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Depression in Children and Adolescents

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Depression may have a more insidious onset in children and adolescents than in adults, with irritability a more prominent feature than sadness.

- Depression may affect 2 percent of children and 4 to 8 percent of adolescents, with a peak incidence around puberty.
- It may be self-limiting, but about 40 percent of affected children experience a recurrent attack, one-third of affected children will make a suicide attempt, and 3 to 4 percent will die from suicide.

Fluoxetine improves symptoms and may delay relapse over seven to 12 weeks compared with placebo in children and adolescents.

- Fluoxetine may be more effective at improving symptoms compared with cognitive behavior therapy (CBT). Combined fluoxetine plus CBT may be more effective than CBT alone in adolescents.
- Fluvoxamine, citalopram, and escitalopram have not been shown to be beneficial in adolescents and children with depression. Paroxetine and sertraline may be unlikely to be beneficial.
- We do not know whether sertraline is as effective as CBT in the treatment of adolescents. We do not know whether sertraline and CBT as monotherapies are as effective as the combination of sertraline plus CBT.
- Tricyclic antidepressants have not been shown to reduce symptoms of depression and can be toxic in overdose, so their use is not recommended.
- We do not know whether mirtazapine, moclobemide, omega-3 polyunsaturated fatty acids, or St. John's wort (*Hypericum perforatum*) is beneficial.

Caution: Selective serotonin reuptake inhibitors (other than fluoxetine) and venlafaxine have been associated with serious suicide-related events in persons younger than 18 years.

Group CBT in children and adolescents and interpersonal therapy in adolescents may improve symptoms in those with mild to moderate depression, but may not prevent relapse.

- We do not know whether other psychological treatments, individual CBT, group therapeutic support, interpersonal therapy in children, guided self-help, family therapy, or individual psychodynamic psychotherapy improves symptoms.

We do not know whether electroconvulsive therapy or lithium is beneficial in children or adolescents with refractory depression.

Definition

Compared with adult depression, depression in children (six to 12 years of age) and adolescents (13 to 18 years of age) may have a more insidious onset, may be characterized more by irritability than by sadness, and occurs more often in association with other conditions such as anxiety, conduct disorder, hyperkinesis, and learning problems. The term "major depression" is used to distinguish discrete episodes of depression from mild, chronic (one year or longer) low mood, or irritability, which is known as dysthymia.

The severity of depression may be defined by the level of impairment and the presence or absence of psychomotor changes and somatic symptoms. In some studies, severity of depression is defined according to cutoff scores on depression rating scales. Definitions of refractory depression (also known as treatment-resistant depression) vary, but in this review it refers to depression that has failed to respond, or has only partially responded, to an adequate trial of at least two recognized treatments.

Clinical Questions

What are the effects of pharmacological treatments for depression in children and adolescents?	
Beneficial	Fluoxetine (improves remission rates and prevents relapse)
Unknown effectiveness	Citalopram/escitalopram
	Fluvoxamine
	Mirtazapine
	Monoamine oxidase inhibitors
Unlikely to be beneficial	Paroxetine
	Sertraline
Likely to be ineffective or harmful	Oral tricyclic antidepressants
	Venlafaxine
What are the effects of psychological treatments for depression in children and adolescents?	
Likely to be beneficial	CBT (group) in children and adolescents with mild to moderate depression
	Interpersonal therapy in adolescents with mild to moderate depression
Unknown effectiveness	CBT (individual) in children and adolescents with mild to moderate depression
	Family therapy
	Group therapeutic support (other than CBT)
	Guided self-help
	Individual psychodynamic psychotherapy
	Interpersonal therapy in children
Unlikely to be beneficial	CBT (for relapse prevention)
What are the effects of combination treatments for depression in children and adolescents?	
Beneficial	Fluoxetine plus CBT in adolescents
Unknown effectiveness	Fluoxetine plus CBT in children
	Sertraline plus CBT in adolescents
What are the effects of complementary treatments for depression in children and adolescents?	
Unknown effectiveness	Omega-3 polyunsaturated fatty acids
	St. John's wort (*Hypericum perforatum*)
What are the effects of treatments for refractory depression in children and adolescents?	
Unknown effectiveness	Electroconvulsive therapy
	Lithium

CBT = cognitive behavior therapy.

Incidence and Prevalence

The prevalence of major depression is estimated to be approximately 2 percent in children and 4 to 8 percent in adolescents. Preadolescent boys and girls are affected equally by the condition, but in adolescents, depression is more common among girls than boys.

Etiology and Risk Factors

Depression in children usually arises from a combination of genetic vulnerability, suboptimal early developmental experiences, and exposure to stresses. However, depressive syndromes sometimes occur as sequelae to physical illness, such as viral infection, and may overlap with fatigue syndromes. The heritability of depression may increase with age, but findings from genetics studies are inconsistent. Recurrent depression seems to have a stronger familial association compared with single-episode depression.

Depression-prone individuals have a cognitive style characterized by an overly pessimistic outlook on events. This cognitive style precedes the onset of depression and seems independent of recent life events and ongoing stresses. Stressful life events may trigger the first occurrence of depression, but are rarely sufficient on their own to cause depression. After a first incidence of depression, lower levels of stress are needed to provoke subsequent episodes of illness. Enduring problems in the individual's relationship with his or her primary caregivers are an important risk factor for depression, but such difficulties also predispose the individual to other psychiatric disorders.

Prognosis

In children and adolescents, the recurrence rate after a first depressive episode is 40 percent. Young persons who experience a moderate to severe depressive episode may be more likely than adults to have a manic episode within the following few years. Trials of treatments for depression in children and adolescents have found high rates of response to placebo (as much as two-thirds of persons in some inpatient studies), suggesting that episodes of depression may be self-limiting in many cases. One-third of young persons who experience a depressive episode will make a suicide attempt at some stage, and 3 to 4 percent of those who experience depression will die from suicide.

Editor's Note: Moclobemide is not available in the United States.

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