Using Prompts to Improve Toilet Training for Children with Physical Disabilities

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Achieving toilet training is a much-anticipated milestone for every child and their parents. It requires maturity in motor skills and cognition as well as emotional readiness. It combines the organization and understanding of sensory cues with communication, motor planning, and timely task performance. Children typically achieve day-time continence between two and three years of age.[1,2] However for children with multiple disabilities, toilet training is a long, complicated and stressful process; no single method is tried and true.[2-5] Regardless of the toileting method used, certain strategies can improve results, including the underused strategy of using prompts. **The effective use of prompts to shape behaviors and function during toileting can lead to better toilet training outcomes in children with physical disabilities.**

Making Time for the Toileting Discussion

Most children demonstrate toileting readiness around 18-30 months of age.[1] Although many children with disabilities demonstrate this same readiness,[4] there is often no time for the toileting discussion at routine medical appointments as the conversation typically focuses on the more immediate medical considerations.[6,7] Parental concerns over toileting progress, management of the bowel and bladder, and recommendations for adaptive equipment often take a back seat.[6-8]

Studies show that parental stress is high when a child in the family has toileting concerns,[5] and ignoring these concerns can increase the stress.[6] Therefore, early and ongoing consultation with the child's pediatrician and therapy team is essential and provides the supportive environment to begin the challenging journey of toilet training and set reasonable expectations for these children.[1,7,9] Parents must also understand that since their child has special needs, their toileting method will be unique and may take longer than they expect.[10] Special modifications and adaptations should be embraced rather than avoided.[3,11,12] Effective toileting not only maintains a healthy bowel and bladder,[3] but significantly impacts a child's quality of life.[4,7,13] Regardless of their physical condition or cognitive status, the majority of children with disabilities eventually meet the toileting milestone or achieve some degree of continence with appropriate training and support.[4, 6, 7, 9, 10] This training involves persistence, patience and teamwork to overcome the barriers to toileting.[1,7]

Assessing Toileting Readiness

A child's readiness to toilet is not age-dependent, but it is reflective of their emotional, cognitive, and physical development.[7,9,14] Pushing a child prematurely into toileting can be frustrating for both parent and child.[9,14] However, this does not rule out the capacity of early intervention services to improve and develop the skills necessary for independence in toileting at a young age.[7] Signs to watch for that may indicate a child is developmentally ready and interested in toileting include:

- The child notices when diaper or clothing is wet or soiled.
- The child shows interest in others' toileting behaviors.
- The child demonstrates the ability to sit (with or without support).
- The child indicates the need to go to the bathroom through expressions, postures, signs or words.
- The child has bowel movements that are solid and well-formed.

Other signs of readiness – such as staying dry for more than an hour or the ability to ambulate and adjust clothing – are desirable but not necessary for toilet training to begin. Indeed, children who never learn to ambulate can still participate in the toileting routine and learn continence.[1,7,15]

Parents and caregivers should be ready too.[9] Toilet training a child with special needs takes time, commitment and consistency.[9] Some toilet training methods recommend that parents allot a few hours every day to helping their child achieve the goal.[10,11] Others recommend offering regular scheduled toileting opportunities throughout the day.[9,15] Toileting readiness also involves addressing a child's medical, communication, and adaptive equipment needs related to the task.[6] If these are not addressed prior to toilet training, they can become significant barriers to success.[6]

Barriers to Toileting for the Child with Disabilities

The physical or behavioral presentation of a disability or condition may indicate the need for additional treatment and support to help a child reach toileting readiness. Fortunately, the majority of problems can be resolved; often a visit to the child's primary care physician will help determine the source of the problem and how best to treat it.[6,7,9,11] It may be as simple as taking a medication to control behavior, or delaying toilet training until a child with cerebral palsy has developed more bladder awareness and control.[7,9]

Additionally, understanding and compensating for a disability's effect on each stage of toilet training is essential. For instance, a child with spina bifida may never develop bladder awareness, but can learn to manage a catheter effectively and then habit-train to use the toilet for bowel movements.[4,6,7,9] Alternatively, frequent trips to the toilet can help children with poor bladder awareness meet their toileting needs.[9,11]

Medical Barriers

Frequently, children with special needs have undetected medical issues that may affect toileting readiness. Common issues include urinary tract and bowel infections, celiac disease, diarrhea and constipation. A child should be checked medically before any training starts, as medications, dietary solutions and other interventions to address these issues will positively affect the toileting outcomes.[4,7,9,11]

Other conditions – an abnormally wide bladder neck or defective bowel and bladder sphincters – occasionally create barriers to toileting as well.[7,11] In these cases, children cannot effectively close their sphincters to prevent wetting and soiling. Without corrective surgery, a child will most likely remain incontinent.[7,11]

Physical Barriers

Physical challenges to toileting include muscle tone, weakness or balance issues that make it difficult to approach, get on and stay on a potty or toilet.[3,4 9,11,12,14] In a survey conducted by Emma Pivato, PhD, which explored parents' perceived physical barriers to toileting their child with special needs, over half the respondents cited a lack of adaptive toileting equipment as a problem.[16]

During toilet training, children with disabilities sit longer on

the toilet to achieve complete voiding and continence.[3,17] This can range from two to five minutes at a time (or more) for multiple sessions throughout the day.[11,17,18] This makes stability, comfortable positioning and adequate support on the toilet essential[4] – and finding the right adaptive equipment (including equipment for mobility and transfers) an important prerequisite to toileting readiness.

Barriers Caused by Lift and Transfer Issues

The inability to bear weight or walk independently presents unique toileting challenges. In Emma Pivato's survey, nearly all respondents reported lifting issues as a major barrier to toilet training their child with special needs.[16] In some cases, toilet training was stopped because the daily lifting was too strenuous.[16]

In the case of mobility limitations, a supportive gait trainer or adaptive walker can facilitate mobility and weight bearing during the toileting process. Sometimes, however, all that is needed is a different approach – such as the MOVE Program. This program instructs providers and parents in "upright toileting," where from a young age, children remain in an upright position for clothing adjustments, removal and application of incontinence products, cleaning, and skin inspection before they engage in the stand-to-sit and sit-to-stand transitions typical of toileting. The goal is to improve independence in functional motor skills and to provide early, consistent, regular opportunities for toileting.[15,19] As preparing for toileting in the upright position gives a child the natural opportunity to practice a sit-to-stand transition, it is interesting to note that the ability to perform the sit-to-stand skill improves mobility and self-care in children with disability.[20,21]

The key to success is the upright changing and transfer station (or for the young learner, support against the caregiver's legs). This allows children to participate in the sit-to-stand transfer, then remain in a supported standing position by resting their trunk on the padded surface while clothing adjustments or diaper changes are completed in preparation for sitting on the toilet.[15] With this program, even individuals with severe involvement can be toilet trained and participate in their toileting transfers, vastly reducing any lifting on the part of the caregiver,[15,22,23] and at the same time practice and improve their functional sit-to-stand skills.

The Role of Prompts in Toilet Training

Once the initial barriers have been addressed and parents are ready to dedicate time and energy to the process, toilet training can begin. There are many approaches to toileting the child with special needs,[7,10,11] but one aspect common to all is the use of prompts to achieve a good outcome.[11,24,25] Prompts can be verbal, physical, or sensory in nature. They are fundamental to behavioral training and treatment programs because they can initiate a desired response when addressing skill deficiencies.[18,26,27] As toileting requires planning strategies and a sequence of motor skills, it can be overwhelming at first; prompts at various steps along the way will help guide the child through the task.

Breaking Down the Task

The first phase in using prompts involves breaking down the toileting task into smaller steps to determine where cues are needed and which steps must be learned.[9,11,19] This task analysis allows caregivers to draw up an individualized plan of action. The breakdown might look something like this:

1. Approach the toilet
2. Remove clothing
3. Sit on toilet
4. Void
5. Rise from the toilet
6. Replace clothing
7. Flush

8. Wash hands
9. Leave bathroom

Prompts are placed wherever there is difficulty in performing a step. The prompts may not be ideally placed at first, so it is important to assess performance each time, making changes where necessary.[11] Understanding why certain steps are difficult may be helpful in choosing appropriate prompts.

Behavioral Prompts

For children with cognitive issues, the focus is on communicating the need to go to the toilet, holding in the urine while completing the steps in sequence without distraction, voiding, and then following through with the final steps.[11] Sometimes all that is needed to prompt this desired behavior is a reward, praise, or encouragement.[17]

Children with more behavioral involvement may need additional assistance. Modeling, verbal or visual prompts to direct the sequence and skills, followed by physical guidance can be helpful. Physical guidance involves gently moving the child in the right direction or through the necessary actions.[11]

Verbal prompts and physical guidance should be used sparingly, so the child has the opportunity to work through the problem without relying too heavily on supervision.[11] Delayed prompting provides space for the child to overcome the challenge; giving a prompt only if the child is unable to perform the task or becomes distracted can be effective. Delayed prompting has been associated with longer retention of skills, especially in children with cognitive issues.[25]

Physical Prompts

For children who are non-ambulatory or need assistance with walking and weight-bearing, routine inclusion of the functional skills needed for toileting into daily practice is beneficial, and contributes to further toileting independence.[15,19,28-30] For example, hanging a picture on the wall in art class or participating in the pledge of allegiance could provide opportunities to perform a sit-to-stand transfer during school hours. A child could work on active sitting skills while eating in the cafeteria or at home.

Accommodating physical disabilities may require additional steps during task analysis.[11] A child who approaches the toilet in a wheelchair needs a sit-to-stand transfer before clothing removal. Prompting in this area could take the form of caregiver assistance or adaptive equipment to physically support the child in functional postures and positions.[15]

Children may struggle with independent sitting on the toilet because of muscle tone, balance issues or contractures. If a child is not secure and comfortable while on the toilet, the core muscles cannot relax, making it difficult to void.[3,14,17] These children will require additional support such as a commode with an adjustable backrest, laterals, abductor, or footboard, as well as a transfer table, grab bar, gait trainer or caregiver support.[12,15] These are all considered prompts: they are not designed to take the place of a skill, but rather to help a child accomplish the task while learning new skills.[19] The end goal is to fade these prompts and build independence.[19]

Prompt Reduction

"Prompt reduction" or "most-to-least" prompting are terms describing the graded removal of supports and cues as a child starts to master a skill or accomplish a step.[19,25,31] Task practice is the means to prompt reduction and the most important variable for motor learning and skill acquisition.[11,19, 28-30] To get sufficient practice, the child should be an active participant in every aspect of the toileting task, and many practice opportunities should be provided. As practice improves performance and independence in a skill, fewer prompts are needed. For example, with daily skill practice in the classroom and during toileting episodes, a child's head and trunk control

will improve, requiring less physical support. Depending on the level of achievement, the headrest on the commode may either be adjusted to provide less support or be removed altogether, giving a child more independent movement and control. The same applies to verbal cues and physical guidance. The goal is to perform a skill with total independence.[19]

Prompt reduction generally leads to favorable results with fewer errors and better skill retention.[22-25, 31-33] Even a slight improvement toward independence in this area can facilitate progress towards toilet training and have a major impact on quality of life.

Conclusion

Independent toileting is a developmental milestone in the life of every child. For a child with disabilities, meeting this milestone requires navigating the barriers and additional challenges: medical conditions, behavior and delayed or absent mobility skills. Using tailored guidance and assistance in the form of prompts helps channel behaviors and meet the motor demands of almost every toileting method. Although their significance is often overlooked, prompts, if used appropriately, can effectively improve toilet training outcomes in children with disabilities.

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