QUESTIONS & ANSWERS

Treatment of Children with Mental Disorders

DEPARTMENT OF HEALTH AND HUMAN SERVICES • PUBLIC HEALTH SERVICE • NATIONAL INSTITUTES OF HEALTH

NIMH
National Institute of Mental Health

A Note to Parents…

There has been public concern over reports that very young children are being prescribed psychotropic medications.

The studies to date are incomplete, and much more needs to be learned about young children who are treated with medications for all kinds of illnesses. In the field of mental health, new studies are needed to tell us what the best treatments are for children with emotional and behavioral disturbances.

Children are in a state of rapid change and growth during their developmental years. Diagnosis and treatment of mental disorders must be viewed with these changes in mind. While some problems are short-lived and don't need treatment, others are persistent and very serious, and parents should seek professional help for their children.

Not long ago, it was thought that many brain disorders such as anxiety disorders, depression, and bipolar disorder began only after childhood. We now know they can begin in early childhood. An estimated 1 in 10 children and adolescents in the United States suffers from mental illness severe enough to cause some level of impairment.

Fewer than 1 in 5 of these ill children receives treatment. Perhaps the most studied, diagnosed, and treated childhood-onset mental disorder is attention deficit hyperactivity disorder (ADHD), but even with this disorder there is a need for further research in very young children.

This booklet contains answers to frequently asked questions regarding the treatment of children with mental disorders.

Q: What should I do if I am concerned about mental, behavioral, or emotional symptoms in my young child?

A: Talk to your child's doctor. Ask questions and find out everything you can about the behavior or symptoms that worry you. Every child is different and even normal development varies from child to child. Sensory processing, language, and motor skills are developing during early childhood, as well as the ability to relate to parents and to socialize with caregivers and other children. If your child is in daycare or preschool, ask the caretaker or teacher if your child has been showing any worrisome changes in behavior, and discuss this with your child's doctor.

Q: How do I know if my child's problems are serious?

A: Many everyday stresses cause changes in behavior. The birth of a sibling may cause a child to temporarily act much younger. It is important to recognize such behavior changes, but also to differentiate them from signs of more serious problems. Problems deserve attention when they are severe, persistent, and impact on daily activities. Seek help for your child if you observe problems such as changes in appetite or sleep, social withdrawal, or fearfulness; behavior that seems to slip back to an earlier phase such as bed-wetting; signs of distress such as sadness or tearfulness; self-destructive behavior such as head banging; or a tendency to have frequent injuries. In addition, it is essential to review the development of your child, any important medical problem he/she might have had, family history of mental disorders, as well as physical and psychological traumas or situations that may cause stress.

Q: Whom should I consult to help my child?

A: First, consult your child's doctor. Ask for a complete health examination of your child. Describe the behaviors that worry you. Ask whether your child needs further evaluation by a specialist in child behavioral problems. Such specialists may include psychiatrists, psychologists, social workers, and behavioral therapists. Educators may also be needed to help your child.

Q: How are mental disorders diagnosed in young children?

A: Similar to adults, disorders are diagnosed by observing signs and symptoms. A skilled professional will consider these signs and symptoms in the context of the child's developmental level, social and physical environment, and reports from parents and other caretakers or teachers, and an assessment will be made according to criteria established by experts. Very young children often cannot express their thoughts and feelings, which makes diagnosis a challenging task. The signs of a mental disorder in a young child may be quite different from those of an older child or an adult.

Q: Won't my child get better with time?

A: Sometimes yes, but in other cases children need professional help. Problems that are severe, persistent, and impact on daily activities should be brought to the attention of the child's doctor. Great care should be taken to help a child who is suffering, because mental, behavioral, or emotional disorders can affect the way the child grows up.

Q: Which mental disorders are seen in children?

A: Mental disorders with possible onset in childhood include: anxiety disorders; attention deficit and disruptive behavior disorders; autism and other pervasive developmental disorders; eating disorders (e.g., anorexia nervosa); mood disorders (e.g., major depression, bipolar disorder); schizophrenia; and tic disorders. Under some circumstances, bed-wetting and soiling may be symptoms of a mental disorder.

Q: Are there situations in which it is advisable to use psychotropic medications in young children?

A: Psychotropic medications may be prescribed for young children with mental, behavioral, or emotional symptoms when the potential benefits of treatment outweigh the risks. Some problems are so severe and persistent that they would have serious negative consequences for the child if untreated, and psychosocial interventions may not always be effective by themselves. The safety and efficacy of most psychotropic medications have not yet been studied in young children. As a parent, you will want to ask many questions and evaluate with your doctor the risks of starting and continuing your child on these medications. Learn everything you can about the medications prescribed for your child, including potential side effects. Learn which side effects are tolerable and which ones are threatening. In addition, learn and keep in mind the goals of a particular treatment (e.g., change in specific behaviors). Combining multiple psychotropic medications should be avoided in very young children unless absolutely necessary.

Q: Does medication affect young children differently from older children or adults?

A: Yes. Young children's bodies handle medications differently than older individuals and this has implications for dosage. The brains of young children are in a state of very rapid development, and animal studies have shown that the developing neurotransmitter systems can be very sensitive to medications. A great deal of research is still needed to determine the effects and benefits of medications in children of all ages. Yet it is important to remember that serious untreated mental disorders themselves negatively impact brain development.

Q: If my preschool child receives a diagnosis of a mental disorder, does this mean that medications have to be used?

A: No. Psychotropic medications are not generally the first option for a preschool child with a mental disorder. The first goal is to understand the factors that may be contributing to the condition. The child's own physical and emotional state is key, but many other factors such as parental stress or a changing family environment may influence the child's symptoms. Certain psychosocial treatments may be as effective as medication.

Q: How should medication be included in an overall treatment plan?

A: When medication is used, it should not be the only strategy. There are other services that you may want to investigate for your child. Family support services, educational classes, behavior management techniques, as well as family therapy and other approaches should be considered. If medication is prescribed, it should be monitored and evaluated regularly.

Q: What medications are used for which kinds of childhood mental disorders?

A: There are several major categories of psychotropic medications: stimulants, antidepressants, antianxiety agents, antipsychotics, and mood stabilizers. For medications approved by the FDA for use in children, dosages depend on body weight and age. The Medications Chart in this booklet shows the most commonly prescribed medications for children with mood or anxiety disorders (including OCD).

• *Stimulant Medications:* There are four stimulant medications that are approved for use in the treatment of attention deficit hyperactivity disorder (ADHD), the most common behavioral disorder of childhood. These medications have all been extensively studied and are specifically labeled for pediatric use. Children with ADHD exhibit such symptoms as short attention span, excessive activity, and impulsivity that cause substantial impairment in functioning. Stimulant medication should be prescribed only after a careful evaluation to establish the diagnosis of ADHD and to rule out other disorders or conditions. Medication treatment should be administered and monitored in the context of the overall needs of the child and family, and consideration should be given to combining it with behavioral therapy. If the child is of school age, collaboration with teachers is essential.

• *Antidepressant and Antianxiety Medications:* These medications follow the stimulant medications in prevalence among children and adolescents. They are used for depression, a disorder recognized only in the last twenty years as a problem for children, and for anxiety disorders, including obsessive-compulsive disorder (OCD). The medications most widely prescribed for these disorders are the selective serotonin reuptake inhibitors (the SSRIs).

In the human brain, there are many "neurotransmitters" that affect the way we think, feel, and act. Three of these neurotransmitters that antidepressants influence are serotonin, dopamine, and norepinephrine. SSRIs affect mainly serotonin and have been found to be effective in treating depression and anxiety without as many side effects as some older antidepressants.

• *Antipsychotic Medications:* These medications are used to treat children with schizophrenia, bipolar disorder, autism, Tourette's syndrome, and severe conduct disorders. Some of the older antipsychotic medications have specific indications and dose guidelines for children. Some of the newer "atypical" antipsychotics, which have fewer side effects, are also being used for children. Such use requires close monitoring for side effects.

• *Mood Stabilizing Medications:* These medications are used to treat bipolar disorder (manic-depressive illness). However, because there is very limited data on the safety and efficacy of most mood stabilizers in youth, treatment of children and adolescents is based mainly on experience with adults. The most typically used mood stabilizers are lithium and valproate (Depakote®), which are often very effective for controlling mania and preventing recurrences of manic and depressive episodes in adults. Research on the effectiveness of these and other medications in children and adolescents with bipolar disorder is ongoing. In addition, studies are investigating various forms of psychotherapy, including cognitive-behavioral therapy, to complement medication treatment for this illness in young people.

Effective treatment depends on appropriate diagnosis of bipolar disorder in children and adolescents. There is some evidence that using antidepressant medication to treat depression in a person who has bipolar disorder may induce manic symptoms if it is taken without a mood stabilizer. In addition, using stimulant medications to treat co-occurring ADHD or ADHD-like symptoms in a child with bipolar disorder may worsen manic symptoms. While it can be hard to determine which young patients will become manic, there is a greater likelihood among children and adolescents who have a family history of bipolar disorder. If manic symptoms develop or markedly worsen during antidepressant or stimulant use, a physician should be consulted immediately, and diagnosis and treatment for bipolar disorder should be considered.

Q: What difference does it make if a medication is specifically approved for use in children or not?

A: Approval of a medication by the FDA means that adequate data have been provided to the FDA by the drug manufacturer to show safety and efficacy for a particular therapy in a particular population. Based on the data, a label indication for the drug is established that includes proper dosage, potential side effects, and approved age. Doctors prescribe medications as they feel appropriate even if those uses are not included in the labeling. Although in some cases there is extensive clinical experience in using medications for children or adolescents, in many cases there is not. Everyone agrees that more studies in children are needed if we are to know the appropriate dosages, how a drug works in children, and what effects there are on learning and development.

Q: What does "off-label" use of a medication mean?

A: Many medications that are on the market have not been officially approved by the FDA for use in children. Treatment of children with these medications is called "off-label" use. For some medications, the off-label use is supported by data from well-conducted studies in children. For instance, some antidepressant medications have been shown to be effective in children and adolescents with depression. For other medications, there are no controlled studies in children, but only isolated clinical reports. In particular, the use of psychotropic medications in preschoolers has not been adequately studied and must be considered very carefully by balancing severity of symptoms, degree of impairment, and potential benefits and risks of treatment.

Q: Why haven't many medications been tested in children?

A: In the past, medications were not studied in children because of ethical concerns about involving children in clinical trials. However, this created a new problem: lack of knowledge about the best treatments for children. In clinical settings where children are suffering from mental or behavioral disorders, medications are being prescribed at increasingly early ages. The FDA has been urging that products be appropriately studied in children and has offered incentives to drug manufacturers to carry out such testing. The NIH and the FDA are examining the issue of medication research in children and are developing new research approaches.

Q: Does the FDA approve medications for different age groups among children?

A: Yes. However, this is based on the data provided to the FDA by the drug manufacturer and the policies in effect at the time of approval. For example, Ritalin® is approved for children age 6 and older, whereas Dexedrine® is approved for children as young as 3. When Ritalin® was tested for efficacy by its manufacturer, only children age 6 and above were involved; therefore, age 6 was approved as the lower age limit for Ritalin®.

Q: Can events such as a death in the family, illness in a parent, onset of poverty, or divorce cause symptoms?

A: Yes. When a tragedy occurs or some extreme stress hits, every member of a family is affected, even the youngest ones. This should also be considered when evaluating mental, emotional, or behavioral symptoms in a child.

Medications Chart

Stimulant Medications

Brand Name	Generic Name	Approved Age
Adderall	amphetamines	3 and older
Concerta	methylphenidate	6 and older
Cylert*	pemoline	6 and older
Dexedrine	dextroamphetamine	3 and older
Dextrostat	dextroamphetamine	3 and older
Ritalin	methylphenidate	6 and older

** Due to its potential for serious side effects affecting the liver, Cylert should not ordinarily be considered as first line drug therapy for ADHD.*

Antidepressant and Antianxiety Medications

Brand Name	Generic Name	Approved Age
Anafranil	clomipramine (for OCD)	10 and older
BuSpar	buspirone	18 and older
Effexor	venlafaxine	18 and older
Luvox (SSRI)	fluvoxamine (for OCD)	8 and older
Paxil (SSRI)	paroxetine	18 and older
Prozac (SSRI)	fluoxetine	18 and older
Serzone (SSRI)	nefazodone	18 and older
Sinequan	doxepin	12 and older
Tofranil	imipramine (for bed-wetting)	6 and older
Wellbutrin	bupropion	18 and older
Zoloft (SSRI)	sertraline (for OCD)	6 and older

Antipsychotic Medications

Brand Name	Generic Name	Approved Age
Clozaril (atypical)	clozapine	18 and older
Haldol	haloperidol	3 and older
Risperdal (atypical)	risperidone	18 and older
Seroquel (atypical)	quetiapine	18 and older
(generic only)	thioridazine	2 and older
Zyprexa (atypical)	olanzapine	18 and older
Orap	pimozide	12 and older (for Tourette's syndrome). Data for age 2 and older indicate similar safety profile.

Mood Stabilizing Medications

Brand Name	Generic Name	Approved Age
Cibalith-S	lithium citrate	12 and older
Depakote	divalproex sodium (for seizures)	2 and older
Eskalith	lithium carbonate	12 and older
Lithobid	lithium carbonate	12 and older
Tegretol	carbamazepine (for seizures)	any age

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