Depression in adolescents

Key issues in assessment and management

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BACKGROUND Mental disorders affect young people disproportionately and are increasing in prevalence. Knowledge about depression in adolescents and skill in its management lags behind that for adults. Depression is the most common mental disorder and untreated depression is associated with significant adverse effects. Depression is also a major predictor of suicidal behaviour and suicide. The role of the general practitioner in the treatment of adolescent depression is of considerable public health and clinical importance.
OBJECTIVE The aim of this paper is to highlight the major differences between adolescent and adult depression in relation to detection, assessment and treatment.
DISCUSSION The new Commonwealth Government's Better Outcomes in Mental Health Initiatives and Incentives provide an opportunity for GPs to improve their knowledge and skills in the detection, assessment and treatment of mental disorders.
It is hoped that this paper will encourage GPs to include the topic of adolescent

Depression is a major predictor of suicidal behaviour and suicide.[1] Australian youth suicide rates have more than tripled in the past 30 years and Australia has the fourth highest suicide rate for young males in the western world.[2–4] Depression is now recognised as one of the most serious global public health problems and is predicted to become the second leading cause of disease burden worldwide by the year 2020.[5]

Cosgrave et al[6] noted that untreated depression has a significant effect on a young person's development and functioning in all areas of their lives and that early case identification and intensive treatment of first episodes of depression will reduce prevalence, cost and morbidity.

The role of the general practitioner in the treatment of adolescent depression is of considerable public health and clinical importance.[7,8] General practitioners are often:

- the first contact for teenagers in the community
- more readily accessible to families than mental health services[9]
- usually know the family well
- ideally placed to detect early symptoms, and help prevent and treat mental health problems.[8]

General practitioners provide approximately 100 million contacts with people each year and are a key provider of primary health care in Australia.[10–12] It is not surprising that 75% of people with formal psychiatric disorders present to and are largely managed by GPs.[13]

However, a number of studies have revealed that only approximately 50% of GP attendees with a mental disorder are recognised and of those detected only 50% receive any treatment.[10] Treatment is most likely to consist of ineffective nonspecific 'counselling'[10] and where antidepressants are prescribed, only 10% receive adequate doses.[14] Veit et al[15] identified GPs as having poor undergraduate and postgraduate training in adolescent health and lacking confidence in dealing with the special needs of young people. Therefore these proportions of detection and treatment are likely to be worse in the adolescent population.

Detecting depression in adolescents

Symptoms of depression in adolescents

The DSM IV criteria for a diagnosis of adult depression is outlined in Table 1. As with adult depression, adolescent depression is not expressed as a single symptom but as a cluster of symptoms that may include the features of depression in adults.[16] However,

Table 1. The DSM 1V criteria[16] for a diagnosis of adult depression

Include at least five of the following criteria of which one must be from either of the first two criteria, for two continuous weeks

- Depressed or irritable mood most of the day, nearly every day
- Decreased interest or pleasure in all or almost all activities
- Significant change in weight or appetite
- Sleeping problems including insomnia or hypersomnia
- Change in activity levels or physical agitation including the inability to sit still, pacing and hand wringing
- Fatigue or loss of energy
- Feelings of worthlessness or excessive guilt
- Decreased ability to think or concentrate
- Recurrent thoughts of death

depressed adolescents are also likely to present with symptoms that are more specific to this developmental stage.

Gordon et al[17] reported that the presentation of depression in adolescents is likely to vary from adult diagnostic criteria with the presence of other characteristics such as:

- irritability of mood
- eating disturbance and failure to make expected weight gains
- diminished school performance
- lowered self esteem and self criticism
- unexplainable boredom
- self destructive impulses and risk taking
- anxiety
- tearfulness
- social withdrawal from friends and usual activities
- fatigue and somatic complaints and recurrent or chronic physical symptoms without organic aetiology
- substance abuse
- unexplained aggression.

Depressive symptoms range from mild to severe. In mild forms, depression can be a self limiting condition associated with spontaneous remission and in more severe forms it is associated with suicidal behaviour and psychotic symptoms.[17] Psychotic symptoms include self critical and depressive delusions, hallucinations or excessive guilt.[17] Belsher et al[18] noted that adolescents experiencing a depressive episode are highly vulnerable to experience further episodes throughout their life time and in many individuals, depression shows a worsening pattern over the course of repeated episodes characterised by increased severity and frequency.

Age of onset and prevalence in adolescence

The prevalence of depression is increasing and up to 24% of adolescents will have had major depression by the age of 18 years.[19] There is a higher prevalence of adolescent mental health problems among those living in low income, step/blended and sole parent families.[9]

The prevalence of depression in childhood is approximately 2%[20] and then rises to approximately 5% from the ages of 9–19. Adolescent girls are twice as likely to suffer from depressive symptoms and the age of onset is probably linked with adolescent central nervous system, hormonal and social development.[21] The reasons for the gender bias are unclear but genetic factors, hormone effects, socialisation and histories of sexual abuse may contribute to this gender difference.[19]

Assessment of depression

The National Health and Medical Research Council[19] recommend the consideration of both:

- symptoms and
- functional impairment

in the assessment of depression. Impairment may manifest in a number of ways including relationship problems with family and peers due to irritability or social withdrawal. The pneumonic, HEADSS, (Home, Education/Employment, Activities, Drugs, Sex and Suicide) provides a useful framework for exploring functional impairment and resiliency factors.[22] Failing ability to function within family, school or other usual situations in a previously well functioning young person is a serious warning sign. The assessment of adolescent depression also involves exploring the:

- aetiology
- precipitating factors
- risk factors
- comorbidity
- duration of the disorder, and
- suicidal intent.

Depression is a risk factor for suicidal behaviour and suicide and many of the factors described below are also risk factors for suicide.

Table 2. Aetiology of adolescent depression

Biological factors
- family history of mental illness (genetic effects)
- physiological changes associated with adolescence (hormone effects)
- psychosexual changes
- illicit drug abuse
- alcohol abuse
- chronic physical illness

Social factors
- peer group/bullying
- educational demands
- unemployment

Family factors
- family breakdown
- childhood neglect
- physical, sexual and emotional abuse
- family dysfunction
- family bereavement or other loss
- unreasonable parental expectations

Psychological factors
- negative cognition
- learned helplessness
- levels of stress
- poorly developed sense of identity
- high achieving personality
- unreasonable personal expectations

Aetiology

Adolescent depression has a complex aetiology (Table 2).[21] Family and twin studies have suggested that genetic factors play a role.[21] Neurotransmitters have also been implicated in the aetiology of adolescent depression, with research implicating catecholamines such as norepinephrine and indolamines such as serotonin.[23]

Depression may be precipitated by stressful events at home (eg. marital discord, parental divorce) or school (eg. academic difficulties, peer rejection).[23] Uncaring or over controlling parenting is also associated with depressive disorder in adolescents.[25] Normal coping mechanisms may be undermined by the combination of stressful events and the adolescent's negative cognitions leading to the development of depression.[26]

Table 2 lists the biological and psychosocial factors that are implicated in the onset and maintenance of depression in adolescents.[19]

Risk factors

Better assessment and management of the most salient risk factors may prevent or reduce the duration of depression.[12] A review by Lewinsohn et al,[27] noted that:

- female adolescents (especially those who experience high conflict with parents)
- adolescents with multiple major depressive disorder episodes, and
- adolescents with a family history of recurrent depression or stress and who experience negative life events, are at higher risk of depression.

These risk factors provide information about who needs to be monitored and where interventional strategies need to be directed.[28]

Comorbidity

Compas et al[24] reviewed research that has highlighted the significant degree of comorbidity of depression with other problems and disorders in adolescents. Depressive syndromes and disorders have been shown to occur with:

- other internalising problems (such as anxiety, social withdrawal, somatic problems and eating disorders)
- disruptive behaviour disorders (such as conduct disorder, aggression, oppositional behaviour, substance abuse)[10]
- medical illnesses (such as viral, chronic)
- sexual, physical or emotional abuse, and
- attention deficit hyperactivity disorder.[19]

Co-morbidity has a significant effect on outcome.[29] For example, the presence of significant symptoms of anxiety and depression along with externalising problems is clearly associated with poorer overall functioning than the presence of either type of problem alone. There is also an association between recurrent depression and emergence of borderline personality disorder. These findings indicate the need for additional treatment for comorbid conditions.[27]

Duration

The severity of depression has been found to be significantly associated with longer duration[29,30] and with greater likelihood of recurrence.[31] A number of studies have reported the duration of untreated depression from medians of 16–36 weeks.[32] In relation to recurrence, Kovacs et al[34] found that 26% of recovered patients relapsed within a year and 40% relapsed within two years. Other studies have confirmed the need for long term follow up and re-evaluation of depression.[35]

Factors associated with persistent depressive symptoms at one year follow up include:

- female gender
- poor general health
- school suspension
- weaker family relationships, and
- poor health care utilisation.[35]

Treatment

The National Health and Medical Research Council disseminated clinical guidelines on adolescent depression to Australian GPs in 1997.[19] Since then a number of studies have suggested changes to some of the recommendations in relation to treatment.[36] These changes include the following recommendations:[36]

- Cognitive behavioural therapy (CBT) is one of the treatments of first choice. However, CBT may be more appropriate for mild and moderate depression.

Case study

14 year old Kate was brought in to her GP by her mother after Kate pierced her own ears with a metal skewer. Her other complaints included headaches, fatigue and irritability for one month. Specific questioning about home, education and activities revealed:

- a loss of interest in school and friends
- the divorce of her parents 12 months ago
- onset of menarche three months ago
- fear of bullying at school
- inability to concentrate at school and recent problems with finishing assignments
- a high level of conflict with mother.

Investigation of Kate's fatigue and headaches revealed no abnormality. A diagnosis of depression was made based on the DSM IV criteria. Kate did not have suicidal thoughts although had self harmed on a number of occasions. Mother and daughter attended the GP for 30 minutes each week for a six week brief cognitive behavioural therapy intervention. Strategies included:

- goal setting
- challenging negative thinking
- conflict resolution
- relaxation
- scheduling pleasant events
- improving communication
- resolving school difficulties with the assistance of a school counsellor.

Kate's depressive symptoms particularly her irritability resolved within six weeks.

There is growing evidence that other psychotherapies, such as interpersonal therapy, are also effective

- Selective serotonin release inhibitors (SSRIs), particularly fluoxetine and paroxetine, should also be considered as first line treatment. These drugs may be particularly appropriate when the skills and resources required for CBT or other psychological interventions are unavailable, or when the depression is severe.

However, CBT is effective in approximately 65% of cases[37,38] compared with 50% of cases treated with SSRIs.[17] Studies have confirmed that GPs are able to learn CBT skills applicable to the general practice setting[10] and the Better Outcomes Health Incentives program may assist GPs in developing and using CBT skills. The Case study illustrates appropriate CBT interventions. Cognitive behavioural therapy does not have the side effects associated with medication.[39] Compliance with drug therapy, influenced by side effects, family attitude and frequency of medical review is a key limiting factor in the effectiveness of drugs.[40]

When long term outcome for depression is considered, it appears that CBT may be more clinically effective at preventing relapse,[41,42] and more cost effective than antidepressant medication alone.[43] There are few studies on the effectiveness of combined CBT and antidepressant medication.[44]

Interpersonal therapy involves a systematic identification and resolution of relationship problems and has been shown to be effective in open trials but further controlled studies are required.[28] Family therapy aims to reduce family dysfunction and conflict but there is little evidence of the effect of family therapy on adolescent depression.[28]

Successful management may involve a combination of the above treatments and a multidisciplinary team approach including school counsellors, psychologists, youth workers and child and adolescent mental health services.[29]

Conclusion

This article has covered what GPs must know about the common, serious and disabling condition of adolescent depression. It is hoped that GPs participating in the new Commonwealth Government's Better Outcomes in Mental Health Initiatives and Incentives, will also include adolescent depression in their learning objectives and understand the differences between adult and youth depression in relation to detection, assessment and treatment.

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