Toilet Training

Un excursus nelle pubblicazioni da Azrin e Foxx del 1971 alle più recenti revisioni sistematiche della letteratura

Le origini: Azrin e Foxx 1971

https://pmc.ncbi.nlm.nih.gov/articles/PMC1310676/

Incontinence is a major unsolved problem in the institutional care of the profoundly retarded. A reinforcement and social analysis of incontinence was used to develop a procedure that would rapidly toilet train retardates and motivate them to remain continent during the day in their ward setting. Nine profoundly retarded adults were given intensive training (median of four days per patient), the distinctive features of which were artificially increasing the frequency of urinations, positive reinforcement of correct toileting but a delay for "accidents", use of new automatic apparatus for signalling elimination, shaping of independent toileting, cleanliness training, and staff reinforcement procedures. Incontinence was reduced immediately by about 90% and eventually decreased to near-zero. These results indicate the present procedure is an effective, rapid, enduring, and administratively feasible solution to the problem of incontinence of the institutionalized retarded.

Greer et al., 2016 JABA

Journal of Applied Behavior Analysis

JOURNAL OF APPLIED BEHAVIOR ANALYSIS 2016, **49**, 69–84 NUMBER 1 (SPRING)

A COMPONENT ANALYSIS OF TOILET-TRAINING PROCEDURES RECOMMENDED FOR YOUNG CHILDREN

BRIAN D. GREER, PAMELA L. NEIDERT, AND CLAUDIA L. DOZIER

UNIVERSITY OF KANSAS

We evaluated the combined and sequential effects of 3 toilet-training procedures recommended for use with young children: (a) underwear, (b) a dense sit schedule, and (c) differential reinforcement. A total of 20 children participated. Classroom teachers implemented a toilet-training package consisting of all 3 procedures with 6 children. Of the 6 children, 2 showed clear and immediate improvements in toileting performance, and 3 showed delayed improvements. Teachers implemented components of the training package sequentially with 12 children. At least 2 of the 4 children who experienced the underwear component after baseline improved. Toileting performance did not improve for any of the 8 children who were initially exposed to either the dense sit schedule or differential reinforcement. When initial training components were ineffective, teachers implemented additional components sequentially until toileting performance improved or all components were implemented. Toileting performance often improved when underwear or differential reinforcement was later added.

Key words: differential reinforcement, sit schedule, toilet training, underwear

3 procedure

1. Underwear: indossare la biancheria e non il pannolino
2. Dense sit schedule: andare al bagno di frequente
3. Differential reinforcement: rinforzare le evacuazioni nel WC

L'obiettivo è di identificare i componenti necessari e sufficienti del toilet training

Metodo

20 bambini tra I 19 e i 39 mesi con una storia di insuccessi.

L'intervento consisteva in 1 oppure in tutti i componenti del trattamento.

La misura di efficacia consisteva nella frequenza degli incidenti e nella frequenza delle inziative spontanee di andare in bagno

Risultati

- Il pacchetto di intervento completo (underwear, dense sit schedule, & differential reinforcement) ha comportato un chiaro e dimostrabile miglioramento in 2 dei 6 bambini. L'iniziativa è però rimasta molto bassa in tutti.
- Le strategie individuali hanno portato un miglioramento ancora più ridotto, che migliorava leggermente se almeno 2 strategie erano combinate tra loro (es. Underwear & reinforcement)

Toilet training a… scuola!

Toilet Training Children With Autism and Developmental Delays: An Effective Program for School Settings

Michael A. Cocchiola, Jr., Gayle M. Martino, Lisa J. Dwyer, and Kelly Demezzo
Capitol Region Education Council:
CREC River Street Autism Program

ABSTRACT

Current research literature on toilet training for children with autism or developmental delays focuses on smaller case studies, typically with concentrated clinical support. Limited research exists to support an effective school-based program to teach toileting skills implemented by public school staff. We describe an intervention program to toilet train 5 children with autism or developmental delays who demonstrated no prior success in the home or school setting. Intervention focused on (a) removal of diapers during school hours, (b) scheduled time intervals for bathroom visits, (c) a maximum of 3 min sitting on the toilet, (d) reinforcers delivered immediately contingent on urination in the toilet, and (e) gradually increased time intervals between bathroom visits as each participant met mastery during the preceding, shorter time interval. The program was effective across all 5 cases in a community-based elementary school. Paraprofessional staff implemented the program with minimal clinical oversight.

Keywords: autism, paraprofessional staff, school setting, toilet training

Contesti scolastici

- Bassa intensità di supervisione clinica
- Training implementato da figure assistenziali (paraprofessionals)
- Bambini con autismo e/o ritardi dello sviluppo
- Obiettivo di prolungare i periodi di «continenza»

Metodo

5 maschi di età compresa tra i 3 e i 5 anni e una storia di insuccesso nel toilet training

Scuola dell'infanzia per alunni con disabilità

Supervisione di un analista del comportamento certificato BCBA

Pacchetto di trattamento composto da:

- Rimozione del pannolino
- Frequenti accompagnamenti al bagno
- Rinforzo per minzione in bagno

Multicomponent package

- Rimozione del pannolino
- Inizialmente accompagnamenti al bagno ogni 30 minuti, con intervalli progressivamente crescenti
- Consegna immediata di un rinforzo (cibo o gioco preferito) appena il bambino urinava nel bagno per poi ridurre la tabella di rinforzo progressivamente
- Incremento dei liquidi offerti al bambino durante il giorno

Risultati

- Tutti i 5 studenti hanno raggiunto il criterio di 100% pipì nel WC e intervallo di 2 ore tra le «sedute» in una media di meno di 2 mesi di scuola (tra i 32 e gli 88 giorni).
- Non è stato necessario implementare protocolli altamente specialistici o molto intrusivi come la sovra-correzione (conosciuta anche come pratica positiva)

Resta da esplorare…

La generalizzazione dopo il training a scuola e l'inclusione di procedure che sostengano l'iniziativa autonoma a usare il bagno, per sganciarsi progressivamente dalla tabella oraria.

2021 revisione sistematica del RTT

La letteratura applicativa relativa al protocollo originale di Azrin e Fox (1971) è molto estesa e presenta diverse variazioni procedurali.

Il protocollo comportamentale più diffuso, pur nelle variazioni è il RAPID TOILET TRAINING (RTT).

La revisione sistematica del 2021 esamina 55 studi pubblicati nei 50 anni dalla pubblicazione della ricerca originaria RTT.

50 anni di toilet training: revisioni sitematiche del 2021 e 2022

Education and Training in Autism and Developmental Disabilities, 2021, 56(2), 140–157
© Division on Autism and Developmental Disabilities

A Systematic Review of Rapid Toilet Training Intervention Intensity for Individuals with Intellectual and Developmental Disabilities

Jenee Vickers Johnson
University of Kansas

Jason C. Travers
Temple University

Heather J. Forbes and Kathleen Zimmerman
University of Kansas

Abstract : *Approximately 50 years of research on rapid toilet training (RTT) first used by Azrin and Foxx (1971) indicates RTT is effective for teaching individuals with intellectual and developmental disabilities (IDD) independent toileting routines. Professionals focused on toilet training may be familiar with RTT procedures but be less informed about the frequency and duration of RTT application. We systematically reviewed the intervention research focused on rapid toileting training to better understand the intensity of RTT in the intervention research literature. Results indicated intensity varied considerably by study but suggest RTT will require approximately 30-min inter-sit intervals for six days per week, for a total of 373 hours to produce the effect. Implications for research and practice are discussed.*

	Toilet Training Procedures														Intensity	
	Video modeling	Stimulus fading procedure	Elimination-based schedule	Preference assessment	Request training	Progressive sitting schedule	Parent training	Initiation training*	Urine alarm*	Systematic instruction*	DRO for remaining dry*	Fluid increase*	Punishment*	Diaper removed*	Cumulative Intensity (hours)	Number of Treatment Sessions
Ando (1977)																183.6
Ardiç & Cavkaytar (2014)															37.8	6.7
Azrin & Foxx (1971)															48.0	6.0
Azrin et al. (1971)															60.0	14.5
Bettison et al. (1976)															116.8	15.6
Brown & Peace (2011)															362.5	50.0
Chung (2007)															306.0	49.0
Cicero & Pfadt (2002)															31.2	5.7
Cocchiola et al. (2012)															369.9	56.4
Connolly & McGoldrick (1976)															135.0	30.0
Didden et al (2001)																38.5
Dixon & Smith (1976)																
Doan & Toussaint (2016)																23.0
Dunlap et al. (1984)																415.3
Edgar et al. (1975)																
Greer et al. (2016)															161.0	23.0
Hagopian et al. (1993)																110.0
Hundziak et al. (1965)															189.0	27.0
Keen et al. (2007)															818.4	74.4
Kroeger & Sorensen (2010)																4.5
Lancioni & Ceccaroni (1981) - 1															156.6	21.6
Lancioni & Ceccaroni (1981) - 2															168.6	23.3
Lancioni et al. (1994)																
Lancioni et al. (2000)															763.0	109.0
Leblanc et al. (2005)																19.7

Conclusioni

La durata media del toilet training comportamentale in letteratura è di 77 giorni, indicatori di successo:

Utilizzo della biancheria e NON del pannolino

Frequenti occasioni di contattare rinforzo (brevi e frequenti sedute in bagno)

Applicazione quotidiana trasversale a tutti i contesti di vita.

Cambio indipendente e collaborazione con le procedure di pulizia in caso di incidenti

2022 revisione sistematica

ELSEVIER

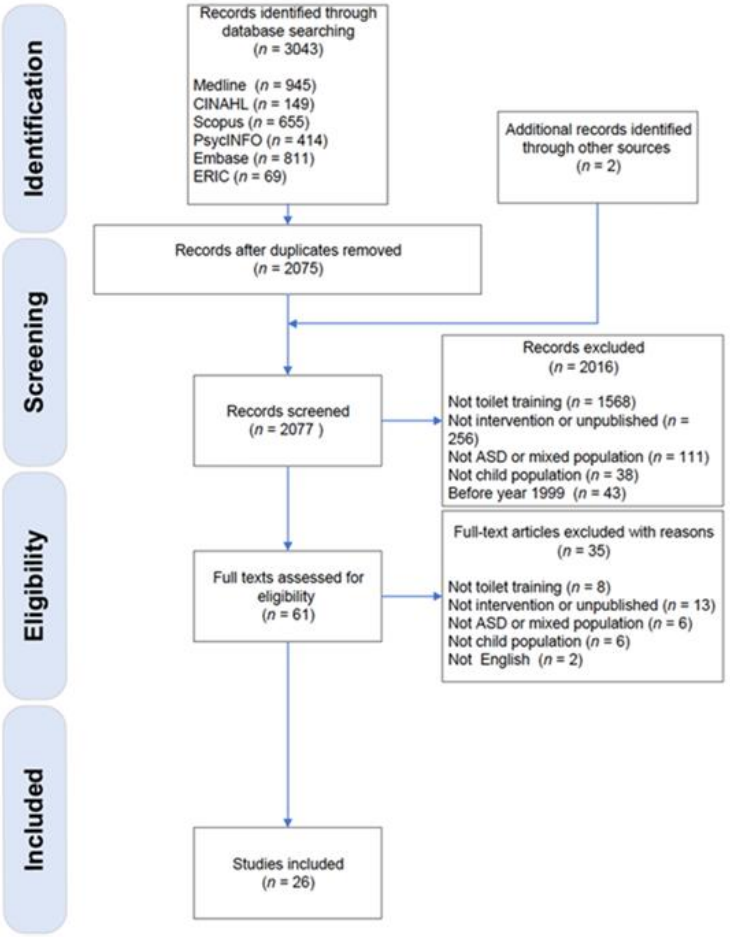
Research in Autism Spectrum Disorders

Volume 99, November 2022, 102049

Toilet training interventions for children with autism spectrum disorder: A systematic review

Megan Simon [a], Sarah Wilkes-Gillan [a], Yu-Wei Ryan Chen [a], Reinie Cordier [b c], Alycia Cantrill [a], Lauren Parsons [c], Jia Jun Phua [a]

26 studi, per la maggior parte basati sul protocollo orginale di Azrin e Foxx



Resta ancora molto da investigare

E la letteratura disponibile presenta lacune in termini di rigore metodologico e di ampiezza del numero di partecipanti.

Le strategie applicate sono diverse tra loro e rendono difficile la comparazione e la sintesi dei risultati, per questo le raccomandazioni possono solo essere deboli. Inoltre quasi tutti gli studi riportano interventi solo sull'enuresi diurna e non sull'enuresi notturna e l'encopresi.

Nonostante una letteratura cosi vasta

Table 3
Summary of Toilet Training Interventions for Children With ASD.

Author; year	Setting; trainer; dosage (time; days)	Intervention description	Intervention strategies	Outcome measures	Main intervention results
Ardic and Cavkaytar 2014	*Setting:* Special ed. center; home *Trainer:* Researcher; parents *Dosage:* 6 hrs.; 7 d	A modified RTT program. Included (1) researchers training children in listed intervention strategies, and (2) researchers training parents to reduce negative response to accidents and implement some strategies at home.	*Reinforcement:* Social praise; edible; toy *Punishment or accident response:* Toy removed; taken to toilet; clothes changed; cleaning with least care; no verbal expression *Scheduled sits:* Type 3 (medium sit, long break); prevented from leaving toilet room *Fluids or medication:* Max 2 glasses of water, not forced *Environmental mods:* Diapers not worn *Teaching strategy:* Physical prompt to sit on toilet *Communication:* Adult delivered instruction	*Toileting:* % In-toilet urination; % wetting-self *Others:* Family report on validity	*BL*: 3/3 children in-toilet urination 0%; 3/3 children wet self 33–67% *INT*: 2/3 children achieved 100% in-toilet urination, wet self 0%; 1/3 improved, however no meaningful data; 2/3 parents' expectations thoroughly satisfied *FU:* NR
Call et al. (2017)	*Setting:* Outpatient clinic *Trainer:* Clinic staff *Dosage:* 4 hrs.; 13–16 d	A combined behavioral and medical regime. Children's constipation was resolved prior to intervention. Listed intervention strategies conducted by therapists (behavioral treatment) and nurses (suppositories). By the end of treatment, caregivers were trained in procedures.	*Reinforcement:* Social praise; edible; leisure item *Punishment or accident response:* Guided to toilet; little attention in absence of BM *Scheduled sits:* Type 2 (medium sit, short break) *Fluids or medication:* Glycerin or bisacodyl suppository *Environmental mods:* Feet flat on floor or stool *Teaching strategy:* Increasing assistance to stay sitting and wash hands	*Toileting:* Continent; incontinent BM	*BL:* 1/2 children no BM; 1/2 children no continent BM. *INT*: Daily independent (non-reliant on suppository) continent BM achieved in 6–16 training days. *FU*: 2/2 caregivers reported continence maintained 1 month following intervention
Cagliani et al. (2021)	*Setting:* School *Trainer:* Researchers *Dosage:* 6 hrs.; 10 – 13 d	A modified RTT program for older children with more failed training attempts. Conducted in the participants' special education classroom as a part of their regular school program.	*Reinforcement:* Edible; leisure item; verbal praise; dry checks *Punishment or accident response:* Neutral affect; taken to toilet *Scheduled sits:* Type 1 (short sit, medium-	*Toileting:* On-toilet voids; off-toilet voids; initiated voids	*BL:* 2/2 children 100% diaper voids; 2/2 children no initiation *INT*:2/2 children 100% in toilet voids on 10–13th day intervention; 2/2 children 50–63% initiations

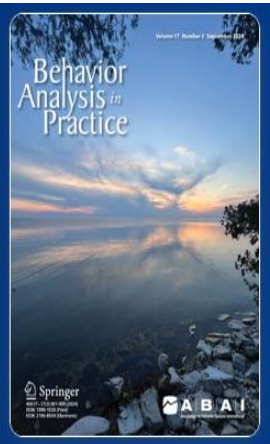
2023 Behavior Analysis in practice

Home › Behavior Analysis in Practice › Article

Resolving Barriers to Continence for Children with Disabilities: Steps Toward Evidence-Based Practice

Discussion and Review Paper | Open access | Published: 26 December 2023

Volume 17, pages 157–175, (2024) Cite this article



Behavior Analysis in Practice

Una diagnosi di ASD

- Appare predittiva di un ritardo nel toilet training e le criticità permangono in età adulta tanto che circa il 30% degli adulti con disabilità dello sviluppo presenta lacune nelle autonomie del bagno.
- La collaborazione con le figure mediche è fondamentale per assicurare trattamenti efficaci e rispettosi nell'applicazione dei protocolli comportamentali per il toilet training (Behavior Analytic Toilet Training, BATT)

Ci sono barriere all'efficacia del toilet trainig

Behavior-analytic toilet training (BATT) methods to support urine continence have been reviewed and replicated in numerous studies. Despite empirical validations of BATT, children with disabilities may not experience successful toilet training nor access the associated health and social benefits of urinary continence. It is possible these outcomes are partially due to practical barriers that arise throughout urine training. In practice, barriers may interfere with toilet training to the extent that training is postponed or discontinued, resulting in long-term incontinence and other related problems. Examples of barriers include problem behavior, excessive urine retention, recurrent accidents, and excessive or insufficient independent self-initiations to toilet. Researchers have sometimes described strategies to address these types of barriers. However, practitioners may not be aware of these strategies because they are secondary to the purpose of an investigation and may only apply to a subset of participants. The purpose of this review article is to synthesize the collection of barrier solutions described in published research on urine training for children with developmental disabilities. Results may assist practitioners in modifying BATT according to an evidence-based practice framework until their clients overcome barriers to achieve urine continence.

Le barriere nei 26 articoli esaminati

	Problem Behavior	Excessive Urine Retention	Recurrent Accidents	Problems with Self-Initiations
Siegel (1977)			♦♦	
Richmond (1983)			♦♦	
Luiselli (1987)			♦♦	♦♦
Heyward (1988)		♦♦		
Hagopian et al. (1993)	♦♦	♦♦	♦	
Taylor et al. (1994)		♦♦		
Luiselli (1996b)		♦♦	♦	
Luiselli (1997)		♦♦		
Duker et al. (2001)	♦♦		♦♦	
Ewing et al. (2001)				♦♦
Cicero & Pfadt (2002)				♦♦
Ricciardi & Luiselli (2003)	♦		♦♦	♦♦
Post & Kirkpatrick (2004)	♦♦	♦	♦	
LeBlanc et al. (2005)		♦♦	♦	♦
Chung (2007)	♦♦		♦♦	
Foxx & Garito (2007)	♦♦		♦	
Luiselli (2007)		♦♦		

Le strategie per ridurre le barriere

Riportate in letteratura sono numerose (es. allungare gli intervalli per incrementare la possibilità di iniziative spontanee verso il bagno) ma spesso applicate solo con pochi studenti e con variazioni individuali.

In particolare in questa area cosi delicata e importante la collaborazione interprofessionale (con le figure mediche) e il coinvolgimento della persona (assenso) assumono rilevanza cruciale.

Per approfondire, in italiano:

Parent Training nel disturbo dello spettro dell'autismo

Sintesi del capitolo su Toilet Training

www.paneecioccolata.com/wp2/parent-training-nel-disturbo-dello-spettro-dellautismo

Per approfondire… ancora….