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## Dentist or the Devil? A look into cognitive behavioural therapy to aid children suffering from 'odontophobia'

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Fear of the dentist is prevalent in all age groups and classes, a fear that may be brought on by something as simple as the depiction of dentists as ominous figures in books and television or, in some cases, trauma caused by a previous visit to the dentist. Overall, this fear of the dentist or odontophobia can really make us think: is the person delivering dental care a dentist or the devil<sup>1</sup>?!

Research has shown that up to 30% of adolescents show moderate dental anxiety whose anxiety then impacts the child, their carer, and the dental professional themselves as they all play an integral part in the maintenance of good oral health for the patient<sup>7</sup>. The fear of the dentist is something that is learned and can happen through limitless experiences that can be direct or indirect. The threat of trauma or trauma itself induced in a dental situation, experienced by the individual themselves is an example of a direct experience. This fear from experience can be likened to the psychological modelling of Pavlovian classical conditioning. For example, the stimulus of pain may be felt during a procedure involving a dentist and their dental tool, eliciting a high level of fear. Although it is the tool I.e., drill that caused the pain, the fear created will be attached to the dentist conditioning the individual to believe that the dentist causes pain in then causing fear. Fear obtained through an indirect experience happens through a learning method known as modelling, where children vicariously feel fear through the traumatic experiences of others such as parents, siblings, friends, for example, either through visually experiencing these situations themselves or by simply hearing about them. For treatment of odontophobia, the knowledge of these learning paradigms is essential<sup>3</sup>.

Odontophobia has a vicious cycle, as patients tend to avoid any forms of maintenance for their mouth, consequently suffering from more caries and ultimately extractions. Due to their poorer oral health, they are then inevitably in more need of the dentist and dental treatments. This increase in dental exposure to these already anxious adolescents makes it vital that anxiety control methods are essential to be known by any professionals in the dental sector. CBT (Cognitive Behavioural Therapy) which is a form of treatment against fear that is being looked at in this article is efficient at reducing dental anxiety and avoidance and is a form of treatment that can be carried out by varying degrees of expertise from specially trained dentists to clinical psychologists whose practice is behaviourally oriented<sup>4</sup>.

There are many behavioural techniques that can be used to manage anxious paediatric patients but interest in the psychological approach has peaked in recent years, specifically the idea of introducing CBT). CBT is essentially a treatment therapy based on communication, turning irrational and unhelpful thoughts into ones that are more positive and can aid the child into a calmer state of mind.

The overall use of CBT is an effective treatment, however access to therapy treatment is limited due to availability and cost effectiveness issues. Therefore, in this specific study into using CBT to overcome dental phobia a self-help resource was developed allowing the children to take part in their behavioural therapy to overcome their dental anxiety. In this specific case CBT is introduced to reduce the child's anxiety and not just manage it<sup>6</sup>.

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The self-help CBT method was a communication method known as 'Message to Dentist' (MTD) a part of a greater CBT approach. One hundred and five paediatric patients who were deemed as 'dentally anxious' were invited to participate with their mean age being 11.6. They were all asked to complete the MTD form before and after treatment making notes of factors such as ranking anticipated pain levels and how worried they were on a scale of 1 to 10. They were also asked to think of and write coping mechanisms and then contemplate their experience post treatment. Results showed a significant reduction in self-reported anxiety with scores dropping from 4.9 to 2.1 and anticipated pain results dropping from 5.1 to 2.0.

Analysis of main themes from the survey highlighted concerns of pain, certain procedures such as scale and polish, extractions and fillings and issues with sedation such as inhalation sedation and general anaesthesia. The MTD format allowed specific communication between the patient and dental team allowing clearing of doubts and anxiety before and after treatments.

The main theme we can see is the importance of communication and the use of the MTD is excellent in terms of it highlighting individual and general fears children have regarding dentistry, and how dental professionals can now easily acknowledge and handle these concerns bringing ease to all parties involved. These concerns do not just start and stop with adolescents but can carry with us through to adulthood. This 'fear of a medical catastrophe' that these children suffered is in line with previous research findings and is prevalent in dentally anxious adults also. Without this form of CBT and many others an end to fear-inducing beliefs would never happen, causing a lack of essential dental healthcare interventions from professionals.

The focus of CBT is orientated around the current adversities a person is facing, a great emphasis on the present looking for new ways to improve the patients state of mind, without these negative thoughts clouding them and now for them to have a new beginning<sup>2</sup>. In recent years, researchers at Kings College London have set out to gain more information on odontophobia in turn learning more about the talking therapy that is CBT and then eventually psychologists alongside dental patients at Kings have developed the UK's first dental phobia dedicated CBT service and the training model has been shared in many locations across the UK. Their primary goal was to allow patients to receive dental treatment without the need for sedation which is a huge goal as sedation is usually needed to decrease anxiety levels and efficiently perform treatments with those that suffer from extreme dental anxiety. Success is evident withing the work done at Kings with study results showing 93% of dental phobic patients that completed the course of CBT went on to be treated without the use of sedation. This is a huge breakthrough and with the development and roll out of their training programme odontophobic patients across the United Kingdom will have the chance to work on a better relationship with their dental environment leading to a new beginning for all involved<sup>5</sup>.

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