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# Overview of fears and phobias in children and adolescents

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# INTRODUCTION

All children have fears at some point in their lives [1]. Children are particularly susceptible to learning fear from their parents. Most childhood fears are normal, temporary, and eventually outgrown. Some fears, however, may be symptoms of an anxiety disorder. Studies show that anxiety disorders are among the most common psychiatric disorders in childhood/adolescence.

Fears and anxiety are on a continuum, with phobias at the more severe end of the spectrum where symptoms are accompanied by functional impairment. Children with this presentation warrant additional evaluation for specific phobia or other anxiety disorders.

This topic describes the pathogenesis, clinical presentation, course, differential diagnosis, and initial management of fears in children and adolescents. The epidemiology, clinical manifestations, course, assessment, and diagnosis of anxiety disorders in children are discussed separately. Pharmacotherapy and psychotherapy for anxiety disorders in children are also discussed separately. (See "Anxiety disorders in children and adolescents: Epidemiology, pathogenesis, clinical manifestations, and course" and "Anxiety disorders in children and adolescents: Assessment and diagnosis" and "Psychotherapy for anxiety disorders in children and adolescents".)

## **PATHOGENESIS**

The etiology of childhood fears and phobias is not well understood [2,3]. A number of factors may be at play, including [2,4-8]:

- Genetic predisposition
- Temperamental tendencies (eg, the tendency to react with distress and withdrawal when confronted with unfamiliar people or situations)
- Direct conditioning through traumatic or frightening experiences (eg, a dog bite)
- Vicarious conditioning through observation of phobic reaction in others
- Negative information transmission (eg, through reading, hearing about, or seeing frightening events in person or in the media)

The final three factors are known as Rachman's pathways to fear [6,7]. However, some individuals have fears that are not associated with one of these pathways [9,10]. One explanation for the existence of these nonassociative fears is that they pertain to stimuli that threatened the survival of human ancestors and, therefore, reflect innate, spontaneous reactions to evolutionary cues [11,12].

**Developmental factors** — The objects of the child's fear change with the sophistication of their cognitive development [13,14]. The primitive reflexes reflect two basic fears present at birth (some argue that "fear" may not be the most appropriate term): fear of falling (loss of support) and fear of loud noises [15]. Subsequent fears reflect the child's increasing awareness of their world, the development of imagination (eg, fear of monsters and ghosts), and, finally, the ability to differentiate internal representations from objective reality (eg, realistic fears involving bodily injury) ( table 1) [13,16,17]. Fear is intensified and expanded by exposure to danger in the real world. (See 'Familial factors' below.)

Common fears change over the course of development. In one study, self-reported fears were obtained at ages 13 to 14, 16 to 17, and 19 to 20 from 2404 twins and a multivariate longitudinal twin analysis was conducted. Eighteen individual items formed four fear factors: animal, blood-injury, situational, and social. Genetic and environmental risk factors for individual fears are partly mediated through a common fear factor and are partly fear-specific in their effect. In this group, the developmental pattern of these risk factors is complex and dynamic with new common and specific genetic effects arising in late adolescence and early adulthood [18].

Fantasy can have a significant role in children's development and resolution of common fears such as nighttime fears. Fantasy-reality differentiation is a developmental process that occurs in

the first decade, and sometimes longer, that can impact children's development of fear. In a study aimed at exploring the links between nighttime fears and fantasy-reality differentiation in preschool children, researchers found that children with nighttime fears demonstrated more fantasy-reality confusion compared with their controls [19]. These differences in fantasy-reality differentiation were more pronounced in younger children. Additional significant associations were found between fantasy-reality differentiation and age and specific characteristics of the stimuli.

**Familial factors** — The diathesis-stress model asserts that if the combination of the predisposition and the stress exceeds a threshold, the person will develop a disorder. The diathesis-stress model serves to explore how nonbiological or genetic traits (diatheses) interact with environmental influences (stressors) to produce disorders (eg, as fear can lead to the development of a specific phobia).

Observation of the behavior of other family members in response to certain stimuli or situations also may influence the development of fears [3,20-22]. A predisposition to fearfulness can be reinforced by parents' or grandparents' fearful behavior and validation that certain things (eg, dogs, thunderstorms) are dangerous [3,23]. On the other hand, family members who do not share the child's fears are likely to provide reassurance and help the child to overcome their fear [3]. In a 2016 study that examined the role of vicarious learning in fear development, positive modeling was found likely to be a particularly effective method for preventing fear-related observational learning in children [24]. (See 'Support strategies' below.)

A recent meta-analysis reviewed twin studies describing the genetic basis of specific phobias and their corresponding fears [25]. The analysis included five twin studies on fears and ten twin studies on specific phobias. They found fears and phobias to be moderately heritable. The highest mean heritability (±standard error of mean) among fear subtypes was found for animal fear (45±0.004), and among specific phobias for the blood-injury-injection phobia (33±0.06).

The potential link between parental psychopathology and childhood fears has been explored in observational studies [26]:

• In a study of 318 children of parents with lifetime major depressive disorder (MDD), anxiety disorder, MDD plus an anxiety disorder or neither, specific fears were significantly elevated in offspring of parents with MDD plus an anxiety disorder relative to the other groups. Elevated rates of specific fears in offspring of parents with MDD plus an anxiety disorder may be a function of more severe parental psychopathology, increased genetic loading, or unmeasured environmental influences.

- A large longitudinal study of twins that followed three distinct fear factors situational, animal, and blood/injury found that fears change over time, and that genetic effects on fear were developmentally dynamic from middle childhood to young adulthood [8]. As the children aged, familial-environmental influences on fears declined in importance.
- A study of 60 children age 6 to 10 years showed that children can learn and unlearn fear-related cognitions from mothers and adult strangers. The study compared children's fear beliefs and avoidance preferences for animals following positive or fearful modeling by mothers and strangers in vicarious learning and unlearning procedures. The children were exposed to pictures of novel animals either alone (control) or together with pictures of their mother or a stranger expressing fear or happiness. Fear beliefs and avoidance preferences decreased following positive counterconditioning and increased following fear counterconditioning [27].

**Environmental triggers** — Contemporary theories of fears and phobias suggest two kinds of etiologic factors; those common to all fears (factors influencing fear-proneness) and factors specific to particular fears (eg, specific learning experiences) [28]. As an example, a young child may become fearful of dogs after a startling experience with a large dog. The (perhaps) innate human fear of large animals is intensified because the child's cognitive level does not permit an explanation of the event that is nonthreatening.

A 2019 analysis looking at the role of dietary intake and test anxiety showed that in a cohort of Indian youth, test anxiety, scholastic performance, and junk food consumption were interrelated [29].

**Link to PTSD** — Posttraumatic stress disorder (PTSD) may be associated with heightened fear responses and impaired discrimination. Children between 8 and 13 years old participated in a fear conditioning study in addition to providing information about their trauma history and PTSD symptoms. Females showed less discrimination between danger and safety signals during conditioning compared with age-matched males. In boys, intrusive symptoms were predictive of fear responses, even after controlling for trauma exposure. However, in girls, conditioned fear to the danger cue was predictive of self-blame and fear of repeated trauma. This study suggests there are early sex differences in the patterns of fear conditioning and that these sex differences may translate to differential risk for trauma-related psychopathology [30].

# **TERMINOLOGY**

Fears and anxiety are on a continuum in children, with phobias being at the more severe end of the spectrum where the symptoms are accompanied by impairment in daily functioning. Fears and phobias are defined as follows:

- Fear Fear is an unpleasant emotion with cognitive, behavioral, and physiologic components [2]. It occurs in response to a consciously recognized source of danger, either real or imaginary. Fear can be normal in children or can cause impairment that brings the child to clinical attention.
- Phobia A phobia is a persistent and compulsive dread of and preoccupation with the feared object or situation. The child may realize that the dread is out of proportion to the danger, but remains unable to feel reassured. To be defined as a phobia, the fear must cause significant impairment in the child's daily activities, including avoidance of the feared object or situation [2,3,15,31].

# **CLINICAL PRESENTATION**

Childhood fears and phobias present in a variety of ways. Physiologic symptoms of fear include tachycardia, shaking, difficulty breathing, dizziness, or lightheadedness. Young children may cry, have a tantrum, or cling to their parent or caregiver [2,32,33].

Older children develop somatic complaints or try to avoid the fear-provoking object or situation [20,32]. They may not tell their parents about the fear, especially if they suspect that the fear is not warranted. In such cases, it may be the avoidant behavior rather than the fear that brings the child to medical attention (eg, the constipation or encopresis that results from fear and avoidance of toilets, the fatigue that results from fear of the dark) [3]. Children with specific phobias may develop rituals or compulsions (repetitive, purposeful, intentional behaviors) in response to their fears [32,34]. (See 'Mental health care' below.)

The severity of avoidance and/or anticipatory anxiety often is the major factor in presenting for medical attention, particularly if it interferes with daily activities and social relationships [3,32]. Transient fears are seldom brought to the attention of the pediatric health care provider [3]. However, routinely asking about fears provides an opportunity to determine whether the quantity and intensity of the fears are within the normal realm and to discuss parental responses that can help to relieve or reinforce the child's anxiety. (See 'Parental education' below and 'Support strategies' below.)

**Fears versus phobias** — Features that distinguish fears from phobias include:

- Fears do not affect daily activities, play, or development; phobias do. An example of functional impairment resulting from a fear is a child who will not leave the house to avoid the feared object or situation.
- Fears respond to reassurance; phobias do not.
- Fears can be extinguished with distraction; phobias cannot.

Use of a structured parent-reported instrument, such as the Preschool Anxiety Scale – Revised, may be helpful to distinguish fears from phobias (See 'Assessment instruments' below.)

# **COURSE OF ILLNESS**

All children have fears at some point in their lives [1]. Children between two and six years were found to have approximately four fears, whereas children between 6 and 12 years had an average of seven. The number of fears peaked in one study, at age 11 years and then decreases with age. Girls report fears more often than boys, possibly because it is more socially acceptable for them to do so [1,3,13,21]. Parents may underreport their child's fears. In one review, mothers underreported their child's fears by up to 40 percent.

Most fears are transient and resolve with time as a part of typical development. Fears that are not confronted can persist. Normal fear in youth shows a clear developmental pattern that has been described as the "ontogenetic parade" [35]. This model suggests that certain fears rise and disappear in a predictable sequence during children's development, as described below:

- In their preschool years, children are afraid of imaginary creatures (eg, ghosts, witches), animals, and the natural environment (eg, the dark, thunderstorms).
- In middle childhood, fears of physical danger, bodily injury, and school performance become more prominent.
- During adolescence, youths more often report fear about social affairs, death, and illness [13,36].

Long-term studies of children with specific phobias are limited; those that exist suggest a positive long-term outcome [37,38]. In one series of 10 untreated patients younger than 20 years, symptoms improved in six and resolved in four subjects within five years [37]. Adults seeking treatment for phobias and other anxiety disorders often report having had similar symptoms during childhood or adolescence [14,32]. Development of anxiety disorders is

thought to be associated with neurobiological changes in areas that are a critical part of the fear neurocircuitry.

Fear conditioning paradigms can offer insight into the mechanisms underlying the neurobiological development of anxiety. A study among 8- to 13-year-old children with higher and lower trait anxiety examined differential fear conditioning and extinction using skin conductance responses and fear-potentiated startle in 60 children recruited from a low-income urban population. The results indicated that children under 10 years of age show poor discrimination of conditioned stimuli and that anxiety increases fear responses during fear acquisition. After controlling for age and trauma exposure, fear-potentiated startle to the safety cue predicted child anxiety levels, suggesting that impaired safety signal learning may be a risk factor for anxiety disorders in adulthood [39].

As a general rule, the more severe the anxiety disorder and the greater the impairment in functioning, the more likely it is to persist [40,41].

The epidemiology and course of anxiety disorders in children are discussed separately. (See "Anxiety disorders in children and adolescents: Epidemiology, pathogenesis, clinical manifestations, and course", section on 'Epidemiology'.)

#### **ASSESSMENT**

The evaluation of a child who presents with symptoms of fear centers on determining whether the symptoms represent a:

- Normal fear
- Phobia
- Anxiety disorder
- General medical condition

Fears and phobias are typically identified and differentiated from each other through a thorough history including questions to assess impact on child's daily life and development as well as family functioning:

- Does the fear interrupt the child's daily schedule more than three times per day?
- Can anyone recall a specific trigger for the fear?
- How do the parents usually respond to the fear?

Other questions explore the possibilities of environmental pathology and sources of stress. It can be helpful to obtain information from multiple informants (eg, the child, parents, and/or teachers) [20]. Children may be more aware of their inner distress, whereas parents and/or teachers may better appreciate the impact on family or school functioning.

The identification of fears and phobias in young children can be difficult [3]. Young children may not be able to provide the relevant information regarding the degree of anxiety or functional impairment, nor may they view the fears as excessive or unreasonable [2,20].

The child's developmental status must be taken into consideration when evaluating a child for an anxiety disorder. As an example, fear of separation, which usually begins in the latter half of the first year, is normal in infants and young children, but usually resolves by six years of age. (See 'Anxiety disorders' below.)

The physical examination of the child who presents with symptoms of fear is usually normal. However, it is important to exclude medical conditions that may have similar physiologic manifestations. (See 'Medical conditions' below.)

**Assessment instruments** — Fears and anxiety in children can be assessed systematically and monitored for change over time in response to treatment using established questionnaires:

- The Fear Survey Schedule for Infants-Preschoolers (FSSIP), was developed to assess the presence and severity of fears and fear behavior in children. Compared with routine questioning, the FSSIP demonstrated high internal consistency, low to moderate test-retest correlations over an average of six months, and good convergent and discriminant validity [42]. A 2014 study found the Short Form of the Fear Survey Schedule for Children-Revised, to be brief, reliable, and valid for assessing fear sensitivities in children and adolescents [43].
- The Preschool Anxiety Scale-Revised (PAS-R) is a parent-based questionnaire for evaluating the presence and severity of symptoms of DSM-5 anxiety and other disorders in young children [44,45]. The PAS-R includes 30 items representing symptoms of social anxiety disorder, generalized anxiety, separation anxiety, specific phobias, and obsessivecompulsive disorder.

#### **DIFFERENTIAL DIAGNOSIS**

A useful rubric classifies fears in children as normal developmental **variations**, developmental **problems**, or **disorders**, below [46,47]. The differential diagnosis of anxiety disorders in

children is described separately.

- Developmental variation (ie, normal) fear A child's fears that do not interfere with their ability to participate in daily activities.
- Developmental problem Fears that interfere with the child's daily activities.
- Anxiety or anxiety disorder (eg, specific phobia) Fears increase to the level of daily or near daily occurrence impacting daily functioning and typical development.

**Normal fears** — Normal fears are age specific and often change developmentally. As examples:

- Many two- and three-year-old children fear the dark. They grasp the concept of object permanence but as "magical" thinkers they nonetheless question what happens when they can no longer see something because of the absence of light.
- Many four- and five-year-old children fear phenomena that are new to their expanding environment (eg, strange, large animals such as dogs).
- Children at 10 and 11 years of age may become fearful of events they have heard of (sinking ships, earthquakes, tsunamis) but that may not realistically be very likely to occur. Their world has expanded remarkably yet they may not have the cognitive insight to process it fully. The intensity of their reaction to such events may or may not be proportional to the perceived threat [48,49].

Significant fears may reflect an accurate assessment of a truly harmful situation or a displacement of emotion from another environmental stressor (eg, physical or sexual abuse). These fears become a problem if they persist and cause serious distress, destroy family functioning, or interfere with a child's development or education.

**Anxiety disorders** — When the child's anxiety, fears, or phobias interfere with functioning, they may meet DSM-5 criteria for an anxiety disorder. DSM-5 classifies phobias as anxiety disorders and describes three types [33]:

- Specific phobia (formerly called simple phobia)
- Social anxiety disorder (formerly called social phobia)
- Agoraphobia (previously diagnosed only in the presence of panic disorder, but now diagnosed independently)

Other anxiety disorders that may occur in children include:

• Generalized anxiety disorder

- Panic disorder
- Separation anxiety disorder
- Selective mutism

Each of these disorders may occur in children and adolescents. In individuals younger than 18 years, phobic symptoms must be present for at least six months to meet criteria for the diagnosis [31]. Anxiety disorders in children and phobic disorders in adults are discussed in detail separately. (See "Anxiety disorders in children and adolescents: Assessment and diagnosis" and "Anxiety disorders in children and adolescents: Epidemiology, pathogenesis, clinical manifestations, and course" and "Specific phobia in adults: Epidemiology, clinical manifestations, course, and diagnosis" and "Social anxiety disorder in adults: Epidemiology, clinical features, assessment, and diagnosis" and "Agoraphobia in adults: Epidemiology, pathogenesis, clinical manifestations, course, and diagnosis".)

**Medical conditions** — Medical disorders that present with physiologic symptoms overlapping with those seen in children with anxiety include [20,32]:

- Hypoglycemia (see "Approach to hypoglycemia in infants and children")
- Hyperthyroidism (see "Acquired hypothyroidism in childhood and adolescence")
- Pheochromocytoma (see "Pheochromocytoma and paraganglioma in children")
- Intoxication, substance use disorders As examples, abuse of caffeine, cocaine, phencyclidine (PCP) (see "Benefits and risks of caffeine and caffeinated beverages", section on 'Psychiatric' and "Phencyclidine (PCP) intoxication in children and adolescents" and "Cocaine: Acute intoxication")

# **MANAGEMENT STRATEGIES**

The goal of management of fears is to help the child learn positive ways to cope with and transcend the fear. Learning to explore, modify, minimize, and overcome targeted fears is an important mission of childhood [50]. In our and others' clinical experience, fears can often be managed through reassurance, education, experience, and/or exploration through play (eg, games involving monsters, scary animals, or ghosts) [50]. Many of these management strategies can be implemented in pediatric or primary care.

Parental reassurance, such as a pledge to protect the child as necessary, can be an effective approach for most fears [3]. Younger children are usually comforted by reassurance that is simple and direct; older children need more detailed explanation [3].

Some fears, such as fear of the dark, are likely to be self-limited. In such cases, providing a night light and teaching the child simple cognitive self-control strategies may be all that is necessary [32,51]. Cognitive self-control strategies include relaxation, visualizing a pleasant scene, and positive self-statement (eg, "I can take care of myself in the dark") [51].

An additional approach is "bibliotherapy" or the use of reading aloud to children to address fears. One pilot study evaluated a four-week bibliotherapy intervention designed to treat young children with persistent and interfering nighttime fears utilizing a multiple baseline design. Prepost group analyses revealed that eight of the nine children demonstrated clinically significant change in anxiety severity. In addition, decreases in child-reported nighttime fears were observed, as were parent-reported decreases in separation anxiety and increases in the number of nights children slept in their own bed [52].

Children whose fear represents an appropriate response to environmental pathology (eg, in a home with domestic violence) are discussed separately. Assessment includes adequate steps are taken to protect the child. Involvement of social services and/or mental health professionals may be warranted. The child would optimally be involved in identifying additional steps that could be beneficial [3,53]. (See "Intimate partner violence: Childhood exposure", section on 'Referrals and resources'.)

**Parental education** — Education of parents and caregivers is an important component of treatment of childhood fears. Parents should understand that fears are normal and do not necessarily represent a problem in the child or the environment. All children, even those in the most secure and loving of homes, develop fears as a result of their limited ability to understand the complexity of the world.

The child's fears should be acknowledged, but not exaggerated or belittled. Parents should respect the child's inclination to withdraw from the stimulus, but the anxiety should not be reinforced or exacerbated [3,32]. Fears can be exacerbated in the following ways [54]:

- By using them as a threat (eg, "The doctor is going to give you a shot if you're not good").
- By humiliating the child (eg, "Only babies are afraid of bugs").
- By indifference to the child's distress.
- By unrealistic expectations to master the fear.
- By overprotecting the child or permitting them to avoid the feared stimulus. Such action confirms the child's hypothesis that the stimulus is to be feared. The child's relief from symptoms when they are allowed to avoid the stimulus reinforces the avoidance behavior.

**Support strategies** — Support should be provided to the child as they develop an increased mastery of the feared object. Mastery of fear may involve initial avoidance of the fearful stimulus, detailed discussions about the fear with attempts to correct cognitive misconceptions, and finally, a gradual introduction to the feared stimulus with much family support.

Learning to cope with a fear often involves breaking it down to individual components: physical, cognitive, and behavioral. Techniques that are helpful in addressing the various components of fear include imagination, information, observation, and exposure. For young children whose fears cannot be reasoned away, easily understood, concrete actions can have positive effects (eg, "monster-proofing" the bedroom or play with the child that reassures them about monsters).

**Mental health care** — Children with fears that are accompanied by impaired functioning optimally would receive treatment from a child mental health professional, particularly when:

- Fears begin to generalize from the object or situation of origin
- Avoidance behavior or compulsions develop
- Initial treatment does not result in relief of symptoms

Cognitive behavior prevention programs have been found to decrease anxiety in samples of school children, theoretically placing them at decreased risk of an anxiety disorder [55,56]. Treatment of anxiety disorders, including phobias, in children/adolescents and treatment of specific phobia in adults are discussed separately. Pharmacotherapy of anxiety disorders in children is discussed separately. Psychotherapy of anxiety disorders in children is discussed separately. (See "Psychotherapy for anxiety disorders in children and adolescents" and "Pharmacotherapy for anxiety disorders in children and adolescents" and "Acute procedural anxiety and specific phobia of clinical procedures in adults: Treatment overview".)

#### RESOURCES

A list of resources for parents and children is provided in the table ( table 2).

#### **SOCIETY GUIDELINE LINKS**

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: Anxiety and traumarelated disorders in children".)

## SUMMARY AND RECOMMENDATIONS

- Fear is an unpleasant emotion with cognitive, behavioral, and physiologic components that occurs in response to real or imaginary danger. (See 'Terminology' above.)
- A phobia is a persistent and compulsive dread of and preoccupation with the feared object
  or situation that interferes with the child's ability to function normally. The dread is out of
  proportion to the danger and results in avoidance of the feared stimulus. Fears and
  anxiety are on a continuum in children, with phobias being at the more severe end of the
  spectrum where the symptoms are accompanied by impairment in daily functioning. (See
  'Terminology' above.)
- Childhood fears present in a variety of ways. Physiologic symptoms of fear include tachycardia, shaking, difficulty breathing, dizziness, or lightheadedness. Young children may cry, have a tantrum, or cling to their parent or caregiver. Older children may develop somatic complaints or try to avoid the fear-provoking object or situation. (See 'Terminology' above.)
- The goals of the evaluation of a child who presents with symptoms of fear are to differentiate fear from other conditions with similar symptoms and to determine the presence of behaviors that may be reinforcing the fear. (See 'Assessment' above and 'Differential diagnosis' above.)
- Several clinical features distinguish fears from phobias; the most important of these is the degree to which the fear interferes with daily activities. (See 'Fears versus phobias' above.)
- We suggest that fears initially be managed through reassurance, education, experience, and/or exploration through play rather than other treatments (**Grade 2C**). (See 'Management strategies' above.)
- Children with fears that generalize to other objects or situations, are accompanied by impaired functioning, and/or do not respond to initial treatment may benefit from evaluation and treatment by a child mental health specialist. Pharmacotherapy of anxiety disorders in children is discussed separately. Psychotherapy of anxiety disorders in children is discussed separately. (See "Psychotherapy for anxiety disorders in children and adolescents" and "Pharmacotherapy for anxiety disorders in children and adolescents" and "Acute procedural anxiety and specific phobia of clinical procedures in adults: Treatment overview".)

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