

Psychiatric emergencies in childhood and adolescence

Emergências psiquiátricas na infância e adolescência

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Abstract

Objective: The prevalence of psychiatric disorders in childhood and adolescence ranges between 10% and 15%. The most frequent causes requiring psychiatric emergency care at this age are behavioral disturbances, suicidal behavior, and depression. The objective of this study is to present the most relevant clinical issues and to guide the initial procedures in psychiatric emergency care in childhood and adolescence. **Method:** This was a non-systematic review. **Results:** Relevant clinical issues for the evaluation of children and adolescents in psychiatric emergency settings are presented. Clinical presentations are divided in relevant groups of symptoms according to their frequency and impact on patients and their families. The following syndromes are presented: aggressive behavior, intoxications, suicidal behavior, psychosis, anxiety disorders, eating disorders, and abuse against children and adolescents. The initial procedures recommended for each of these conditions are described. **Conclusion:** Psychiatric emergencies in childhood and adolescence include relapse of pre-existing conditions and first episodes of psychiatric disorders. The objectives of emergency assessment are: establishment of the diagnosis, assessment of risks factors for the child/adolescent, and identification of triggering and maintaining factors and of the presence of familiar and social support.

Descriptors: Child psychiatry; Mental disorders diagnosed in childhood; Adolescent; Risk factors; Emergency medicine

Resumo

Objetivo: A prevalência de transtornos psiquiátricos na infância/adolescência é de 10-15%. As causas mais frequentes de atendimentos psiquiátricos emergenciais nesta faixa etária são: alterações de comportamento sem diagnóstico estabelecido, comportamento suicida e depressão. O objetivo deste estudo é apresentar os principais aspectos clínicos e orientar a conduta inicial das emergências psiquiátricas na infância/adolescência. **Método:** Artigo de revisão não-sistemática. **Resultados:** São apresentados aspectos clínicos relevantes para a avaliação psiquiátrica emergencial de crianças/adolescentes. As apresentações clínicas são divididas em grupos de sintomas relevantes, tanto por sua frequência, quanto pelo impacto para o paciente e sua família. Assim, são apresentadas as seguintes síndromes clínicas: comportamento agressivo, intoxicações, comportamento suicida, psicoses, transtornos ansiosos, transtornos alimentares e maus-tratos contra a criança/adolescente. É descrita a conduta inicial recomendada para cada uma destas condições. **Conclusão:** Emergências psiquiátricas na infância/adolescência podem ser a reagudização ou a primeira manifestação de um transtorno psiquiátrico. A avaliação emergencial tem como objetivo identificar o diagnóstico, os riscos para a criança/adolescente, os fatores desencadeantes e mantenedores, e a presença de suporte familiar e social.

Descritores: Psiquiatria infantil; Transtornos mentais diagnosticados na infância; Adolescente; Fatores de risco; Medicina de emergência

Introduction

Epidemiologic studies based on the diagnostic criteria proposed in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV),¹ present the prevalence rates of psychiatric disorders in childhood and adolescence as ranging between 10-15%, with oppositional defiant disorder (7%) and anxiety disorders (5.2%) as the most frequently diagnosed conditions.^{2,3} There are no specific data concerning the leading causes requiring psychiatric emergency care in this age range in

Brazil. In the world literature, the most frequently identified causes are non-specific behavior alterations, suicidal behavior, depression, aggressiveness, substance abuse, and violence-related situations.⁴ These results would probably be replicated in Brazil.

According to data from the World Health Organization (WHO), suicide rates in the age range of 5-14 years are 1.5:100.000 in boys and 0.4:100.000 in girls, while in the range of 15-24 years these rates are 22:100.000 for males and 4.9:100.000 for females. Over

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the past 50 years, these rates have increased among younger people in relation to older populations. These values do not include suicide attempts, but only reported deaths. It is estimated that the impact of suicidal attempts, especially among adolescents, is considerably higher than the reported figures.⁵⁻⁷

Many of the emergency situations in this age range can be related to different diagnoses and can constitute the first episode of a psychiatric disorder as well as the relapse of a previously existing condition. Therefore, emergency care is also the right moment for the performance of differential diagnosis.

This article presents the most relevant points for the emergency assessment of children and adolescents, the main diagnoses to be considered in these conditions, and guidelines for the initial conduct recommended by evidence-based medicine in each situation.

This is a review study in which systematic review articles and guidelines for clinical practice published over the past 10 years were prioritized. Reference texts of renowned publications in child and adolescent psychiatry were also included.

The article is structured in three sections: psychiatric emergency assessment, clinical presentations, and treatment.

Psychiatric emergency assessment

The clinical presentation of psychiatric disorders in children and adolescents tends to be different from that of adults. During the emergency assessment, the observer must pay attention to the symptoms presented, the impact of these symptoms on patient and family, risk factors, and intervention resources.⁸ These aspects are detailed in Table 1.

During the psychiatric evaluation, attention should be dedicated to signs requiring immediate intervention, such as psychomotor agitation, aggressiveness, alterations in the level of consciousness, and suicidal behavior. Physical and neurological exams are required for the diagnosis of clinical complications associated with psychiatric disorders like intoxication in drug addicts and metabolic disturbances in cases of suicide attempts or eating disorders, as well as for the differential diagnosis of clinical conditions that might provoke psychiatric manifestations. Complementary tests might be required in these cases, such as drug screening, blood count, electrolyte analysis, cardiac monitoring, and computed tomography.

The involvement of the family since the initial assessment is crucial for the acquisition of objective data concerning the patient's

history and milieu and the family situation. The availability of family and social support is central in the assessment of risks for the patient and may determine the decision on the need for hospitalization.⁸

Clinical presentations

1. Aggressive behavior

Aggressive behavior is the main cause of psychiatric emergencies in childhood and adolescence, although it is a quite unspecific sign. Aggressive behaviors against self and others and agitation episodes can be manifestations of virtually any psychiatric diagnosis: conduct and oppositional defiant disorder, attention-deficit hyperactivity disorder, autism, mental retardation, psychosis, mood disorders, drug abuse or intoxication, and dissociative and conversion disorders. The diagnosis will be determined by the associated symptoms and the previous history of the child or adolescent, which should be assessed after the behavior alterations are under control.^{2,4,8}

The acute behavior disturbance is generally manifested through aggression and can result from a new episode of a pre-existing condition or the first episode that characterizes the onset of a psychiatric disorder. Most of the times, these conditions have triggering factors that must be investigated with the patient and his family. Even in the absence of psychiatric disorders, the child or adolescent may present aggressive behavior as a reaction to family, social, or personal crises. Generally, in these cases, the episodes are isolated, infrequent, and less severe.⁴

2. Intoxications and confusional states

The abuse of alcohol and drugs is becoming increasingly common among adolescents. In Brazil, the most frequently used substances by teenagers admitted in emergency departments are alcohol, inhalants, cocaine, and association of multiple drugs. The most common clinical presentation related to drug abuse in adolescents is intoxication, since severe withdrawal syndrome is rare in this population. In the past years there was an increase in the consumption and in the occurrence of emergencies related to the use of synthetic drugs like ecstasy (MDMA), crank (methcathinone), and hallucinogens.^{9,10}

In children, acute intoxications usually occur as a result of home accidents. Among adolescents, intentional ingestion is more likely, even in cases of products that are not considered to be drugs of abuse, such as cleaning products, solvents, and insecticides. In

Table 1 – Assessment of children and adolescents in psychiatric emergency⁸

Clinical assessment
Symptoms presented: reasons leading to admission and associated problems. Investigate current and past symptoms and the presence or absence of previous psychiatric diagnoses.
Impact of symptoms: assessment of the risks posed by symptoms to the mental and physical health of the patient and others.
Risk factors: identification of triggering, maintaining, and protective factors.
Support structures available: resources available for intervention and expectations of patients and families in relation to the treatment.

these cases, it is fundamental to differentiate the episode from a suicide attempt, which will be discussed below. Regardless of the intentional or unintentional nature of the ingestion, the priority in emergency care is to achieve the patient's clinical stability.

Acute intoxication episodes in young people can be manifested through psychomotor agitation, aggressiveness, acute psychosis and, in more severe instances, mental confusion, coma, and cardiocirculatory alterations. These presentations require immediate and thorough assessment. Some clinical signs can indicate a higher probability of the use of one specific substance, as shown in Table 2. It is only after the patient's clinical condition is stabilized that a detailed psychiatric assessment shall take place.

During the assessment, it is important to investigate all the life domains of the young patient, including leisure activities, academic performance, changes in friendships, and family issues. This information is crucial to establish the duration of the problematic use of psychoactive substances and whether there are other associated pathologies. Acute intoxication episodes might be associated with other primary psychiatric conditions such as mood disorders and psychosis.

Patients in this situation are frequently frightened and afraid of being punished or getting involved with the police, which will often lead them to deny the use of substances. It is thus useful to collect complementary information from friends and family. It is not infrequent for adolescents to be admitted at emergency services presenting symptoms that resemble a panic attack (including tachycardia, sweating, and feeling of imminent death) when in fact these symptoms are the result of the use of cocaine, which might be denied by the patient.

3. Suicidal behavior

Suicide and suicidal behavior are usually associated with mood disorders, eating disorders, psychosis, and conduct disorders. They can also be related to disturbances in the family and to chronic physical conditions.^{6,11-13}

For the assessment of the risk of suicide in children and adolescents, it is necessary to bear in mind that the concept of death and self-extermination changes with development. In general, children do not understand death as something decisive. To children, death would seem more like sleeping and waking up again. Therefore, the child may feel sad because of the death of a loving one and wish to die only to meet this person and then get

back. In adolescents, the desire to die may be clear, although it is hardly spontaneously reported. It is not uncommon for adolescents to have suicidal plans and to share these only with friends. Because of these peculiarities, the interview with children and adolescents should be conducted in a quiet environment and, whenever possible, with the application of non-verbal techniques like toys, games, and drawings.

The intention to die can be explicit and strong or ambiguous and vague. The assessment of these intentions may be difficult, especially in the case of children and preadolescents, who may hurt themselves without the conscious desire to die while in a fit of rage and frustration. For that reason, it is important to pay attention to the characteristics of children and adolescents, as well as to their environment, in order to assess the lethal potential of suicidal behaviors.¹⁴ Table 3 presents parameters regarding the severity of suicidal behavior.

4. Psychosis

In childhood and adolescence, factors associated with the cognitive and emotional development influence the clinical presentation of psychotic episodes.¹⁵ Possible symptoms in these populations include delusional ideas, hallucinations, negative symptoms, disorganized speech, and disorganized or catatonic behavior. When the first psychotic episode occurs in childhood or adolescence, it tends to evolve with impaired global functioning and the most frequent diagnosis is psychotic disorder not otherwise specified.¹⁶

It is during adolescence that many cases of schizophrenia and bipolar disorder are manifested for the first time and this is a period of life associated with a great increase in the incidence of these disorders.¹⁷ Because of the relevant overlapping of symptoms of these two conditions, especially in early episodes, it can be difficult to differentiate between schizophrenia and bipolar disorder in manic phase or depression with psychotic symptoms.

Severe episodes of sudden onset are more indicative of organic conditions or intoxication than insidious episodes. The etiologic investigation of the psychotic episode should rule out physical illnesses by means of adequate clinical and neurological examination, laboratory tests, neuroimaging, and electroencephalography. The use of psychoactive substances should also be excluded with the screening of metabolites in blood and urine.

Table 2 – Clinical alterations suggesting the use of psychoactive substances

Clinical alterations	Probable substance
Face and conjunctival hyperemia, slurred speech, impaired reflexes, impaired balance, alcoholic breath, lowered level of consciousness	Alcohol
Punctiform pupils, central nervous system depression	Sedatives or opioids
Psychomotor agitation, psychotic symptoms, stereotypy, mydriasis, arterial hypertension	Cocaine or stimulants
Hyperthermia, electrolyte disturbances, mydriasis	Ecstasy
Lowered level of consciousness, epileptic seizures, hyperemia in perioral and nasal regions, breath smell	Inhalants

Table 3 – Parameters to assess the risk of suicidal behavior³³

Parameter	High risk	Low risk
Suicidal behavior circumstances	Alone Planned Lethal methods	Close to someone Not planned Low-lethality methods
Intention to die	High	Low
Psychopathology	Present and severe	Absent or mild
Coping mechanisms	Poor judgment Weak impulse control Strong hopelessness Strong impotence	Good judgment Good impulse control Weak hopelessness Weak impotence
Communication	Poor or ambivalent	Good, clear
Family support	Inconsistent	Consistent
Environmental stress	Severe	Low

5. Anxiety and somatoform disorders

Despite being quite common in children and adolescents,² anxiety disorders are frequently not recognized.¹⁸ In respect to somatoform and conversion and dissociative disorders, there is a strong association between these conditions and mood disorders or traumatic events experienced by the child or adolescent.¹⁹

Frequently, these conditions generate assessment requests aimed at clarifying organic symptoms not explained by compatible physical findings. Typical anxiety crises are uncommon in children and usually manifest through somatic symptoms (e.g., headaches or abdominal pain). Also, episodes with atypical presentations can be erroneously diagnosed as anxiety or conversion disorders. The lack of evidence of an organic etiology in a given moment does not exclude this possibility.²⁰ Special attention should be given to signs such as long episode duration and persistent neurological symptoms. In addition, conversion and anxiety disorders may overlap with clinical pathologies.

Dissociative episodes with loss of consciousness, syncope, and motor or sensory dysfunctions can resemble epileptic seizures. In these cases, the performance of a neurological examination and electroencephalography is advised.

6. Eating disorders

Eating disorders are associated with the highest mortality rates

among psychiatric disorders – 5.6% per decade.²¹ The peak of incidence occurs in adolescence, in girls aged 15-19 years.²² Emergency situations related to eating disorders occur due to clinical complications associated with malnutrition or due to the severity of behavioral alterations resulting from eating disorders, as detailed in Table 4.

Especially in children and adolescents, the clinical complications of eating disorders tend to appear late and suddenly and are potentially lethal. The emergency treatment of these complications should be delivered by a pediatrician or general practitioner in a monitored environment. The psychiatrist is responsible for the early identification and referral aimed at the clinical stabilization of the case. Complications tend to completely disappear following nutritional recovery.^{21,23}

Psychiatric emergencies related to eating disorders include the risk of suicide associated with dissatisfaction with the body image or with a concomitant mood disorder; situations of intense irritability related to eating behaviors and leading to aggressiveness directed towards self and others; complete and obstinate refusal to eat; and uncontrollable vomiting or purging symptoms.

In the differential diagnosis of anorexia nervosa, clinical causes of malnutrition must be taken into account together with other diagnoses that might cause weight and appetite loss, as is the case of mood disorders. The differential symptom is the distortion in self image and the refusal to eat and to gain weight.

Table 4 – Emergency clinical complications and hospitalization criteria related to eating disorders in children and adolescents²³

- < 75% of BMI or persistent weight loss regardless of adequate management targeting weight gain (AN)
- Persistent refusal to eat (AN)
- Body fat < 10% (AN)
- Cardiovascular complications: bradycardia < 50 bpm during the day or < 45 bpm at night, systolic hypotension < 90 mmHg, arrhythmia, orthostatic hypotension (variation > 20 bpm or arterial pressure > 10 mmHg), syncope
- Metabolic disturbances: dehydration, hypokalemia (< 3,2 mmol/L), hypomagnesemia, metabolic alkalosis, hyponatremia (purgative AN and BN)
- Gastrointestinal complications: esophageal varices, hematemesis, esophageal rupture (BN)
- Refeeding syndrome: hypophosphatemia, cardiac, hematological, and neurological complications (AN) – occurs in the first days of food reintroduction in severely malnourished patients
- Hypothermia (temperature < 36°C)
- Suicide risk
- Outpatient treatment failure

In bulimia nervosa, the differential diagnosis must be performed considering disorders of the digestive tract that can cause vomiting, in addition to the possibility of psychogenic vomiting, which is usually unprovoked and unrelated to dissatisfaction with one's body or to the desire of losing weight, but that can be triggered by multiple situations of stress and anxiety.

Altered electrolytic balance resulting from eating disorders can be inferred from paresthesia and neurological symptoms confounded with conversion disorders or seizures. The correct identification and management of these disorders are fundamental to circumvent the risk of further complications.^{23,24}

7. Maltreatment and abuse

Maltreatment against children and adolescents is defined as physical or psychological violence, sexual abuse or serious neglect with consequences for the physical and emotional development. Cases of physical abuse are mostly identified by pediatricians and the psychiatrist may be called up to assess the emotional status of the patient and family. Also, other forms of abuse and neglect can be detected during the assessment of children and adolescents with emotional or behavioral problems, even though a clear abuse complaint might be absent.²⁵

An adequate rapport is fundamental in the investigation of these events in order to provide comfort and safety, diminishing the apprehension and defensive reactions that the patient might display. It is not uncommon for patients to deny clear signs of abuse due to the fear of being held responsible for a family crisis or for future aggressions. It is important to watch the patient's reactions in the presence of different family members in order to investigate the presence of more intense displays of anxiety, fear, and aggressiveness against a specific person, which may indicate the possibility that this person is behaving in an abusive manner toward the patient.

Suspicious of maltreatment or abuse must be based on the patient's clinical history, physical examination, and diagnostic imaging exams. Table 5 outlines the main signs leading to suspected abuse. The absence of these indicators does not exclude the possibility of abuse, in the same way that isolated findings cannot be taken as a positive indication of victimization.²⁶

Clinically, the abused child may appear frightened, evasive, and aggressive, as well as take a defensive position. Apathy, somnolence, and sadness are additional common features. Information during the assessment should be recorded as accurately as possible and summaries, synthesis, and abbreviations should be avoided. The person providing the information should be identified in the assessment papers and the same vocabulary used by the informant should be maintained.

The role of the psychiatrist in cases of abuse involves helping in the identification of or raising suspicions on cases brought to his knowledge, providing emergency care, and interacting with the other members of the multidisciplinary team. The confrontation with these cases might be among the most disturbing experiences in the clinical practice with children, sometimes evoking the desire

Table 5 – Suggestive signs of child abuse

Inconsistencies between history data and clinical findings
Full or partial omission of trauma history
Parents change their accounts at every interrogation
Different accounts when family members are separately interrogated
Delayed search for medical care in the evident presence of trauma
Children unwilling to report what happened
Broken family structure
Use of alcohol and illicit drugs by parents
Violence against the mother or elderly people in the family
Patients with mental disorders

to immediately "rescue" the patient. However, it is important to keep in mind the objective of investigating how trustworthy the evidence of abuse is. If there is doubt, the patient should be protected until the situation is clarified. Cases of abuse have legal implications and hence the physician is obliged to report the fact and even his suspicions to child protection services.^{4,25}

Chronic abuse may provoke a number of psychopathological manifestations, especially depression, post-traumatic stress disorder, dissociative and somatoform symptoms, difficulties to manage anger and to control impulsivity, problems in getting sexually involved, aggressiveness, and substance abuse.

Treatment

The proper management of psychiatric conditions in emergency should be guided by two main principles: identification of previous and/or current psychiatric disorders and of the factors triggering the emergency situation. The objectives of the treatment are: (1) the relief of symptoms by the use of medications; (2) the implementation or adjustment of the treatment of the psychiatric condition; and (3) the investigation of the factors triggering the current episode with the purpose of reducing the risk of future episodes.

During the intervention, the physical integrity of the patient and surrounding people must be ensured. In moments of crisis it may be necessary to take the patient away from his family in order to reduce anxiety levels and allow self-control to be restored. If the degree of impulsivity is excessively high, the patient should be sedated until becoming stable and able to control his behavior. In the absence of adequate family or social support, it is preferable to maintain the patient under hospital supervision in order to avoid the possibility that a new loss of control might expose the patient to harm.

The psychopharmacological treatment must take into account the differences between children and adolescents and adult patients. Although absorption is usually similar, the metabolism in the liver, glomerular excretion, and body distribution are higher in young individuals, which may result in higher doses than those prescribed to adults.²⁷ According to this, doses should not be based on pre-established values, but should be calculated according to the body weight. Table 6 presents the main psychopharmacological

compounds used to treat children and adolescents, their doses, indications, and adverse effects. The medication of choice to be prescribed after the emergency intervention should be the one used to treat the underlying disorder (e.g. neuroleptics for psychotic disorders; stimulants for attention-deficit hyperactivity disorder; antidepressants for depression).²⁸

Specificities in the treatment of the clinical conditions presented are described below.

1. Aggressive behavior

The psychopharmacological approach will depend on the diagnosis.⁹ Aggressive behavior can be controlled with neuroleptics; however, caution is advised when using these drugs to treat children due to the risk of extrapyramidal symptoms and tardive dyskinesia described in up to 41% of children using neuroleptics.²⁹

Benzodiazepines can also be used; however, they must be avoided in the case of suspected use of other drugs, especially depressors of the central nervous system, due to the risk of interactions and respiratory depression. Some children and adolescents with intense agitation might require the use of injected medication, with neuroleptics as the first option. The use of antihistamines (e.g. diphenhydramine and hydroxyzine) is widespread in emergency rooms; nevertheless, there is no evidence to support the use of these drugs in pediatric populations with the purpose of sedating the patient.²⁷

2. Intoxications and confusional states

The treatment of intoxications should be based on the symptoms presented. The patient should have his cardiorespiratory function and level of consciousness monitored because these parameters may oscillate in the first hours following intoxication. The use of medications is aimed at stabilizing the clinical alterations presented by the patient, but should be restricted in order to reduce the risk of drug interactions. While agitated, the patient should be kept in a quiet place, if possible with few visual and sound stimuli, and attempts should be made to calm the patient down by reassuring and reminding him of where he is and the reasons that motivated the intervention. In cases of severe agitation and in order to ensure the patient's physical integrity, quick-acting antipsychotics can be used at low doses and always with special attention to symptoms of excessive sedation. Acute intoxication symptoms usually disappear within a few hours, and the patient can then be referred to follow-up and treatment, in conjunction with the provision of orientations to caretakers concerning possible complications of the acute episode presented.²⁸

3. Suicidal behavior

The medium- and long-term drug treatment for children and adolescents with suicidal behavior proves necessary when psychopathological alterations are identified in the assessment. The therapeutic conduct is therefore directed toward treating the cause underlying the suicidal behavior. Occasionally, in emergency

situations, sedation may be required when the patient is agitated and resistant to restraining measures that must be employed until the risk of a new suicide attempt is ruled out. Neuroleptics with sedative properties like chlorpromazine and levomepromazine (methotrimeprazine in the United States) are possible first choices. The use of benzodiazepines should be avoided, especially in children, due to the risk of paradoxical effects and other adverse reactions.

All patients admitted due to suicide attempts can only be discharged after psychiatric evaluation, with the full remission of suicidal ideation, and once the clinical and psychosocial treatment of the triggering condition has been implemented.^{7,11}

4. Psychosis

The treatment of acute psychotic episodes involves the use of neuroleptics at different doses, depending on the severity of symptoms and on the weight/height ratio of the child or adolescent. Neuroleptics with a sedative profile can be used in cases of associated insomnia or agitation. Patients presenting with severe agitation may require intramuscular drug injections in order to maintain serum levels twice as high as those reached with oral administration.^{15,16}

5. Anxiety and somatoform disorders

Acute anxiety crises should be properly medicated in order to permit immediate symptom relief and the reassessment of the episode. Short half-life benzodiazepines can be used at low doses, since their effect is instantaneous and do not involve excessive somnolence, which would hamper the clinical reassessment.

In conversion and dissociative episodes, in which a relevant emotional burden may be present, it is fundamental to provide a supportive work to be initiated at the very emergency situation and aimed at relieving the psychic pain that triggered the episode and every distressing event following the process. The patient should be referred for psychiatric and psychological treatment after discharge from the emergency service. Interventions are also advised involving the medical and nursing staff in order to avoid or minimize hostile attitudes toward the young patient, as well as with the parents who are often expecting the diagnosis of a clinical condition.²⁸

6. Eating disorders

The emergency treatment of eating disorders consists of the control and monitoring of clinical complications according to the diagnosis (e.g. dehydration, hyponatremia, hypokalemia). Quite often, the presence of clinical complications is a criterion for psychiatric hospitalization for refeeding, which should be performed gradually by oral, enteral or parenteral routes in order to avoid refeeding syndrome and in accordance with the severity of the nutritional status and refusal to eat. Whenever possible, oral feeding should be preferred to other routes, calculated according to the individual needs of each patient.³⁰

Table 4 summarizes the severity criteria for eating disorders requiring psychiatric hospitalization. During the hospitalization

Table 6 – Most frequently used drugs to treat children and adolescents^{27,34,35}

Drug	Dose (mg/d)	Indications	FDA status	Administration	Adverse effects and special recommendations
Chlorpromazine	25-400	SCH, BD, aggressiveness, psychomotor agitation	From 6 years on	PO, IM, depot	Cholinergic effects (dry mouth, constipation, blurred vision, hypotension) and somnolence.
Haloperidol	0,5-8 (prepuberty) 1-16 (puberty)		From 3 years on	PO, IM, depot	Extrapyramidal symptoms, somnolence, withdrawal dyskinesia. Risk of neuroleptic malignant syndrome.
Levomepromazine	12,5-75		From 2 years on	PO, IM	Risk of prolonged QTc. * Should not be used as first choice (FDA).
Risperidone	0,25-6		From 6 years on for autism and 10-12 for BD and SCH	PO, depot	Sedation, increased appetite and weight gain, less extrapyramidal effects (as compared with haloperidol). Some reports of altered electric conduction in the heart recommend monitoring.
Olanzapine	2,5-20		From 13 years on for BD and SCH	PO, IM, depot	Sedation, increased appetite and weight gain, low incidence of extrapyramidal effects.
Quetiapine	25-600		From 10 years on for BD and 13 years on for SCH	PO	Same as above and potential risk of cataract.
Lithium	10-30mg/kg (serum level between 0,6-1,2mEq/L)	BD	From 12 years on	PO	Polyuria, polydipsia, tremors, ataxia, nausea, diarrhea, weight gain, dizziness, acne. In the long term, altered kidney and/or thyroid function. Neurological symptoms are more common in children during the introduction of the drug.
Carbamazepine	200-1000 (serum level between 5-10mg/L)	BD, epilepsy	Approved only for epilepsy for all ages	PO	Risk of blood dyscrasia (regular hematological control required), dizziness, skin rash. Risk of hepatotoxicity, especially in children under 10 years of age (transaminases and bilirubin count required). Potent inducer of the enzyme CYP3A4, implying periodical dose adjustment.
Divalproate sodium	500-1500 (serum level between 50-100mg/L)	BD, aggressiveness, psychomotor agitation, impulse control disorder, epilepsy	From 2 years on only for epilepsy	PO	Sedation, nausea, weight gain, polycystic ovary syndrome. Risk of liver and pancreas toxicity (requiring baseline assessment and monitoring of amylase, alkaline phosphatase, gamma-GT, transaminases, bilirubin, in addition to periodical serum dosage).
Fluoxetine	2,5-40	Depression, anxiety disorders	From 12 years on for depression and 8 years on for OCD	PO	Reduced appetite, gastrointestinal symptoms, headaches, dizziness. Interactions with other drugs like antibiotics and antihistamines.
Sertraline	25-200		From adolescence and on for depression and from 6 years on for OCD	PO	Activation symptoms – restlessness, agitation, akathisia, irritability, insomnia. Risk of manic switch in patients with BD. Slow and gradual introduction is advised. Attention to increased risk of suicide.
Escitalopram	10-20		From 12 years on only for depression	PO	Risks and effects similar to those of other SSRI.
Methylphenidate	5-40	ADHD	From 6 years on	PO	Low levels of drug interactions. Insomnia, appetite and weight loss, dysphoria, rebound effect, and hyperactivity. Possible worsening of tics, mania, psychosis, and reduction in growth rhythm (controversial).
Benzodiazepines	Depends on the drug	Severe anxiety (panic, generalized anxiety)	NA	PO, IM	Somnolence, disinhibition, potential for dependence, agitation, confusion, rebound effect, withdrawal effect (especially for lorazepam), depression and abstinence, paradoxical effects. Because of its not quite favorable risk-benefit ratio, this medication class should be avoided in children and adolescents.
Clonidine	0,025-0,4	Agitation, aggressiveness	From 12 years on	PO	Sedation, hypotension, dry mouth, irritability, dysphoria, hypertension, rebound effect.
Propranolol	10-100	Akathisia, aggressiveness, severe agitation	NA	PO	Similar to clonidine, with the risk of inducing bradycardia and hypotension (both dose-dependent) and rebound hypertension. Not indicated in cases of asthma (bronchospasm) and diabetes mellitus.

NA: Not FDA-approved; BD: Bipolar disorder; SCH: Schizophrenia; OCD: Obsessive-compulsive disorder; ADHD: Attention-deficit hyperactivity disorder; PO: oral administration; IM: intramuscular administration.

period, psychiatric, psychological, and family support are indicated in addition to nutritional support.^{31,32}

7. Maltreatment and abuse

The management of cases of victimized children should be targeted at fulfilling three objectives: avoidance of subsequent abuse, relief of the effects of the past event, and assessment of emotional, social, and educational needs following the event.^{25,26}

The first aspect to be considered is the relief of the patient's suffering, whether by the use of medications to reduce anxiety or psychomotor agitation or by the adoption of measures to ensure the physical and mental integrity of the child or adolescent. These measures alone may be enough to bring important relief to the victim. After the substantiation of the diagnostic suspicion of violence following evaluation by doctors from different specialties and by a social worker, medical, psychological, and social reports should be made and urgently forwarded to the relevant commission on child and adolescent protection and children's and youth court. Patients should only be discharged after the court's decision, even if this implies keeping the patient hospitalized against the will of parents or tutors.

Conclusion

Psychiatric emergencies in childhood and adolescence comprise the relapse of previously existing psychiatric disorders and the first manifestations of psychiatric disorders whose onset occurs within this age range. The objectives of emergency assessment – besides diagnostic evaluation – are: to assess the risks for the physical and mental integrity of the child or adolescent; to identify risk factors triggering and maintaining the acute episode and the presence of protective factors; and to assess the availability of family and social support. Following the assessment, immediate interventions should be planned to manage the emergency situation and to provide the best conditions for the subsequent treatment that must be necessarily implemented.

Financiamento e conflito de interesses

Membro do grupo de autores	Local de trabalho	Verba de pesquisa ¹	Outro apoio à pesquisa ou educação médica continuada ²	Honorários de palestrantes	Participação acionária	Consultor/ conselho consultivo	Outro ³
Sandra Scivoletto	IPq-FMUSP	FFM** FFM*** CNPq*** FUMCAD***	CNPq*** Laboratório Cristália*** Novartis*** Janssen-Cilag Brasil*** Eli-Lilly do Brasil***	-	-	-	-
Miguel Angelo Boarati	IPq-FMUSP	-	Janssen-Cilag Brasil*	-	-	-	-
Gizela Turkiewicz	IPq-FMUSP	-	-	-	-	-	-

* Modesto

** Significativa

*** Significativa. Montantes fornecidos à instituição do autor ou a colega onde o autor tem participação, não diretamente ao autor.

Nota: IPq-FMUSP = Instituto de Psiquiatria, Faculdade de Medicina, Universidade de São Paulo; FFM = Fundação Faculdade de Medicina; CNPq = Conselho Nacional de Desenvolvimento Científico e Tecnológico; FUMCAD = Fundo Municipal dos Direitos da Criança e do Adolescente.

Mais informações consultar as Instruções aos Autores.

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