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A review of childhood anxiety

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Abstract

This review highlights important elements of diagnosis, assessment, and treatment while summarizing findings on the epidemiology and etiology of anxiety disorders in children and adolescents, including separation anxiety disorder, specific phobia, social phobia, agoraphobia, panic disorder, and generalized anxiety disorder. The key development period for anxiety symptoms and syndromes, which can range from brief mild symptoms to severe anxiety disorders, is childhood and adolescence. This article reviews epidemiological data pertaining to risk factors, prevalence, incidence, and course. Developing assessment techniques that are more developmentally sensitive is the main challenge in this age range. Prospective designs that evaluate a wide range of putative vulnerability and risk factors will be necessary in order to identify characteristics that could serve as reliable predictors for onset, course, and outcome. For better early detection, differential diagnosis, prevention, and treatment in this age range, this kind of information is crucial.

Keywords: Anxiety, childhood, social anxiety.

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Introduction

The world's population is made up of more than 2.2 billion children, or roughly 28% of all people. 16% of all people on the planet are between the ages of 10 and 19 (1). The key development period for anxiety symptoms and syndromes, which can range from brief mild symptoms to severe anxiety disorders, is childhood and adolescence. An organism will actively try to avoid stimuli that cause anxiety to reduce it. A basic emotion, this brain reaction can range in intensity from mild to severe and is already present in infancy and youth. One common and accepted theory holds that anxiety turns into a maladaptive state when it interferes with functioning, such as when it's linked to avoidance behavior. This is most likely to happen when anxiety becomes too frequent, severe, and persistent (2). Thus, pathological anxiety can be defined as chronic or excessive anxiety and avoidance linked to subjective distress or impairment at any age. However, because babies naturally exhibit a variety of fears and anxieties as part of development, it can be particularly challenging to differentiate between normal and pathological anxiety in young children (3).

Anxiety disorders are among the most common mental diseases in children and adolescents, affecting approximately 15-20% of young people (4). Furthermore, from the perspective of public health, these diseases, when they affect young people, raise the likelihood of suicide attempts and are linked to high rates of morbidity and mortality. In addition, longitudinal studies indicate that anxiety disorders in youth are a strong indicator of a variety of mental diseases later in life, such as depression, substance use disorders, and other anxiety disorders (3,4).

Diagnostic systems like the Diagnostic and Statistical Manual of Mental Disorders (DSM, currently in version IV-TR, American Psychiatric Association) or the International Classification of Diseases (ICD) describe and categorize anxiety disorders (ICD, currently version 10, World Health Organization). Numerous anxiety disorders throughout various systems exhibit similar clinical traits, including intense anxiety, physical anxiety symptoms, behavioral abnormalities including a complete avoidance of frightening objects, and resulting suffering or impairment. However, there are distinctions, and it should be highlighted that subgroups of specific phobias and panic disorders, as well as other tightly defined anxiety disorders, demonstrate a high degree of phenotypic variation (5).

As a result, many psychopharmacologic treatment investigations have included people with the "pediatric anxiety disorder triad" disorders (i.e., generalized anxiety disorder (GAD), social phobia (SoP)/social anxiety disorder, and separation anxiety disorder (SAD). To date, the majority of treatment studies of pediatric anxiety disorders have largely focused on anxiety symptoms as homogenous entities. It is also significant that this classification is supported by growing clinical, phenomenologic, and epidemiologic data. The "triad anxiety disorders," in particular, frequently co-occur, share neurophysiology, exhibit very similar trajectories, and respond similarly to both psychotherapeutic and psychopharmacologic treatments (5,6).

The most common psychiatric disorders and a major contributor to disability are anxiety disorders. By the age of 16, an overall 10% of youngsters have an anxiety problem. The majority of youngsters experience long-term anxiety issues that hinder their growth and ability to operate (7).

This review summarizes social anxiety, one of the anxiety disorders in children and adolescents. The definition, etiology, epidemiology, symptoms, and treatment of social anxiety will be discussed here. Social anxiety, which impairs functionality in children and adolescents, has increased especially recently with the effect of epidemics.

Social anxiety

Social Anxiety is described as excessive worry about being observed by others in social circumstances involving the surroundings or performance (6). It is also known as an embarrassing situation. Explained as the cause of embarrassment, these symptoms of anxiety include blushing, trembling, shaking, talking weirdly, making blunders, acting strangely, and even looking strange (7). People with social anxiety often display negative social behaviors such as avoiding eye contact, speaking indecisively, making hesitant gestures, hiding their identity, and not being polite to others (7). Lower educational attainment, decreased productivity at work, disruption of professional advancement, increased financial reliance, and significant loss of social functioning are all consequences of social anxiety (8). Three traits are specifically connected with social anxiety: feelings of shame and embarrassment, auto-inhibitory behaviors linked to extreme anxiety, and self-fulfilling prophecy, the perception of worry and its symptoms as a secondary danger (9). As a result, they frequently avoid social situations or deal with them poorly. There are two types, common and performance type (8,9).

With lifetime prevalence rates of about 12%, social anxiety disorder is the third most prevalent mental health condition after depression and substance misuse (10). In young people, it is typical. A severe and persistent dread of being ridiculed or scrutinized by others characterizes social anxiety disorder, a crippling condition. A variety of social engagements, including talks with strangers, joining groups, and speaking on the phone, cause anxiety in certain

people. The majority of tasks that require public observation are challenging. These include entering a space where others are already sitting, consuming food or beverages in public, and giving a performance in front of an audience. Patients worry that they will say or do something that will be unpleasant or humiliating. Fears that are frequently expressed include those of shaking, blushing, tripping over words, sweating, shaking, looking nervous, or looking dull, stupid, or inept (8,9,11).

Even compared to other psychiatric diseases, social anxiety disorder is associated with severe unfavorable outcomes and substantial degrees of disability (12). Social anxiety disorder has an impact on every aspect of life. Teenagers' academic progress is limited, and they run the danger of dropping out early and earning less-than-stellar degrees (13,14).

Adolescents who struggle with social anxiety inevitably find it difficult to form social interactions. Their peer and romantic relationships are reported of inferior quality, and they claim to have fewer friends. Bullying is more likely to affect them. Daily activities like shopping and using the phone become challenging due to social anxiety (14).

Epidemiology and prevalence

Adolescent social anxiety disorders and symptoms can have a significant negative impact on development, including suicide, substance addiction, poor relationship functioning, and poor academic performance (15). Social anxiety increases in early adolescence, according to epidemiological research utilizing community samples, and clinically significant symptoms often manifest between early and middle adolescence (10).

Acute fear of embarrassment or poor judgment by others that results in anguish and functional impairment is a hallmark of social anxiety disorder. Without therapy, it is quite persistent (16) and often manifests between the ages of 11 and 13 (10,17). According to the American National Comorbidity Study, social anxiety while the 12-month prevalence rate was found to be 7.9%, the lifetime prevalence was found to be 13.3% (10). According to the Turkey Mental Health Survey, the general rate of social anxiety was found to be 1.8%. According to studies, the average age at which social anxiety first manifests itself is 13 (10). Between 50% and 80% of people report that the symptoms of social anxiety begin in childhood (10). In the past year, only approximately 25% of those with social anxiety sought treatment. The average amount of time patients put off getting treatment was determined to be 16 years (7). It was shown that women experienced social anxiety at a somewhat higher rate-roughly 2/3. DSM-5 claims that SAD is more common in women than in men and that this difference is especially prominent in adolescent patients. Girls are about twice as likely as males to experience social anxiety disorders, according to studies that have employed population samples of young people of all ages (18). Additionally, girls are more likely than boys to experience subclinical social anxiety symptoms (19). Regarding the pathways for social anxiety, it's crucial to take into account the distinct ways that boys and girls are socialized to interact with others and express their difficulties. Studies have revealed that girls are less subject to peer pressure and are more independent than boys despite theories from researchers that indicate girls are more interested in pleasing others in relationships than boys (20). In general, boys are more prone to follow peer pressure (20). Therefore, although protective, higher peer conformity among girls may paradoxically be particularly unappealing in female peer groups. Adolescent guys may adhere to social norms when they follow their male peer groups' rules, on the other hand. Girls who conform more to their classmates may therefore be more susceptible to an increase in social anxiety symptoms than boys. On the other hand, research has shown that symptoms of social anxiety are both more common and more socially acceptable in girls than in boys. Because it is a less socially acceptable response, boys may be less inclined to react to more conformity to peers with socially uncomfortable behaviors. By the end of adolescence, prevalence rates of about 10% have been observed in US and New Zealand samples (21).

Diagnosis and symptoms

In the third version of the DSM, which was released in 1980, social anxiety disorder was included in the

classification scheme. The essential need for the diagnosis of social anxiety disorder in its current form is that the patient exhibits a distinct dread and worry when they are in one or more circumstances where they may be observed or evaluated by others (20,21).

In addition to these requirements,

- The person should feel threatened in these circumstances because of their actions or for displaying symptoms of anxiousness.
- Almost invariably, social circumstances should elicit fear or anxiety.
- The person must be struggling to avoid or endure these circumstances.
- The degree of terror felt must be greater than or outside of what would normally be considered normal or acceptable in that social setting.
- These thoughts and actions must persist for at least six months, or they must cause the person great anguish and limit their ability to function in social, professional, or other contexts.
- There are no other factors, such as a physical disease, drug or alcohol side effect, or another mental disorder, that can more adequately account for these symptoms.

Social anxiety disorder (social phobia) DSM-5 diagnostic criteria

- Marked fear or anxiety in one or more social situations in which the person may be evaluated by others. Examples include social interactions (eg, while eating or drinking) and performing an action in front of others (eg, giving a speech) (22).
- The person fears behaving in a way that will be evaluated negatively or showing signs of anxiety (in a way that will embarrass or embarrass them; in a way that will cause them to be ostracized or offended) (22).
- These social situations almost always provoke fear or anxiety (22).
- These social situations are avoided or endured with intense fear or anxiety (22).
- The fear or anxiety felt is disproportionate to the situation to be feared in the social environment in question and the socio-cultural context (22).
- Fear, anxiety, or avoidance is a persistent state, lasting six months or longer (22).
- The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning (22).
- The fear, anxiety, or avoidance cannot be attributed to the physiological effects of a substance (eg, a substance of abuse, a drug) or another health condition (22).
- The fear, anxiety, or avoidance is not better explained by another mental disorder, such as panic disorder, body image disorder, or autism spectrum disorder (22).
- If there is another health concern (eg, Parkinson's disease, obesity, malformation from burns or injury), fear, anxiety, or avoidance is unrelated or excessive (22).

Etiology

Etiological investigations; social phobia was made on environmental factors, personal differences, genetic factors, unpleasant life events, traumas, parental attitudes, social interaction style, and social norms.

Genetic factors

Genetic studies on the origin of social anxiety have looked at temperamental traits such as embarrassment, behavioral inhibition, and introversion (23).

Behavior inhibition; is the child's sensation of apprehension, rigidity, and fatigue in the presence of unfamiliar people, things, and situations. Among family research that looked at the connection between social anxiety and behavioral inhibition, social anxiety was more common in parents of children who showed behavioral inhibition (18%) than it was in parents of children who did not show behavioral inhibition (0%). The amygdala and hypothalamus of children with inhibition showed minimal arousal in the presence of novel or unfamiliar stimuli, according to longitudinal

research comparing children with and without behavioral inhibition from infancy to age eight. Physical symptoms including a fast heartbeat and dilated pupils consequently occurred in these kids (23).

Although shyness and social phobia share some symptoms, shyness is defined as a concept that begins earlier in life than a social phobia, tends to be more common than unique to social contexts, and has no negative effects on one's ability. The prevalence of social phobia among avoidance sufferers ranges from 17 to 36% (24). People who were shy as children are about one-fourth as likely to develop social anxiety as adults. A little over half of the people with pervasive social phobia exhibited overly avoidant conduct as children (23,24).

Environmental factors

Parental attitudes; have a long-lasting impact on children's and teenagers' psychosocial, physical, and emotional development. Parental actions play a significant effect in forming identity and social relationships, particularly throughout adolescence. Children's social anxiety condition persists due to four parenting-related factors (25):

- Parental overregulation, which includes excessively controlling children's routines and activities, overprotecting them, teaching them how to think and feel, and discouraging their independence.
- Information transfer refers to the transmission from a parent to a child of information that conveys danger, loss of control, and inability to cope.
- Modelling a parent's observations of their conduct that show the child's anxiety about being judged by others and the employment of unhealthy coping mechanisms like avoidance and social disengagement.
- Negativity, such as criticism, disapproval, and coldness from parents.

Negative relationships with caregivers may encourage compliant behaviors in social relationships, making adolescents more susceptible to others' opinions and influence (26). Relationships between parents and youths serve as a key setting for the development of autonomy-related behaviors (27). Youth who don't trust their parents or who have more unstable parent-adolescent connections are more likely to sacrifice their autonomy and independence in otontain peer relationships (25-27).

Warm, approachable, and polite teachers in a school setting lessen students' need to strive for acceptance and popularity among their peers in a social setting (28). Teenagers who encounter higher teacher support in early adolescence are more likely to be open with their peers about their ideas and feelings. They are also less likely to adopt harmful peer behaviors (28). According to research, teenagers who follow their classmates' lead are more likely to have worsening social anxiety symptoms. According to other studies, social anxiety symptoms in adolescents are worsened by their perceived inability to express their thoughts and aspirations (27,28). A significant drawback of these studies is that they are cross-sectional, and the literature does not clearly show whether social anxiety is a cause or a forerunner of conformity with peers over time (29). We propose that adolescents who experience more parent-adolescent animosity and poorer teacher support are at risk for increased social anxiety symptoms by engaging in greater conformity with peers. This hypothesis is based on recent conceptual models of social anxiety and existing results (29).

Adolescence is a critical stage of social learning since it is a time of increased self-awareness and susceptibility to peer influence. It has been hypothesized that the rewarding nature of social relationships during adolescence increases the influence of both the good and negative components of social interactions (30). Parallel to this, research regularly demonstrates that peer rejection in adolescents, as opposed to children and adults, causes greater distress, anxiety, and decreased mood (31-33). Adolescents are prepared to prioritize the formation of social networks due to the growing emotional significance of peer interactions, but for some, this will also increase their vulnerability to the establishment and maintenance of social anxieties (32,34,35).

Conclusions

Anxiety disorders are prevalent and frequently arising conditions that are linked to significant developmental, psychosocial, and psychopathological issues. The vast majority of children and adolescents who have developed a threshold anxiety disorder will experience the same condition or other mental disorders over the course of their lives, despite the possibility that early anxiety syndromes may spontaneously resolve.

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References

1. Nechita D, Nechita F, Motorga R. A review of the influence the anxiety exerts on human life. Rom J Morphol Embryol. 2018;59(4):1045-51.
2. Crocq MA. A history of anxiety: from Hippocrates to DSM. Dialogues Clin Neurosci. 2015;17(3):319-25.
3. Muris P, Merckelbach H, Mayer B, Meesters C. Common fears and their relationship to anxiety disorders symptomatology in normal children. Person Individ Diff. 1998;24(4):575-78.
4. Kessler RC, Petukhova M, Sampson NA, Zaslavsky AM, Wittchen H. Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. Int J Methods Psychiatr Res. 2012;21(3):69–84.
5. Hibaut F. Anxiety disorders: a review of current literature. Dialogues Clin Neurosci. 2017;19(2):87-8.
6. Beesdo K, Knappe S, Pine DS. Anxiety and anxiety disorders in children and adolescents: developmental issues and implications for DSM-V. Psychiatr Clin North Am. 2009;32(3):483-524.
7. Wang Z, Whiteside SPH, Sim L, Farah W, Morrow AS, Alsawas M, et al. Comparative Effectiveness and Safety of Cognitive Behavioral Therapy and Pharmacotherapy for Childhood Anxiety Disorders: A Systematic Review and Meta-analysis. JAMA Pediatr. 2017;171(11):1049-56.
8. Wehry AM, Beesdo-Baum K, Hennelly MM, Connolly SD, Strawn JR. Assessment and treatment of anxiety disorders in children and adolescents. Curr Psychiatry Rep. 2015;17(7):52.
9. Hirshfeld-Becker DR, Masek B, Henin A, Blakely LR, Pollock-Wurman RA, McQuade J, et al. Cognitive behavioral therapy for 4- to 7-year-old children with anxiety disorders: a randomized clinical trial. J Consult Clin Psychol. 2010;78(4):498-510.
10. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2005;62(6):593-602.
11. Stein MB, Stein DJ. Social anxiety disorder. Lancet. 2008;371(9618):1115-25.
12. Alonso J, Angermeyer MC, Lépine JP; European Study of the Epidemiology of Mental Disorders (ESEMeD) Project. The European Study of the Epidemiology of Mental Disorders (ESEMeD) project: an epidemiological basis for informing mental health policies in Europe. Acta Psychiatr Scand Suppl. 2004;(420):5-7.
13. Baber A. The effect of the COVID-19 pandemic on the psychological state of healthcare workers around the world: A review. The Injector. 2022;1(1):16-30.
14. Van Ameringen M, Mancini C, Farvolden P. The impact of anxiety disorders on educational achievement. J Anxiety Disord. 2003;17(5):561-71.
15. Ranta K, La Greca AM, Kaltiala-Heino R, Marttunen M. Social Phobia and Educational and Interpersonal Impairments in Adolescence: A Prospective Study. Child Psychiatry Hum Dev. 2016;47(4):665-77.
16. Beesdo-Baum K, Knappe S, Fehm L, Höfler M, Lieb R, Hofmann SG, et al. The natural course of social anxiety disorder among adolescents and young adults. Acta Psychiatr Scand. 2012;126(6):411-25.
17. Asher M, Asnaani A, Aderka IM. Gender differences in social anxiety disorder: A review. Clin Psychol Rev. 2017;56:1-12.
18. Ruscio AM, Brown TA, Chiu WT, Sareen J, Stein MB, Kessler RC. Social fears and social phobia in the USA: results from the National Comorbidity Survey Replication. Psychol Med. 2008;38(1):15-28.
19. Aune T, Stiles TC. The effects of depression and stressful life events on the development and maintenance of syndromal social anxiety: sex and age differences. J Clin Child Adolesc Psychol. 2009;38(4):501-12.
20. Steinberg L, Silverberg SB. The vicissitudes of autonomy in early adolescence. Child Dev. 1986;57(4):841-51.
21. Burstein M, He JP, Kattan G, Albano AM, Avenevoli S, Merikangas KR. Social phobia and subtypes in the national comorbidity survey-adolescent supplement: prevalence, correlates, and comorbidity. J Am Acad Child Adolesc Psychiatry. 2011;50(9):870-80.
22. American Psychiatric Association. Diagnostic and statistical manual for mental disorders. DSM-IIIR. 1987;3-24.
23. Bartlett AA, Singh R, Hunter RG. Anxiety and Epigenetics. Adv Exp Med Biol. 2017;978:145-66.
24. Gallagher M, Prinstein MJ, Simon V, Spirito A. Social anxiety symptoms and suicidal ideation in a clinical sample of early adolescents: examining loneliness and social support as longitudinal mediators. J Abnorm Child Psychol. 2014;42(6):871-83.

25. Ollendick TH, Benoit KE. A parent-child interactional model of social anxiety disorder in youth. Clin Child Fam Psychol Rev. 2012;15(1):81-91.

26. Allen JP, Loeb EL. The Autonomy-Connection Challenge in Adolescent Peer Relationships. Child Dev Perspect. 2015;9(2):101-5.

27. Steinberg L, Monahan KC. Age differences in resistance to peer influence. Dev Psychol. 2007;43(6):1531-43.

28. Weymouth BB, Buehler C. Early adolescents' relationships with parents, teachers, and peers and increases in social anxiety symptoms. J Fam Psychol. 2018;32(4):496-506.

29. Spence SH, Rapee RM. The etiology of social anxiety disorder: An evidence-based model. Behav Res Ther. 2016;86:50-67.

30. Kilford EJ, Garrett E, Blakemore SJ. The development of social cognition in adolescence: An integrated perspective. Neurosci Biobehav Rev. 2016;70:106-20.

31. Platt B, Cohen Kadosh K, Lau JY. The role of peer rejection in adolescent depression. Depress Anxiety. 2013;30(9):809-21.

32. Eldreth D, Hardin MG, Pavletic N, Ernst M. Adolescent transformations of behavioral and neural processes as potential targets for prevention. Prev Sci. 2013;14(3):257-66.

33. Azizoğlu M. Hekimlerin ötenazi hakkındaki görüşleri. Cer Öğr Bil Der. 2014;6(7):1-7.

34. Xolmuradova Z, Kudratova Г. Changes in psychological status and eating behavior in children with obesity. IJSP. 2022;(3):35-9.

35. Abdumuxtarova M. Organizatıon of medical support of the educational process in modern conditions as a factor determining the state of health of school-age children (literature review). IJSP. 2022;(1):10-22.