, 2007). A school-based program and a clinical intervention program for FI, which include occupational therapy and consideration of sensory processing difficulties, have been reported to be beneficial for children with FI (Beaudry Bellefeuille & Ramos Polo, 2011; Handley-More, Richards, Macauley, & Tierra, 2009).

Method

We used a retrospective case report methodology. A 4-wk baseline period was followed by 7 mo of direct intervention. Follow-up data were collected for an additional 3 mo. To evaluate outcomes, a daily log of bowel movements was kept, starting at baseline and continuing until 3 mo posttreatment.

Patient

M was a 3.7-yr-old boy with retentive FI and stool-withholding behavior. M's parents consulted with their pediatrician concerning M's FI approximately 4 mo after initiating toilet training, when he was 2.8 yr old. M had transitioned directly from diapers to regular underwear. At this time, M was not wearing diapers and soiled daily; however, he had learned to control urine. The parents felt pressured to toilet train their son to prepare him for attendance at preschool. During toilet training, M developed stool-withholding behaviors and constipation that did not respond to CMM prescribed by the gastroenterologist (Ramos Polo). The gastroenterologist referred M to occupational therapy because he suspected that overresponsivity to sensory stimuli might be playing a role in stool withholding.

Occupational therapy assessment revealed atypical responses to typical tactile sensations that appeared to have an impact on the child's urge to defecate

(i.e., the sensation of passage of stool) and on his tolerance for sitting on the toilet or potty. The child could not relax and therefore could not defecate.

At the time of the initial occupational therapy consultation, his defecation was sporadic and involuntary and often occurred in his clothing during school hours. This situation affected his participation in social activities because other children stayed away from him because of the smell of his soiled clothing. His parents also limited their participation in social outings.

Before toilet training, M had never had problems with constipation and had bowel movements daily. Transitioning from pureed foods to regular table food had been a big challenge for M. His parents reported introducing soft solids around age 10 mo, but M had not accepted regular table food until recently. At the time of the initial occupational therapy evaluation, he continued to be very selective regarding food textures.

Case Report Research Question

The question we sought to answer was, Will an occupational therapy program that includes interventions based on ASI that are designed to decrease tactile overresponsivity in combination with CMM by a pediatric gastroenterologist be effective in (1) increasing overall defecation frequency, (2) increasing frequency of defecation in the potty chair or toilet, and (c) decreasing frequency of defecation in clothing for a boy age 3.7 yr with retentive FI and stool-withholding behavior that is resistant to CMM alone?

Measures and Assessment Findings

Assessment—Subjective. A parent interview and direct observation of the child was used to identify current concerns and goals. M's mother admitted she was exhausted with the current situation. The fact that M's preschool did not understand his problem and was calling her every time M soiled was especially difficult for her. The preschool program that M attended was embedded in a public primary school where the preschoolers shared the school yard and cafeteria with older children.

At home, M's parents had placed an attractive potty chair next to the regular toilet in the bathroom and encouraged their child to imitate them, but M refused to use the potty to defecate at home or at school. Different types of potties and toilet seat reducers had been tried, but M had not accepted any of the options offered to him. In the clinic, the first author (Beaudry Bellefeuille) observed M using the potty to urinate; he adopted a tensed position, with little hip flexion, bearing weight on his arms and barely touching the potty with his thighs. When the first author suggested he sit in a relaxed position, he refused and quickly got up. Squatting or sitting with increased hip flexion is important because it makes evacuation of the rectum easier (Palit, Lunniss, & Scott, 2012); M's tensed posture seemed to be related to a dislike of touching the toilet seat.

Observations occurred in a private occupational therapy clinic, in a treatment room equipped in accordance with ASI as described by Parham et al. (2011) and with mats, large balls, swings, and bolsters. M was initially reluctant to play on the swings, in the ball pit, or with any of the toys with textured or tactile properties.

After the interview with the parents and the observations in the clinic, a structured questionnaire was used to obtain detailed information related to toileting behaviors. Using this instrument, M's parents reported that when he felt the urge to defecate, he frequently remained standing, squeezing his buttocks and jumping, apparently avoiding defecation. At other times, he hid in a corner of his room and defecated in his clothing, even though his parents had set up a potty in this place. M also refused to sit on the potty when invited to do so and therefore made it difficult to apply the strategies on establishment of a routine that are part of CMM.

The fact that the problems with constipation started during toilet training suggested that factors directly related to using the potty were responsible for M's current difficulties, specifically, that M might be overresponsive to tactile sensations, which made it difficult to tolerate contact with the potty and feeling the passage of feces in a squatted position. It seemed that to avoid these sensations, M was withholding stool or defecating in his clothing.

Assessment—Objective. The Sensory Profile (SP; Dunn, 1999) was used to assess M’s sensory processing abilities. The SP is a caregiver questionnaire that measures children’s responses to sensory events in daily life. The data provided allow therapists to analyze how certain patterns in sensory processing may be related to performance and participation difficulties in daily occupations (Dunn, 1999). The SP has good internal consistency, ranging from .47 to .91. Content, convergent, and discriminant validity are also strong (Dunn, 1999).

The parents completed the SP. Results of the Touch Processing subscale are shown in Figure 1 and confirmed overresponsivity to tactile input. Results also indicated overresponsivity to auditory and oral input.

Hypothesis and Goals. On the basis of the assessment findings, the following hypotheses were established:

- 1. Overresponsivity to tactile sensations makes it difficult for M to tolerate contact with the potty and feeling the passage of feces in a squatted position.
- 2. Soiling in clothing is the result of avoidance of sitting on the potty and rectal overflow.

Goals for occupational therapy were developed in collaboration with M’s parents and the gastroenterologist, following the data-driven intervention process (DDIP; Schaaf & Blanche, 2012), and factors affecting these goals were identified (tactile overresponsivity). Proximal and distal outcome markers were identified. M’s goals are detailed in Table 1.

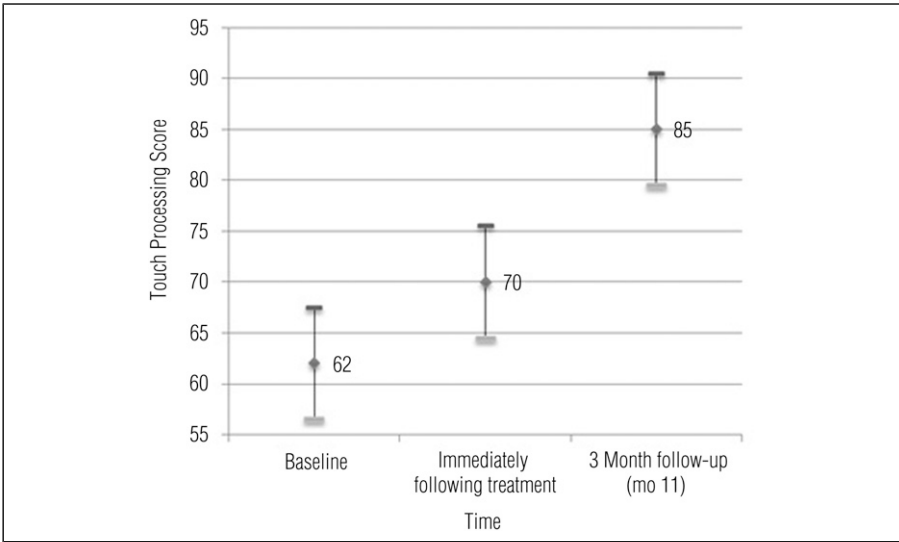


Figure 1. Touch processing scores on the Sensory Profile (Dunn, 1999).
Note. Error bars represent standard error of measurement.

Intervention

Intervention consisted of (1) recontextualization of M’s bowel problems for the teacher and aides, (2) ASI treatment designed to decrease M’s sensory sensitivities that affected his toileting behaviors, (3) direct work in the bathroom with M to increase acceptance of sitting on the potty, and (4) home activities.

Recontextualization of M’s Toileting Problems for School Personnel. Defecation often occurred during school hours. No one at school reminded M to go to the toilet or helped him clean up when he soiled. If M soiled he had to wait for his mother, alone in the bathroom. A school visit with the teacher, aide, and both parents was set up shortly after the initial

occupational therapy evaluation. At this time, the teacher explained that having M wait alone was considered a behavioral strategy that would help him learn to control his bowels. The hypothesized sensory underpinnings of M’s difficulties were explained to the teacher and aide. Their collaboration in informing the mother of bowel movements that occurred at school and the establishment of routines for toileting and cleanup in case of accidents was established.

Ayres Sensory Integration. The second part of the intervention program used sensory integration theory (Ayres, 1972) to address M’s overresponsivity. Sensory integration intervention is designed to be used with clients whose challenges are related to difficulties processing and integrating sensory

Table 1. Current Level, Goals, and Outcome Measures for M

Current Behavior	Goal	Measure
M does not readily participate in activities that involve a variety of tactile inputs.	M will demonstrate improved tolerance to participating in activities that involve a variety of tactile input as a basis for accepting toileting routines.	Touch processing score of the Sensory Profile (Dunn, 1999)
M refuses to sit in a relaxed position on the potty.	M will accept sitting on the potty in a relaxed position 80% of the time.	Observation and data recording of number of times M sits on potty in a relaxed position in relation to number of total times on potty
M withholds stool in response to the urge to defecate.	M will increase his defecation frequency and respond to the urge to defecate with a bowel movement (in potty or clothing).	Total bowel movement frequency as registered in daily bowel movement log
M hides and defecates in his clothing in response to the urge to defecate.	M will respond to the urge to defecate by sitting on the potty or toilet either voluntarily or when invited to do so by an adult.	Bowel movements in potty or toilet as registered in the daily bowel movement log
M soils his clothes daily.	M will reduce the frequency of soiling in his clothing to a maximum of once per week.	Bowel movements in clothing as registered in daily bowel movement log

Note. Adapted from the data-driven intervention process (Schaaf & Blanche, 2012).

information (Watling, Koenig, Davies, & Schaaf, 2011). The treatment consists of individually tailored, active, sensory-motor activities rich in total body tactile and proprioceptive input to decrease tactile over-responsivity as detailed in Figure 2.

Toileting Habit Training. The third component of the treatment involved working with M to practice sitting comfortably on the potty. Playful scenarios to encourage interest and acceptance were used. The bathroom at the clinic had a variety of toileting options including potties, toilet seat adapters, and a footstool to allow the child to choose the most comfortable option. Because the bathroom seemed to create a negative connotation for the child, for the first few sessions the potty was moved to the therapy room, where the child was more comfortable. The child sat and played with a favorite toy or the therapist read him a book. Gradually, the potty was moved to the bathroom, and the child began to participate in the toileting routine more actively. Make-believe games were added to help the child feel more comfortable about defecation. For example, M enjoyed games such as making brown play-dough feces and pretending to defecate in the potty or playing with a doll and pretending to be a parent teaching his child to use the potty. The last 5 min of each session were dedicated to reviewing daily bowel movement logs with

the parent. Praise and rewards such as stickers or small toys were given to the child for adequate bowel movements.

Suggested Activities for the Home.

In keeping with ASI, the parents were instructed to involve M in activities that incorporated active movement of his body against resistance, touch pressure, and rhythmical linear movement, for example, bouncing on an inflatable toy horse, jumping on a bed, hiding and escaping from under a pile of pillows, and playing on the swings and other park equipment with close supervision for safety. They were reminded that he should never be forced to participate in activities that seem bothersome or scary to him and that they should maintain a happy and playful tone throughout these activities. The family was also instructed on how to include the toileting routines used in occupational therapy in the home.

Throughout the treatment period, parents were instructed in the use of a daily log to keep track of M's bowel movements, and they consistently complied with this request. M attended 45-min treatment sessions twice a week during the first 3 mo and then once a week for another 4 mo. M rarely missed treatments, and missed sessions were consistently rescheduled. CMM continued throughout baseline, intervention, and follow-up periods and was monitored by the gastroenterologist. Dur-

ing the follow-up period (Months 9–11), the parents continued charting defecation frequency, providing sensory-rich play activities, and participating in toileting routines with M.

Outcomes

Proximal and distal outcome measures were identified. The proximal outcome was change in the SP's Touch Processing subscale at baseline, immediately post-treatment, and at 3-mo follow-up. Distal outcomes were monthly frequency of defecation in clothing and monthly frequency of defecation in the potty or toilet. Total monthly defecation frequency (sum of frequency of defecation in clothing and in the potty or toilet) was also charted to evaluate any change in stool withholding. These data were collected at baseline, each month during treatment (Months 2–8), and each month during follow-up (Months 9–11), as measured in the daily logs.

Results

Figure 3 shows that monthly frequency of defecation in clothing decreased from 12 at baseline to 3 at follow-up, monthly frequency of defecation in the potty increased from 4 at baseline to 37 at follow-up, and total monthly frequency of defecation increased from 16 at baseline to 40 at follow-up (decreased stool withholding). During Months 10 and 11, M had minimal soiling incidents.¹ As shown in Figure 1, the SP Touch Processing subscale score improved immediately after intervention and again at the 3-mo follow-up.

Discussion

This article presents a case report of a child with FI and tactile overresponsivity during 7 mo of occupational therapy intervention. On the basis of the gastroenterologist's recommendations and occupational therapy assessment findings, sensory integration theory was used to design and implement an occupational therapy intervention that addressed the underlying issues affecting this child's ability to acquire age-appropriate

Direct treatment using ASI®: The therapy rooms are equipped with mats, swings, mini-trampolines, therapeutic balls, pillows and a wide variety of materials that offer sensory input (vibrating toys, textured equipment and materials, weighted garments, oral toys, etc.).

Preparation: The child enters the center, establishes rapport with the therapist and prepares for therapy (hand washing, removing shoes, jacket, etc.).

Duration: 5 min

Intervention following ASI®: Once in the therapy room the child is invited to participate in activities that involve increased pressure touch and proprioception, inputs known to help children manage and adapt to tactile stimuli. For example many young children will initially choose to sit and bounce on a peanut shaped ball or on an inflated horse shaped toy. Hiding under a pile of pillows or squeezing through a lycra tunnel is another way of providing this type of input. Games that provide opportunities for activating core muscles such as climbing and jumping are also encouraged as they are rich in proprioception, a key component of ASI® in the treatment of sensory over-responsiveness. Activities that involve tactile media or opportunities for tactile input are encouraged, always allowing the child to choose the type and intensity of input, permitting him to move gradually toward the acceptance of a wider variety of tactile inputs. For example materials, like fuzzy polar fleece, different types of carpeting, vibrating toys, soft and prickly rubber toys or wet and dry food (pudding, lentils, etc.) are incorporated into the activities. Linear rhythmical swinging in postures which activate muscle resistance is also encouraged as it helps children stay calm and organized before, during and after tactile play. Oral blowing toys are also calming for most children and are often an activity used to transition to the habit portion of the therapy which may provoke heightened arousal due to the anticipated bothersome sensations related to toileting.

Duration: 30 min

Figure 2. Direct treatment using ASI for M.

Note. ASI = Ayres Sensory Integration.

¹M continued to have occasional soiling incidents (≤1/wk), but they were related to changes in routine.

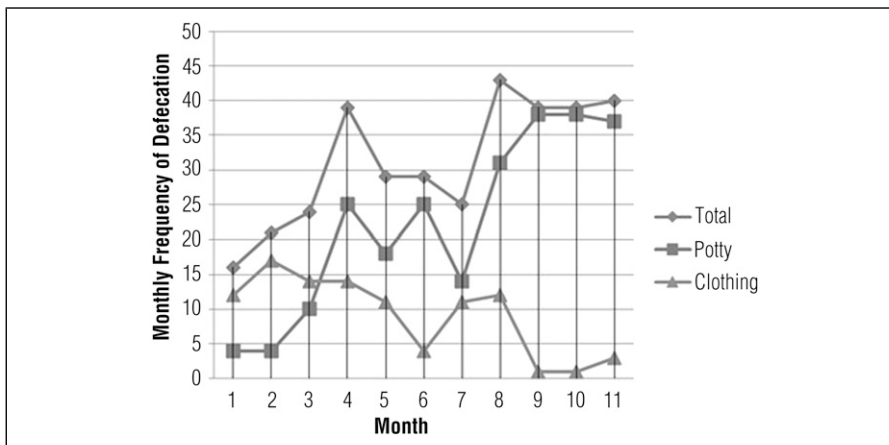


Figure 3. Monthly frequency of defecation from baseline (Mo 1) to follow up (Mo 11).

toileting habits (tactile overresponsivity). In keeping with best practice in occupational therapy and sensory integration (Watling et al., 2011), intervention incorporated the child's natural environments (home and school) and collaboration with school personnel, parents, and the child's gastroenterologist. As such, although this case contributes to the evidence for occupational therapy using ASI, it is impossible to factor out the impact of the home and school aspects of the intervention.

More important, occupational therapy using sensory integration is unique in that it identifies and addresses underlying sensory issues that may affect behavior and participation. Ayres's statements concerning overresponsivity to tactile input and its effects on behavior are illustrated: "Treatment based primarily on influencing basic neurophysiological integration . . . , and secondarily on intellectual processes will be the most effective approach" (Ayres, 1963, p. 225). Using the DDIP (Schaaf & Blanche, 2012) to guide reasoning, the therapist confirmed that tactile overresponsivity was affecting stool retention and toileting behavior. Individually tailored intervention activities were designed to address this underlying issue, and proximal and distal outcome measures were identified. This case demonstrates the application of the DDIP, represents a unique and innovative approach in the treatment of FI, and is the first published study using sensory integration principles to guide treatment with this population.

In terms of the impact of outcomes on quality of life for the family, at the 3-mo follow-up, M's mother reported that her

son continued to engage in sensorimotor play daily and that he now enjoyed playing actively in the park with other children. She also pointed out that M had started to toilet independently at school and at home. He was also using public restrooms and learning to wipe himself. As a result, the family indicated that they are now able to attend social gatherings and include M in activities with other children.

Implications for Occupational Therapy Practice

- This case study provides a description of occupational therapy for treatment of retentive FI and stool-withholding behavior.
- The case study provides a rationale for including occupational therapists with postprofessional training in ASI as part of the interdisciplinary teams treating children with FI and stool-withholding behavior to correctly diagnose and treat underlying sensory difficulties.
- The case study demonstrates the use of systematic reasoning using the DDIP (Schaaf & Blanche, 2012) as an example for generating evidence during clinical practice.

Limitations and Future Research

This case provides information that can be useful for clinicians working with children with retentive FI and tactile overresponsivity, and although the results cannot be generalized, it provides a foundation for additional studies in this area. Another limitation is related to the validity and reliability of data collection methods.

Assessment data relied mainly on parent and teacher report, history taking, and interview, and objective assessment data are limited. In addition, because the evaluation was conducted by the therapist who implemented the treatment, blinding was not possible. Finally, the analysis of the case was done retrospectively, which is also a noteworthy limitation. Research aimed at clarifying the underlying issues related to the behavior problems associated with constipation and retentive FI would contribute to developing more effective treatment programs. ▲

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References

- Ayres, A. J. (1963). The development of perceptual-motor abilities: A theoretical basis for treatment of dysfunction. *American Journal of Occupational Therapy*, 17, 221–225.
- Ayres, A. J. (1972). *Sensory integration and learning disorders*. Los Angeles: Western Psychological Services.
- Beaudry Bellefeuille, I., & Ramos Polo, E. (2011). Tratamiento combinado de la retención voluntaria de heces mediante fármacos y terapia ocupacional [Combined treatment of voluntary stool retention with medication and occupational therapy]. *Boletín de la Sociedad de Pediatría de Asturias, Cantabria y Castilla y León*, 51, 169–176.
- Dunn, W. (1999). *Sensory Profile*. San Antonio, TX: Pearson Education.
- Handley-More, D., Richards, K., Macauley, R., & Tierra, A. (2009). Encopresis: Multidisciplinary management. *Journal of Occupational Therapy, Schools, and Early Intervention*, 2, 96–102. <http://dx.doi.org/10.1080/19411240903146400>
- Hesapçoglu, S., Goker, Z., Aktepe, E., Topbaş, M., & Kandil, S. (2009). Clinical features of children with encopresis and their

- comorbid psychiatric disorders. *Yeni Symposium*, 47, 123–128.
- Joinson, C., Heron, J., Butler, U., & von Gontard, A.; Avon Longitudinal Study of Parents and Children Study Team. (2006). Psychological differences between children with and without soiling problems. *Pediatrics*, 117, 1575–1584. <http://dx.doi.org/10.1542/peds.2005-1773>
- Palit, S., Lunniss, P. J., & Scott, S. M. (2012). The physiology of human defecation. *Digestive Diseases and Sciences*, 57, 1445–1464. <http://dx.doi.org/10.1007/s10620-012-2071-1>
- Parham, L. D., Roley, S. S., May-Benson, T. A., Koomar, J., Brett-Green, B., Burke, J. P., . . . Schaaf, R. C. (2011). Development of a fidelity measure for research on the effectiveness of the Ayres Sensory Integration intervention. *American Journal of Occupational Therapy*, 65, 133–142. <http://dx.doi.org/10.5014/ajot.2011.000745>
- Pijpers, M. A. M., Bongers, M. E. J., Benninga, M. A., & Berger, M. Y. (2010). Functional constipation in children: A systematic review on prognosis and predictive factors. *Journal of Pediatric Gastroenterology and Nutrition*, 50, 256–268. <http://dx.doi.org/10.1097/MPG.0b013e3181afcdc3>
- Schaaf, R. C., & Blanche, E. I. (2012). Emerging as leaders in autism research and practice: Using the data-driven intervention process. *American Journal of Occupational Therapy*, 66, 503–505. <http://dx.doi.org/10.5014/ajot.2012.006114>
- Silva, L. M. T., Cignolini, A., Warren, R., Budden, S., & Skowron-Gooch, A. (2007). Improvement in sensory impairment and social interaction in young children with autism following treatment with an original Qigong massage methodology. *American Journal of Chinese Medicine*, 35, 393–406. <http://dx.doi.org/10.1142/S0192415X07004916>
- Sonnenberg, A., & Koch, T. R. (1989). Physician visits in the United States for constipation: 1958 to 1986. *Digestive Diseases and Sciences*, 34, 606–611. <http://dx.doi.org/10.1007/BF01536339>
- Tabbers, M. M., Boluyt, N., Berger, M. Y., & Benninga, M. A. (2011). Clinical practice: Diagnosis and treatment of functional constipation. *European Journal of Pediatrics*, 170, 955–963. <http://dx.doi.org/10.1007/s00431-011-1515-5>
- van Dijk, M., Bongers, M. E., de Vries, G. J., Grootenhuys, M. A., Last, B. F., & Benninga, M. A. (2008). Behavioral therapy for childhood constipation: A randomized, controlled trial. *Pediatrics*, 121, e1334–e1341. <http://dx.doi.org/10.1542/peds.2007-2402>
- Watling, R., Koenig, K. P., Davies, P. L., & Schaaf, R. C. (2011). *Occupational therapy practice guidelines for children and adolescents with challenges in sensory processing and sensory integration*. Bethesda, MD: AOTA Press.
- Youssef, N. N., Langseder, A. L., Verga, B. J., Mones, R. L., & Rosh, J. R. (2005). Chronic childhood constipation is associated with impaired quality of life: A case-controlled study. *Journal of Pediatric Gastroenterology and Nutrition*, 41, 56–60. <http://dx.doi.org/10.1097/01.mpg.0000167500.34236.6a>

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