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## The Bridge Editor

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## Dr Jessica K. Edwards

Research highlights in this edition are prepared by Dr Jessica K. Edwards. Jessica is a freelance editor and science writer, and started writing for 'The Bridge' in December 2017.

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# Child mental health professionals need more technology training 

By Jessica K. Edwards

An astonishing proportion of children and adolescents have access to the internet and frequently use different types of technology in their day-to-day lives. It therefore seems that technology could be repurposed to reach out to this high-tech population and help break down the barriers to accessing child and adolescent mental health services (CAMHS). Despite the great potential technology-based tools offer in delivering and supporting mental health interventions, their uptake is slow. Now, Bethany Cliffe and colleagues have surveyed 154 CAMHS professionals to understand why technology-based tools have not yet been widely adopted by CAMHS. While most professionals acknowledged that technology does have a rightful place in clinical practice, $60.8 \%$ did not know what technologies were available and $41.7 \%$ did not feel skilled enough in this area. Despite these deficits, most professionals ( $>80.0 \%$ ) still perceived technology-based interventions as being helpful to those struggling with face-to-face interventions.

They are also convenient and accessible. Importantly, while most professionals agreed that technology cannot account for a lack of trained therapists, $>90.0 \%$ believed that these resources can help with prevention and psychoeducation. Overall concerns regarding training, safety, reliability and privacy were raised. These issues need to be addressed before more CAMHS professionals take the leap-of-faith and incorporate technology-based interventions into their clinical practice.

## Referring to:

Cliffe, B, Croker, A., Denne, M. \& Stallard, P. (2019), Clinicians' use of and attitudes towards technology to provide and support interventions in child and adolescent mental health services. Child Adolesc. Ment. Health. doi: 10.111/camh.12362.

# Assessing and treating anxiety disorders: does one size really fit all? 

By Jessica K. Edwards

Cathy Creswell, Polly Waite and Jennie Hudson have written the first Practitioner Review for JCPP in 2020. The researchers first describe how anxiety disorders might develop and be maintained, and then focus on the various assessment and treatment considerations for children and adolescents with anxiety disorders.

They first explain that anxiety disorders should be routinely assessed using valid and reliable interviewbased and questionnaire-based measures of anxiety which also detect common co-morbid problems. To obtain accurate differential diagnoses, mood and behaviour disorders and the risk of suicide and selfinjury, should be assessed. To ensure that clinicians fairly balance caregiver and self reports, Creswell et al. recommend that clinicians use the 'OR rule' proposed by Comer \& Kendall. ${ }^{1}$ Here, clinicians should include clinically interfering symptoms that are reported by either the young person or the parent when constructing the diagnostic profile.

Moving on to treatment, cognitive behavioural therapy (CBT) for anxiety has consistently shown substantial benefits over waitlist controls across various metaanalyses. ${ }^{2}$ Unfortunately, many have found that the relapse rate after CBT is high. ${ }^{3}$ In addition, Creswell and colleagues point out that we still do not fully understand which components of CBT programmes are the most effective. The data available thus far suggest that exposure tasks might accelerate improvements in symptom severity and global functioning, while relaxation training has a lesser effect. ${ }^{4}$

According to Creswell et al., we should now identify precisely which strategies promote new learning through exposure, in young people, across the different stages of childhood development.

Worryingly, Creswell et al. highlight the extremely low rate of service use by affected children and adolescents in many countries, including the UK, USA and Australia. One study found that as few as $2 \%$ of children with anxiety disorders receive CBT. ${ }^{5}$ It thus seems that tools are urgently needed to help identify young people who might benefit from professional support to overcome anxiety problems. The researchers suggest that a stepped care model might help increase access to evidence-based interventions. Here, the least costly intervention is delivered initially; those who do not respond to this first step, move on to a more intensive intervention. ${ }^{6}$ The researchers explain that work is now needed to refine the stepped care model before it can be rolled out. Specifically, we need to (i) maximise the cost-effectiveness of each step, (ii) identify the optimal staff and setting and (iii) clarify the needs of children and adolescents who do not benefit from the first step.

Overall, it seems that while the prevalence of anxiety disorders in young people is increasing, access and uptake of evidence-based treatments remains low. Creswell and colleagues thus propose a number of lines of research that should be undertaken to improve on the current situation. For example, experimental studies are needed to determine the maintenance mechanisms of anxiety disorders and how they might change across childhood development. Large studies are also needed that examine the predictors, mediators and moderators of treatment to help optimize treatment outcomes. Ultimately, the hope is that treatment approaches move away from a "one-size-fits-all" model and that personalized care strategies are developed.

## Referring to:

Creswell, C., Waite, P. \& Hudson, J. (2020), Practitioner Review: Anxiety disorders in children and young people - assessment and treatment. J. Child Psychol. Psychiatry. doi: 10.111/jcpp.13186.

## Glossary:

Exposure tasks: many people avoid feared objects, people or situations. During exposure therapy, the patient is exposed to the anxiety source or its context in a safe and controlled environment. In this way, the patient can gradually and gently become accustomed to the situation that triggers the anxiety and can confront their fears.

## References:

${ }^{\text {'Comer, J.S. et al. (2004), A symptom-level }}$ examination of parent-child agreement in the diagnosis of anxious youths. J. Am. Acad. Child Adolesc. Psychiatry. 43: 878-886. doi: 10.1097/o1. chi.0000125092.35109.c5.
${ }^{2}$ James, A.C. et al. (2013), Cognitive behavioural therapy for anxiety disorders in children and adolescents (Review). The Cochrane Library, 6: CDoo4690. doi: 10.1002/14651858.CDoo4690. pub3.
${ }^{3}$ Ginsburg, G.S. et al. (2018), Results from the child/ adolescent anxiety multimodal extended longterm study (CAMELS): primary anxiety outcomes.
J. Am. Acad. Child Adolesc. Psychiatry. 57: 471480. doi: 10.1016/j.jaac.2018.03.017.
${ }^{4}$ Peris, T.S. et al. (2015), Trajectories of change in youth anxiety during cognitive-behaviour therapy. J. Consult. Clin. Pyschol. 83: 239-252. doi: 10.1037/ a0038402.
${ }^{5}$ Reardon, T. et al. (2019), The utility of the SCAS-C/P to detect specific anxiety disorders among clinically anxious children. Psychological Assessment, 31: 1006-1018. doi: 10.1037/ pasoooo
${ }^{6}$ Bower, P. et al. (2005), Stepped care in psychological therapies: Access, effectiveness and efficiency - Narrative literature review. Br. J. Psychiatry. 186: 11-17. doi: 10.1192/bjp.186.1.11.


By Jessica K. Edwards

Researchers in Norway have assessed whether the FRIENDS programme ${ }^{1}$ is best used as a prevention measure or as a treatment approach for anxiety in school-aged children. The researchers recruited a targeted prevention sample of 82 children (mean age 11.6 years) who were identified by school nurses and community psychologists. They also recruited a clinical sample of 88 children with a diagnosed anxiety disorder (mean age 11.7 years), from psychiatric outpatient clinics. The baseline self-reports of anxiety symptom levels were similar between the two groups, but were higher for the clinical sample based on parent reports. Anxiety, depression and conduct problems significantly reduced in both samples after the FRIENDS intervention, with medium mean effect sizes across raters (i.e. youths and parents) and time points (post-treatment and 12-months follow-up). Overall, it seems that the FRIENDS programme can be delivered in schools by less-specialized personnel working in school health services and can elicit similar outcomes compared to delivery in clinics by trained mental health professionals. The researchers propose that school-based targeted anxiety prevention might increase access to evidence-based interventions such as FRIENDS for young people with anxiety problems.

## Referring to:

Fjermestad, K.W., Wergeland, G.J., Rogde, A., Bjaastad, J.F., Heiervang, E. \& Haugland, B.S.M. (2020), School-based targeted prevention compared to specialist mental health treatment for youth anxiety. Child Adolesc. Ment. Health. doi: 10.111/camh.12366.

## References:

${ }^{\text {² }}$ Barrett, P.M. (2004), Friends for life program: Group leader's manual (4th ed.). Brisbane, Queensland: Australian Academic Press.

## Glossary:

FRIENDS: a 10 -session cognitive behavioural therapy delivered over a 10 -week period to young people aged 7 to 15 years. Structured activities (including role-play, group discussions and homework) are used to help youth to challenge their unhelpful cognitions and to perform exposure exercises.
 disorder symptoms predict anxiety, and vice versa

By Jessica K. Edwards

Researchers in London have studied the relationship between anxiety sensitivity (the tendency to fear anxiety symptoms) and obsessive-compulsive disorder (OCD) symptoms. Krebs and colleagues recruited $>1,500$ adolescent twins and siblings from the Genesis 12-19 study ${ }^{1}$ and asked them to complete self-report questionnaires two years apart on anxiety sensitivity, obsessive-compulsive symptoms (OCS), anxiety and depression. They found that anxiety sensitivity was prospectively associated with changes in OCS, meaning that it could predict changes in OCS over a two-year period. This finding remained valid even after controlling for co-morbid anxiety and depression. This relationship was bidirectional and was largely accounted for by non-shared environmental influences ( $95 \%$ ) rather than common genetics (5\%). These data confirm previous work showing that anxiety sensitivity is a risk factor for OCS, ${ }^{2}$ but also explain that experiencing OCS confers a risk for heightened anxiety sensitivity. Should these findings be replicated in larger samples, earlier intervention for OCS might lower the risk for anxiety sensitivity and anxiety disorders later in adolescence.

Referring to:
Krebs, G., Hannigan, L.J., Gregory, A.M., Rijsdijk, F.V. \& Eley, T.C. (2020), Reciprocal links between anxiety sensitivity and obsessive-compulsive symptoms in youth: a longitudinal twin study. J. Child Psychol. Psychiatry. doi: 10.111/jcpp.13183.

References:
${ }^{1}$ McAdams, T.A. et al. (2013), The Genesis 12-19 (G1219) Study: A twin and sibling study of gene-environment interplay and adolescent development in the UK. Twin Res. Hum. Genet. 16: 134-143. doi: 10.1017/thg.2012.83.
${ }^{2}$ Schmidt, N.B. et al. (2010), Prospective evaluation of the etiology of anxiety sensitivity: test of a scar model. Behav. Res. Ther. 38: 1083-1095. doi: 10.1016/s0005-7967(99)00138-2.

# Can adult ASD outcomes be predicted by clinical measures made during childhood? 

By Jessica K. Edwards

A new study has retrospectively profiled the adult outcomes of 123 children with autism spectrum disorder (ASD) to determine whether certain outcomes, or "types", can be predicted from typical clinical measures made during childhood. The researchers used a set of 15 variables to characterise adult outcomes, including the verbal and non-verbal IQ level, ASD symptom severity score, behavioural problems and medication use. From these, they found that only four classes of adult outcomes existed in their population: one good, one intermediate and two low-functioning classes (in which one had co-occurring behavioural problems). These classes could be confidently predicted from childhood verbal IQ levels and autism symptom severity recorded from age two to nine years. The accuracy of the prediction improved over time. Interestingly, removing verbal and non-verbal IQ and autism symptom severity measurements from the set of 15 variables had no effect on the number of the latent classes; however, the class composition changed and the class prediction accuracy diminished.

The researchers suggest that these data might help clinicians develop goals with individuals with ASD and do forward planning with respect to transition into adult mental health services. They do, however, urge caution in using these four classes as an aetiological taxonomy. This typology gave weight to cognitive outcomes while outcomes concerning subjective well-being and the affective domain were poorly predicted from childhood measures. Future research is thus needed to understand how to balance subjective measures of well-being and objective measures of functioning to describe positive adaptations in adulthood.

## Referring to:

Pickles, A., McCauley, J.B., Pepa, L.A., Huerta, M. \& Lord, C. (2020), The adult outcome of children referred for autism: typology and prediction from childhood. J. Child Psychol. Psychiatry. doi: 10.111/ jcpp.1318o.


# Early adoption protects against internalizing, but not externalizing, problems 

By Jessica K. Edwards

The effects of childhood adoption on adult outcomes are conflicting; the adoption of children from highrisk backgrounds can have protective effects, as evidenced by generally positive cognitive skills and school achievements. ${ }^{1}$ However, adopted children can show increased vulnerability to mental health problems during childhood and adulthood., ${ }^{2,3}$ This increased vulnerability might be due to experiencing adverse life events prior to adoption or to problems in the postadoption home environment. Now, researchers in the UK have used data from two groups of early-adopted individuals (from the 1958 and 1970 British birth cohorts) to comprehensively describe outcomes up to mid-life. They compared them with the outcomes of children who were raised with two biological parents (a "general population" group) and also to children who were born to single mothers but were not adopted (a "birth comparison" group). The adopted children shared similar early characteristics with the birth comparison group but were placed in more socially advantaged adoptive homes.

The researchers found few differences between the adopted groups and the general population group in terms of physical health and psychological well-being, but more favourable outcomes in these domains compared to the birth comparison group. The rates of adult externalizing behaviours (including adult convictions, smoking and problem drinking) in the adopted and birth comparison groups, however, were higher compared to the rates in the general population group. These data suggest that although adoption can have protective effects in terms of internalizing problems, it might not be protective in relation to externalizing problems. The data from this study suggested that prenatal adversity might contribute to these externalizing problems. However, more work is needed to better understand the early and late experiences that contribute to this more negative trajectory in at-risk children.

## Referring to:

Sehmi, R., Rushton, A., Pickles, A., Grant, M. \& Maughan, B. (2020), Infant domestic adoption: outcomes at mid-life. J. Child Psychol. Psychiatry. doi: 10.111/jcpp.13178.

## References:

${ }^{1}$ van ljzendoorn, M.H. et al. (2005), Adoption is a successful natural intervention enhancing adopted children's IQ and school performance. Curr. Dir. Psychol. Sci. 14,: 326-330. doi: 10.1111/j.09637214.2005.00391.x.
${ }^{2}$ Juffer, F. et al. (2005), Behaviour problems and mental health referrals of international adoptees - A meta-analysis. JAMA. 293: 2501-2515. doi: 10.1001/jama.293.20.2501.
${ }^{3}$ Behle, A.E. et al. (2016), Psychiatric disorders and treatment in adoptees: A meta-analytic comparison with non-adoptees. Adopt. Q. 19: 284-306. doi: 10.1080/10926755.2016.1201708.

## Glossary:

Internalizing problems: individuals with internalizing problems typically attempt to conceal their maladaptive emotions and cognitions. This internalizing approach can manifest as depression, withdrawal, low self-esteem, anxiety and/or loneliness. Some affected individuals might also exhibit suicidal behaviours.

Externalizing problems: individuals with externalizing problems exhibit their maladaptive thoughts and emotions externally. Characteristic behaviours include impulsivity, and antisocial or aggressive behaviours. Adult manifestations of externalizing problems can include alcohol-related or substance-related disorders.

# Is parental educational status to blame for academic problems in children? 

By Jessica K. Edwards

Children of parents with low educational attainment have up to three-fold higher risk of developing a psychiatric disorder such as attention deficit/ hyperactivity disorder (ADHD) and depression than children of parents with high educational attainment. ${ }^{1}$ The mechanisms underlying this paradigm, however, are unknown. Now, a Norwegian sample comprising nearly 35,000 children in 28,000 extended family units has been used to understand whether this association is due to shared genetic or environmental factors or due to the direct effects of parental education attainment itself.

Educational attainment was self-reported by the mothers and fathers included in this Norwegian Mother, Father and Child Cohort Study (MoBa). The mothers also reported children's symptoms of ADHD and depression and academic problems when their children were 8 years old. The researchers found that children of lowly educated parents had a two-fold higher risk of high ADHD symptom levels and academic problems compared to children of highly educated parents. This association persisted after controlling for shared genetic and family environmental factors. The risk of depression based on parental education status was lower, and was explained by shared genetic factors. The researchers suggest that factors related to parental education could constitute a target for interventions that aim to reduce ADHD symptoms and academic problems in children.

## Referring to:

Torvik, F.A., Eilertsen, E.M., McAdams, T.A., Gustavon, K., Zachrisson, H.D., Brandlistuen, R., Gjerde, L.C., Havdahl, A., Stoltenberg, C., Ask, H. \& Ystrom, E. (2020), Mechanisms linking parental educational attainment with child ADHD, depression, and academic problems: a study of extended families in The Norwegian Mother, Father and Child Cohort Study. J. Child Psychol. Psychiatry. doi: 10.111/jcpp.13178.

## References:

${ }^{1}$ Russell, A.E. et al. (2016), The Association Between Socioeconomic Disadvantage and Attention Deficit/Hyperactivity Disorder (ADHD): A systematic review. Child Psychiatry Hum. Dev. 47: 440-458. doi: 10.1007/s10578-015-0578-3.

