
Depression in children and adolescents

(Index words: depression, antidepressants, comorbidity, children and adolescents, cognitive behaviour therapy)

Summary

Among children and adolescents, the prevalence of depressive symptoms is about 15%. Clinically significant depression occurs in 5%. Depression in children overlaps with other childhood emotional and behavioural disorders. Depression in children is multifactorial and includes biological, psychological and social factors. Tricyclic antidepressants such as imipramine are ineffective in children and have limited effect in adolescents. SSRIs are also of limited value. For total health benefit in the treatment of depression, cognitive behaviour therapy (CBT) is found to be more beneficial than SSRIs.

Introduction

Some authors believe that childhood depression is under-recognised, and others think that childhood unhappiness from increasingly common psychosocial adversities are diagnosed as depression. However, depressive disorder in children is a well recognised entity now. Feeling miserable due to external events is common in children. Also, low mood in children can be part of a wider cluster of emotional and behavioural symptoms. These include tearfulness, irritability, loss of interest and enjoyment, disturbed sleep and appetite, and somatic complaints such as abdominal pain and headache. Depression should be considered if these symptom clusters are persistent, severe, and significantly affect the child's functioning, leading to reluctance or refusal to attend school, avoidance of social contacts and emergence of academic problems.

Epidemiology

Clinically significant depression occurs in 5% [1]. Persistent chronic low mood (dysthymia) is known to occur

in 3%. There is a marked increase in the incidence of depression in mid- and late adolescence and girls are affected twice as much as boys. Of the children and adolescents who are depressed, a high proportion is not recognised. The reasons are mainly related to atypical presentations, social stigma and poor knowledge of health professionals.

Clinical presentations and diagnosis

Depressive disorder in children and adolescents is diagnosed on the same criteria as in the adult, with some modification. The diagnostic and statistical manual of mental disorders – DSM IV-TR criteria given below, should be present for at least 2 weeks (panel 1). Two of the nine features listed will indicate mild depression. Adjustment disorder following a stressful experience is the commonest mood disorder seen in children and adolescents. The reaction is likely to be excessive to what is justifiable for the experience, with disturbed sleep and appetite, and adverse effects on school functioning. Atypical presentations are relatively common, eg. increased sleep and appetite, carbohydrate craving and weight gain, oversensitivity and sense of rejection, somatic complaints and mood reactivity [2]. Dysthymic disorder is diagnosed if chronic mild depression is present for a year. Over 70% of children with dysthymia will eventually develop major depression.

Bipolar disorder should be considered in the differential diagnosis, especially if there is a strong family history. In 40% of children, the first episode of bipolar disorder is heralded by depression [3]. Severe depression can occur with or without psychotic features. Unlike in adults, psychotic depression is more likely to present with derogatory third person hallucinations than with delusions and is associated with a high risk for suicide [3].

Panel 1. The DSM IV-TR criteria for diagnosing depression

1. Depressed mood
 2. Diminished interest or loss of pleasure in almost all activities
 3. Sleep disturbance
 4. Weight change or appetite disturbance
 5. Decreased concentration or indecisiveness
 6. Suicidal ideation or thoughts of death
 7. Psychomotor agitation or retardation
 8. Fatigue or loss of energy
 9. Feelings of worthlessness or inappropriate guilt
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There are some specific features that are characteristically present in depressed children and adolescents (panel 2).

Panel 2. Features of depression specifically seen in children and adolescents

1. The mood is irritable, hostile and angry, though a sad facial expression is present.
 2. Due to difficulty in verbally expressing inner feelings, more likely to complain of vague physical complaints.
 3. Disengagement from peers, reduced interest in play. Persistent destructive themes in play activities.
 4. School refusal, frequent absence and poor school performance.
 5. May fail to make the expected weight gain rather than lose weight.
 6. Hyperactivity, impulsive and reckless behaviour, and problems with attention and concentration.
 7. Suicidal thoughts, wanting to run away, fear of death.
 8. Low self-esteem, self-deprecating statements such as "I am stupid".
 9. Presentation is similar to adults in older adolescent.
 10. Delusions are rare but auditory hallucinations may be present.
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Suicide associated with depression is a leading cause of death among adolescents. Assessment of risk of self-neglect, aggression to self and others, running away from home, sexual promiscuity, school failure, and drug and alcohol abuse should be looked for.

Co-morbidity in childhood depression

Depression in children overlaps with other emotional and behavioural disorders. They are the norm rather than the exception, and affects 40-70% of children and adolescents. Consequently, the depression may go unrecognised when the primary concern becomes a behavioural manifestation such as school refusal, or drug and alcohol problem. A high proportion of adolescents with depression have psychosocial difficulties which may also divert attention from depression [3].

Causes and risk factors for development of depression

Psychosocial factors are key mediators in depression in preschool children. Depression in parents increases the risk of depression in their children. Those living in environments of conflict, stress and abuse are equally vulnerable to develop depression. Children and adolescents with chronic physical illness (eg. diabetes) are also at risk, and should be assessed for the presence of depression, especially when poor compliance and control of the illness become problems.

Treatment

Options for treatment are pharmacological and psychological. The choice of treatment depends on the severity of depression and the associated impairment. Adolescents with severe depression need inpatient care because of the high suicidal risk.

Antidepressants

Tricyclic antidepressants (TCA) such as imipramine are ineffective in children and have limited effect in adolescents [4]. However, children with depression who have co-morbid attention deficit may benefit from TCA, bupropion or venlafaxin [3]. A baseline ECG, resting blood pressure and pulse before starting treatment, and regular monitoring are required with TCA.

Selective serotonin reuptake inhibitors (SSRI) are also of limited value in the treatment of childhood depression. A systematic review of published and unpublished studies on SSRI found a favourable risk / benefit profile only for fluoxetine. A black box warning has been advocated for SSRIs by the (USA) Food and Drug Administration following evidence that SSRI promote suicidal ideation and risk of self-harm in adolescents. The worst offender is paroxetine and the risk-benefit ratio is most favourable for

fluoxetine [2]. Improvement with antidepressants takes 4 to 6 weeks. An initial dose of fluoxetine 5mg/day is given for children under 12 years. For older children and adolescents, a starting dose of 10mg/day can be put up to 20 to 40 mg/day, depending on the age. Continuation of treatment is recommended for all patients for at least 6 months. Maintenance treatment for a further period is needed in those with high risk of recurrence or severe depression, living in stressful and non-supportive environments and having comorbid disorders.

Psychological therapies

NICE guidelines on treatment recommend cognitive behavioural therapy (CBT) and interpersonal psychotherapy (IPT) for depressed adolescents [5]. Larger randomised control trials have shown that fluoxetine with CBT provided the greatest benefit in short and medium term treatment. CBT involves helping the patient to recognise and counteract distorted thinking patterns that contribute to depression. IPT mainly deals with resolving relationship difficulties. In the presence of psychosocial difficulties, therapy involves education about healthy coping skills, problem solving, improving social skills, and relaxation training. Parents may need education about realistic expectations, non-judgmental and non-critical communication and supportive behaviour.

Panel 3. Key questions to ask in clinical decision making

1. Are there sufficient clinical criteria to diagnose depression? Eg. intensity and persistence of symptoms.
2. To what extent do the symptoms affect school functioning, relationships and interests?
3. Is the current episode of depression a first or a recurrence?
4. What internal and external factors are contributing to the depression (genetic, temperament, adverse psychosocial factors)?
5. What are the risks involved in terms of deliberate self-harm, self-neglect, deterioration of school function, drug abuse, and violence?
6. What co-morbid psychiatric and physical disorders are present?

Long term outcome of depression

Longitudinal studies of children with depression have shown that there is significant morbidity from recurrent episodes and mortality by suicide when compared to other childhood disorders. Continuity into adulthood with poor psychosocial outcome is known, leading to relationship difficulties, poor functioning at work, and difficulties in social adjustment. Hence recognition and treatment prevent long term consequences.

Further reading

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