RESEARCHER FINDS THAT INTERNET-BASED TREATMENT OF CHILDHOOD PROBLEM IS EFFECTIVE

Most parents know the relief that comes once their child is fully potty trained. However, for a small segment of the population, some children begin having bowel accidents again and others never complete the toilet training process. In the United States, it is estimated that as many as seven percent of children ages six to 12 are affected by encopresis, a condition where children older than four are unable to control their bowels. For this segment of the population, research at the University of Health System has found that the Internet can be an effective source for parents seeking to help their children eliminate these accidents.

Lee Ritterband, assistant professor of behavioral medicine at the U.Va., was the lead author of a multi-centered study, which found that an Internet intervention may be very effective at helping children reduce or eliminate bowel accidents from the comfort of one’s own home. The results are published in a recent edition of the Journal of Consulting and Clinical Psychology.

"This research is important because it not only promotes an alternative treatment approach for parents of encopretic children, but it also shows how technology can have a place in treating conditions in certain types of patients," Ritterband said.

The study evaluated an Internet-based version of Enhanced Toilet Training (ETT), a protocol that incorporates behavioral techniques with medical management and education. Behavioral components include reinforcement for spontaneous use of the toilet and clean underwear, training and modeling of appropriate defecation dynamics, which includes teaching how to effectively strain with increasing intra-abdominal pressure while differentially relaxing the external anal sphincter. Clean-out medications and laxatives are also used to keep the colon relatively empty and encourage regular bowel movements. The educational component provides instruction to both parents and children on anatomy and the physiology of overflow incontinence.

Twenty-four participants, both encopretic children and their parents, volunteered to be in the study. Half the participants utilized a web program called U-Can-Poop-Too. This website instructs the user in ETT and was developed to let parents and children work together. The site uses an animated guide to help parents navigate three main sections. These include:

- Core Modules, which focus on anatomy, medication use including enemas and laxatives and the behavioral components.
- Modules, which provide treatment information on a large variety of potential issues different children may have, such as problems with taking laxatives and various fears children might need to overcome related to using the toilet.
- A follow-up assessment section, which uses questions to determine treatment progress and identify additional issues that may need to be addressed.

After following the guidelines provided by the website, parents reported that their children were having on average one accident every two weeks, down from six per week before the Internet intervention. Parents of encopretic children who did not use the website but continued regular doctor’s visits, reported little change from pre- to post- treatment time. The website intervention showed a 70 percent cure rate, indicating no accidents following the treatment intervention.

"In clinical settings, treating encopresis can be challenging because clinicians need to have a strong working medical knowledge of defecation dynamics and laxatives, as well as an understanding of behavior management and family dynamics for encopretic children," Ritterband said. "Few pediatricians or psychologists have both sets of skills. Here we have
shown how ETT can work well for parents and children when accessed in the home through the Internet."

Ritterband’s research recently received the “Best e-Health Research Paper” of the year award when it was presented at the eHealth Developers’ Summit in San Diego, Calif. The award was presented by the Health e-Technologies Initiative, a national program of the Robert Wood Johnson Foundation that supports research evaluating the effectiveness of interactive e-Health applications. Vanderbilt University Medical Center also was a part of this study.

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