

# Anxiety disorders

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**Abstract** With the adoption of a developmental psychopathology perspective, the DSM-5 translates empirical evidence on the continuity of childhood anxiety disorders into diagnostic practice, thereby completing a process that started with the exclusion of the former childhood anxiety disorders overanxious disorder and avoidant disorder from DSM-III to DSM-IV. This change in perspective, however, leads to a low level of concordance between the DSM-5 and ICD-10. To reliably identify anxiety disorders at different points in development, and to take into account their developmental pathways, assessment instruments need to be sensitive to age-related manifestations and age-related subtypes of a disorder. This may best be achieved by a multi-informant, multi-method assessment approach. With regard to treatment, only cognitive-behavioral therapy (CBT) fulfills the criteria of an evidence-based treatment approach in youth. Disorder-specific treatments can lead to larger treatment effects and slightly higher remission rates as compared to more general treatment programs for childhood anxiety disorders (e.g., Coping Cat). Parental involvement seems not to add to treatment success. In conclusion, the evidence-based diagnostic approach of the DSM-5 needs to be complemented by the development and evaluation of child-friendly, developmentally sensitive assessment tools and evidence-based treatments for anxiety disorders in children. With regard to diagnostic concordance, the gap between the DSM-5 and ICD-10 needs to be

bridged by more closely aligning the two nosological systems.

**Keywords** DSM-IV · DSM-5 · ICD-10 · Separation anxiety disorder · Specific phobia · Social anxiety disorder · Generalized anxiety disorder · CBT · Childhood · Adolescence

## A developmental lifespan perspective on anxiety disorders

With lifetime prevalence estimates ranging from 15 % to 20 % and a median age of onset of 11 years [1], anxiety disorders are among the most prevalent and earliest forms of psychopathology [2] and are known to function as a pacemaker for mental disorders later in life [3–5]. Yet, research on anxiety disorders in younger populations lags behind studies on anxiety disorders in adults. The adoption of a developmental psychopathology perspective is one of the major changes from DSM-IV to DSM-5. This change might gradually shift the focus of researchers and clinicians toward a clinical psychology of the lifespan.

### Continuity in diagnostic criteria across age groups

With regard to defining the criteria for diagnosing anxiety disorders in different age groups, empirical evidence supports continuity in criteria (as in DSM-IV-TR and DSM-5) instead of applying different criteria to children/adolescents and adults (as in ICD-10). Contracting an anxiety disorder at any time during childhood or adolescence increases the risk for developing either the same anxiety disorder (*strict homotypic continuity*) or another anxiety

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(*broad homotypic continuity*) or mental disorder (*heterotypic continuity*) later in life.

### Changes in classification from DSM-IV to DSM-5

#### Overall changes

The revision of the anxiety disorder section has been developed by the Anxiety, Obsessive–Compulsive Spectrum, Posttraumatic, and Dissociative Disorders Work Group. Overall changes from DSM-IV to DSM-5 within the anxiety disorder section concern the systematic application of a developmental lifespan perspective and consistent re-wording of criteria throughout the chapter. For example, the combined term “fear or anxiety” is used

consistently in the DSM-5 (while the DSM-IV sometimes uses “fear” and in other instances “anxiety”). The developmental lifespan perspective of the DSM-5 also led to a chronological reorganization of anxiety disorders according to their age of first onset, beginning with separation anxiety disorder and concluding with panic disorder (Table 1).

#### Major changes for separation anxiety disorder

In DSM-5, separation anxiety disorder has been moved from the category “disorders usually first diagnosed in infancy, childhood, or adolescence” (DSM-IV) to the anxiety disorders category, and the age-of-onset requirement (“before age 18 years”) has been dropped. Accordingly, terms are added (A-4: “work”) or changed (A-5:

**Table 1** Changes in diagnostic criteria for anxiety disorders in children and adolescents from DSM-IV to DSM-5 (American Psychiatric Association DSM-5 Development. Retrieved from <http://www.dsm5.org> on 09.09.2012)

Anxiety disorder	DSM-IV	DSM-5
<b>Separation anxiety disorder</b>		
Category	“Disorders usually first diagnosed in infancy, childhood, or adolescence”	Moved to the “anxiety disorders” category
Age delimiter	Limited to childhood/adolescence (“before age 18 years”)	All age groups
Duration	4 weeks	6 months or more for all age groups
Specifier	Early onset (“before age 6 years”)	–
<b>Specific phobia</b>		
Terminology	Fear is “excessive or unreasonable”	Fear/anxiety is “out of proportion to the actual danger posed”
Duration	6 months or more for individuals under 18 years	6 months or more for all age groups
Insight	May be absent in children	–
<b>Social anxiety disorder</b>		
Title	Social phobia	Social anxiety disorder
Terminology	Individual fears humiliation and embarrassment in social or performance situations with unfamiliar people	Individual fears negative evaluation (e.g., being humiliated, embarrassed, or rejected) by others (either unfamiliar or familiar) in performance, interaction, or observation situations
Duration	6 months or more for individuals under 18 years	6 months or more for all age groups
Insight	May be absent in children	–
Specifier	“Generalized”	“Performance Only” “Selective Mutism”
<b>Generalized anxiety disorder</b>		
Specific criteria	–	Avoidance of activities/events with possible negative outcomes
	Difficulties in controlling worry	–
Symptom count	Anxiety/worry associated with three or more (out of 6) symptoms	Anxiety/worry associated with one or more (out of 2) symptoms
Duration	6 months or more	3 months or more

“major attachment figures” for “adults”) to better suit all age groups. Also, the early-onset specifier (“before 6 years”) has been dropped and duration is specified as “typically lasting six or more months” (instead of 4 weeks) to minimize over-diagnosis of transient fears.

#### Major changes for specific phobia

Within the specific phobia category, revisions mainly aim at clarifying the terminology and increasing the usability of criteria. The term “excessive or unreasonable” is either omitted or replaced by the term “out of proportion to the danger posed”, thereby relating the fear/anxiety to its source. Furthermore, the sociocultural context needs to be taken into account when judging the proportionality of an individual’s fear/anxiety, because the danger posed by certain objects or situations (e.g., the probability of encountering a lethally toxic spider, becoming a victim of war, or getting caught in a blizzard) varies among cultural groups and geographic regions.

#### Major changes for social anxiety disorder (formerly social phobia)

The most obvious change to the social anxiety disorder category is its new title, which was chosen to emphasize the broad range of social situations that are feared/avoided. Based on factor-analytic approaches, three types of social situations have been discerned and are now reflected in criterion A: performance, interaction, observation (with the latter two being new to the DSM-5). As a common denominator of what is feared in such situations, the broader term “negative evaluation” has been introduced to represent the core fear in social anxiety disorder. The terms “humiliation” and “embarrassment” (DSM-IV) have been subsumed under this term and are now listed as examples or consequences of negative evaluation fear (criterion B).

In addition to the range of situations, also the range of people with whom the child/adolescent may experience fear/anxiety has been extended from DSM-IV to DSM-5. The limitation “to unfamiliar people” has been removed because social fear/anxiety may also arise in social-evaluative situations with familiar people.

Further, the prefix “actively” has been added to the descriptor “avoided” to exclude relatively common age-typical reactions to mild social fears as opposed to the active avoidance of social situations due to age-inappropriate fears. Finally, the “Generalized” specifier has been removed while “Performance Only” and “Selective Mutism” have been added as specifiers. That is, the generalized form of social anxiety disorder is now seen as the norm.

Since evidence indicates that fears can also take the form of transient perturbations in adulthood [6], the duration

criterion of “6 months or more” has been unified across age groups for separation anxiety disorder, social anxiety disorder, and specific phobia, and the age restriction of the duration criterion (“individuals under age 18 years”) has been removed. For both specific phobia and social anxiety disorder, the criterion of having insight into the inappropriateness of one’s fears has been dropped (new for adults). In effect, the duration and self-recognition criteria have now been matched for children, adolescents, and adults.

#### Major changes for generalized anxiety disorder

Consistent with the criteria for other anxiety disorders, an avoidance criterion has been introduced for generalized anxiety disorder (“marked avoidance of activities or events with possible negative outcomes”) under criterion D which specifies anxiety- and worry-associated behaviors such as reassurance seeking, procrastination in behavior or decision making, or time and effort spent on preparation to fend off anticipated negative outcomes. Other changes concern the duration criterion (reduced from 6 to 3 months), the symptom count (reduced from 3 criteria to 1), and the criterion of difficulties in worry control (omitted). These changes are based on empirical evidence suggesting that the two symptoms retained for DSM-5 (restlessness or feeling keyed up; muscle tension) and the reduced threshold of 3 months are sensitive and specific enough to identify clinically significant cases, while deleting the control criterion has little effect on the number of identified cases [7].

#### Assessment and treatment of anxiety disorders in children and adolescents

Applying a developmental lifespan perspective to anxiety disorders and redefining diagnostic criteria accordingly entail a need for developmentally sensitive assessments in youth. The revised practice parameter of the American Academy of Child and Adolescent Psychiatry (AACAP) [8] and the results of meta-analyses on randomized controlled trials with children with anxiety disorders [9, 10] result in the following recommendation. According to the AACAP’s guidelines, the assessment phase should contain three steps. With prevalence rates being high for anxiety disorders, screening questions for anxiety symptoms should routinely be run during mental health examinations (Step 1) and, if positive, be followed up by a formal evaluation to determine the presence, severity, and duration of symptoms, and the degree of impairment (Step 2). Furthermore, due to high comorbidity, a broad assessment approach above and beyond the anxiety disorders needs to be applied for purposes of differential diagnostics (Step 3). As a consequence of the developmental lifetime perspective of

the DSM-5, risk estimation and prognosis should always endorse the assessment of prior disorders because the individual history of any anxiety disorder (e.g., SAD in childhood) adds to the risk for other disorders inherent in later age periods (e.g., social anxiety disorder in adolescence or panic disorder in adulthood). Based on rigorous empirical evidence obtained through randomized controlled trials and meta-analyses, cognitive behavior treatment should always be the first treatment choice for all subtypes of anxiety disorders across all age groups. Pharmacotherapy might be considered to be delivered in combination or alone in cases of non-responders to CBT. While the efficacy and safety of short-term SSRI use has empirically been established in children and adolescents, the risk–benefit ratio of long-term medication has not yet been assessed, and no dosing guidelines have been established to date.

From a developmental lifespan perspective, it follows that assessment tools for children need to be sensitive to both age-related manifestations and age-related subtypes of a disorder [2]. Age-related subtypes identify developmentally unique forms of a disorder (e.g., selective mutism in social anxiety disorder), while age-related manifestations relate to changes in how a particular symptom manifests itself at distinct points in development [2]. Further, because anxiety disorders can be understood as a child's failure to master age-typical fears or to overcome anxiety-provoking repercussions of negative life events [11], assessment tools need to reliably differentiate age-appropriate from age-inappropriate fears (e.g., stranger anxiety vs. SAD). This dual task of achieving both developmental sensitivity and specificity may best be addressed by an assessment approach that is multi-informant (child, parent, and teacher) and multi-method (i.e., combining different, but converging data gathering procedures). Self-report measures such as the Multidimensional Anxiety Scale for Children (MASC [12]), the Screen for Child Anxiety Related Emotional Disorders (SCARED [13]), or the Spence Child Anxiety Scale (SCAS [14]) may be helpful to assist with the initial screening and/or to supplement the clinical interview during the formal evaluation. The structured diagnostic interview, however, is absolutely essential for the assessment of anxiety disorders in youth and can be supplemented, yet not substituted, by self- and other-report measures. Examples of DSM-based structured interviews for children and adolescents are the ADIS-C [15] or the *Kinder-DIPS (Diagnostisches Interview bei psychischen Störungen im Kindes- und Jugendalter* [16]).

#### Evidence-based psychotherapy

Of all forms of psychotherapy, cognitive-behavioral therapy (CBT) is the only empirically supported psychotherapy

of anxiety disorders in youth, with an average remission rate of 56–68.9 % and mean pre-post treatment effect sizes of 0.58 (intent-to-treat) to 0.86 for completers in meta-analyses [9, 17, 18]. One of the most widely used catch-all anxiety treatment programs, *Coping Cat* [19, 20], and adaptations of this program [21], have demonstrated good efficacy in treating a host of childhood anxiety disorders, with between-group effect sizes of 0.87 across disorders on general anxiety measures as compared to the waitlist [19]. The percentage of children no longer meeting diagnostic criteria after *Coping Cat* treatment varies between 59 % in intent-to-treat samples [21] and 64–70.6 % [19, 20], with gains well maintained over time [22]. As suggested by the TAFF treatment study (TAFF: Trennungsangstprogramm für Familien [23]) and the meta-analysis on treatment studies for social phobia [24], effects may even be larger and remittance rates higher for disorder-specific treatments. However, this promising research line has just been started for children and adolescents and needs further replication.

#### The role of parents in CBT

While family therapy and education of the parents about the anxiety disorder is recommended by the 2007 guidelines of the AACAP as part of a multimodal treatment approach, empirical evidence has since been accumulated indicating that supplementing the child's CBT with a parent training component adds no gain over child-only CBT [25, 26].

#### Comment

With the change from a 'top down' approach to childhood anxiety disorders in DSM-IV (application of adult diagnostic criteria to children and adolescents) to a developmental lifespan perspective in DSM-5, hopes are high that the focus of research into anxiety disorders, which still is adult-centered, might shift toward a clinical psychology of the lifespan. First steps have already been taken, for example, by the development of age-appropriate, child-friendly assessment instruments like the Picture Anxiety Test for children 4–8 years of age [27] or the development of disorder-specific treatments for children like the TAFF program for separation anxiety disorder [23]. Thereby, researchers respond to empirical findings that show anxiety disorders to start early in childhood and to continue into adulthood if left untreated, with remission rates as low as 10 % for specific phobia or 13 % for social phobia. By comparison, remission rates after cognitive-behavioral therapy (CBT) range between 56 and 68.9 % [9, 17]. In conclusion, CBT can be considered a well-established treatment for childhood anxiety disorders. Inclusion of the

parents, however, did not significantly improve treatment success above and beyond that of child-only CBT treatments [28]. In comparison to other treatments of childhood anxiety disorders, only CBT fulfills the criteria of an evidence-based treatment approach.

However, the changes from DSM-IV to DSM-5 might have far less impact on clinical practice than on research. Of the two major nosological systems, the ICD-10 is the classification system used for diagnoses in psychiatric clinics and private practice in Europe. Contrary to empirical evidence, the ICD-10 diagnostic criteria are grounded in the assumption of discontinuity of mental disorders, maintaining separate divisions for adult (F4) and childhood (F9) anxiety disorders. Between the ICD-10 and DSM-IV-TR, a low level of concordance has been found for anxiety disorders in youth. More specifically, the DSM diagnoses more, but not necessarily the same, children with an anxiety disorder than the ICD-10 [29]. Differences in diagnoses could be attributed to the two systems using different definitions of common features, e.g., the definitions of (specific and social) fear and impairment, and to differing age delimiters and duration criteria. As a consequence of these differences, knowledge gained from research (using DSM) may not be readily applicable to clinical practice (utilizing ICD), pointing to the need to make the two nosological systems more compatible. Hopefully, this compatibility will be fostered with the upcoming ICD-11. With the adoption of a developmental lifespan perspective in the DSM-5 and the assumption of continuity of anxiety disorders, the gap between the two systems has become even wider. Yet, as the changes are empirically well founded, they can be considered a necessary step toward an evidence-based approach to the diagnostics, assessment, and treatment of anxiety disorders in children.

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