Amie E. Grills-Taquechel · Thomas H. Ollendick

Phobic and Anxiety Disorders

in Children and Adolescents

Advances in Psychotherapy
Evidence-Based Practice

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About the Authors

Amie Grills-Taquechel, Associate Research Professor of Psychology at the University of Houston, has published in the area of childhood anxiety for the past 10 years. She has also given numerous conference presentations, secured grants, and received prestigious awards, including selection as a 2011 American Psychological Society Rising Star.

Thomas H. Ollendick, University Distinguished Professor at Virginia Tech, has published widely in the childhood anxiety disorders arena. In September 2011, he received an honorary doctorate from the University of Stockholm for his work in the field of childhood anxiety. Prof. Ollendick has been actively involved in grantsmanship and has conducted several randomized controlled trials on the efficacy and effectiveness of cognitive behavior treatments with young people and children.

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Phobic and Anxiety Disorders in Children and Adolescents

Amie E. Grills-Taquechel
Department of Psychology, University of Houston, Texas

Thomas H. Ollendick
Virginia Polytechnic Institute and State University, Blacksburg, Virginia

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Endorsements

"This informative book describes the various ways that anxiety can be detrimental and interfering for children and adolescents, and explores the course of anxiety development, methods for its assessment, and considerations in its treatment. The writing is concise and up-to-date, and guided by evidence-based clinical practice. No hocus pocus, just well-informed guidance."

Philip C. Kendall, Ph.D., ABPP, Distinguished University Professor, Laura H. Carnell Professor, and Director of the Child and Adolescent Anxiety Disorders Clinic, Department of Psychology, Temple University, Philadelphia, PA, USA

"Anxiety disorders of childhood in a perfect nutshell. If you are looking for a concise, thorough, and bang up-to-date book, then this is the one!"

Dr. Sam Cartwright-Hatton, NIHR Career Development Fellow, University of Sussex, UK

"This book contains a wealth of information about the nature of phobic and anxiety disorders in young people and their assessment and treatment. It will be of enormous value to mental health practitioners, providing them with clear and detailed information about state-of-the-art practice."

Sue Spence, PhD, Griffith University, Brisbane, Australia

"Research on anxiety disorders in children and adolescents has sky-rocketed during the last two decades and we now know much more about the etiology, prevalence, consequences, and treatment of these disorders. In just 90 pages this volume provides the reader with basic knowledge about background, diagnoses, assessment, psychological and pharmacological treatments, and their evidence-base. This book should be required reading for students interested in and professionals working with children and adolescents."

Lars-Göran Öst, Professor of Clinical Psychology, Stockholm University

"In recent years the number of scientific studies on anxiety disorders has grown exponentially. This book provides a comprehensive and thorough review of theoretical explanations, evaluation, and evidence-based treatments of anxiety disorders in children and adolescents. As expert researchers and practitioners, Grills-Taquechel and Ollendick provide an important resource and up-to-date reference work for professional psychologists and students alike."

Laura Hernández-Guzmán, Professor of Psychology and Chair of Continuing Education, Universidad Nacional Autónoma de México, Mexico City, Mexico

Dedication

For all the families who have been brave enough to seek treatment for their child's anxiety and trusted their children to our care. To my husband, parents, and friends for the support they provided while I tackled this project. And, most of all, to my daughter Francesca for the endless amounts of joy she brings to my life.

"I'm afraid that…"
"But what if…"
"I could never…"
"That's too scary for me…"

Preface

Anxiety can range from normative to clinical levels in children and adolescents

Fearful statements such as these and many others are commonly heard by clinicians working with anxious youths. As is discussed in this book, for a variety of reasons, children can come to view aspects of their world as overly frightening. In actuality, anxiety is a normal emotional response to a perceived threat to one's physical or emotional well-being. Feeling fearful and fleeing from a genuinely dangerous situation is adaptive. However, when a child experiences an anxiety response because of situations or objects that are not truly dangerous, then the anxiety and the avoidance associated with it are no longer adaptive. Just like adults, children and adolescents are usually quite distressed by excessive anxiety, and the avoidance behaviors they engage in frequently interfere with their ability to carry out developmentally appropriate tasks and activities. For many youths experiencing these difficulties, "normal" development has gone awry. In such instances, an anxiety disorder diagnosis is warranted when the anxiety response is excessive in frequency, intensity and/or duration, and results in significant impairment in functioning. Alarmingly, anxiety disorders are among the most common psychological difficulties experienced by children and adolescents. The purpose of our book is to examine these disorders in more detail and to explore not only their developmental course and expression but also effective assessment and treatment approaches for them. In doing so, we hope to provide the reader with a summary of extant research and to illustrate how this research can be used in evidence-based clinical practice.

Clinical anxiety is marked by excessively frequent, intense, and impairing anxious responses

Before proceeding, however, we would like to provide the reader with a list of acronyms that will frequently be used throughout the book. These acronyms are listed alphabetically below:

Acronyms Commonly Used Throughout This Book

ADHD	attention-deficit/hyperactivity disorder
ADJ	adjustment disorder
ADNOS	anxiety disorder not otherwise specified
AG	agoraphobia
ASD	acute stress disorder
BT	behavior therapy
CBT	cognitive behavior therapy

CBT+F	cognitive behavior therapy with family components
CD	conduct disorder
GAD	generalized anxiety disorder
GCBT	group cognitive behavior therapy
ICBT	individual cognitive behavior therapy
OCD	obsessive-compulsive disorder
ODD	oppositional defiant disorder
PD	panic disorder
PTSD	posttraumatic stress disorder
SAD	separation anxiety disorder
SM	selective mutism
SOCP	social phobia
SPP	specific phobia

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Description

In this section, we will first discuss the basic terminology and categorization of childhood diagnoses involving anxiety, as denoted in two of the major psychological/psychiatric classification systems used today. Table 1 lists all of these diagnoses to provide the reader with a comprehensive illustration of the diverse manifestations anxiety may take in children and adolescents. Descriptions, epidemiological information, and noted variations for each individual diagnosis are presented separately and summarized in Table 2. Following this, childhood anxiety disorders are discussed as a group regarding course and prognosis, differential diagnosis, comorbidities, and diagnostic procedures; however, specific disorder variations are also noted within each of these sections as appropriate.

Table 1
DSM-IV-TR and ICD-10 Diagnostic Codes for Childhood and Adolescence Anxiety and Related Conditions

DSM-IV-TR	ICD-10
Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence	**Disorders of Social Functioning With Onset Specific to Childhood and Adolescence**
Separation anxiety disorder (309.21)	Elective mutism (F94.0)
Selective mutism (313.23)	
Anxiety Disorders	**Emotional Disorders With Onset Specific to Childhood**
Specific phobia (300.29)	Separation anxiety disorder of childhood (F93.0)
Social phobia (300.23)	Phobic anxiety disorder of childhood (F93.1)
Obsessive-compulsive disorder (300.3)	Social anxiety disorder of childhood (F93.2)
Generalized anxiety disorder (300.02)	Other childhood emotional disorder (F93.8)
Posttraumatic stress disorder (309.81)	**Phobia Anxiety Disorders**
Acute stress disorder (308.3)	Agoraphobia (F40.0)
Panic disorder without agoraphobia (300.01)	Social phobias (F40.1)
Agoraphobia without history of panic disorder (300.22)	Specific phobias (F40.2)
Panic disorder with agoraphobia (300.21)	Other phobic anxiety disorders (F40.8)
Anxiety disorder due to a general medical condition (293.84)	Phobic anxiety disorder, unspecified (F40.9)

Table 1 continued

DSM-IV-TR	ICD-10
Substance-induced anxiety disorder (292.89) Anxiety disorder not otherwise specified (300.00) **Adjustment Disorders** with anxiety (309.24) with mixed anxiety and depressed mood (309.28) with disturbance of emotions and conduct (309.4)	**Other Anxiety Disorders** Panic disorder (F41.0) Generalized anxiety disorder (F41.1) Mixed anxiety and depressive disorder (F41.2) Other mixed anxiety disorders (F41.3) Other specified anxiety disorders (F41.8) Anxiety disorder, unspecified (F41.9) **Obsessive-Compulsive Disorder** Predominantly obsessional thoughts/ruminations (F42.0) Predominantly compulsive acts (F42.1) Mixed obsessional thoughts and acts (F42.2) Other obsessive-compulsive disorders (F42.8) Obsessive-compulsive disorder, unspecified (F42.9) **Reaction to Severe Stress and Adjustment Disorders** Acute stress reaction (F43.0) Posttraumatic stress disorder (F43.1) Adjustment disorders (F43.2) Other reactions to severe stress (F43.8) Reaction to severe stress, unspecified (F43.9) **Mixed Disorders of Conduct and Emotions** Other mixed disorders of conduct and emotions (F92.8) **Other Mental Disorders due to Brain Damage and Dysfunction and to Physical Disease** Organic anxiety disorder (F06.4) **Mental and Behavioural Disorders due to Psychoactive Substance Use (F10-F19)**

Note. DSM-IV-TR = *Diagnostic and Statistical Manual of Mental Disorders,* 4th edition, text revision; ICD-10 = *International Statistical Classification of Diseases and Related Health Problems,* 10th Edition.

Table 2
Brief Description, Noted Variations (Including Specifiers), and Childhood/ Adolescent Prevalence/Onset Information for DSM-IV-TR/ICD-10

Disorder name	DSM-IV-TR (ICD-10) codes
Section: Disorders Usually First Diagnosed in Infancy,Childhood, or Adolescence	
Separation Anxiety Disorder	**309.21 (F93.0)**
Brief description: excessive and recurrent anxiety and distress regarding separation from the home or individuals to whom the child is attached *Noted variations:* inconsistent findings regarding sex differences; *Specifier*: early onset *Prevalence/onset:* ~2–4%, with decreasing prevalence into adolescence[a,b]	
Selective Mutism 313.23 (F94.0)	
Brief description: refusal to speak in specific social situations despite the ability to do so *Noted variations:* slightly greater prevalence among females *Prevalence/onset:* <1%, more common in early childhood[a,c,d]	
Section: Anxiety Disorders	
Specific Phobia	**300.29 (F93.1/F40.2)**
Brief description: excessive and persistent fear of a specific object or situation *Noted variations:* similar rates but different content for boys and girls; *Specifier:* subtypes *Prevalence/onset:* ~2-6%, often begins in childhood/early adolescence; [a,e]	
Social Phobia	**300.23 (F93.2/F40.1)**
Brief description: excessive and persistent fear and avoidance of social situations or situations where the child may be scrutinized in a manner that could lead to embarrassment *Noted variations:* inconsistent findings regarding sex differences; *Specifier:* generalized *Prevalence/onset:* ~1–2%, typically begins in midadolescence[a,f]	
Obsessive-Compulsive Disorder	**300.3 (F42.8)**
*Brief description: o*bsessions and/or compulsions that cause distress, are time consuming, and interfere with the child's daily life *Noted variations:* more prevalent and earlier onset in male children, equivalent in males/females by adolescence *Prevalence/onset:* ~1–3%; onset typically gradual[g]	
Generalized Anxiety Disorder	**300.02 (F41.1)**
Brief description: excessive and difficult to control anxiety/worry across a variety of domains along with at least one associated physical/somatic symptom *Noted variations:* equivalent in males/females in childhood, greater in females by adolescence *Prevalence/onset:* ~<1–7%; onset commonly reported to be in late childhood/ adolescence[a,h,i]	
Posttraumatic Stress Disorder (PTSD)	**309.81 (F43.1)**
Brief description: following a traumatic event perceived as threatening to the self or others, the child or youth reacts with fear, helplessness, horror, agitation, or disorganization. Re-experiencing the event, avoidance of things associated with the event, numbing, and hyperarousal follow the event and remain present for at least one month.	

Table 2 continued

Disorder name	DSM-IV-TR (ICD-10) codes

Posttraumatic Stress Disorder continued
Noted variations: inconsistent findings regarding child sex differences; *Specifiers:* acute, chronic, or with delayed onset
Prevalence/onset: ~1–6% in community samples but significantly greater depending on the precipitating event[a,j,k,l,m]

Acute Stress Disorder **308.3 (F43.0)**
Brief description: similar to PTSD, symptoms of disassociation, re-experiencing, avoidance, and hyperarousal that follow a traumatic event that is perceived as threatening to the self. Symptoms last between 2 days and 4 weeks and begin within 4 weeks of the traumatic event.
Noted variations: limited research, but appears to be equal in both sexes
Prevalence/onset: ~7–36% posttrauma (injury/burn, assault or motor vehicle accident) [j,k,l,n]

Agoraphobia (AG) Without History of Panic Disorder 300.22 (F40.00)
Brief description: anxiety resulting from situations in which escape or avoidance may be inhibited or in which help may not be available if panic symptoms were to occur.
Noted variations: limited research but appears more common in females
Prevalence/onset: ~<1–8% (higher in clinic samples)[r]

Panic Disorder
Without Agoraphobia **300.01 (F41.0)**
With Agoraphobia **300.21 (F40.01)**
Brief description: recurrent panic attacks occurring unexpectedly and followed by 1+ months of persistent concern about having another attack, worry about the consequences of the attack, or a change in behavior related to the attack. Occurs with/without the above-described agoraphobia.
Noted variations: more common in females; equally divided for with/without AG
Prevalence/onset: ~1–5% (higher in clinic samples); rare in childhood, increasing prevalence with age[p,q,r]

Anxiety Disorder due to a General Medical Condition **293.84 (F06.4)**
Brief description: anxiety symptoms that occur but are determined upon examination to be the direct physiological result of a medical condition
Noted variations: varies by condition; *Specifiers:* with generalized anxiety, with panic attacks, or with obsessive-compulsive symptoms
Prevalence/onset: n/a (prevalence/onset based on etiology of the medical condition)

Substance Induced Anxiety Disorder **Uses specific substance code**
Brief description: anxiety symptoms that occur but are determined upon examination to occur during or shortly after substance intoxication or withdrawal
Noted variations: varies by substance; *Specifiers:* with generalized anxiety, with panic attacks, with obsessive-compulsive symptoms, with phobic symptoms, with onset during intoxication, or with onset during withdrawal specifiers
Prevalence/onset: n/a (prevalence/onset based on etiology of the substance)

Anxiety Disorder Not Otherwise Specified **300.00 (F41.9, F40.8, F40.9, F41.3, F41.8)**
Brief description: a catch-all category provided for instances where significant anxiety is present but criteria are not met for the other diagnostic categories
Prevalence/onset: ~2%[s,t]

Table 2 continued

Disorder name	DSM-IV-TR (ICD-10) codes
Section: Adjustment Disorders	
Adjustment Disorder	
with Anxiety	**309.24 (F43.28)**
with Mixed Anxiety and Depressed Mood	**309.28 (F43.22)**
with Disturbance of Emotions and Conduct	**309.4 (F43.25)**
Brief description: significant anxiety (and/or other emotional/behavioral) symptoms that develop within 3 months of a major stressor and dissipate within 6 months of that stressor ending	
Noted variations: occurs equally in male and female children and adolescents; acute and chronic specifiers	
Prevalence/onset: ~2–8% for adjustment disorders as a group	

Notes: Prevalence rates represent childhood/adolescent rates only and include the data from Table 3, as well as the references noted with superscripts and listed below. DSM-IV-TR = *Diagnostic and Statistical Manual of Mental Disorders,* 4th edition, text revision; ICD-10 = *International Statistical Classification of Diseases and Related Health Problems*, 10th Edition; n/a = not applicable.
[a]Egger & Angold, 2006; [b]Brückl et al., 2007; [c]Referred to as elective mutism in the ICD-10; [d]Egger et al., 2006; [e]Previously referred to as simple phobia; [f]Previously referred to as avoidant disorder; [g]Heyman et al., 2003; [h]Previously referred to as overanxious disorder; [i]Lavigne et al., 2009; [j]Kassam-Adams & Winston, 2004; [k]Daviss et al., 2000; [l]Meiser-Stedman, Smith, Glucksman, Yule, & Dalgleish, 2007; [m]Saxe et al., 2005; [n]Miller, Enlow, Reich, & Saxe, 2009; [p]Doerfler et al., 2007; [q]Ollendick, Birmaher, & Mattis, 2004; [r]Wittchen, Reed, & Kessler, 1998; [s]ICD-10 includes nine additional "other" and "unspecified" anxiety categories; [t]Esbjorn et al., 2010.

1.1 Terminology

Two primary classification systems are currently used: DSM-IV-TR and ICD-10

The two primary diagnostic classification systems used today are the fourth, text-revision, edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; American Psychiatric Association [APA], 2000) and the chapter "Mental and Behavioural Disorders" in the 10th edition of the *International Statistical Classification of Diseases and Related Health Problems* (ICD-10; World Health Organization, 2007).

Within each of these classification systems (the DSM-IV-TR and ICD-10), disorders involving anxiety that can be diagnosed in children can be found in several locations. First, in the DSM-IV-TR, two disorders (separation anxiety disorder and selective mutism) are listed in the "Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence*"* section. These disorders, as well as phobic anxiety disorder of childhood and social anxiety disorder of childhood are included in the ICD-10 in the "Behavioral and Emotional Disorders With Onset Usually Occurring in Childhood and Adolescence" section. Second, DSM-IV-TR includes two additional sections with diagnoses involving anxiety that can be made in children, adolescents, or adults: "Anxiety Disorders*"* and "Adjustment Disorders." In ICD-10, the remaining

anxiety diagnoses are found in the "Neurotic, Stress-Related, and Somatoform Disorders" section.

Overall, the ICD-10 and DSM-IV-TR have roughly corresponding diagnostic categories; however, slightly different groupings are used (see Table 1). For example, while DSM-IV-TR includes specifiers for children within broader categories (e.g., specific phobia [SPP], social phobia [SOCP]), ICD-10 separates some disorders by age (e.g., F93.1 – phobia anxiety disorder of childhood, and F40.2 – specific phobias). In addition, ICD-10 separately groups agoraphobia, social phobias, and specific phobias (along with other phobic anxiety disorders and phobic anxiety disorder–unspecified) in a section titled "Phobic Disorders," while acute stress disorder, posttraumatic stress disorder (PTSD), and adjustment disorders are included in the "Reaction to Severe Stress and Adjustment Disorders" section. ICD-10 also lists several "other" categories (e.g., other phobic anxiety, phobic anxiety–unspecified, other mixed anxiety disorders, other obsessive-compulsive disorder, etc.) which are subsumed under the diagnosis of anxiety disorders not otherwise specified, in the DSM-IV-TR. Although these different "other" diagnoses will not be described in our book, additional information on them can be found by visiting the ICD-10 website (http://www.who.int/classifications/icd). Another difference is that mixed anxiety–depressive disorder is provided as an ICD-10 diagnosis for when symptoms of anxiety and depression are present to equivalent extents and neither significantly to the degree that an individual anxiety or depressive disorder diagnosis should be given. Although a similar disorder is provisionally listed under "Criteria Sets and Axes Provided for Further Study," the DSM-IV-TR indicates that children with these symptoms should currently be given a diagnosis of anxiety disorder not otherwise specified. Finally, both classification systems include separate diagnostic categories for anxiety disorders that are the result of medical conditions or substance use.

Overall, the various manifestations of anxiety included in the DSM-IV-TR and ICD-10 overlap considerably. Given this fact, unless otherwise noted for consistency and ease of reading, the remainder of this book will focus on DSM-IV-TR diagnostic categorizations and criteria.

1.2 Descriptions

All of the anxiety disorders share some common features and about half have specific diagnostic information regarding children

In line with the organization of the DSM-IV-TR, the different anxiety disorders that can be diagnosed in children are presented by subcategories below and in Table 2 (see Appendix 1). Except where noted, the information summarized was derived from the descriptions provided in the DSM-IV-TR (APA, 2000). Prevalence rates are listed in Table 2 and represent those for childhood/adolescence only, including data from Table 3, as well as from the references noted.

In general, all of the childhood disorders involving anxiety share several features. Most notably, they all have in common some element of persistent and excessive anxious arousal or fear. In addition, for each disorder it is noted that the symptoms "cause clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning" (APA, 2000), and exclusionary criteria are provided for when symptoms do and do

Table 3
Lifetime, 12-Month, and 3-Month Prevalence Estimates From Worldwide Studies of Anxiety Disorders

	N	Age	PD	AG	SPP	SOCP	OCD	PTSD	GAD	SAD	AD-NOS	Any anx	Country
Lifetime													
Essau et al. (2000)	1,035	12–17	0.5%	4.1%	3.5%	1.6%	1.3%	1.6%	0.4%	–	11.9%	18.6%	Germany
Merikangas, He, Burstein, et al. (2010)	10,123	13–18	0.0%	0.0%	0.6%	1.3%	–	1.5%	0.9%	0.6%	–	8.3%	USA
Wittchen et al. (1998)	3,021	14–24	1.6%	2.6%	2.3%	3.5%	0.7%	1.3%	0.8%	–	5.2%	14.4%	Germany
Ranges			0–1.6%	0–2.6%	0.6–3.5%	1.3–3.5%	0.7–1.3%	1.3–1.6%	0.4–0.9%	0.6%	5.2–11.9%	8.3–18.6%	
12-month													
Canino et al. (2004)	1,897	4–17	0.5%	–	–	2.5%	–	0.8%	2.2%	3.1%	–	6.9%	Puerto Rico
Merikangas, He, Brody, et al. (2010)	3,042	8–15	0.3%	–	–	–	–	–	0.2%	–	–	–	USA
Roberts et al. (2007)	4,175	11–17	0.4%	1.6%	–	1.0%	–	0.5%	0.4%	–	–	3.4%	USA
Wittchen et al. (1998)	3,021	14–24	1.2%	1.6%	1.8%	2.6%	0.6%	0.7%	0.5%	–	2.7%	9.3%	Germany

Table 3 continued

	N	Age	PD	AG	SPP	SOCP	OCD	PTSD	GAD	SAD	AD-NOS	Any anx	Country
Wells et al. (2006)	1,535	16–24	2.4%	0.7%	9.3%	7.0%	1.5%	2.4%	1.6%	–	–	17.7%	New Zealand
Ranges			0.3–2.4%	0.7–1.6%	1.8–9.3%	1.0–7.0%	0.6–1.5%	0.5–2.4%	0.2–2.2%	No range	No range	3.4–17.7%	
3-month													
Egger et al. (2006)	1,073	2–5	–	–	2.3%	2.1%	–	0.6%	3.8%	2.4%	–	9.4%	USA
Lavigne et al. (2009)	796	4	–	–	–	–	–	–	0.6%	0.0%	–	–	USA
Costello et al. (2003)	6,674	9–16	0.2%	0.2%	1.0%	0.5%	0.1%	<0.1%	0.8%	1.0%	–	2.4%	USA
Angold et al. (2002)	920	9–17	1.2%	0.5%	0.4%	1.4%	0.2%	–	1.3%	3.0%	–	5.7%	USA
Gau et al. (2005)	3,156	13–17	0.1%	0.1%	3.8%	2.4%	0.2%	–	0.5%	0.1%	–	6.6%	Taiwan
Ranges			0.1–1.2%	0.1–0.5%	0.4–3.8%	0.5–2.4%	0.1–0.2%	<0.1–0.6%	0.5–3.8%	0–3.0%	–	2.4–9.4%	

Note. Dashes indicate data not reported. AD-NOS = anxiety disorder not otherwise specified; AG = agoraphobia; Anx = anxiety; GAD = generalized anxiety disorder; N = number; OCD = obsessive-compulsive disorder; PD = panic disorder; PTSD = posttraumatic stress disorder; SAD = separation anxiety disorder; SOCP = social phobia; SPP = specific phobia.

not occur (e.g., not during the course of schizophrenia). As previously noted, separation anxiety disorder and selective mutism are listed in the "Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence" section. In addition to these, five of the 12 diagnoses in the anxiety disorders section include symptom variation specifications for children. These specifications are made for SPP, SOCP, obsessive-compulsive disorder, generalized anxiety disorder, and PTSD. Each symptom variation is detailed within the descriptions below, but in general, these pertain to the expression of anxiety (e.g., anxiety may be expressed as clinging or crying in children), symptom duration, and/or the removal of criteria that the fear be recognized as excessive or unreasonable.

1.2.1 Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence

Separation anxiety disorder (SAD) refers to excessive and recurrent anxiety regarding separation from the home or individuals to whom the child is attached. Eight primary symptoms are noted, and children must exhibit at least three to receive a diagnosis of SAD. In addition, the child must be 18 years of age or younger, and the symptoms must persist for at least 4 weeks. Early onset is specified if the child meets SAD diagnostic criteria before age 6. Associated features include persistent reluctance to attend school, remain alone, or go to sleep without a major attachment figure present, as well as nightmares involving the theme of separation and the expression of a number of physical complaints when separation occurs or is anticipated.

Selective/elective mutism (SM) occurs in a small percentage of children who refuse to speak in specific social situations (e.g., school) despite the ability to do so. Refusal to speak must occur for at least 1 month, and interference occurs in educational/occupational achievement *or* social communication domains. However, SM is not diagnosed if the refusal to speak occurs in the first month of school or because of a lack of knowledge/comfort with the language. Children with SM often also experience significant social concerns, shyness, or other anxiety symptoms.

1.2.2 Anxiety Disorders

Specific phobias (SPP) are excessive and persistent fears of explicit objects or situations, which are typically avoided or endured with intense anxiety or distress. Exposure or anticipation of exposure to that feared generally results in extreme anxiety and potentially a panic attack. DSM-IV-TR specifically notes that children may not be cognizant of the unreasonable or excessive nature of their fears; that fears may be expressed through crying, tantrum, freezing, or clinging behaviors; and that the phobia must be present for 6 months or longer. At a clinical level, phobias tend to be involuntary, inappropriate, and limiting to a child's life (Essau, Conradt, & Petermann, 2000). SPPs can be specified as falling into one of the following subtypes: animal, natural environment, blood-injection-injury, situational, or other.

Social phobia (SOCP) refers to excessive and persistent fear and avoidance of social situations or situations where scrutiny could lead to embarrassment. Feared situations are typically avoided or endured with intense distress that may take the form of a panic attack. Additional criteria for children in DSM-IV-TR include that the child has age-appropriate social relationships with familiar people and that the child's anxiety occurs for interactions involving peers as well as adults. As it does for SPP, DSM-IV-TR specifically notes that children may not be cognizant of the unreasonable or excessive nature of their social fears; that they may express their distress by crying, tantrums, freezing, clinging, or shrinking from social situations with unfamiliar people; and that their symptoms must be present for at least 6 months. The descriptor *generalized* is used as a specifier when most social situations and interactions are feared.

Obsessive-compulsive disorder (OCD) is diagnosed when a child experiences obsessions and/or compulsions that cause distress, are time consuming (i.e., an hour or more each day), and interfere with the child's daily life. Obsessions are recurrent and intrusive thoughts, impulses, or images that the child attempts to neutralize or suppress with other thoughts or actions. Compulsions are repetitive behaviors or mental acts that are performed in response to an obsession or used to reduce or prevent distress of a dreaded event. Often the child feels driven to perform the compulsive acts and if interrupted or prevented from doing so may feel intense anxiety or panic. Children need not recognize the unreasonable or excessive nature of their obsessions and/or compulsions. Washing, checking, and ordering rituals are most common, and children will more often perform rituals at home than in front of others. Common obsessions involve contamination, aggressive or harmful acts to self or others, urges for exactness, and religiosity (March & Mulle, 1998; Piacentini & Langley, 2004). In rare cases, OCD symptoms may be associated with pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections (Swedo et al., 1998).

Generalized anxiety disorder (GAD) is characterized by excessive and difficult-to-control anxiety and worry about several different domains that occurs more days than not for at least 6 months. Children must also exhibit at least one of six physical/somatic symptoms. Some of the more common worries among children with GAD concern performances, evaluation by others, perfectionism, health of significant others, and catastrophic events.

Posttraumatic stress disorder (PTSD) and acute stress disorder (ASD) are diagnosed in children who have experienced or witnessed an event that is perceived as threatening or dangerous to the child or others and that involves a response of intense fear, helplessness, or disorganized or agitated behavior. Following the event, the child continues to re-experience it through distressing memories or physiological arousal resulting from internal or external cues that are associated with the event in some way. Additional symptoms include persistent avoidance of stimuli associated with the event, numbing of general responsiveness, and persistent symptoms of arousal that were not present prior to the event. For PTSD (but not ASD), several specifications or qualifications are made for potential symptom variations in children and include that children may respond to traumatic events with disorganized or agitated behaviors and may display different re-experiencing (e.g., nightmares in general, rather

than trauma-specific) and/or physical (e.g., stomach aches) symptoms from adults. Specifiers are also provided for PTSD, with *acute* used if symptoms have been present for less than 3 months, *chronic* if the symptoms have been present for 3 or more months, and with *delayed onset* if symptoms developed 6 months or longer after the traumatic event occurred. ASD is diagnosed when symptoms begin within 4 weeks of a traumatic event and last between 2 days and 4 weeks.

Panic disorder (PD) can be diagnosed with **agoraphobia (AG),** or either disorder can be diagnosed without the other. PD is marked by recurrent panic attacks which are acute and extreme feelings of anxiety that occur unexpectedly and are followed by at least 1 month of persistent concern about having another attack, worry about the consequences of the attack, or a change in behavior related to the attack. AG is characterized by excessive anxiety resulting from situations in which escape or avoidance may be inhibited or in which help might not be available if panic symptoms were to occur.

Two additional diagnoses are provided for when anxiety, panic, or obsessive-compulsive symptoms occur but are determined upon examination to be the direct result of either a medical condition (**anxiety due to a general medical condition**) or substance use (**substance-induced anxiety disorder**). In these instances, the specific medical condition (e.g., anxiety due to hypoglycemia) or substance (e.g., cannabis-induced anxiety disorder) is indicated, and for both diagnoses, specifiers are used to denote the type of anxiety symptoms present (e.g., with panic attacks). An additional specifier is used with substance-induced anxiety disorder to indicate whether symptoms occur during intoxication or withdrawal.

Anxiety disorder not otherwise specified (ADNOS) is diagnosed when anxiety symptoms are significant, but criteria are not met for any of the other formal diagnostic categories. ICD-10 provides several categories that are subsumed under ADNOS in DSM-IV-TR, including other phobic anxiety, phobic anxiety disorder–unspecified, other mixed anxiety disorders, other specified anxiety disorders, anxiety disorder–unspecified, other obsessive-compulsive disorders, obsessive-compulsive disorder–unspecified, other reactions to severe stress, and reaction to severe stress–unspecified.

1.2.3 Adjustment Disorders

An **adjustment disorder (ADJ)** is diagnosed within 3 months of a major life stressor that a child responds to with significant emotional and/or behavioral symptoms which are beyond that expected given the stressor, or that cause impairment in the child's life. Symptoms cannot be better accounted for by, or serve as an exacerbation of, an Axis I diagnosis like the above-described anxiety disorders; cannot be due to bereavement; and cannot last more than 6 months after the stressor has ended. For children, stressors might include family (e.g., new sibling, parental divorce) or environmental (e.g., new school, family move) issues. Three of the ADJ subtypes concern anxiety and include with anxiety, with mixed anxiety and depressed mood, or with mixed disturbance of emotions and conduct. Finally, specifiers are used to indicate whether symptoms have been present for less than (acute) or greater than (chronic) 6 months.

1.3 Epidemiology

Anxiety disorders are among the most commonly diagnosed childhood concerns; prevalence estimates typically range from 6% to 19%

As is likely apparent from Tables 2 and 3, anxiety disorders are among the most prevalent mental health concerns reported by children. Examined as a group, recent prevalence rate estimates for anxiety disorders during childhood typically range from 6% to 19% (e.g., Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Egger & Angold, 2006; Kessler et al., 2005; Merikangas, He, Brody, et al., 2010; Merikangas, He, Burstein, et al., 2010; Wittchen, Nelson, & Lachner, 1998). Further, when impairment criteria are not considered, prevalence rates climb substantially higher (e.g., 32% in Merikangas, He, Burstein, et al., 2010; 27% in Wittchen et al., 1998). Thus, a large prevalence range has been noted to occur, in part, because of inconsistent use of impairment and distress severity criteria across studies, as well as from sampling or ascertainment issues (e.g., community versus clinic-referred versus anxiety-clinic referred).

Of course prevalence rates also vary considerably for individual anxiety disorders assessed with differing time references (e.g., 3-month, 12-month, lifetime prevalence) or youth demographics (e.g., age, gender, race). Table 3 illustrates the former with studies of DSM-IV-TR criteria that have examined 3-month, 12-month, or lifetime prevalence estimates. Overall, increasing estimates are noted for any anxiety disorder diagnosis from 3 months (2.4–9.4%) to 12 months (3.4–17.7%) to lifetime (8.3–18.6%).

Bimodal distribution for age with peaks noted in early/ middle childhood and adolescence

Table 4 shows prevalence rates by age. Interestingly, while it has been reported by those with restricted samples that anxiety disorders increase in prevalence with age, there may actually be a bimodal distribution. For example, Costello et al. (2003) reported on the 3-month prevalence of anxiety disorders in 6,674 youths aged 9–16 and showed decreasing overall anxiety (any anxiety disorder) from ages 9–12 (4.6% to 0.9%), then an increase at age 13 (2.0%) that remained stable through the adolescent years (1.6–2.8%). A similar finding can also be observed for lifetime prevalence (Essau et al., 2000) by comparing the rates of 12–13 versus 14–15 and 16–17 year olds in Table 4. Although other DSM-IV-TR studies have not been completed across childhood and adolescence to be compared with these findings, clinicians should be cognizant that early childhood and early adolescence may represent particular peaks in anxiety disorder onset. In addition, certain diagnoses, such as SAD, show decreasing prevalence rates with age (Costello et al., 2003; Esbjørn, Hoeyer, Dyrborg, Leth, & Kendall, 2010; Gau, Chong, Chen, & Cheng, 2005; Kaplow, Curran, Angold, & Costello, 2001), while others, such as SOCP, GAD, PD, and PTSD increase with age (Canino et al., 2004; Costello et al., 2003; Esbjorn et al., 2010; Essau et al., 2000; Merikangas, He, Burstein, et al., 2010).

Studies comparing boys and girls have typically found small or nonexistent differences for anxiety disorders during childhood (Bittner et al., 2007; Canino et al., 2004; Egger & Angold, 2006); however, such differences become increasingly apparent in adolescence and into adulthood, with girls more often diagnosed with anxiety (Costello et al., 2003; Esbjorn et al., 2010; Essau et al., 2000; Gau et al., 2005; Merikangas, He, Burstein, et al., 2010; Roberts, Roberts, & Xing, 2007; Wittchen et al., 1998). This is most apparent when anxiety disorders are considered together, as depicted in the "Any Anxiety Disorder" category of Table 5. Also notable in Table 5 are the varying gender differences observed for the individual diagnostic categories.