# Anxiety in infancy Implication for the teenage years

Anxiety in infancy and early childhood can be a predictor of mental health problems in adolescence and very early intervention may help mitigate these. Stephanie Thornton looks at the causes, diagnosis and management of anxiety in young children.

Stephanie Thornton, chartered psychologist, author and lecturer in psychology and child development

e live in an anxious world. The World Health Organisation (2024) estimates that 4% of the world population were suffering from a diagnosable anxiety disorder in 2019. This is almost certainly the tip of the iceberg: for example, UK surveys for the mental health foundation found just under 20% of people reported high levels of anxiety (a broader criterion than diagnosed disorder) in that year. And this was before the pandemic, or the alarmingly swift onset of the consequences of climate change, the outbreak of wars in Europe and the Middle East, the economic squeeze on many resulting from all this. High anxiety, and the disorders associated with anxiety, are the biggest mental health problems of our era. And this affects all age groups, from the youngest to the oldest.

Anxiety and anxiety disorders are generally the first mental health problem to emerge in the young (Sullivan and Opendak, 2021). Whereas most mental health problems begin in late childhood or adolescence, anxiety issues tend to begin earlier than this, in infancy or early childhood (Solmi et al, 2022). Despite

increasing recognition of that, anxiety in the very young is under-researched, underrecognised and under-treated (Creswell et al, 2020). This matters: anxiety is not only miserable in itself, but has a negative impact on development, affecting social and cognitive functioning. And anxiety in infancy and early childhood can be a powerful predictor of a range of psychiatric disorders in adolescence (Bittner et al, 2007). If we took anxiety in infants and young children more seriously, offered better interventions at these ages, could we reduce or mitigate the high burden of anxiety in adolescence? Expert opinion increasingly suggests that very early interventions can mitigate later mental health problems (Creswell et al, 2020; Luby et al, 2020).

### Roots of anxiety in infancy and early childhood

Adolescent and adult anxieties tend to revolve around both personal issues such as peer relationships, school and exams and global or existential issues such as climate change, war, economic crises and so on. Infants and very young children are innocent of virtually all of that, though they may be indirectly affected, picking up on the anxieties of their elders. Pre-school anxieties are more likely to relate to loud noises, overstimulating new situations, immediate frustrations, big animals, separation anxiety.

There are marked individual differences in susceptibility to anxiety, and these begin very early in infancy (Rothbart, 2012). Some of these differences reflect the child's circumstances. Factors predisposing a child to anxiety and anxiety disorders include: experiencing adversity, including family adversity whether socio-economic or interpersonal (Draisey et al, 2020; Reiss et al, 2019); social disadvantage, for example belonging to an ethnic minority (Williams, 2018). Other key predictors of infant anxiety are maternal postnatal depression (Morales-Munoz et al, 2022), maternal anxiety (O'Connor et al, 2003), poor quality of early bonding relationships (Winston and Chicot, 2016) and low birthweight (Nomura et al, 2007).

Individual differences in susceptibility to anxiety also reflect innate temperament (Rothbart, 2012; Thornton and Gliga, 2021). Innate temperament is fixed for life: what you're born with is what you have to deal with forever (Rothbart, 2012). There is a strong genetic component to innate

temperament, but (as the neuroscience is confirming) it is also shaped by experiences in the womb: we have long known that exposure to maternal depression or stress in utero is associated with increased likelihood of developing a temperament highly reactive to negative events and poor at regulating emotional responses (DiPietro et al, 1996; Rothbart, 2012; Wadhwa, 1998; 2005). A robust temperament may help an infant to cope with well with challenges, where children with a less robust temperament will need more support to avoid succumbing to

#### **Identifying anxiety in infants** and young children

Diagnosing anxiety is not always straight forward, even in teenagers. While many are obviously tense or withdrawn and will articulate their fears, some hide their stress very effectively. About a third of youth suicides in the UK occur without prior warning signs (Rodway et al, 2020).

meta-analysis reports that persistent irritability in infancy (easily provoked; inconsolable; excessive crying) is predictive of mental health problems such as anxiety and depression in later childhood and adolescence (Finlay-Jones et al, 2024). But 'persistent irritability' is a rather vague concept: when does distress or irritability shift from normal to pathological? That's a subjective judgement that can be influenced by many circumstantial factors, and by the anxiety (Lionetti et al, 2018). experience of the observer. A new parent, for example, has no benchmark to judge by. The result is that anxiety is underdiagnosed in infancy (Creswell et al, 2020).

#### Managing anxiety in the very young

The trouble with anxiety is that it is, in part, functional. Anxiety energises, motivates us

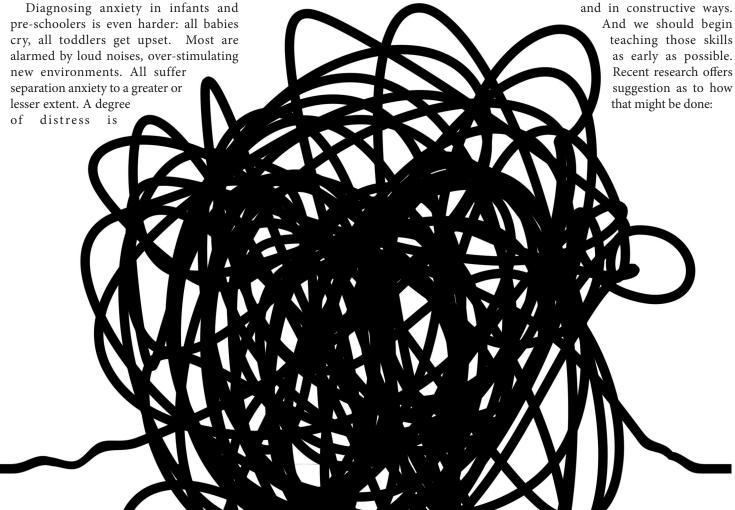
normal in infancy and early childhood. The diagnostic criterion for identifying

anxiety is 'persistent distress'. A recent

to avoid or deal with threats. The problem for our adolescents is that many of the serious threats they fear (wars, climate change, economic crises and so on) are beyond their power to either avoid or resolve, leaving only a noxious, debilitating stress. The problem for the very young is that they lack the capacity to manage any emotion, and so rely on caregivers to mitigate their fear - which is fine, if there is a strong and healthy bond with a calm and reassuring caregiver, not so good if the bond is poor, or the caregiver is as anxious as the child.

We cannot, and should not try, to eradicate all anxiety in the young. A completely fearless infant might climb a dangerous bookcase and fall, or experimentally eat a battery (and so forth). A fearless teenager might take a variety of life-threatening risks. We need a degree of anxiety to foster self-preservation. So the aim in managing anxiety in the young is not to eradicate all fears (which is probably impossible anyway), but to help the young to manage their emotions effectively

> And we should begin teaching those skills as early as possible. Recent research offers suggestion as to how that might be done:



We need a degree of anxiety to foster self-preservation. So the aim in managing anxiety in the young is not to eradicate all fears (which is probably impossible anyway), but to help the young to manage their emotions effectively and in constructive ways.'

## Training parents to foster emotional development in pre-schoolers

Luby et al (2020) have shown that PCIT (Parent-Child Interaction therapy) can be effective in helping pre-schoolers to learn to recognise and regulate their emotions. In effect, this approach suggests exposing children to mild anxieties and supporting them as they learn to react in constructive ways. Learning that it is safe to experience a strong emotion, and that even strong emotions can be regulated is a valuable life lesson that all infants should be supported in learning.

#### CBT for 5-12-year-olds

A meta-analysis has shown that CBT can be effective in addressing anxiety in both children and adolescents (Sigurvinsdottir, 2018). Creswell et al (2024) report evidence for the effectiveness of a digital tool, with professional oversight, in supporting parents to use a version of CBT to moderate anxiety in children age 5 to 12 years. Such tools may go some way to offsetting the limited access to professional interventions through CAMHS.

#### Mindfulness for the very young

Mindfulness for the very young offers the '3-3-3' rule: ask the child to name three things they can see, then identify three sounds they can hear, then move three different parts of their bodies. This can be used even with preverbal one-year-olds, who can be asked to point at things for which they recognise the word or hear, rather than naming them. The exercise is fun, distracts from worries and refocuses the child in the moment. CHHE

- Bittner A, Egger HL, Erkanli A, Jane Costello E, Foley DL, Angold A. What do childhood anxiety disorders predict? J Child Psychol Psychiatry. 2007 Dec;48(12):1174-83. doi: 10.1111/j.1469-7610.2007.01812.x.
- Creswell C, Waite P, Hudson J. Practitioner Review: Anxiety disorders in children and young people - assessment and treatment. J Child Psychol Psychiatry. 2020 Jun;61(6):628-643. doi: 10.1111/ icpp.13186.
- Creswell C, Taylor L, Giles S, Howitt S, Radley L,

- Whitaker E, Brooks E, Knight F, Raymont V, Hill C, van Santen J, Williams N, Mort S, Harris V, Yu S, Pollard J, Violato M, Waite P, Yu LM. Digitally augmented, parent-led CBT versus treatment as usual for child anxiety problems in child mental health services in England and Northern Ireland: a pragmatic, non-inferiority, clinical effectiveness and cost-effectiveness randomised controlled trial. Lancet Psychiatry. 2024 Mar;11(3):193-209. doi: 10.1016/S2215-0366(23)00429-7.
- DiPietro JA, Hodgson DM, Costigan KA, Hilton SC, Johnson TR. Fetal neurobehavioral development. Child Dev. 1996 Oct;67(5):2553-67.
- Draisey J, Halldorsson B, Cooper P, Creswell C. Associations between family factors, childhood adversity, negative life events and child anxiety disorders: an exploratory study of diagnostic specificity. Behav Cogn Psychother. 2020 May;48(3):253-267. doi: 10.1017/S1352465819000717.
- Finlay-Jones AL, Ang JE, Brook J, Lucas JD, MacNeill LA, Mancini VO, Kottampally K, Elliott C, Smith JD, Wakschlag LS. Systematic Review and Meta-Analysis: Early Irritability as a Transdiagnostic Neurodevelopmental Vulnerability to Later Mental Health Problems. J Am Acad Child Adolesc Psychiatry. 2024 Feb;63(2):184-215. doi: 10.1016/j.jaac.2023.01.018.
- Lionetti F, Aron A, Aron EN, Burns GL, Jagiellowicz J, Pluess M. Dandelions, tulips and orchids: evidence for the existence of low-sensitive, medium-sensitive and high-sensitive individuals. Transl Psychiatry. 2018 Jan 22;8(1):24.
- Luby JL, Gilbert K, Whalen D, Tillman R, Barch DM. The Differential Contribution of the Components of Parent-Child Interaction Therapy Emotion Development for Treatment of Preschool Depression. J Am Acad Child Adolesc Psychiatry. 2020 Jul;59(7):868-879. doi: 10.1016/j. jaac.2019.07.937.
- Morales-Munoz I, Ashdown-Doel B, Beazley E, Carr C, Preece C, Marwaha S. Maternal postnatal depression and anxiety and the risk for mental health disorders in adolescent offspring: Findings from the Avon Longitudinal Study of Parents and Children cohort. Aust N Z J Psychiatry. 2023 Jan;57(1):82-92. doi: 10.1177/00048674221082519.
- Nomura Y, Wickramaratne PJ, Pilowsky DJ, Newcorn JH, Bruder-Costello B, Davey C, Fifer WP, Brooks-Gunn J, Weissman MM. Low birth weight and risk of affective disorders and selected medical illness in offspring at high and low risk for depression. Compr Psychiatry. 2007 Sep-Oct;48(5):470-8. doi: 10.1016/j. comppsych.2007.04.005.
- O'Connor TG, Heron J, Golding J, Glover V; ALSPAC Study Team. Maternal antenatal anxiety and behavioural/emotional problems in children: a test of a programming hypothesis. J Child

- Psychol Psychiatry. 2003 Oct;44(7):1025-36. doi: 10.1111/1469-7610.00187.
- Reiss F, Meyrose AK, Otto C, Lampert T, Klasen F, Ravens-Sieberer U. Socioeconomic status, stressful life situations and mental health problems in children and adolescents: Results of the German BELLA cohort-study. PLoS One. 2019 Mar 13;14(3):e0213700.
- Rodway C, Tham SG, Turnbull P, Kapur N, Appleby L. Suicide in children and young people: Can it happen without warning? J Affect Disord. 2020 Oct 1;275:307-310. doi: 10.1016/j.jad.2020.06.069.
- Rothbart M. Becoming Who We Are: Temperament and personality in development. 2012. New York: Guildford Press
- Sigurvinsdottir A. Effectiveness of cognitive behavioural therapy (CBT) for child and adolescent anxiety disorders access different CBT modalities and comparisons: A systematic review University of Iceland. 2018. Online. https://skemman.is/bitstream/1946/30599/1/ MS\_ritgerð\_klínísk-sálfræði\_Anna%20Lilja%20 Sigurvinsdóttir.pdf
- Solmi M, Radua J, Olivola M, Croce E, Soardo L, Salazar de Pablo G, Il Shin J, Kirkbride JB, Jones P, Kim JH, Kim JY, Carvalho AF, Seeman MV, Correll CU, Fusar-Poli P. Age at onset of mental disorders worldwide: large-scale meta-analysis of 192 epidemiological studies. Mol Psychiatry. 2022 Jan:27(1):281-295.
- Sullivan RM, Opendak M. Neurobiology of Infant Fear and Anxiety: Impacts of Delayed Amygdala Development and Attachment Figure Quality. Biol Psychiatry. 2021 Apr 1;89(7):641-650. doi: 10.1016/j.biopsych.2020.08.020.
- Thornton S, Gliga T. Understanding Developmental Psychology. 2021. London: Red Globe Press
- Wadhwa P. Prenatal stress and life-span development. In: H Friedman (ed.) Encyclopedia of Mental Health (1998)3. San Diego, CA: Academic Press.
- Wadhwa PD. Psychoneuroendocrine processes in human pregnancy influence fetal development and health. Psychoneuroendocrinology. 2005 Sep;30(8):724-43. doi: 10.1016/j. psyneuen.2005.02.004.
- World Health Organisation. Anxiety disorders. 2023.
  Online. https://www.who.int/news-room/fact-sheets/detail/anxiety-disorders#:~:text=An%20 estimated%204%25%20of%20the,all%20 mental%20disorders%20(1) (accessed May 2024)
- Williams DR. Stress and the Mental Health of Populations of Color: Advancing Our Understanding of Race-related Stressors. J Health Soc Behav. 2018 Dec;59(4):466-485. doi: 10.1177/0022146518814251.
- Winston R, Chicot R. The importance of early bonding on the long-term mental health and resilience of children. London J Prim Care (Abingdon). 2016 Feb 24;8(1):12-14. doi: 10.1080/17571472.2015.1133012.