

OBSERVING READINESS SIGNS IN YOUNG, HEALTHY CHILDREN

Hypothesis / aims of study

Nowadays consensus on when to start toilet training (TT) or which method to use is lacking and no evidence-based research assessing which readiness signs should be used is currently available, which has negative consequences on health, family, economy and environment [1, 2]. This study is the first in a series of researches investigating the use of readiness signs in an evidence-based way. With this study we wanted to check whether it is possible to observe the readiness signs of a list we created after a thorough literature review on signs of toilet readiness in young healthy children.

Study design, materials and methods

We observed 24 healthy children recruited in two childcare centres in Flanders. The children had a normal mental and physical development and were between 12 and 32 months old. Children with urological, neurological, organic or behaviour problems were excluded from the study. Each child was observed for one day in day-care (approximately eight hours). The observer did not interfere, but watched for readiness signs of the child.

Results

In table1 the results are shown: the observed children are divided in three groups according to their phase in the TT process and for each readiness sign the number of children in which the readiness sign was observed is given. At the moment of observation, seven of the children had not started TT yet, thirteen children had started TT, but were not yet toilet trained and four children were toilet trained. We observed twelve girls and twelve boys.

Interpretation of results

It is important that parents as well as caregivers, like childcare workers, can assess a child's readiness for TT in an easy way, without the use of difficult assessment scales. The results of this study show that some of the signs from the used list are not easy to observe. First of all, readiness sign 6, 10 and 18 could not be observed in any of the observed children and therefore these should be excluded from the list with readiness signs in future research. Next, one readiness sign, readiness sign 17, could not be observed in the 24 children, but we did observe it in other children in the day care setting. Therefore it is reasonable to keep it in the list. Moreover, it appeared that sign 12 was not formulated in a good way for observation. It contains two elements that in practice do not always appear at the same age. We suggest to split this sign into two new signs: 'the child understands potty words' and 'the vocabulary of the child: 0= the child does not use words and does not understand what you say; 1= the child does not use words but understands what you say, passive word knowledge; 2= the child uses already a few words; 3= the child has a broader word knowledge'.

Further research is necessary to investigate to which extent these signs, suggested in the literature, are good indicators of the child's toilet readiness. Moreover, it would be interesting to evaluate how many of these signs should be present before starting TT.

Concluding message

Instead of using age as only criterion, the majority of researchers supports the idea of waiting with starting TT until the child shows signs of toilet readiness [3]. Yet, there is no agreement, nor evidence-based research, on which readiness signs to use when assessing a child's readiness [1]. Our study is, to our knowledge, the first study that investigates the possibility to observe the readiness signs from a list based on a thorough literature search combining the signs suggested by different authors. The results of this study show that not all readiness signs are easily assessed or formulated well. This study results in a list with 19 signs, which can be observed in young, healthy children in day-care. Further research on readiness signs is needed to investigate which, and how many readiness signs should be present in the child.

Table1 Number of children in whom the readiness sign was observed

Readiness sign	Children who had not yet started with TT (N=7)	Children who had started with TT, but were not yet toilet trained (N=13)	Children who were toilet trained (N=4)
Sign1: child can imitate behaviour	7	13	4
Sign2: child is capable of sitting stable and without help	7	13	4
Sign 3: child can walk without help	5	13	4
Sign 4: child is able to pick up small objects	7	13	4
Sign 5: child can say no as sign of independence	2	12	4
Sign 6: voluntary control over bowel and bladder reflex actions	/	/	/
Sign 7: child understands and can respond to directions, questions or explanations and can follow simple commands	5	12	4

Sign 8: child expresses a need to evacuate. The child indicates most of the time by himself/herself that he/she has a wet / dirty pants	0	3	3
Sign 9: child enjoys putting things in containers	2	4	1
Sign 10: child has sufficient neurologic development, complete myelination	/	/	/
Sign 11: awareness of bladder sensations and the need to void	0	2	3
Sign 12: child understands potty related words and has an adequate vocabulary of his own	1	11	4
Sign 13: child wants to participate in, wants to cooperate with the toilet training and the child shows interest in toilet training	0	7	4
Sign 14: child has a bigger bladder capacity	0	2	2
Sign 15: child insists on completing tasks without help and is proud of new skills	2	6	4
Sign 16: child is asking for the pot	0	3	3
Sign 17: child wants to be clean and is distressed by wet or soiled diapers	/	/	/
Sign 18: child wants to wear grown-up clothes	/	/	/
Sign 19: child is able to pull clothes up and down	0	3	4
Sign 20: child stays bowel movement-free overnight	2 (5 missing)	4 (5missing)	2 (2missing)
Sign 21: child begins to put things where they belong	1	8	4
Sign 22: child can sit still on the potty for 5-10 minutes	0	8	4

References

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2. Joinson C, Heron J, Von Gontard A, Butler U, Emond A, Golding J. A prospective study of age at initiation of toilet training and subsequent daytime bladder control in school-age children. *Journal of developmental and behavioral pediatrics* 2009; 30, 5: 385-393
3. American Academy of Pediatrics. Toilet training guidelines. *Pediatrics* 1999; 103(6): 1362-1368

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Was informed consent obtained from the patients?	Yes