This search summary contains the results of a literature search undertaken by the Lincolnshire Knowledge and Resource Service librarians in **November 2011**.

All of the literature searches we complete are tailored to the specific needs of the individual requester. If you would like this search re-run with a different focus, or updated to accommodate papers published since the search was completed, please let us know.

We hope that you find the information useful. If you would like the full text of any of the abstracts listed, please let us know.

Alison Price       alison.price@lpct.nhs.uk
Janet Badcock      janet.badcock@lpct.nhs.uk

Librarians, Lincolnshire Knowledge and Resource Service
NHS Lincolnshire

Beech House,  
Waterside South  
Lincoln   LN5 7JH
Please find below the results of your literature search request. If you would like the full text of any of the abstracts included, or would like a further search completed on this topic, please let us know. A feedback form is included with these search results. We would be very grateful if you had the time to complete it for us, so that we can monitor satisfaction with the service we provide.

Thank you!

Disclaimer
Every effort has been made to ensure that this information is accurate, up-to-date, and complete. However it is possible that it is not representative of the whole body of evidence available. No responsibility can be accepted for any action taken on the basis of this information. It is the responsibility of the requester to determine the accuracy, validity and interpretation of the search results.

All links from this resource are provided for information only. A link does not imply endorsement of that site and the Lincolnshire Knowledge and Resource Service does not accept responsibility for the information displayed there, or for the wording, content and accuracy of the information supplied which has been extracted in good faith from reputable sources.

Literature Search Results

Search completion date: 24th November 2011
Search completed by: Alison Price

Enquiry Details

I want to look into soiling and wetting problems in children with autism.
I do not want to cover encopresis- too psychologically in depth - but would be interested in daytime wetting, enuresis, and soiling in children 5yr- 16yr.
Opening Internet Links
The links to internet sites in this document are ‘live’ and can be opened by holding down the CTRL key on your keyboard while clicking on the web address with your mouse.

Full Text Papers
Links are given to full text resources where available. For some of the papers, you will need a free NHS Athens Account. If you do not have an account you can register by following the steps at: https://register.athensams.net/nhs/nhseng/. You can then access the papers by simply entering your username and password. If you do not have easy access to the internet to gain access, please let us know and we can download the papers for you.

Guidance on Searching within Online Documents
Links are provided to the full text of each of these documents. Relevant extracts have been copied and pasted into these Search Results. Rather than browse through often lengthy documents, you can search for specific words and phrases as follows:

**Portable Document Format / pdf / Adobe**
Click on the Search button (illustrated with binoculars). This will open up a search window. Type in the term you need to find and links to all of the references to that term within the document will be displayed in the window. You can jump to each reference by clicking it. You can search for more terms by pressing ‘search again’.

**Word documents**
Select Edit from the menu, the Find and type in your term in the search box which is presented. The search function will locate the first use of the term in the document. By pressing ‘next’ you will jump to further references.
Search Results

Table of Contents

1. Effectiveness of parent-implemented interventions based on functional assessment of toilet skills in young children with autism. ................................................................. page 2
2. A parent training model for toilet training children with autism. ................................................................. page 2
3. Toilet training individuals with autism and other developmental disabilities: A critical review. ............... page 3
4. Risperidone-induced double incontinence. ................................................................................................... page 3
5. Risperidone-induced enuresis in two children with autistic disorder. ....................................................... page 4
6. Toilet training for children with autism: The effects of video modeling category. .................................... page 4
7. Intensive Outpatient Behavioral Treatment of Primary Urinary Incontinence of Children With Autism. .... page 5
8. Behavioral intervention to eliminate socially mediated urinary incontinence in a child with autism. ........ page 6
10. The use of priming to introduce toilet training to a child with autism. .................................................. page 7
11. A stimulus control technique for improving the efficacy of an established toilet training program. ........ page 7
12. Toilet training a sixteen year old with autism in a natural setting. ......................................................... page 7
13. Training autistic children to urinate in the toilet through operant conditioning techniques. .................. page 8

**Citation:** Japanese Journal of Behavior Analysis, 2011, vol./is. 25/2(153-164), 0913-8013 (2011)

**Author(s):** Kamiyama, Tsutomu; Noro, Fumiyuki

**Language:** Japanese

**Abstract:**
Study objective: The purpose of the present study was to evaluate the effectiveness of parent training for teaching toilet skills to 2 young children with autism. Design: Baseline, intervention, and modification of intervention procedures. Setting: The parents implemented the intervention procedures in their home. Participants: 2 children (5 years old) with autism and their parents. Intervention: Functional assessment was used to identify intervention procedures. The procedures were modified so that the parents could use them easily. The parents were trained to implement the procedures with their children. The procedures were changed on the basis of the results from their implementation. Measure: Frequency of correct and incorrect toileting behavior and the percentage of correct toileting behavior. The data were collected by the parents. Results: Both children's correct toileting behavior increased, and their incorrect toileting behavior decreased. One child spontaneously acquired the communication skill expressing the need to use the toilet. Conclusion: The results suggest that training parents to use procedures based on functional assessment and discussions with parents and modifying the procedures on the basis of parents' records were effective in increasing the children's appropriate toilet skills. (PsycINFO Database Record (c) 2011 APA, all rights reserved) (journal abstract)

**Publication Type:** Journal; Peer Reviewed Journal

**Subject Headings:** *Autism *Functional Analysis *Intervention *Parent Training *Toilet Training Treatment Effectiveness Evaluation

**Source:** PsycINFO


**Citation:** Journal of Intellectual Disability Research, June 2010, vol./is. 54/6(556-567), 0964-2633;1365-2788 (Jun 2010)

**Author(s):** Kroeger, K; Sorensen, R

**Correspondence Address:** Kroeger, K., ML 4002, 3333 Burnet Avenue, Cincinnati, OH, US, 45229, Kimberly.Kroeger-Geoppinger@cchmc.org

**Language:** English

**Abstract:**
Background: Azrin & Foxx pioneered an intensive toilet training protocol for individuals with intellectual disability living in a residential setting. Since the development of the Rapid Toilet Training (RTT) protocol, many have replicated the efficacy, most notably in educational and outpatient treatment settings, but often training over longer periods of time. This study presents data from a parent training model that replicates Azrin and Foxx's results and training time. Method: This multiple baseline across subjects design study employs an ABA design where two boys diagnosed with autism were toilet trained using a modified Azrin & Foxx intensive teaching protocol. The first subject, a 4-year-old boy, did not have a history of attempted toilet training. The second subject, a 6-year-old boy, demonstrated a history of failed toilet training attempts in both the home and school settings. The trainings were conducted in the home setting where a novel parent-training approach was implemented. Results: Participant 1 was continent at the end of the second day of training, and completely toilet trained (including initiation and communication) by day 10 of the intervention. Participant 2 was continent after day 1 and completely toilet trained by day 5 of the intervention. Conclusions: Long-term follow-up demonstrates maintenance of skills 3 years post training. Social validity via parent satisfaction was
assessed. Limitations to the current study and recommendations for future research were discussed. (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

Publication Type: Journal; Peer Reviewed Journal
Subject Headings: *Autism
Parent Training
Toilet Training
Source: PsycINFO
Full Text: Available in fulltext at EBSCO Host

3. Toilet training individuals with autism and other developmental disabilities: A critical review.

Citation: Research in Autism Spectrum Disorders, July 2009, vol./is. 3/3(607-618), 1750-9467 (Jul-Sep 2009)
Author(s): Kroeger, K. A; Sorensen-Burnworth, Rena
Correspondence Address: Kroeger, K. A.: Kelly O'Leary Center for Autism Spectrum Disorders, Cincinnati Children's Hospital Medical Center, University of Cincinnati College of Medicine, MLC 4002, 3333 Burnet Avenue, Cincinnati, OH, US, 45229, Kimberly.Kroeger-Geoppinger@cchmc.org
Language: English
Abstract: The following article reviews the current literature addressing toilet training individuals with autism and other developmental disabilities. The review addresses programs typical to toilet training the developmental disability population, most of which are modeled after the original Foxx and Azrin [Azrin, N. H., & Foxx, R. M. (1971). A rapid method of toilet training the institutionalized retarded. Journal of Applied Behavior Analysis 4, 89-99; Foxx, R. M., & Azrin, N. H. (1973). Toilet training persons with developmental disabilities: A rapid program for day and nighttime independent toileting. Harrisburg, PA: Help Services Press] rapid toilet training methods. Components of such programs are isolated and described in their contribution to toilet training models. Studies are then reviewed and compared for participant and study characteristics. Individual studies validating toilet training programs are then discussed in light of their program components and efficacy. Shortcomings to currently available programs are highlighted and future areas of study are suggested. (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

Country of Publication: STATEMENT: All rights reserved.; HOLDER: Elsevier Ltd.; YEAR: 2009
Publication Type: Journal; Peer Reviewed Journal
Subject Headings: *Autism
*Developmental Disabilities
*Program Evaluation
*Toilet Training
Literature Review
Source: PsycINFO

4. Risperidone-induced double incontinence.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, May 2008, vol./is. 32/4(1085-1086), 0278-5846 (May 2008)
Author(s): Herguner, Sabri; Mukaddes, Nahit Motavalli
Correspondence Address: Herguner, Sabri, cocukergen@yahoo.com
Language: English
Abstract: An increasing number of children with autistic disorder are being prescribed risperidone as part of the treatment for their behavioral problems. Here, we report two pediatric cases
who developed double incontinence (urinary and fecal) during risperidone treatment. Case 1, a 12-year-old male with autistic disorder and mild mental retardation was referred to our out-patient clinic for his aggressive, hyperactive and repetitive behaviors. Case 2, a 16-year-old male with autistic disorder and moderate mental retardation was referred to our out-patient clinic for his severe aggressive and self-injurious behaviors. In both cases, the patients experienced urinary and fecal incontinence during risperidone treatment, and had rapid remission after discontinuation of the drug. Thus, antipsychotic-induced incontinence may cause severe compliance problems for both patients and parents, it seems necessary for clinicians to be aware of the possibility of the occurrence of incontinency during risperidone treatment which can be dealt effectively with early detection. (PsycINFO Database Record (c) 2010 APA, all rights reserved)

Publication Type: Journal; Peer Reviewed Journal

Subject Headings: *Fecal Incontinence
*Risperidone
*Side Effects (Drug)
*Urinary Incontinence
Autism
Behavior Problems
Drug Therapy
Mental Retardation
Pediatrics

Source: PsycINFO

5. Risperidone-induced enuresis in two children with autistic disorder.

Citation: Journal of Child and Adolescent Psychopharmacology, August 2007, vol./is. 17/4(527-530), 1044-5463;1557-8992 (Aug 2007)

Author(s): Herguner, Sabri; Mukaddes, Nahit Motavalli

Correspondence Address: Herguner, Sabri: Istanbul Tip Fakultesi, Cocuk-Ergen Psikiyatrisi Anabilim Dali, Capa, Istanbul, Turkey, 34093, cocukergen@yahoo.com

Language: English

Abstract: Introduction: Risperidone appears to be effective in treating behavioral problems in children with autistic disorder. Although increased appetite, weight gain, and sedation are among the most common side effects, risperidone-induced enuresis is rarely reported. Method: We will present two cases with risperidone-induced enuresis, and discuss our findings in the context of current literature. Results: Two children aged 11 and 10 years, diagnosed with autism and mental retardation, have developed new-onset diurnal and nocturnal enuresis respectively on their first and second weeks of risperidone monotherapy (1.5 and 1 mg/day). They did not experience sedation, and their medical history and workup were unremarkable. As enuresis did not resolve spontaneously, we decided to substitute risperidone with olanzapine. Enuresis ceased rapidly after discontinuation of risperidone with no emergence when patients were treated with olanzapine 5 mg/day for a period of 6 months and 1 year, respectively. Discussion: Although the pathophysiology of antipsychotic-induced enuresis remains unclear, a number of mechanisms including alpha 1-adrenergic blockade, dopamine blockade, and antimuscarinic effects has been proposed. Olanzapine has lower alpha 1-adrenergic and dopaminergic blockade properties, thus changing risperidone to olanzapine may be an alternative modality in risperidone-induced enuresis when antipsychotic treatment is crucial. Clinicians should be more vigilant about screening for this side effect, especially in younger population with developmental disabilities. (PsycINFO Database Record (c) 2011 APA, all rights reserved) (journal abstract)

Publication Type: Journal; Peer Reviewed Journal

Subject Headings: *Autism
*Olanzapine
*Risperidone
*Side Effects (Drug)
*Urinary Incontinence

Citation: Journal of Developmental and Physical Disabilities, August 2007, vol./is. 19/4(291-303), 1056-263X;1573-3580 (Aug 2007)

Author(s): Keen, Deb; Brannigan, Karen L; Cuskelley, Monica

Correspondence Address: Keen, Deb: School of Education and Professional Studies, Griffith Institute of Educational Research, Griffith University, Mt. Gravatt Campus, QLD, Australia, 4111, d.keen@griffith.edu.au

Language: English

Abstract: This study assessed the effectiveness of an animated toilet training video for teaching daytime urinary control to five young boys with autism across several settings. A between and across groups multiple baseline design was used following a 2-week baseline-monitoring period. Children in the treatment condition received video modeling plus operant conditioning strategies, whereas children in the control condition received only operant conditioning strategies. Frequency of in-toilet urinations was found to be greater for children who watched the toileting video than for children who did not. Gains were maintained for three participants at a 6-week follow-up with generalization to a new setting for two participants. Results indicate that, for young children with autism who are resistant to toilet training, acquisition of urinary control may be facilitated by use of an animated toileting video in conjunction with operant conditioning strategies. (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

Publication Type: Journal; Peer Reviewed Journal

Subject Headings: *Autism
*Pediatrics
*Toilet Training
*Visual Displays

Source: PsycINFO


Citation: Focus on Autism and Other Developmental Disabilities, 2005, vol./is. 20/2(98-105), 1088-3576;1538-4829 (Sum, 2005)

Author(s): LeBlanc, Linda A; Carr, James E; Crossett, Sarah E; Bennett, Christine M; Detweiler, Dawn D

Correspondence Address: LeBlanc, Linda A.: Department of Psychology, Western Michigan University, 1903 W. Michigan Ave., Kalamazoo, MI, US, 49008-5439, linda.leblanc@wmich.edu

Language: English

Abstract: Three children with autism who were previously nonresponsive to low-intensity toilet training interventions were toilet trained using a modified Azrin and Foxx (1971) intensive toilet training procedure. Effects were demonstrated using a nonconcurrent multiple baseline design across participants. The training was conducted across home and school settings by parents and school staff. Each child achieved continence, and 2 children eventually initiated the majority of toileting events. Implications for future research and clinical practice and dissemination are discussed. (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

Publication Type: Journal; Peer Reviewed Journal

Subject Headings: *Autism
*Behavior Therapy
*Outpatients

Source: PsycINFO

**Citation:** Child & Family Behavior Therapy, 2003, vol./is. 25/4(53-63), 0731-7107;1545-228X (2003)

**Author(s):** Ricciardi, Joseph N; Luiselli, James K

**Correspondence Address:** Ricciardi, Joseph N.: Internship Program in Clinical Psychology, The May Institute Inc., One Commerce Way, Norwood, MA, US, 02062, jricciardi@mayinstitute.org

**Language:** English

**Abstract:** We report the case of an 11-year-old boy with autism who demonstrated urinary incontinence that appeared to be maintained by social contingencies (adult attention and escape from activity "demands"). Although he wet himself frequently, he also used the bathroom appropriately and made many self-initiated toileting requests. Intervention was implemented at a day-school by (1) having the boy wear a disposable diaper so immediate clothes changing was not required (escape extinction), (2) limiting requests to use the bathroom, (3) withholding attention contingent on incontinence, and (4) praising in-toilet urinating. Another element of intervention was the systematic fading of the diaper. Urinary incontinence was eliminated, the diaper withdrawn, and improvement maintained 6 months post-intervention. (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

**Publication Type:** Journal; Peer Reviewed Journal

**Subject Headings:** *Autism*  
*Behavior Modification*  
*Intervention*  
*Urinary Incontinence*  
Attention  
Avoidance  
Human Males

**Source:** PsycINFO


**Citation:** Research in Developmental Disabilities, September 2002, vol./is. 23/5(319-331), 0891-4222 (Sep-Oct 2002)

**Author(s):** Cicero, Frank R; Pfadt, Al

**Correspondence Address:** Cicero, Frank R., fcic7@aol.com

**Language:** English

**Abstract:** Independent toileting is an important developmental skill which individuals with developmental disabilities often find a challenge to master. Effective toilet training interventions have been designed which rely on a combination of basic operant principles of positive reinforcement and punishment. In the present study, the effectiveness of a reinforcement-based toilet training intervention was investigated with three children with a diagnosis of autism (aged 6, 4, and 4 yrs; 2 male, 1 female). Procedures included a combination of positive reinforcement, graduated guidance, scheduled practice trials and forward prompting. Results indicated that all procedures were implemented in response to urination accidents. All three participants reduced urination accidents to zero and learned to spontaneously request use of the bathroom within 7-11 days of training. Findings suggest that the proposed procedure is an effective and rapid method of toilet training, which can be implemented within a structured school setting with generalization to the home environment. (PsycINFO Database Record (c) 2010 APA, all rights reserved)

**Publication Type:** Journal; Peer Reviewed Journal
10. The use of priming to introduce toilet training to a child with autism.

Citation: Focus on Autism and Other Developmental Disabilities, 1999, vol./is. 14/2(106-109), 1088-3576;1538-4829 (Sum, 1999)

Author(s): Bainbridge, Nicole; Myles, Brenda Smith

Language: English

Abstract: The purpose of this investigation was to analyze the effects of priming in introducing toilet training to a 3-year-old boy with autism. Using an ABAB design, the study analyzed the number of wet and dry diapers in relation to the initiation of toilet use. The data, which were collected throughout the child's day, showed an increase in initiation of toilet use and a decrease in wet diapers when priming was used. (PsycINFO Database Record (c) 2010 APA, all rights reserved)

Publication Type: Journal; Peer Reviewed Journal

11. A stimulus control technique for improving the efficacy of an established toilet training program.

Citation: Journal of Behavior Therapy and Experimental Psychiatry, June 1994, vol./is. 25/2(155-160), 0005-7916 (Jun 1994)

Author(s): Taylor, Steve; Cipani, Ennio; Clardy, Arthur

Language: English

Abstract: Modified a widely used toilet training program described by N. Azrin and R. Foxx (1971) to reduce toileting accidents of a 10-yr-old boy with autism and severe mental retardation. The modification involved the assessment of the discriminative stimulus for eliminating (i.e., his undergarments). By removing the undergarments when an elimination became imminent, an "errorless" learning paradigm was established that allowed for more rapid and enduring acquisition of toileting skills than seen in previous training attempts. Assessments after 2-phase treatment show a zero rate of accidents and a consistent rate of correct toileting. Results indicate the present procedure could expedite training for individuals who are difficult to teach appropriate toileting skills. This can be done through an analysis of the controlling antecedent stimulus for accidents and subsequent manipulation of such stimuli. (PsycINFO Database Record (c) 2010 APA, all rights reserved)

Publication Type: Journal; Peer Reviewed Journal

12. Toilet training a sixteen year old with autism in a natural setting.
13. Training autistic children to urinate in the toilet through operant conditioning techniques.

Citation: Journal of Autism & Childhood Schizophrenia, June 1977, vol./is. 7/2 (151-163), 0021-9185 (Jun 1977)

Author(s): Ando, Haruhiko

Language: English

Abstract: Evaluated the use of operant conditioning techniques to toilet train children in an autism ward of a hospital for developmentally disturbed children. Five profoundly retarded males with clear clinical manifestations of autism were selected as Ss. Records of their urination behavior were kept during a baseline period and throughout the application of procedures. Appropriate urination behavior was immediately followed by positive reinforcers, such as candy, verbal praise, and physical affection. Inappropriate urination behavior was immediately followed by negative reinforcers, verbal as well as physical. Results show that operant conditioning techniques can be used to change the urination behavior of profoundly retarded autistic children even where other methods have failed. Factors requiring further investigation for their possible impact on the effectiveness of these procedures in toilet training autistic children are also discussed. (16 ref) (PsycINFO Database Record (c) 2010 APA, all rights reserved)