PART I

Anxiety Disorders

1 Phenomenology and Standard Evidence-Based Care of Anxiety Disorders in Children and Adolescents

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Introduction

Collectively, anxiety disorders are the most common mental disorders in children and adolescents (Merikangas et al., 2010). This finding is largely replicated in epidemiological studies throughout the world (Lawrence et al., 2015; Polanczyk et al., 2015). However, specific prevalence rates can vary, sometimes dramatically, due to differences in assessment methods, recall periods, and populations. Nevertheless, in childhood and adolescence, prevalence rates of anxiety disorders range from 2.5 to 8.3 percent (Lawrence et al., 2015; Merikangas et al., 2010; Rapee, Schniering, & Hudson, 2009). Over a lifetime, more than one in four individuals will experience an anxiety disorder, with the majority of individuals having experienced clinically significant symptoms before they reach adulthood (Kim-Cohen et al., 2003). In fact, anxiety disorders have the earliest onset of the mental disorders, and reported prevalence rates are typically higher during adolescence than childhood (e.g., Merikangas et al., 2010). Although some prevalence studies fail to find gender differences in prevalence of anxiety, on the whole, anxiety disorders tend to be more prevalent in girls than boys (Rapee, Schniering, & Hudson, 2009).

Anxiety disorders are responsible for significant disease burden not just in childhood but across the lifespan (Baxter et al., 2014; Erskine et al., 2015). Despite their prevalence and impact, historically these disorders have been overlooked and most children with anxiety disorders go unrecognized and untreated. This has been in part due to the lack of knowledge about these disorders and the mistaken belief that they are transient in nature. Although this may be true about normal childhood fears and separation anxiety, this is not the case for anxiety disorders. Without access to evidence-based treatment, these disorders tend to persist, often leading to a range of other mental disorders such as major depression and substance abuse (Birrell et al., 2015; Seligman & Ollendick, 1998). Overall, the evidence suggests that anxiety disorders in children and young people are relatively stable, chronic, and disabling conditions that warrant attention (Craske et al., 2017; Rapee, Schniering, & Hudson, 2009).

The last 25 years have seen an increased interest in these disorders in children and as a result we have a significantly greater understanding of these high-prevalence disorders. Much of the research focus in young people has been on this disorder

group as a whole, with less attention paid to individual anxiety disorders. This is in contrast to the research in the adult field, which has largely focused on separate anxiety disorders (Barlow et al., 1985; Clark et al., 2006; Wells, 2005). Rather than focusing on specific disorders, child research has tended to consider these disorders collectively, as broad-based anxiety disorders.

This differing approach across the lifespan is in part due to the high rate of comorbidity between the anxiety disorders in children. In clinical samples, children presenting for treatment for anxiety rarely present with one anxiety disorder. During assessment, the clinician may identify one group of anxiety symptoms that is more severe and more interfering than other symptoms but typically these primary symptoms do not occur in isolation and will present with other types of anxiety. For example, at the Centre for Emotional Health at Macquarie University (Sydney, Australia), very few children seeking treatment for anxiety present with one disorder (8.9 percent; Hudson, Rapee et al., 2015). In fact, the majority of children are diagnosed with more than one anxiety disorder (87.3 percent). This type of comorbidity is not uncommon in other university clinics around the world. For example, in the largest randomized clinical trial of treatment of anxiety disorders in young people involving six clinics in the United States, 78.7 percent of children had more than one primary anxiety disorder (Walkup et al., 2008). Comorbidity among the anxiety disorders in community clinics is also very common. For example, Southam-Gerow and colleagues (2010) demonstrated that children presenting for treatment for anxiety at community child mental health clinics in the United States were diagnosed on average with more than three disorders. In addition to the primary anxiety disorder, at least 72.9 percent of children also met criteria for co-occurring specific phobia and 52.1 percent for separation anxiety disorder.

Despite the high comorbidity, separate anxiety disorders can be adequately differentiated in childhood and adolescence and can be reliably diagnosed. There are a number of added benefits for making distinct diagnoses such as assisting in the tailoring of treatment plans and identifying the most interfering problems to determine which symptoms warrant prioritizing. The anxiety disorders most commonly diagnosed in children and young people include separation anxiety disorder, social anxiety disorder, generalized anxiety disorder, and specific phobia. Less common disorders include selective mutism, agoraphobia, and panic disorder.

At the core of all of these disorders is anxiety. A child with an anxiety disorder experiences persistent fear or worry in certain environments that is excessive compared to typically developing children of a similar age. Importantly, the child avoids certain environments that elicit fear and may engage in specific behaviors to increase safety (such as reassurance seeking, avoiding eye contact). Anxiety itself is a very normal emotion. As fears are common in young children it can often be difficult to differentiate between normal and pathological anxiety. As it can be challenging for parents and teachers to determine whether the child's anxiety is part of normal development, anxiety disorders are often overlooked. The key to differentiating normal and abnormal anxiety is the extent to which the fears and worries have been enduring (e.g., typically at least six months) and the extent to which they interfere with the child's and/or the family's functioning. If the child

experiences fear but this does not impact on day-to-day functioning, such as attending school, making friendships, keeping friendships, or attending certain activities, then we would not call the anxiety a "disorder." If the child's anxiety is enduring and impacting on the child and family, then treatment is warranted. We will now review the phenomenology of different types of anxiety disorders that present in children and young people.

Types of Anxiety Disorder in Children and Young People

Social Anxiety Disorder

Social anxiety disorder is characterized by an excessive fear of situations in which there is potential for negative evaluation. The child's fear can be specific to performance situations but more often occurs across a range of social situations. Children with social anxiety disorder tend to dislike being the center of attention and will avoid answering or asking questions in class, speaking to new people, public speaking, and attending social activities. Young people who are socially anxious frequently have difficulty making friends and, although they have close friends, often have a smaller network of friends. These children may be quiet and appear shy and hence these behaviors and the accompanying distress can go unnoticed.

Social anxiety disorder can occur in childhood, yet it is more common in adolescence, with the mean age of onset around early to middle adolescence (Cohen, Cohen, & Brook, 1993; Otto et al., 2001; Strauss & Last, 1993). Social anxiety disorder is one of the more stable anxiety disorders and is associated with significant risk for later anxiety and depression (Pine et al., 1998; Stein et al., 2001; Yonkers, Dyck, & Keller, 2001). Specific prevalence rates for social anxiety disorder across childhood and adolescence range from 0.3 to 1.5 percent (Merikangas et al., 2010; Rapee, Schniering, & Hudson, 2009).

Selective Mutism

With the introduction of the fifth edition of DSM, selective mutism was for the first time conceptualized as a unique anxiety disorder (Muris & Ollendick, 2015). Selective mutism is characterized by a persistent failure to speak in social situations that is not explained by a communication disorder or other disorder such as an autism spectrum disorder. A child with selective mutism is comfortable talking at home with parents and siblings but is unable to talk at school or to friends outside the family or close network. Selective mutism is a rare disorder with a prevalence rate of less than 1 percent and it is twice as common in girls as in boys (Muris & Ollendick, 2015; Viana, Beidel, & Rabian, 2009). This disorder, compared to other anxiety disorders, tends to have a shorter course, but is typically associated with other anxiety disorders throughout childhood and adolescence. Many authors argue that selective mutism is another form of social anxiety disorder characterized by social avoidance in situations involving communication with unfamiliar people (Black, 1996).

The high comorbidity rates between selective mutism and social anxiety disorder support this notion.

Separation Anxiety Disorder

Children with separation anxiety disorder exhibit excessive, inappropriate, and lasting anxiety about separation from the child's main attachment figures (American Psychiatric Association, 2013). Separation anxiety disorder is characterized by an excessive fear that the child or the child's attachment figure will come into some form of harm or danger. Children with separation anxiety disorder experience significant arousal when separation from parents is discussed or experienced, as well as persistent worry that an unexpected event may lead to separation (Kossowsky et al., 2012). They may become clingy and refuse to leave their attachment figure, and often follow parents around the house, refusing to go anywhere without their parents. Children with separation anxiety disorder may also have significant difficulties around bedtime such as refusing to sleep alone, long drawn-out bedtime routines, and frequent nightmares about separation.

Like many anxiety disorders, separation anxiety disorder is underdiagnosed in school-aged children, which prevents appropriate treatment for children with the disorder. Children with separation anxiety disorder may also exhibit a number of physical symptoms, such as nausea and vomiting, that can be particularly pronounced just before separation (Brand et al., 2011). Separation anxiety disorder may also be associated with a refusal to attend school, with one study finding approximately one-third of school refusal cases meeting criteria for this disorder (Heyne, King, & Tonge, 2004). As such, separation anxiety disorder may prevent children from developing normal social relationships with peers, as well as result in low academic performance due to poor school attendance. Separation anxiety disorder has been consistently found to have the earliest age of onset of common anxiety disorders, peaking at the age of 7 years old (Beesdo, Knappe, & Pine, 2009). Prevalence rates range from 0.2 to 1.5 percent, with typically lower prevalence rates in adolescence (Merikangas et al., 2010; Rapee, Schniering, & Hudson, 2009).

Generalized Anxiety Disorder

Generalized anxiety disorder is characterized by pervasive and uncontrollable worry about a variety of issues or events (American Psychiatric Association, 2013). This excessive worry occurs most days and is accompanied by at least one somatic symptom in children such as nausea, headaches, heart palpitations, muscle tension, and restlessness (Payne, Bolton, & Perrin, 2011; Ramsawh, Chavira, & Stein, 2010). In children and young people, generalized anxiety disorder may manifest as undue worry about their competence and performance at school or sporting events. Children with generalized anxiety disorder may constantly seek reassurance, ask a multitude of "what if" questions, and have unrealistic concerns about day-to-day activities. Such children may also demonstrate perfectionistic traits, fear criticism or making mistakes, and have frequent unfavorable assessments of their own abilities.

Unlike developmentally appropriate fears and worries, a child with generalized anxiety disorder is unable to "switch off" worries.

The typical age of onset for generalized anxiety disorder is during adolescence but can occur earlier as well (Beesdo et al., 2010). Prevalence rates for generalized anxiety disorder range from 0.3 to 0.9 percent, with girls being twice as likely as boys to experience the disorder (Merikangas et al., 2010; Rapee, Schniering, & Hudson, 2009). Generalized anxiety disorder is also among the most highly occurring comorbid anxiety disorders, with young people commonly seeking treatment for generalized anxiety disorder comorbid with separation anxiety disorder, social anxiety disorder, specific phobia, panic disorder, and obsessive-compulsive disorder (Kendall et al., 2010). Generalized anxiety disorder during childhood also significantly increases the risk of developing depression and other anxiety disorders during adolescence (Payne, Bolton, & Perrin, 2011). Furthermore, when generalized anxiety disorder is comorbid with depression, this often leads to worse outcomes for young people's school attendance, employment capabilities, and mental health service utilization (Hirschfeld, 2001).

Specific Phobia

Specific phobias in children involve an irrational and intense fear of certain objects or situations, with the fear often manifesting as crying, clinging behavior, freezing up, or tantrums (American Psychiatric Association, 2013). A diagnosis of specific phobia is given if children experience strong, persistent fear for more than six months, and if it is accompanied by intense physiological symptoms, avoidance, or distress. Some common examples of specific phobias for children include spiders, water, strangers, or heights (Muris et al., 2002). Children with specific phobias will become extremely distressed when confronted with the feared situation or object, and often fail to recognize that the fear is irrational. Importantly, specific phobias differ from common childhood fears in that the former involves increased fear toward the specific object or situation as children mature, whereas common childhood fears tend to dissipate with age (Gullone, 2000).

Unlike common childhood fears, specific phobias also do not decrease with appropriate reassurance. For example, an escalator phobia will persist despite reassurance from a parent that it is safe to walk on. The age of onset for many specific phobias begins in middle childhood, with the disorder typically affecting more girls than boys, and prevalence ranging from 0.6 to 1.9 percent (Merikangas et al., 2010; Rapee, Schniering, & Hudson, 2009).

Panic Disorder

Children and adolescents with panic disorder experience unexpected and reoccurring periods of discomfort and intense fear, known as panic attacks, which are not triggered by an identifiable stimulus (American Psychiatric Association, 2013). Physical symptoms of panic attacks may include feelings of a rapidly accelerated heart rate, dizziness, sweating, shaking, trembling, and a feeling of being smothered

or an inability to breathe (Queen, Ehrenreich-May, & Hershorin, 2012; Ramsawh, Chavira, & Stein, 2010). Concurrently, the physical symptoms of panic attacks are often accompanied by terrifying thoughts of losing control and fear of fainting or dying. Panic disorder is diagnosed if young people experience at least one panic attack, followed by a month of persistent worry or concern over the negative consequences of experiencing another panic attack. Cued panic attacks can occur as a feature of many different anxiety disorders (e.g., in social or separation situations), but panic attacks in panic disorder appear to "come out of the blue." Children with panic disorder often make maladaptive behavioral changes as a result of their panic attacks, such as avoiding unfamiliar situations that may induce a panic attack.

The prevalence of panic disorder in younger children is fairly low, with age of onset often occurring in mid to late adolescence (Ollendick, Mattis, & King, 1994). Prevalence studies of panic disorder in adolescents range from 0.3 percent (Costello et al., 2003) to 1.2 percent (Wittchen, Nelson, & Lachner, 1998). Similar to other anxiety disorders, panic disorders are more common in adolescent females than males (Costello, Copeland, & Angold, 2011).

Agoraphobia

Agoraphobia in young people is characterized by a persistent fear of being trapped without a possibility to escape from certain situations or places (American Psychiatric Association, 2013). Typical situations that young people with agoraphobia find challenging include: using public transport, standing in a class line, or sitting in the middle of a crowded classroom. Children with agoraphobia may experience a panic attack in such a situation, or simply feel a sense of discomfort and unease. For agoraphobia to be diagnosed, the young person must exhibit, for six months, significant fear and anxiety in more than one situation or place from which he or she may not be able to easily escape, and avoid such locations accordingly.

Unlike previous editions, the DSM-5 has reclassified agoraphobia so that it is no longer linked to the presence of panic disorder and thus is a stand-alone diagnosis. Similarly, the DSM-5 has also tightened the definition of agoraphobia, so that children must experience fear/anxiety in at least two distinct situational domains such as: public transportation, being in enclosed places, being in open spaces, standing in line, being outside of the home, or being in a crowd (Cornacchio et al., 2015). Agoraphobia is found in 2.4 percent of adolescents and similar to other anxiety disorders, is more prevalent in young females than males (Merikangas et al., 2010).

Treatment of Anxiety Disorders Using a Standard Evidence-Based Approach

Given the comorbidity of anxiety disorders, treatments have tended to be transdiagnostic in their approach; that is, rather than targeting a specific anxiety disorder, treatment programs have largely been designed to treat a range of anxiety

disorders. This makes sense clinically: if a child presents with both separation anxiety and social anxiety disorder, it does not seem adequate to deliver a treatment that focuses solely on one disorder and excludes the other. Thus, a transdiagnostic approach has been widely adopted in the management of anxiety disorders in children and adolescents. It is generally agreed that the underlying construct of anxiety, which is present in all anxiety disorders, can be treated with the same treatment protocol (Barlow, 2002). As mentioned earlier, the core features of anxiety disorders include an inaccurate perception of threat in a situation and excessive avoidance. The continued avoidance of potentially threatening situations serves to maintain the child's anxiety because the child is prevented from learning accurate information about the likelihood that something bad or dangerous will happen and about his or her ability to cope with the situation. Thus, CBT specifically addresses these underlying core cognitive processes and behaviors that serve to maintain anxiety. Using a cognitive-behavioral approach, anxious cognitions can be targeted via cognitive restructuring, and avoidance of feared stimuli can be addressed through gradual exposure. These are the core features of standard evidence-based care for all anxiety and related disorders (e.g., post-traumatic stress disorder, obsessive-compulsive disorder). There are a number of other techniques that are often used to support exposure and cognitive restructuring such as psychoeducation, problem solving, parent management, and relaxation. Manual-based treatments for anxiety disorders, usually between 10 and 16 sessions, are utilized to teach these techniques. The skills in the program are typically taught through verbal instruction, activities, role-plays, and/or modeling. Children are encouraged and rewarded for practice outside the session. This homework, or weekly between-session practice, is considered a key component of treatment success (Hudson, Kendall, & Davis, in press). Each of the key techniques utilized in standard evidence-based care will be discussed as follows.

Psychoeducation

As part of the standard treatment protocol, children and parents are provided with information about the fundamental components of their anxiety disorder; this includes the thoughts, behaviors, and physiological symptoms associated with the disorder, and in particular the way in which these factors interact to develop and maintain the disorder. Initial sessions are spent identifying the physiological experience of anxiety, so that the child can recognize the emotion when it occurs and know when to employ the new strategies he or she will learn throughout the program. These initial sessions also focus on working through practice examples linking thoughts with emotion and behavioral outcomes. By ensuring that parents and children understand the theoretical principles underlying treatment, they are better able to grasp the purpose behind the numerous tasks and experiments requested of them during treatment. This is particularly important if homework compliance is to be maintained. Similarly, collaboration and active participation is emphasized, to ensure that families recognize their own role in the therapy process. The goal of treatment is to provide the clients with skills they can utilize beyond the treatment,

thereby reducing the burden of fear, anxiety, and worry and increasing function through reduced avoidance.

Parents and children are informed that fear, anxiety, and worry are normal experiences. This, in particular, highlights that the child is not alone in experiencing these anxiety-related phenomena. In this way, the therapist attempts to avoid or reduce the potentially stigmatizing effect of assessment or diagnosis. A functional level of anxiety is distinguished from anxiety that "gets in the way of doing things" that are appealing to the child. In this way, an attempt is made to engage the child's motivation and compliance in treatment, so that together the therapist, child, and parent can help reduce the impact the anxiety is having on the child's life.

Cognitive Restructuring

Cognitive restructuring is a technique that addresses maladaptive thoughts that are considered to maintain the expression of anxiety (Beck, 1976). The practice involves initially identifying the negative thoughts associated with the feared stimulus and considering their utility and accuracy. By reinterpreting the fear-provoking stimulus, and addressing negative thoughts and core beliefs that are unhelpful, new more accurate thoughts or evaluations of the feared stimulus can be acquired. As a result, the irrational thought is defused and a reduction in negative emotion is experienced when the feared item is subsequently encountered (Arch et al., 2012).

Developing more helpful thoughts can be challenging and relies upon the child's comprehension of the relationship between thoughts and outcomes, which is addressed in early sessions to impart an understanding of anxiety. This occurs through the use of therapist-led examples, in which the child practices identifying thoughts that lead to particular outcomes or feelings. For example, a child whose thoughts focus on "being laughed at" during a speech is likely to experience distress and avoid going to school on the day of the speech. The therapist may also help the child to identify thoughts that would lead to the reverse emotion or behavior, in the same scenario.

In the *Cool Kids* program, developed at Macquarie University in Sydney, Australia, children are encouraged to consider themselves a scientist or detective, and to collect evidence for their thoughts (Rapee et al., 2006). This evidence is utilized to determine the degree of fact or accuracy associated with the thought, and whether an alternate thought might be more accurate or useful. The process involves a number of steps, including: 1) identifying the feared event; 2) determining the worried thought; 3) considering the evidence or validity of the thought; 4) predicting the likelihood of the outcome; and 5) establishing a new more useful thought.

To aid this procedure, the therapist in conjunction with parents might pose provocative questions that aid the child's investigation of the thought. These are typically inspired by Socratic style questioning and can be supplemented with procedural worksheets available in many treatment manuals or workbooks. Some children find that particular questions or considerations are especially useful in their analysis of cognitions (e.g., "What happened last time?", "How likely is it to