

Hofmeester I¹, Cobussen-Boekhorst J (G L², Kortmann B B M², Mulder Z³, Steffens M G⁴, Feitz W F J², van Capelle J W⁵, Blanker M H⁶

1. Department of Urology, Isala, Zwolle, the Netherlands. 2. Pediatric Urology Center, Department of Urology, RadboudUMC, Amalia Children's Hospital, Radboud University Medical Center, Nijmegen, the Netherlands. 3. Dry Bed Center, Noorderboog hospital, Meppel, the Netherlands. 2. Pediatric Urology Center, Department of Urology, RadboudUMC, Amalia Children's Hospital, Radboud University Medical Center, Nijmegen, the Netherlands. 3. Dry Bed Center, Noorderboog hospital, Meppel, the Netherlands. 4. Department of Urology, Isala, Zwolle, the Netherlands. 5. 1. Department of Urology, Isala, Zwolle, the Netherlands. 2. Dry Bed Center, Noorderboog hospital, Meppel, the Netherlands. 6. Department of General Practice, University of Groningen, University Medical Centre Groningen, Groningen, the Netherlands

HIGH SHORT-TERM EFFECTIVENESS OF MODULATED DRY BED TRAINING IN ADOLESCENTS AND YOUNG ADULTS WITH TREATMENT-RESISTANT ENURESIS

Hypothesis / aims of study

Two percent of adolescents and adults suffers from enuresis. In this age group, social problems can arise. We evaluated the effect of a Modulated Dry Bed Training (MDBT) in a previously therapy-resistant group of adolescents and adults with enuresis, provided by a specialized enuresis-centre.

Study design, materials and methods

Descriptive, retrospective cohort study. Between January 2003 and July 2013, 907 patients were treated by MDBT: a 5-days/4-nights in-hospital training in small groups consisting of enuresis-anamnesis, explanation, alarm treatment, day-time activities with the purpose of increasing self-esteem and group contact. We contacted patients by phone during follow-up. Patient data were retrospectively derived from medical files and put in a database. Success of treatment was determined using International Children's Continence Society (ICCS)-definitions, at 6 weeks, 3 and 6 months. Secondary outcome was the medication use after treatment. Sensitivity analyses were performed to control for missing values, and expressed in a best case and a worst case scenario.

Results

Patients were aged 11–42 years (median 15, IQR 3.5), 34% female. At baseline, 65% had primary enuresis, 81% non-monosymptomatic enuresis, and 46% frequent enuresis (≥ 4 days/week). After 6 weeks, 46% (CI95% 43-50) and 41% of patients had a full or partial response, respectively. After 6 months this was 68% (CI95% 65-72) and 25%. Results from the sensitivity analysis are shown in the table.

Interpretation of results

The treatment response at six months can be considered to be quite high, as this is a formerly therapy-resistant group of enuresis patients. However, the sensitivity analysis shows that, owing to the large amount of missing values, the real number of patients having a full response after six months will lie between 43% and 80%.

Concluding message

MDBT was shown to have an adequate short term effect in therapy resistant adolescents and adults with enuresis.

Response category (ICCS)	Response after 6 weeks, % (n)			Response after 3 months, % (n)			Response after 6 months, % (n)		
	No	Partial	Full	No	Partial	Full	No	Partial	Full
Worst case scenario*	42 (381)	27 (249)	31 (277)	42 (384)	21 (194)	36 (329)	42 (378)	16 (141)	43 (388)
Available data	13 (76)	41 (249)	46 (277)	11 (67)	33 (194)	56 (329)	7 (39)	25 (141)	68 (388)
Best case scenario*	8 (76)	27 (249)	64 (582)	7 (67)	21 (194)	71 (646)	4 (39)	16 (141)	80 (727)

Table. Treatment results after 6 weeks, 3 and 6 months, including sensitivity analysis

* Assumption worst-case/best-case scenario: patients with missing values had no response/full response.

Disclosures

Funding: I. Hofmeester received funding by the Isala Innovation and Research Fund, during the conduct of the study. **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** METC Zwolle **Helsinki:** Yes **Informed Consent:** No