

# 'Your teeth you are in control'

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**Dr Zoe Marshman<sup>1</sup>** writes about the

new self-help Cognitive Behavioural Therapy (CBT) guide to reduce dental anxiety in children.

### Background to dental anxiety

Dental anxiety is common, affects people of all ages and tends to develop in childhood and adolescence.<sup>1,2</sup> The Child Dental Health survey in 2013 found 14% of 12-year-olds and 10% of 15-year-olds were classified as having extreme dental anxiety.<sup>3</sup>

### Impact on children

Children with high levels of dental anxiety have more decayed and extracted teeth with unmet need for dental care.<sup>4</sup> Up to one in five young people report not visiting the dentist regularly because of fear<sup>5</sup> or not completing dental treatment.<sup>6</sup> Children themselves when describing their experiences of dental anxiety report making negative predictions about what could happen (eg suffering pain or harm, clinical error, being powerless); reliving traumatic dental experiences; avoiding dental care by using deceptive or negotiation strategies; experiencing negative affective states (eg fear, anxiety, anger, shame, embarrassment), and physical symptoms of sweating and shaking.<sup>7</sup>

### Impact on parents

Child dental anxiety also has an impact on parents. Hallberg and colleagues found that parents experienced difficulties trying to persuade their dentally-anxious children to go to their appointments and lacked strategies to

handle their child's level of fear and effectively manage the situation.<sup>8</sup>

### Impact on dental services

Dental anxiety in young people also has a significant impact on dental services. Providing dental treatment for anxious patients is time consuming, demanding and a cause of occupational stress.<sup>9</sup> Patients typically end up being referred to paediatric dentistry services, having to wait longer for dental treatment and at increased costs to the NHS.<sup>10</sup>

Traditionally, dental anxiety has been managed using pharmacological techniques including inhalational sedation and general anaesthetic (GA). However, such approaches only manage rather than reduce children's dental anxiety.<sup>11</sup> The cost per case for inhalational sedation or GA for dental treatment has been estimated at £273 and £720 respectively.<sup>12</sup> Indeed, dental anxiety remains unchanged in those children who receive dental treatment under general anaesthetic<sup>13</sup> with anxious children becoming adults with a long-term reliance on expensive pharmacological techniques.

### Ways to reduce anxiety

Over recent years it has been recognised that greater effort should be directed towards behaviour management and psychological interventions which can reduce patients'

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anxiety long-term.<sup>14,15</sup> Cognitive Behavioural Therapy (CBT) is a goal-orientated talking therapy which aims to help people manage their problems by changing how they think and behave in relation to their problems. CBT incorporates a variety of different cognitive and behavioural strategies which aim to help the patient modify the unhelpful behaviours or thoughts maintaining their anxiety.<sup>16</sup> A review of meta-analyses revealed that CBT is highly effective in treating a range of general anxiety disorders in both children and adults.<sup>17</sup>

### Ways to reduce dental anxiety in children

CBT interventions have shown promising results in reducing dental anxiety in adults in terms of effectiveness, acceptability and benefits enduring over time.<sup>18-21</sup> While strategies such as providing information, 'tell-show-do', stop signalling, graded exposure, systematic desensitisation and modelling interventions are regularly employed by dentists and dental care professionals with children there is a paucity of research about the effectiveness of CBT for reducing children's dental anxiety.<sup>22</sup>

### 'Your teeth you are in control'

Recently, a self-help guide and accompanying resources, based on the principles of CBT, has been developed for use with children aged 9-16 years and delivered by dental practitioners and dental care professionals.<sup>23</sup> Experts in paediatric dentistry, child clinical psychology, health psychology, dental public health and CBT led the process with children, parents, dental team members and Patient and Public Involvement representatives all involved. A person-centred approach was used based on the Five Areas™ model of CBT.<sup>24</sup>

The guide 'Your teeth you are in control' includes information on the dental team and basic procedures; describes tools children can use to help them feel less anxious; contains activities children can complete to feel more in control including a 'message to dentist' and a stop signal signed agreement; and prompts them to reflect on what went well about each visit. The step-by-step process of using the guide is described in Figure 1. The guide is suitable for children with mild to moderate dental anxiety who require a course of treatment but have no urgent dental treatment needs.

'Your teeth you are in control' was used with a sample of new patients who attended the community dental service in Derbyshire or the paediatric dentistry department of

## Fig. 1 How to use the Cognitive Behavioural Therapy self-help resources with dentally anxious children (9-16 years)

### Prior to using the guide:

- Register on website [www.lltff.com/dental](http://www.lltff.com/dental)
- Visit the 'dental team' section of the site, view the training videos and read the dental team guide - it might be helpful for other members of the team to do this too.
- Think about how you are going to assess child dental anxiety: clinical impression or self-reported measure
- Obtain hard copy guides for patients or print flyers which signpost them to the online self-help guides. Available from the Sheffield School of Clinical Dentistry online shop.
- Download spare patient worksheets (eg 'Message to the dentist') and have these available on the clinic.

### Identify patients where self-help CBT is indicated:

- Patient is assessed as having dental anxiety
- No urgent treatment needed
- Course of treatment required
- Child and family interested in self-help approach

### Guide is introduced by dental professional who will be providing the course of dental treatment:

- Describe as 'self-help' guide, avoiding any descriptions of need to do work or books!
- Explain paper guide and online versions available for child and parent
- Highlight was developed with teenagers to increase credibility
- Ask child to have a look through and complete 'Message to the dentist' for their next visit

### At the start of each visit:

- Read or review 'Message to the dentist'
- Recognise their past achievements
- Discuss worry/pain score
- Agree tools and stop signal

### At the end of each visit:

- Provide specific praise for what they have achieved in the visit
- Complete post-treatment worry/pain score (remind of successes)
- Plan for next appointment (let them know what the procedures will involve and signpost them to the guide as appropriate)

Charles Clifford Dental Hospital in Sheffield. Overall, 56 children were consented to take part in the study with 48 children completing three treatment visits and questionnaires before and after treatment. Of these 48 children, 33 were female (69%), 25 lived in deprived areas (52%) and 36 were referred for the management of dental caries (75%). There was a statistically significant reduction in child self-reported dental anxiety and improvements in quality of life with nearly two-thirds (60%) indicating they felt 'a lot



Fig. 2 Self-help CBT guide for the reduction of dental anxiety in children with accompanying resources for parents and dental professionals

less worried' about going to the dentist since using the guide. The guide was found to be acceptable to children, parents and dental professionals. Further research was recommended to evaluate this self-help guide in a randomised controlled trial<sup>23</sup> and its further use in both secondary and primary dental care is encouraged.

'Your teeth you are in control' is available as a paper guide <http://tinyurl.com/hc998fl> or online at [www.lttf.com/dental](http://www.lttf.com/dental). There are also accompanying resources for parents (Fig. 2) and online training for dental professionals.

**Summary**

- Child dental anxiety is common and has significant impacts on children, parents and dental professionals
- Traditional pharmacological approaches only manage, rather than reduce dental anxiety
- Psychological interventions such as CBT have been found to be effective at reducing dental anxiety in adults
- The use of a new guide 'Your teeth you are in control' based on the principles of CBT reduced dental anxiety and improved the quality of life of children who used it in paediatric dentistry clinics.

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**THERE WAS A STATISTICALLY SIGNIFICANT**

**REDUCTION IN CHILD SELF-REPORTED**

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**IMPROVEMENTS IN QUALITY OF LIFE'**

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