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Introduction

Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder characterized by symptoms of inattention, impulsivity and hyperactivity that are inconsistent with a child's developmental level and cause impairment to their functioning.

The prevalence of ADHD is around 5 % in children and 2.5 % in adults (American Psychiatric Association, 2013). In childhood, boys are diagnosed with ADHD up to four times more than girls, whereas in adulthood, females are just as likely to be diagnosed as males (Ford, Goodman & Meltzer, 2003; Kessler et al., 2006). This may be because young boys present with greater hyperactivity than girls, with girls presenting as more inattentive, and thus boys may be more likely to be noticed and referred for assessment.

ADHD is highly heritable and it is believed to be caused by a complex mixture of genetic and environmental factors including: genes associated with the dopamine and serotonin systems in the brain (Stergiakouli & Thapar, 2010); a variety of prenatal and perinatal factors such as smoking, substance use, pre-term birth, low birth weight, birth trauma and maternal depression (Thapar, Cooper, Jefferies & Stergiakouli, 2012); and the degree of nurture and stimulation that a child receives in early life (Rutter, 2005).

Due to the cognitive and behavioural impact of ADHD, there is an association between ADHD and a variety of problems, including academic underachievement, conduct problems and interpersonal relationship difficulties (Shaw et al., 2012). Boys are at greater risk of developing behavioural and conduct difficulties than girls, and such problems may increase the rate of referral and assessment for boys. The behaviour of young people presenting with comorbid disruptive behavioural problems is especially challenging for both parents/carers and teachers, and the demands of managing these problems can often lead to stress.

ADHD Across the Lifespan

As children grow and develop, their brains and behaviour are constantly adjusting and evolving; they will refine their cognitive abilities, learn to cope with challenges and learn to overcome obstacles. However, there are key transitions in an individual's life when ADHD may become more prominent. Children with ADHD are often first recognized when demands at primary school begin to move away from play and academic expectations increase. The child may present as being unable to stay seated on the carpet, listen to a story and/or complete a short task on their own without getting up and/or becoming distracted. Their behaviour is noticeably different to that of their peers.

The transition to secondary school may also be a trigger for referral due to changes in the curriculum, with a greater need to plan and organize, longer days, fewer breaks and higher expectations for sustained periods of concentration. At this time, children are expected to navigate new peer groups, manage their own time and belongings, and organize themselves at home and school whilst receiving reduced adult support and direction. In parallel, they are also coping with the changes that puberty brings and managing new feelings and body changes.

For some individuals, symptoms and impairments will persist into adulthood. Most typically this includes inattention and restlessness, whilst overt hyperactive and impulsive symptoms may reduce.

ADHD and Comorbidity

It is widely observed that coexisting conditions are the rule rather than the exception, with up to two-thirds of children with ADHD having one or more coexisting conditions. Common comorbidities include oppositional defiance and conduct disorder, anxiety and mood disorders, as well as emotional regulation difficulties (Biederman, Newcorn & Sprich, 1991; Goldman, Genel, Bezman & Slanetz, 1998; Pliszka, 1998; Elia, Ambrosini & Berrettini, 2008). Other comorbid conditions include autism spectrum disorders, tic disorders, social problems, sleep difficulties, generalized intellectual impairment and/or specific learning difficulties such as dyslexia.

Gifted children may also develop ADHD. In these cases, impairment is relative to intellectual ability, as the child doesn't reach its potential. Gifted children often develop compensatory strategies that mask their problems; however, this may become challenging with increasing academic demands and feelings of stress.

ADHD and the Family

Greater parenting stress has been associated with the families of children with ADHD, especially in the presence of oppositional behaviour and/or maternal depression (Theule, Weiner, Tannock & Jenkins, 2013). Whilst there may be many positive and fun times, it is not always easy bringing up a child with ADHD, and parents/carers need support too, especially at times when they feel weary, fatigued and emotionally drained. This highlights the need to stand back from the condition and the child, and take into account what is going on within the family. Hence, the therapist must not only focus on the needs of the child, but also on the needs of other family members and consider whether these are being met. It is important to note family dynamics and gain an understanding of how reciprocal relationships operate within the family, as the behaviour of one will influence the behaviour of another. Whilst negative cycles within the family have been reported, there is a potential positive here: change in the behaviour of one may influence change in the behaviour of another.

When taking a family perspective, it is important that siblings are not forgotten. This may reinforce what is happening in everyday life, with the needs of the child with ADHD demanding so much attention that the relatively fewer needs of the non-ADHD sibling are often deferred. Whilst siblings may be caring and supportive (Kendall, 1999), they may feel minimized or overlooked and resent or envy the attention received by their brother or sister (Mikami & Pfiffner, 2008). It is important that parents/carers maintain positive family relationships by ensuring that the needs of all siblings are met, and that rewards and sanctions are fair.

ADHD and School

Classrooms are rich and stimulating environments. For a child with ADHD they are also places with a mass of distractions; for example, teachers speaking, children chatting, outside noise from sport or lawnmowers, other classes/people coming and going, the scribble of pencils, rustling papers, bells ringing and chairs scraping. For a child with ADHD it can be an overwhelming sensation, leading them to lose focus, go off-task and miss important information. In addition, teachers have many competing demands in the classroom, hence it is important that they have a good understanding about the difficulties experienced by children with ADHD and the potential methods that can be applied to minimize problems and maximize effort. Additional demand is put on teachers when ADHD is combined with oppositional behaviours, conduct problems and/or social communication impairments (Greene et al., 2002).

This emphasizes the need for early and targeted interventions to help promote skills for children with ADHD and the people around them.

Some children will access additional support in schools to enhance learning, self-monitoring and staying on task. For children with high levels of self-doubt or low self-efficacy, such learning support can make a wealth of difference by encouraging them to take achievable steps, and by receiving recognition and reward for effort.

Promoting Resilience

All children have their own unique skills, talents, qualities and priorities. The difference between a child with ADHD and a child without ADHD is that the former needs more guidance and nurture during their journey to learn how to overcome life's hurdles and reach their potential. It is important that they focus on the positive and learn to embrace what makes them unique. Children with ADHD often have fast and creative minds, which helps them to be innovative and to develop new and exciting ideas. They may be sociable, funny, extroverted and intuitive. They may channel their energy into sports and seek out novel and interesting ways of doing things. However, they also need to learn how to cope with challenges and difficult times. They must develop skills to cope with setbacks, promote interpersonal skills, set goals and work toward their aspirations.

Resilience is a quality that draws upon a person's inner strength as well as their skill set. It is a lifelong characteristic that requires a person to have developed confidence, skills and competencies across life domains. Early intervention is important for promoting strength and resilience and reducing risk factors, such as low self-esteem, which may impact on the child's future development and wellbeing. With resilience, a person can adapt and bounce back from stressful or adverse incidents. As research adds to our knowledge about ADHD as a lifespan condition, the contribution of early interventions in building psychological resilience will become better understood. The aim is not to solely promote skill development, but to also strengthen coping and support mechanisms, which may protect children from emotional distress, behavioural problems and academic underachievement. Early intervention may prevent the development of maladaptive patterns that lead a child to become entrenched or stuck.

We are strongly influenced by those who are around us. Children are like sponges; they soak up what they see and hear. As a child grows up it will receive various (and sometimes conflicting) 'messages' from parents/carers, teachers, peers, the media and others in society. These messages may shift between generations and cultural norms, but the messages that are communicated need to be hopeful and positive if a child is to internalize a view of him-/herself that is

functional and adaptive. A child who perceives themselves as a problem or burden is more likely to develop low self-esteem and lack the resilience to cope with the challenges and difficulties in life that they will inevitably face as they mature and become a young adult.

As described by Sonuga-Barke and Halperin (2010), ADHD does not have to be understood as a fixed pattern of core deficits, but rather a fluctuating interplay between individual child factors, developmental neurobiology, phenotypes and interpersonal dynamics. This means ADHD has to be seen as a condition that changes as the child develops. Hence, ADHD has a dynamic presentation across the child's trajectory, and early intervention allows this to be shaped through the creation of positive social support, positive self-beliefs, sensitive and warm parenting environments and engaging in physical activity.

Cognitive Behavioural Therapy

The Young–Smith Programme is a cognitive behavioural therapy (CBT) intervention that focuses on the relationship between cognitions (what we think), affect (how we feel), body response (how this affects our body) and behaviour (what we do) – see Figure 1.1. There is good evidence that CBT is an effective intervention for the treatment of a variety of problems experienced by children, including anxiety, depression, interpersonal problems, phobias, school refusal, conduct disorder, obsessive-compulsive disorder and the management of pain.

CBT aims to reduce psychological distress and maladaptive behaviour by altering cognitive processes. The underlying assumption is that cognitive and behavioural interventions can bring about changes in thinking, feeling and behaviour, as affect and behaviour are largely a product of cognitions. Hence, CBT aims to restructure negative and unhelpful thinking errors whilst establishing more

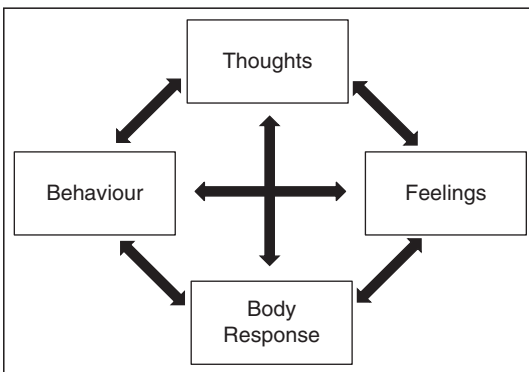


Figure 1.1 The CBT Cycle.

adaptive and flexible behaviours to promote coping. This is achieved by teaching children that the way they think about things can change how they feel and what they do. The way their body reacts provides clues to how they are feeling. For example, a child who sees a dog (even a friendly dog) and thinks, 'That dog looks scary!' will feel scared. They may recognize the feeling because their stomach is churning and they feel shaky. In response to these feelings an automatic action kicks in and the child will draw away from the dog and run to safety. Anxiety about dogs is likely to be maintained if the child does not face their fear, as this means that they do not learn to manage their thoughts, feelings and behaviours.

When working with young children, the therapist usually sets targets of treatment that focus more on the behavioural aspect of the CBT cycle because young children are less able to work at a cognitive level. However, as the child matures, more cognitive interventions can be introduced, which in turn will optimize treatment outcomes. The cognitive approach examines what a person thinks about themselves, other people and the world. CBT considers 'thinking errors' to be distorted or biased thinking which tend to be negative, overly general and/or restrictive thoughts about themselves, other people and/or the world. These 'thinking errors' interfere with the functional thinking process by altering our perception and preventing the adoption of positive coping techniques. In the Young-Smith Programme, we refer to 'thinking errors' as 'enemy thoughts'.

Furthermore, individuals may selectively dismiss relevant information that contradicts their thinking error. For example, the thought, 'All my teachers think I am rubbish' is likely to be an over-generalization displaying catastrophic or 'black and white' thinking. The child is likely to dismiss evidence to the contrary, such as receiving praise from a teacher the previous day. Over time, core beliefs may develop from these thoughts. These are stronger representations of the way the child perceives and evaluates events. Early intervention hopes to prevent the development of harmful, negative and strongly rooted core beliefs, reduce future distress and reduce the risk of the development of (negative) self-fulfilling prophecies.

CBT techniques will support children to re-evaluate their thoughts and beliefs about themselves, others and the world, and look at situations in a new and more adaptive way, which in turn can help them to feel more positive. Similarly, changing the way the child responds to a situation can help them to cope in a new way, altering not only how they perceive situations but also how they perceive their ability to manage difficult situations. In turn, this leads to more positive feelings and improved self-efficacy and self-confidence.

Figure 1.2 demonstrates an example of a child with ADHD who is struggling to write an essay in class. The child has become stuck, leading to a negative self-fulfilling prophecy. In this case, CBT would teach the child to challenge enemy thoughts/thinking errors and instead apply positive self-talk such as,

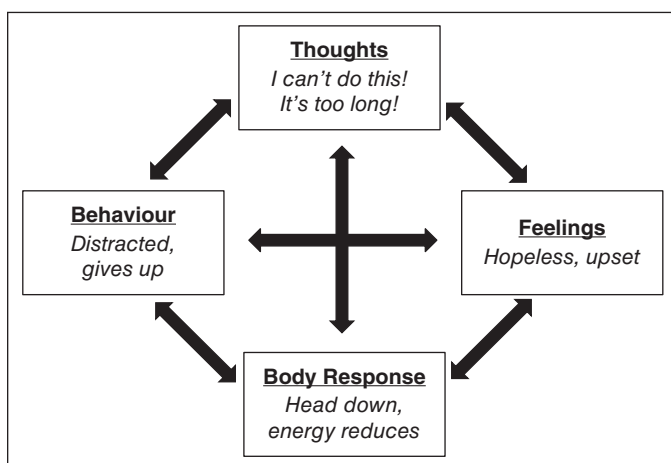


Figure 1.2 School example of a negative self-fulfilling prophecy.

'Come on, I can do this. Just five more minutes and then I'll ask for help.' This will motivate the child to try a bit harder, do a bit more, and ask for help if they continue to struggle.

The Young–Smith Programme

The Young–Smith Programme offers a template for healthcare and allied professionals and provides CBT techniques for use with school-aged children with ADHD or symptoms associated with ADHD. As the Young–Smith Programme and associated worksheets do not refer to ADHD directly, they are also suitable for use more generally with children who do not have ADHD but who are experiencing cognitive and/or behavioural problems for another reason (e.g., due to disruption within the family).

The Young–Smith Programme provides practical strategies and techniques to address problem behaviours and cognitive and emotional difficulties in children. In particular, cognitive problems are likely to hamper their engagement in standard interventions. For example, they may become restless and inattentive and need shorter sessions; they may need visual prompts to aid memory; they may need creative methods of delivery to maintain engagement; and there may need to be flexibility in the therapeutic approach, including frequent breaks and rewards. By offering a flexible approach, the Young–Smith Programme provides an adaptive model of CBT that embeds the model in the networks around the child. This will support the child in rehearsing and generalizing newly acquired skills into their daily activities.

For children with ADHD, interventions that involve those individuals surrounding the child are likely to be the most effective, and by working directly with the child and their parents/carers and teachers the therapist can ensure that scaffolding surrounding the child will optimize success. There is a great deal of evidence to support an approach that involves parenting and/or school interventions (Young & Amarasinghe, 2010). Hence, drawing on this approach and applying a cognitive behavioural paradigm, the Young–Smith Programme focuses on the functional problems presented by ADHD children (as opposed to diagnostic categories) and provides a comprehensive programme of treatment. The interactive and modular style of the programme means that it can be delivered by parents/carers, teachers and/or those involved in other agencies that support children with ADHD. In particular, we encourage parents/carers and teachers to deliver parts of the programme by themselves and provide specific guidance that will assist them. Although written for therapists who are working directly with young children and their parents/carers and teachers, the programme is novel in the inclusion of additional advice and guidance about how to deliver the programme for non-healthcare professionals. They will be aided in this endeavour by the structured approach to the programme and the inclusion of materials that can be downloaded from the companion website (www.wiley.com/go/young/helpingadhd).

Moreover, teachers and Special Educational Needs Coordinators can easily embed component modules into existing or newly formulated Individualized Educational Programmes. Short-term targets may thus be set around the completion of specific modules, or, perhaps more effectively, the application to school situations of specific strategies learnt during the module. Example targets include the pupil using a five-point scale (as discussed later in this book) to communicate their emotions at a particular time; the use of techniques introduced in one of the Buzz scenarios to avoid impulsive behaviour, avert frustration or manage conflict; or signs that the child is learning to form and manage friendships with peers.

Within the Young–Smith Programme, we intentionally avoid using the term ADHD for three reasons. Firstly, we believe that it is more meaningful for the child to focus on the functional presentations that cause them difficulties in their everyday life rather than a diagnostic category; secondly, we wish to avoid the stigma associated with a label; and thirdly, we don't want the child to feel that their problems are outside their control and due to a disorder that they can't manage. If the child believes that a problem (behaviour, events) controls them, this may, in turn, make the child feel as though they can do nothing to help control the problem, behaviour, events, and so on. This belief would be wrong because there is a lot that can be done (including strategies that children can learn themselves) to support them in controlling their behaviour and their emotions. This is well established from the evidence supporting CBT interventions in children more generally. It takes some effort and practice, but it can be

achieved. At the same time, it is important that the child does not feel blamed for their condition and that the adults around them are able to distinguish between the child and the ADHD.

Nevertheless, for children diagnosed with ADHD, and if the healthcare practitioner considers it beneficial to inform them about ADHD, the authors have written psychoeducational materials that can be freely downloaded from the Psychology Services Website (www.psychology-services.uk.com/resources). Two versions of these psychoeducational materials are available, one targeted at the child, 'So I have ADHD', and another targeted at parents/carers and teachers, 'ADHD? Information for Parents, Carers and Teachers'.

References

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington, DC: American Psychiatric Association.
- Biederman, J., Newcorn, J., & Sprich, S. (1991). Comorbidity of attention deficit hyperactivity disorder with conduct, depressive, anxiety, and other disorders. *American Journal of Psychiatry*, 148(5), 564–577.
- Elia, J., Ambrosini, P., & Berrettini, W. (2008). ADHD characteristics: 1. Concurrent co-morbidity patterns in children and adolescents. *Child and Adolescent Psychiatry and Mental Health*, 2(15), 1–9.
- Ford, T., Goodman, R., & Meltzer, H. (2003). The British child and adolescent mental health survey 1999: The prevalence of DSM-IV disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42(10), 1203–1211.
- Goldman, L. S., Genel, M., Bezman, R. J., & Slanetz, P. J. (1998). Diagnosis and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Journal of the American Medical Association*, 279(14), 1100–1107.
- Greene, R., Beszterczey, S., Katzenstein, T., Park, K., & Goring, J. (2002). Are students with ADHD more stressful to teach?: Patterns of teacher stress in an elementary school sample. *Journal of Emotional and Behavioral Disorders*, 10(2), 79–89.
- Kendall, J. (1999). Sibling accounts of attention deficit hyperactivity disorder (ADHD). *Family Process*, 38(1), 117–136.
- Kessler, R. C., Adler, L., Berkley, R., Biederman, J., Connors, C. K., Demler, O., et al. (2006). The prevalence and correlates of adult ADHD in the United States: Results from the national comorbidity survey replication. *American Journal of Psychiatry*, 163(4), 716–723.
- Mikami, A.Y., & Pfiffner, L. J. (2008). Sibling relationships among children with ADHD. *Journal of Attention Disorders*, 11(4), 482–492.
- Pliszka, S. R. (1998). Comorbidity of attention-deficit/hyperactivity disorder with psychiatric disorder: An overview. *Journal of Clinical Psychiatry*, 59(Suppl 7), 50–58.

- Rutter, M. (2005). Environmentally mediated risks for psychopathology: Research strategies and findings. *Journal of the American Academy of Child and Adolescent Psychiatry*, 44(1), 3–18.
- Shaw, M., Hodgkins, P., Caci, H., Young, S., Kahle, J., Woods, A., et al. (2012). A systematic review and analysis of long-term outcomes in attention deficit hyperactivity disorder: Effects of treatment and non-treatment. *BMC Medicine*, 10(99), 1–15.
- Sonuga-Barke, E. J. S., & Halperin, J. M. (2010). Developmental phenotypes and causal pathways in attention deficit/hyperactivity disorder: Potential targets for early intervention? *Journal of Child Psychology and Psychiatry*, 51(4), 368–389.
- Stergiakouli, E., & Thapar, A. (2010). Fitting the pieces together: Current research on the genetic basis of attention-deficit/hyperactivity disorder (ADHD). *Journal of Neuropsychiatric Disease and Treatment*, 6, 551–560.
- Thapar, A., Cooper, M., Jefferies, R., & Stergiakouli, E. (2012). What causes attention deficit hyperactivity disorder? *Archives of Disease in Childhood*, 97, 260–265.
- Theule, J., Wiener, J., Tannock, R., & Jenkins, J. M. (2013). Parenting stress in families of children with ADHD: A meta-analysis. *Journal of Emotional and Behavioral Disorders*, 21(1), 3–17.
- Young, S., & Myanthi, Amarasinghe, J. (2010). Practitioner review: Non-pharmacological treatments for ADHD: A lifespan approach. *Journal of Child Psychology and Psychiatry*, 51, 116–133.