

ANXIETY DISORDERS IN CHILDREN AND ADOLESCENTS

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ABSTRACT

Anxiety disorders are the most common group of psychiatric disorders in children and adolescents. Anxiety disorders in children and adolescents can be chronic and disabling, and they can increase the risk of comorbid disorders. Anxiety is associated with substantial negative effects on children's social, emotional and academic success. Identifying and treating children and adolescents with anxiety disorders would reduce the burden of this disorder and may help in better management of the co-morbid conditions in these patients.

Key words- *anxiety disorders, children and adolescents, phenomenology, comorbidities.*

Introduction

Anxiety disorders are the most common group of psychiatric disorders in children and adolescents[1]. They usually remain undiagnosed in children and adolescents owing to the internalized nature of its symptoms [2]. Anxiety disorders are associated with considerable developmental, psychosocial, and psychopathological complications. They impair emotional, cognitive, physical and behavioral functioning in multiple areas and are usually chronic in nature. They can increase the risk of multiple comorbid psychiatric disorders[3]. Pediatric anxiety disorders predict adult anxiety disorders and depression; and other childhood sequelae, such as substance use problems, suicide attempts, and hospitalization[3, 4, 5]. Therefore, it is important to identify and treat pediatric anxiety disorder to reduce the long-term consequences. Over the last 10 years there have been considerable advances in the understanding of the phenomenology, neurobiology, genetics and treatment of anxiety disorders in children and adolescents. A thorough understanding of anxiety is crucial for professionals who are providing mental health services for children.

Classification and diagnosis

The major anxiety disorders included in the DSM-IV-TR are separation anxiety disorder (SAD), generalized anxiety disorder (GAD), social phobia, specific phobia, panic disorder (with and without agoraphobia), agoraphobia without panic disorder, posttraumatic stress disorder (PTSD), and obsessive-compulsive disorder (OCD).

DSM-IV-TR criteria for anxiety disorders are similar for children and adolescents and adults; however, there are some notable differences that need to be considered when diagnosing anxiety disorders in children and adolescents.

*TABLE NO -1

DSM-IV-TR criteria differences for anxiety disorders in youth from adults

DSM-IV-TR criteria differences for anxiety disorders in youth	
Anxiety Disorder	Differences in Criteria for children and adolescents
Obsessive-compulsive disorder	Children do not need to recognize that the obsessions and compulsions are excessive or unreasonable.
Social phobia	<ul style="list-style-type: none"> > Children must have the ability to develop age appropriate friendships. > Children must endorse anxiety with adults and peers. > Anxiety may be shown through crying, tantrums, freezing or shrinking from social situations. > Children do not need to recognize that the fear is excessive or unreasonable
Generalized anxiety disorder	> Requires only one associated symptom
Social phobia	<ul style="list-style-type: none"> > Children must have the ability to develop age appropriate friendships. > Response to the traumatic event may be expressed through agitated or disorganized behavior rather than extreme fear, helplessness, or horror. > Traumatic event may be re-experienced through the use of repetitive play about the trauma. > Children may have scary dreams without recognizable content that is related to the event. > Children may re-enact trauma-specific details.

Epidemiology

Large-scale community-based epidemiological surveys in US, UK and Canada show that anxiety disorders are the most common children's mental disorders with an estimated prevalence rate of 6.4 per cent [6]. Prevalence rates for having at least one childhood anxiety disorder vary from 6% to 20% over several other large epidemiological studies [7]. A recent British population study of youth aged 5 to 15 years produced the prevalence of anxiety disorders was 3.8% [8]. Study of anxiety disorders among German adolescents estimated from a survey of 1,035 students aged 12–17 years was 18.6% [9]. In Great Smoky Mountains Study (GSMS), conducted over a representative population sample of 1420 children aged 9 to 13 years at showed prevalence of any anxiety disorder was 1.8% to 3.1% [10]. Other epidemiological reports based on large and/or nationally representative samples estimate the prevalence of anxiety disorders in youth to range between 10% and 20% [11]. The most frequent anxiety disorders among children and adolescents are separation anxiety disorder with estimates of 2.8% and 8% and specific and social phobias, with rates up to around 10% and 7%, respectively. Agoraphobia and panic disorder are low-prevalence conditions in childhood (1% or lower); higher prevalences are found in adolescence (2%–3% for panic and 3%–4% for agoraphobia) [12, 13, 14].

In terms of sex differences, all anxiety disorders more frequently occur among females than among males [15, 16, 17]. Although sex differences may occur as early as childhood they increase with age [18] reaching ratios of 2:1 to 3:1 in adolescence.

The average age at onset of any single anxiety disorder varies widely between studies [9]. There has been relatively little research interest focused on the age of onset of anxiety disorders in children. The anxiety disorders most commonly seen in children include separation anxiety disorder, generalised anxiety disorder, and Specific Phobias. In adolescence, social phobia and panic disorder can become more prevalent (along with GAD and Specific Phobia). Obsessive Compulsive Disorder and Post Traumatic Stress Disorder can occur across the developmental range.

Indian perspective

Prevalence of anxiety disorders in children and adolescents in India is less compared to western countries. An epidemiological study conducted by Indian Council of Medical Research at two-centres Bangalore and Lucknow [19]. Studies at Bangalore centre and Lucknow centre were community based study and clinic

based study respectively. This study showed that anxiety disorders in Bangalore centre was (3.93%) and Lucknow centre was (2.32%). At Lucknow centre prevalence of Social phobia 0.19%, Separation anxiety disorder 0.09%, generalised anxiety disorder 0.14%, Simple phobia 1.98%, agoraphobia 0.05%, panic 0.05%. At Bangalore centre prevalence of Specific isolated phobia 2.9%, Social phobia 0.3%, GAD 0.3%, Separation anxiety disorder 0.2%, Agoraphobia 0.1%, Panic disorder 0.1%, Social anxiety disorder 0.1%, OCD 0.1%. Various other epidemiological studies done in children and adolescents in India have reported prevalence of anxiety disorders ranging from 1.3% to 4.2%. [20, 21, 22, 23]. The first systematic study done in India by Malhotra et al, [24] on incidence in child psychiatry revealed 20 children out of 186 followed up patients had psychiatric disorder giving the annual incidence rate of 18/1000/yr. 2 out of above 20 children had Emotional disorders with onset specific to Childhood (As per ICD-10- F93).

Margoob et al, [20] revealed that anxiety disorders are more common (80%) in adolescent age group. This can be explained by the fact that with increasing scholastic demands and expectations from the child and the consequent stress on studies may be responsible for more anxiety in adolescent age group.

Study done by Chadda et al, [21] showed that anxiety symptoms were common in female population (1.55%) as compared to males (0.77%). Margoob et al, [20] also showed that anxiety disorders were common (80%) in female patients.

Phenomenology of anxiety disorders

Anxiety is considered to be a universal phenomenon existing across cultures, although its contexts and manifestations are influenced by cultural beliefs and practices [25]. Children and adolescents with anxiety disorders can have a clinical picture that is somewhat different from those seen in adults. The differentiation between normal and pathological anxiety, however, can be particularly difficult in children because children manifest many fears and anxieties as part of typical development [26]. For instance, children may not report any worries or anxieties but may have pronounced physical symptoms. Severe tantrums may be their only manifestation of anxiety problems and thus can be confused with mood disorders or oppositional behavior. Clinicians need to distinguish normal, developmentally appropriate worries, fears, and shyness from anxiety disorders that significantly impair a child's functioning.

Specific phobia

Specific phobias are the most prevalent anxiety disorder in children and adolescents according to nearly all epidemiological studies of the general population[27]. In international community samples, prevalence rates for specific phobias in children and adolescents are (2.6–9.1) % with the average near 5%[28]. Lower risk for specific phobias has been reported among Asians and Hispanics compared to Western countries[29]. Specific phobia is also more prevalent among girls than boys[30].

Phenomenology

The DSM IV-TR categorizes specific phobias into five subtypes: animal type, natural environment type, blood-injection-injury type, situational type and another category for fears that do not fit into one of these specific categories. Some of the more commonly occurring phobias in children include fear of heights, darkness, injections, dogs, loud noises, small animals, and insects[31, 32, 33, 34]. For animal, environmental, or blood-injection injury type phobias the age of onset is typically 12 years or younger[35]. Environmental phobias tend to have an earlier age of onset in boys. The blood-injury-injection subtype has been shown to be significantly more prevalent in females[36]. Animal phobias are also more common in girls with a 3:1 ratio clearly present by age 10 years. Though not specific to children and adolescents, phobias involving lightning, enclosed spaces, and darkness have all been found to be more prevalent in females[37]. Avoidance behaviors in children often take the form of tantrums, crying, and hiding. When the feared stimuli are present, the severity of the fear response and avoidance behaviors indicate the extent of the child's distress.

Comorbidity

Children with specific phobias frequently have comorbid internalizing or externalizing disorders[38,39]. Last et al[38] found that 75% of the children with specific phobias had a lifetime history of additional anxiety disorders (most commonly separation anxiety disorder), 32.5% had a lifetime history of any depressive disorder, and 22.5% had a lifetime history of any disruptive behavior disorder. Similarly, Silverman et al[39] reported that among 104 children with specific phobias majority (72%) of had at least one comorbid diagnosis: 19% had an additional specific phobia, 16% had separation anxiety disorder, 14% had overanxious disorder, and 6% were diagnosed with attention-deficit/hyperactivity disorder.

Social Phobia

The rate of lifetime social phobia in a community sample of adolescents was found to be 1.6%[40] and substantially higher at 14.9% in a clinical sample of children[38]. Mean age of onset for social phobia in clinical samples ranges from 11 to 12 years of age [38,34] and the rate of SP increases with age[40].

Phenomenology

Before the DSM-IV, social phobia was not diagnosed in children and adolescents. Youth who endorsed anxiety and avoidance of engaging with unfamiliar people were commonly diagnosed with avoidant disorder of childhood or adolescence. This diagnosis was excluded from the DSM-IV; children and adolescents who fear social and performance situations are now diagnosed with social phobia. Children with social phobia often have poor social skills and have difficulty initiating and maintaining interpersonal relationships[41,42]. Essau et al,[40] found that the most commonly feared situations in adolescents with social phobia were performing in front of others, public speaking, and engaging in conversations. The most frequent anxiety endorsed by these adolescents was the fear that something would happen to cause them to be embarrassed. Social phobia also seems to have an impact on children's functioning in the classroom. Muris et al, [43] found that higher social phobia symptoms in a nonclinical sample of children (10–12 years old) was associated with poorer general classroom functioning, increased difficulty with peer relationships, and lower self-esteem.

Comorbidity

Beidel et al, [41] found that 60% of children with social phobia met criteria for another Axis I disorder. Thirty-six percent of the comorbid disorders were other anxiety disorders. The most common comorbid disorders included the following: 10% of children had GAD, ADHD, or specific phobia; 8% had selective mutism; and 6% had an affective disorder and substance use disorders. Because of the high comorbidity rates of depressive and substance dependence disorders, social phobia places youth at risk for longterm problems across domains of education, social relationships, and employment.

Indian study on social phobia

Study for social phobia done on 421 adolescents in one high-school in India by Mehtalia et al, [44]. Social phobia was present in 12.8% of high school adolescents and was equally common in both genders. This study showed that fear of doing things when people might be watching (51.8%), fear of talking to strangers (33.3%) were common complaints among adolescents with social phobia.

Generalized anxiety disorder

There are limited data on the prevalence of GAD in youth, as it was not diagnosed in children and adolescents until the DSM-IV. Prevalence of GAD in USA for children and adolescents ranges from 2.9-4.6%. Whitaker et al [45] reported a prevalence rate of 3.7% for GAD in a sample of 14 to 17-year-old students. Some investigators found that in comparison to childhood samples, middle adolescent samples report a higher prevalence of GAD [46,47]. Results regarding gender differences in GAD are conflicting. Wittchen et al, [48] found no significant gender differences in the prevalence of GAD. Costello et al, [47] found a higher incidence of anxiety disorders in girls between the ages of 9 and 16, and Kashani et al, [46] found prevalence rates in 14 to 16-year-old adolescents of 12% and 23% for males and females, respectively. Abe et al, [49] suggest that during adolescence, symptoms of anxiety may peak at an earlier age in females than in males.

Phenomenology

GAD is a relatively new diagnosis in children and adolescents. In the DSM-III-R [50] a diagnosis of GAD required a minimum age of 18 years. Instead, youth with excessive worry were diagnosed with overanxious disorder (OAD). OAD was omitted from the DSM-IV [51] and the age restriction was removed from the GAD diagnostic criteria. Common domains of worry in children with GAD include health of significant others, personal performance, family matters, and world issues⁵². Three studies [52, 53, 54] show that restlessness is the most common and muscle tension is the least common associated symptom endorsed by youth with GAD.

Comorbidity

GAD is often comorbid with other psychiatric disorders. Masi et al, [53] found that 93% of clinically referred youth with a diagnosis of GAD had at least one comorbid disorder. Depression (56%), specific phobia (42%), SAD (31.8%), SP (28%), obsessive-compulsive disorder (OCD) (19.7%), and panic disorder (16.6%) are common comorbid disorders. Externalizing disorders (i.e. ADHD, oppositional defiant disorder, conduct disorder) occurred in 21% of the clinical sample diagnosed with GAD. Children with GAD and a comorbid diagnosis of depression often have a poorer prognosis, greater symptom severity, and longer duration of symptoms when compared with children without comorbid depression [56].

Separation anxiety disorder

The prevalence of separation anxiety disorder ranges from 1.3% in individuals aged 14-16 years to (4.1-4.7)% in children aged 7-11 years with an average prevalence rate

of 2-4%. [57]. Other studies showed that prevalence rate of separation anxiety disorder (SAD) is between 3% to 5% [58, 59] It is more likely to occur in children compared with adolescents. Onset is typically at 7 to 9 years of age [38].

Clinical presentation

The key feature of separation anxiety disorder (SAD) is excessive anxiety about separation from primary attachment figures (eg, parents, grandparents). Children with SAD fear that harm will come to themselves or their attachment figures when separated. Other symptoms include distress at the time of separation, somatic complaints when separation occurs or is anticipated, nightmares with themes of separation, shadowing parents in the home, and sleeping with family members. Children with SAD commonly refuse to attend school and are reluctant to go other places without their parents. A distinguishing feature of SAD is that the child's anxiety is alleviated when with parents, whereas in other anxiety disorders, the presence of an attachment figure has minimal effect on symptom presentation [60]. SAD can be short-lived or chronic and persistent.

Comorbidity

One third of children with separation anxiety disorder have comorbid depressive disorder, and as many as 27% have another disruptive behavior disorder, such as attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder, or conduct disorder. Other comorbid diagnoses include generalized anxiety disorder (GAD), specific phobia, and social phobia (SP) [61].

Panic disorder

Panic disorder was once thought to be a disorder found only in adults and very rarely in adolescents. This notion was based on the idea that there is a strong cognitive component to panic disorder that children were incapable of experiencing [62]. However, there is now a large body of evidence showing that panic disorder does occur in children [63]. Panic disorder (PD) in children and adolescents is a disabling and chronic condition, which is accompanied by psychosocial and academic difficulties both during adolescence and into adulthood. Although Panic disorder was thought to be rare in children and adolescents, the prevalence of Panic disorder in community samples ranges between 0.5% and 5.0 and in pediatric psychiatric clinics from 0.2% to 10% [64]. Panic attacks are reported to be equally prevalent in males and females. But severe panic attacks are more common in females. Panic disorder patients can be misdiagnosed of having neurologic, cardiovascular, pulmonary, or gastrointestinal illness.

Phenomenology

Panic disorder in children can be difficult to diagnose. This can lead to many visits to physicians and multiple medical tests which are expensive and potentially painful. Panic disorder often looks different in young people than in adults, because children tend to report the physical symptoms accompanying panic attacks rather than the psychological symptoms. Children having a panic attack may appear to be suddenly frightened or upset with no easily identified explanation. This behavior is often confusing to others. Panic disorder is distinguished by the unpredictability of the panic attacks. Recurrent "out of the blue" episodes of fear or physical discomfort that are brief. Typically, panic attacks reach their maximum in 10 minutes. Recurrent episodes that are accompanied by physical symptoms, such as fast heart rate, difficulty breathing, chest discomfort, choking sensation, dizziness or faintness, trembling, sweating, nausea, or hot/cold flashes. Recurrent episodes that may include psychological symptoms or worries such as the fear of losing control, the fear of "going crazy," or the fear of dying.

Comorbidity

90% child and adolescent patients with panic disorder have comorbid other anxiety disorders (Agoraphobia, GAD, social phobia etc.) and depression [65]. 50% have other comorbid illnesses like conduct disorder, ODD, substance abuse disorder and somatoform disorder [66].

Obsessive compulsive disorder

Obsessive-Compulsive Disorder (OCD) is one of the most prevalent psychiatric disorders affecting children and adolescents and is projected to be among the ten leading causes of global disability by the World Health Organization (WHO European Ministerial Conference; 2005) [67]. In the United States, Flament et al, [68] reported a lifetime prevalence rate of 1.9%, and Valleni-Basile et al, 1994 [69] reported a prevalence rate of 3%. Studies from other than USA reported prevalence rates of OCD in juveniles of 2.3% in Israel [70], 3.9% in New Zealand [71] and 4.1% in Denmark [72]. The prevalence rates of late adolescents are in line with available estimates for adult samples of 1 to 4 percent. In the British Child Mental Health Survey 73 of over 10,000 five to fifteen year olds, the point prevalence was 0.25% and almost 90% of cases identified had been undetected and untreated. Jenike et al [74] refers to OCD as a "hidden epidemic", primarily because the disorder is frequently unrecognized and is therefore under diagnosed [75].

In a review of 11 studies that reported the clinical characteristics of children and adolescents who had OCD, the mean age of onset of OCD ranged from 7.5 to 12.5 years, (mean, 10.3 years) [75, 76]. Among children and

adolescent samples boys outnumber girls with OCD by at least 3 to 2. Boys are found to have a greater incidence of pre-pubertal onset while girls have a greater post-pubertal onset [75, 77]. Hence, younger samples tend to have a greater proportion of boys, which equalizes as sample age approaches adolescence.

Examination of age-of-onset reports from a variety of samples of individuals has been interpreted to show two main peaks of onset: an early-onset subgroup occurring during the prepubertal and early adolescent period and the other during late adolescence or after puberty. Of note is the consistent observation that the prepubertal onset group is more highly familial and is more commonly associated with tic disorder co morbidity.

Indian studies on obsessive compulsive disorder

A study involving 13-16 year old, 1100 high school children in Bangalore showed a point prevalence rate of 1.45% and 5.18% respectively for clinical and subclinical OCD respectively [78]. Clinic based prevalence rate at the Child and Adolescent Psychiatric Services of the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore in the year 2003 was 2.8% (27 cases out of 935).

In an epidemiological study of child & adolescent psychiatric disorders in urban and rural areas of Bangalore, India [79], 2064 children aged 0-16 yrs, were selected by stratified random sampling from urban middle-class, urban slum and rural areas. The results indicated an OCD point prevalence rate of 0.1 per cent among children aged 4-16 years.

In all the studies of OCD in children and adolescents reported from India, males have outnumbered female subjects [80, 81, 82, 83]. The proportion of male subjects has ranged from 63% to 85%.

Phenomenology

The phenomenology of OCD in children, adolescent and adult is strikingly similar and perhaps this similarity facilitated the recognition of the disorder in children and adolescent and encouraged clinical studies in this population.

Studies suggest that OCD in young children is characterised by a range of different types of obsession and compulsions, the most common obsession in young people includes worries about dirt and contamination, thought of something terrible happening and concerns about illness or death (Thomsen, 1999). In younger children concern about contamination, aggression and exactness or symmetry is most common [84, 85, 86]. As children get older the type of obsession may change to include obsessions of a sexual or religious nature.

The most common compulsion in young people includes washing, checking, repeating, ordering/ arranging and counting (Thomson, 1999). However, symptoms generally change over time and it is unusual for young people to only ever carry out one type of compulsion [87, 88]. This phenomenology is very much similar to adult indicating the isomorphism between childhood and adult presentation of OCD.

Children and adolescent had significantly higher rate higher rate of aggressive and catastrophic obsession compared to adults. In addition the rate of sexual obsession increased significantly from childhood to adolescents to level similar to that of adults. Religious obsessions are more frequently in adolescents than either in children and adults. Hoarding compulsions are found significantly more often in the child subjects, compared with adolescents and adults[76].

In addition, Swedo et al, [85] suggest that children with OCD frequently display compulsions without well-defined obsessions and that this may be because young children lack the cognitive ability to be able to articulate their internal cognitive process. Compulsion without obsession are frequently tactile (e.g. touching, tapping and rubbing rituals) and may occur more often in young people with co morbid tic disorder[89].

Children frequently display symptoms other than typical washing or checking rituals (e.g., blinking and breathing rituals) [90].

One review on paediatric OCD [76] indicated that although the majority of children exhibit both multiple obsessions and compulsions (mean number over lifetime was 4.0 and 4.8 respectively. [91] compulsions only without obsessions were more common in children than adolescents.

Co-morbidity

One of the important differences between child and adult OCD is the pattern of co-morbidity. Filament et al, [92] report life time co-morbidity rate of 75% for other psychiatric disorders, In an Indian study 69% of the subjects had a co-morbid disorder[81].

Nearly one third to one half of the children with OCD seems to have a current or past history of another anxiety disorder. In children, overanxious and separation anxiety disorders are the commonest whereas in adolescents, generalized anxiety and panic disorders are the commonest. Prevalence of depression is in the range of 13% to 70%. Tic disorders have been reported in 17% to 60% of juvenile subjects[81]. At least 50% of children with TS develop OC symptoms or OCD by adulthood. Rarely schizophrenia can co-occur with OCD. A high prevalence of attention deficit hyperactivity disorder

(ADHD), conduct disorder and oppositional defiant disorder have been reported in children with OCD[86]. In Indian studies rates of ADHD have ranged from 9% to 18%.[81, 83], whereas in other studies rates range from 33% to 57%. [86]. There are also reports suggesting increased prevalence of bipolar disorder in children with OCD.

Post-traumatic stress disorder

PTSD symptoms have been identified in adults for more than a century, recognition of this disorder in children only began to emerge recently. Lifetime prevalence of PTSD is 8%[93] Studies conducted within one year of disasters report prevalence figures for PTSD such as: 4.5% three months after the 1999 earthquake in AnoLiosia, Greece [94] 5% three months following hurricane Hugo [95] and 3% of males and 9% females 6 months after Hurricane Andrew[96] Studies reporting prevalence at one year following natural disaster range from no syndrome after a flood [97] to 3.8– 6.2% after Hurricane Hugo[98]; 26.9% after super-cyclone of Orissa [99] and 28.6% mild to moderate PTSD following Northridge Earthquake [100]. This variation in incidence and course of PTSD depend on various factors, including the type of trauma, the proximity to the stressor, and the reaction of the child's parents.

Phenomenology

Manifestation of post-traumatic stress symptoms and syndrome may depend upon variation in cultural and societal response to stress, coping strategies and available support. It has been emphasized that there are numerous cultural considerations which are to be responded to in understanding and treating PTSD across cultures[101]. The phenomena of re-experiencing, numbering and avoidance and hyper- arousal in children are comparable to that in adults. However there can be major differences in which these manifesting themselves. For example, in young children, repetitive play may occur in which themes or aspects of the trauma are expressed; the dreams may not have any specific trauma related contents and the children may actually re-enact the trauma instead of re-experiencing it. Numbing or avoidance may take the form of restlessness, hyper-alertness, poor concentration and behavioural problems[102].

The chronicity and the type of trauma can influence the manifestation of PTSD. Acute PTSD presents more with typical physiological hyper-arousal and re-experiencing and sleep problems, the chronic variety presents with dissociation, restricted affect, sadness and detachments [103]. Terr et al,[104] described that type I trauma results in re-experiencing, avoidance and increased arousal and type II results in denial, numbing, dissociation and rage. Children may have periods during which they have only re-experiencing, or only avoidance and numbing, which

alternate between each other, rather than exhibiting both groups of symptoms simultaneously [105,106, 107].

The results of follow-up studies of children with PTSD are unclear and contradictory. There are reports of the prevalence/ symptom severity decreasing[108], remaining the same[109, 110] or increasing [111] during the follow-ups. The knowledge regarding the PTSD symptoms in children over time and their associated outcomes are not yet clearly known.

Co-morbidity

ADHD, depression, conduct disorder, oppositional defiant disorder and substance use are highly co-morbid with PTSD [112].

Indian studies on post-traumatic stress disorder

Study was done by Margoob et al , 2006[113] on 100 cases of PTSD in children, in the age range of 03-16 yrs, in Govt. Psychiatric Diseases Hospital, Srinagar. The most common traumatic event experienced was witnessing the killing of a close relative (49%), followed by witnessing the arrest and torture of a close relative (15%), (11%) witnessing night raids, (14%) caught up in cross firing, (4%) beaten up / tortured and (7%) hearing about killing of a close relative. Majority (64%) of cases presented with the complaint of somatic complaints (i.e. Headache, stomachache, breathlessness, palpitations, loss of appetite, and insomnia), followed by (50%) episodes of loss of consciousness/ conversion fits; (32%), irritability/outbursts of anger; (22%) decreased school performance, (18%) loss of interest and pleasure, (4%) with stammering and (3%) with enuresis.

Another study done by Kar et al, [114] on 447 children and adolescents after a super-cyclone in Orissa. Post-traumatic stress disorder (PTSD) was present in 30.6% OF subjects and an additional 13.6% had sub-syndromal PTSD. Most common symptoms are experiencing distress when reminded or exposed to cues(83.4%), actual or preferred avoidance (60.0%), distressing persistent recollection (53%), Difficulty recollecting some aspects of the cyclone (41.6%), hypervigilance (41.2%), difficulty in concentrating (36.9%), exaggerated startle (36.2%), Irritability or outbursts of anger (24.8%), reexperiencing, reliving (24.4%).

Acute stress disorder

Acute Stress Disorder (ASD), introduced in DSM-IV, has received relatively little attention in younger populations Unlike PTSD, which is diagnosed at least four weeks post-trauma, ASD is diagnosed two days to four weeks post-trauma. ASD also differs from PTSD in being explicitly conceived as a dissociative response to trauma requiring

at least three of a possible five dissociation symptoms. An important public health marker of the utility of ASD is its ability to predict later PTSD, thus allowing clinicians to focus resources on susceptible individuals [115].

Treatment of anxiety disorders in children and adolescents

The evidence that childhood anxiety disorders cause suffering and impairment and may entail long term liability highlight the need for effective treatments. A multimodal approach is advisable and psychotherapy should be considered as an integral part of the management of childhood anxiety disorder[116]. Pharmacotherapy should preferably be used as adjunct to behavioral or psychotherapeutic interventions rather than as a sole intervention. This approach is important to prevent symptom return after discontinuation of medications.

Currently, an SSRI is the first line choice medication for children and adolescent with anxiety disorders. Efficacy and safety of fluvoxamine& Paroxetine in children and adolescent with separation anxiety disorder , GAD and/or social phobia, of sertraline for youth with GAD, and of fluoxetine for youth with SAD, GAD and/or social phobia has been documented in well designed trials [116]. For separation anxiety disorder Cognitive and behavioral techniques, including contingency management, modeling, relaxation, and exposure based Treatments are often used. For Social Phobia CBT and SSRIs are the first line treatments. Depending on presentation, treatment may begin with CBT alone or CBT plus an SSRI . Treatment for specific phobias differs from CBT of SAD, GAD and social phobia. It primarily involves graded exposure to the feared stimuli, imaginary or actual, according to hierarchy constructed by the child progressing gradually from mild to most significant fear .

For Panic Disorder CBT again is the first line of treatment. Components include 1. Education about the physical experience associated with panic attacks. 2. Breathing and relaxation exercises. 3. Interceptive exposure (i.e. exposure to cues associated with panic). 4. In vivo exposure. 5. Cognitive modification to reduce catastrophic misinterpretation. In practice an SSRI may be added to CBT.

For Obsessive Compulsive Disorder Choice of first line therapy depends on the symptom pattern, severity, and the patient's and family's preference. The technique of CBT needs to be modified in accordance with the developmental age of the child. CBT for pediatric OCD basically encompasses three techniques 1. Exposure and Response prevention 2. Cognitive therapy and 3. Relaxation training. SRIs used in OCD include clomipramine and the

SSRIs i.e. fluoxetine, fluvoxamine, paroxetine and sertraline. Many experts and consensus guidelines recommend CBT as the first line approach for the majority of children and adolescents with OCD.

Conclusion

Much has been discovered about childhood anxiety disorders over the past decade, with increased understanding of the phenomenology and associated risk factors and the development of more effective psychotherapeutic and pharmacologic treatments. Early detection and effective treatment may reduce the impact of anxiety on academic and social functioning in youth and may reduce the persistence of anxiety into adulthood.

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