

A pilot investigation into the effects of listening to modified classical music, including bone conduction, in improving toilet training outcomes for children with learning difficulties

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INSTITUTION: *The Paediatric Continence Promotion Service, UK*

BACKGROUND:

The Paediatric Continence Promotion Service in Liverpool PCT accepts referrals for children with a wide range of bladder and bowel problems including delayed toilet training. Although the service was very successful in the main in enabling children to become toilet trained there was a group of children that, despite everyone's best efforts with structured toilet training programmes, appeared resistant to become toilet trained. These children typically had learning difficulties with associated severe communication difficulties and a resistance or apparent fear of sitting on the toilet or potty. Many of these children were on the autistic disorder spectrum and it was felt that if we could just manage to engage with the children and enable them to relax enough to sit on the toilet, we could then start trying to toilet train them.

A meeting was arranged with the head of Learning Solutions, the official representative for Advanced Brain Technologies in the UK, to learn more about The Listening Program®(TLP) and see if it was something that would be appropriate to introduce to the children resistant to toilet training on our caseload. Following on from that meeting it was apparent that TLP could potentially be of benefit and the author undertook the appropriate training and examinations to become an ABT certified provider of The Listening Program to enable the programme to be put in place.

The next hurdle was to see how we could fund the project. An application was put in for a research grant via the PCT, and ethical approval for the project submitted and obtained. We were very fortunate to be awarded partial funding for the project by Liverpool PCT which, combined with support from Advanced Brain Technologies (ABT) and Learning Solutions, who provided the equipment, enabled us to take the project forward.

DISCUSSION:

A chance remark that anecdotally TLP had led to spontaneous remission of bedwetting and helped with some children becoming toilet trained led to the concept that perhaps this could be something that could help children with learning difficulties, previously resistant to toilet training, engage with the process. A number of research studies involving TLP have been carried in the past, all of which reported improve-

ment in many areas of a child's development including speech, and learning but none had looked specifically at toilet training outcomes or in fact reported that in their findings.

Becoming toilet trained is a milestone all parents strive for, yet many parents of children with 'special needs' are overwhelmed at the prospect, particularly if their child resists any attempt to engage them with the process. Clinical experience has shown that many of the children initially referred to the continence service with non response to toilet training do make progress, telling us that these children did have the potential to do so.

However there is a group of children that we do struggle with and who appear to resist all attempts to toilet train – they refuse to sit on a potty/toilet, become very distressed if taken into the bathroom and do not acknowledge if they are wet or soiled. Yet there was a feeling if we could just find the 'key' to unlock the child's potential then toilet training may just be a possibility. Becoming toilet trained would open more doors for these children in terms of access to both social and educational opportunities, as well have a positive effect on how the child's potential was viewed. Also from an NHS point of view there would be considerable cost saving in the provision of disposable nappies.

The results from the pilot project exceeded all expectations. The hope was that at the end of the study these children would at the very least now be relaxed enough to sit on the toilet or potty and co-operate with a toilet training programme. The fact that 7 of the 11 children who completed The Listening Program became toilet trained is very encouraging and suggests that perhaps TLP may just be the 'key' to unlock their potential.

This was a very small study and the fact that it was a 'project' may have resulted in both the school and families concentrating their efforts more. However, the majority of the children were already well known to the continence service and their families had been very positive with all previous attempts at toilet training with no real progress.

It is therefore recommended that a wider study is carried out to see if the initial findings can be replicated.

PRESENTED AT:

The results of the study were presented at the European Society for Paediatric Urology (ESPU) conference in Turkey in April 2010 when it was awarded the best Nurse Research Paper Presentation.

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