**'Sensitivity gene' predicts CBT benefit for children**

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Research has shown that a genetic marker, called Serotonin Transporter Promoter Polymorphism (5HTPP), can be used to predict whether a child suffering from anxiety disorder will benefit from cognitive behaviour therapy (CBT).

This is the first time that genetic analysis has been used to assess whether a psychological treatment like CBT will work for children.  
  
Anxiety disorders are the most common type of mental health disorder in children.

They include obsessive-compulsive disorder, phobias, separation anxiety disorder, post-traumatic stress disorder and panic disorder and affect approximately 10 per cent of young people.  
   
The research team, led by Dr Thalia Eley at the MRC Centre for Social, Genetic and Developmental Psychiatry (SGDP) at the Institute of Psychiatry (IoP) at King’s College London, collected DNA from 359 children diagnosed with anxiety disorder, which affects around one in twenty children in the UK.

Those found to have a shorter version of the 5HTPP genetic marker were 20 per cent more likely to respond to CBT and to be free of their anxiety six months after the end of their treatment.  
   
Two forms of the 5HTTP gene commonly exist within the human population; a short form and a long form.

The short form has previously been shown to predict which individuals are likely to be prone to depression when under stress.

More recently it has been proposed that the short form influences how individuals respond to their environment more generally, be it positive or negative.

In this study children with the short form of the gene were more responsive to the positive environment of CBT, and were more likely to get better.  
   
Dr Thalia Eley, from the IoP at King’s, says: ‘Childhood anxiety is beginning to be recognised as a serious health problem.

Many children with severe anxiety end up missing school and losing out on normal opportunities, not just in school but socially.

CBT has been shown to help individuals think about the world around them and to experience their environment in a more healthy, positive way and hopefully stem the impact of anxiety before it gets worse in adulthood.

‘Our study showed that having a short form of the gene, which can contribute to a child feeling more negative when things are stressful, may have a positive flipside, in that they are more responsive to the positive messages taught in CBT.’

The research was funded by the Medical Research Council.

**For more information, please contact Seil Collins, Press Officer, Institute of Psychiatry at King’s College London, on 0207 848 5377 or at** [**seil.collins@kcl.ac.uk**](mailto:seil.collins@kcl.ac.uk)**.**

**Notes to editors:**  
  
The research was awarded a 2011 Excellence in Research Award from Macquarie University, Australia. For details of the award and a video clip featuring the second author, Professor Jennifer Hudson from Macquarie University, please go to:  
<http://www.mq.edu.au/researchawards/winners/winners-2011.html>  
  
For full paper: Eley, T. et al. ‘Therapygenetics: The 5HTTLPR and response to psychological therapy’ *Molecular Psychiatry*.

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