More about...Adolescent psychiatry

Attention-deficit/ hyperactivity disorder among adolescents

YUMNA DHANSAY, *MB ChB, FCPsych (SA)*

Senior Registrar, Division of Child and Adolescent Psychiatry, University of Cape Town and Red Cross War Memorial Children's Hospital

Attention-deficit/hyperactivity disorder (ADHD) is the most common mental disorder in childhood. Contrary to earlier views that suggested ADHD may represent a maturational lag and children would 'grow out of it', we now know that in up to 65% of children with ADHD, the diagnosis persists into adolescence (13 - 18 years).

It is beyond the scope of this article to discuss ADHD in any detail. Instead it will provide a brief outline, highlighting the issues pertinent to ADHD in the adolescent population in particular.

Clinical presentation in adolescence

Patients who present for the first time during adolescence often have more subtle symptoms than those who present during childhood and, due to changes in context and maturation, the clinical presentation may be very different from that seen in childhood.

Hyperactivity becomes less obvious while academic difficulties may be more problematic as high school is accompanied by an increase in cognitive demands and volume of work. Problems with peer relationships may arise as peer interactions assume new importance.

In those with the predominantly inattentive subtype of ADHD, the diagnosis may be missed as these adolescents exhibit less disruptive behaviour. However, they may have higher levels of disorganisation, inattention, social impairment, anxiety or depression compared with those with the combined subtype.

Adolescents with ADHD may seem emotionally immature, have low frustration tolerance and display sudden outbursts of anger.

Co-morbidity

Individuals with ADHD have 2 - 5 times greater risk for developing additional psychiatric disorders. The most common co-morbid conditions are:

- **Oppositional defiant disorder**. These adolescents are more argumentative and defiant than most other adolescents, even those with ADHD. Their inability to modulate emotion and cope with routine frustrations leads to difficult interpersonal relationships.
- **Conduct disorder**. These individuals manifest a serious pattern of delinquent behaviour.
- **Anxiety disorders**.
- **Mood disorders**. ADHD may be associated with dysthymia or major depression. Co-morbid depression and ADHD is a serious situation as the combination of depression and a disruptive behaviour disorder is a high-risk situation for a suicide attempt. Considerable overlap exists between ADHD and bipolar disorder. An elated or very irritable mood, grandiosity, racing thoughts and a decreased need for sleep may help to distinguish bipolar mood disorder from severe ADHD.
- **Substance abuse**. Children with ADHD are at increased risk for developing substance abuse later in life. Evidence suggests that pharmacological treatment of ADHD (including stimulants) does not increase that risk and use of stimulants is actually protective against substance abuse later in life.

Assessment

Assessment of ADHD in adolescents may be challenging and in addition to the clinical interview, it should include:

- parents' and teachers' reports and rating scales (e.g. Conner's Rating Scale)
- self-report scales (e.g. Conners-Wells Adolescent Self-Report scale)
- report cards
- review of psychoeducational testing results, if available
- screening for co-morbid conditions
- enquiry about risk-taking behaviour.

While a valuable source of information, parent and teacher reports are less helpful than in childhood, as adolescents' need for privacy makes it difficult for parents to gain information. Teachers' reports are less accurate since pupils often have multiple teachers who spend relatively short periods of time with them. Similarly, self-reports may be of limited value as adolescents tend to under-report their impairment.

Treatment

Psychoeducation should aim to provide understanding and destigmatisation of the disorder and explain the importance of treatment, since non-adherence is particularly problematic among adolescents.

Psychosocial interventions include behaviour therapy, academic support, parental guidance and family therapy.

Pharmacological management of ADHD relies on agents that affect dopaminergic and noradrenergic neurotransmission. First-line agents include stimulants such as methylphenidate, which have been shown to be effective for up to 80% of adolescents. These agents operate in a dose-dependent manner in improving cognition and behaviour. Extended-release formulations have a longer duration of action and are thus associated with fewer adherence issues and less abuse potential. Another first-line agent is atomoxetine, a non-stimulant, specific noradrenergic reuptake inhibitor approved for ADHD in adolescents. It is particularly useful for adolescents unresponsive to stimulants, those with a preference for a non-stimulant, and if there is a concern about abuse.

Second-line agents are:

- Tricyclic antidepressants, e.g. imipramine and desipramine, are effective in controlling behaviour and improving cognitive impairments but are less effective than the stimulants. They should only be considered when stimulants, atomoxetine and behavioural interventions have failed. Because of potential cardiotoxicity, ECG monitoring is recommended.
- The dopaminergic antidepressant bupropion has been reported to be effective and well-tolerated in treatment of ADHD but has not been tested among adolescents.
- Venlafaxine.
- Clonidine.

Modafinil and cholinergic agents remain untested in the adolescent population.

Conclusion

While the presentation of ADHD in adolescence includes many of the same behaviours seen in childhood ADHD, its context and complexity and the potential for serious harm changes considerably. Adequate assessment and treatment thus needs to address the core symptoms of ADHD as well as possible sequelae such as academic difficulties, impaired peer interaction, oppositional or delinquent behaviour and risk-taking behaviour such as dangerous driving, substance use and impulsive sexual activity.

Further reading

Wolraich ML, Wibbelsman CJ, Brown TE, *et al.* Attention-deficit/hyperactivity disorder among adolescents: A review of the diagnosis, treatment and clinical implications. *Paediatrics* 2005; 115 (6): 1734-1746.

Somatisation in children and adolescents

ERHABOR S IDEMUDIA, *BSc (Hons) Psychology, MSc, PhD*

Seminar and Research/PhD Co-ordinator, Department of Psychology, School of the Social Sciences, Faculty of Humanities, University of Limpopo, Sovenga

Formerly known as hysteria, or Briquet's syndrome, somatisation disorder is a type of somatoform disorder marked by a history of diverse physical bodily complaints without evidence of physical disease that appear to be psychological in origin. Somatisers amplify or exaggerate their somatic distress and are often known to cling to ill health. The disorder occurs more often in women[1] and often coexists with depression and anxiety disorders.[2]

Somatisation in black Africans

Somatisation in black Africans has variously been described as paraethesias,[3] masked depression,[4] brain fag syndrome,[5] adaptation to trauma and stress[6] and largely a phenomenon of psychoneurosis.[7] Other symptoms include heat sensation from inside the head or body, peppery feeling and crawling sensations in various parts of the body, baffling muscular fasciculation, feelings of heaviness, soreness, numbness, poorly localised aches and pains, etc.

Somatisation in children and adolescents

Children do express bodily complaints and worries about their health that seem to have no physical basis[8] and up to 50% of adolescents report at least one common

physical symptom or express a concern that their health should be better.[9] The majority of somatising children are not limited in their daily functioning, nor do they suffer from any emotional disorders. Cross-sectional studies of somatising children have indicated that symptoms peak in early adolescence. Although there are no significant gender differences in childhood, female symptom reporting becomes predominant by adolescence.[1] Lower socio-economic status[10] and family dysfunction[11] have been associated with high levels of somatisation in children. Extreme levels of somatisation symptoms are also associated with medical illness in childhood, concurrent psychiatric disorder, history of physical and sexual abuse in children and adolescents[12] and increased risk of major depression 4 years later.[13] Somatisation in adolescents is said to be an alternative expression of emotional disorder.[14]

Causes

The developmental transition from adolescence to early adulthood represents a high-risk period for the onset of somatisation.[15] Traditional perspectives on somatisation in adolescents and very young adults conceptualise physical symptom complaints as a developmental coping mechanism or defence that masks negative affect.

Another perspective from psychoanalysis is that 'hysterics suffer mainly from reminiscences' and therefore, when faced with emotionally traumatic memories, hysterics subjugate them from conscious appreciation in order to prevent the unbearable emotional pain and suffering that they cause. Therefore, rather than being driven out of the mind, these memories are instead driven into an area of the mind that is unconscious and inaccessible. Here the memories may be redirected from the emotional system into the somatic or bodily system and appear as apparently unexplained physical symptoms.

Somatisation is also seen as an information processing problem in which negatively biased, internal monitoring leads to the 'amplification' or misinterpretation of common body sensations. Certain family characteristics such as parental concern with a child's health and parental abusiveness are particularly relevant to the development of negatively biased introspectiveness and the inclination to monitor inner body sensations.[16]

What doctors should know

- Explanations for this disorder should be sought in doctor-patient interaction rather than in patients' psychopathology.
- Physical interventions should be proposed by patients rather than by doctors.
- Somatisation ranges from mild stress-related symptoms to severe debilitation. Patients with mild symptoms often respond to simple reassurance but patients who are more impaired require interventions.[17]
- Also important is a physician's clinical experience and existing diagnostic criteria.

Investigation of patients with vague somatic complaints should follow a standard process:

- Step 1: Evaluate for organic medical conditions.
- Step 2: Evaluate for psychiatric conditions associated with somatic complaints (depression, anxiety disorders, substance abuse/dependence, etc.).
- Step 3: Pursue a positive diagnosis of somatisation based on the principle of understanding patients' suffering from a concerned attitude. Failure to acknowledge this suffering and disability/complaints may be interpreted by patients as trivialising and may impair the doctor/patient relationship.
- Step 4: Pursue an understanding of cultural meaning and association with somatic complaints.

For successful treatment, physicians and GPs should give an acceptable explanation of the symptoms to the patient. This should be done within the framework of medical, psychological and cultural understanding. If a doctor is unsure of what to do, the patient should immediately be referred to a clinical psychologist.

Conclusion

For effective management of children and adolescents who somatise, the following techniques have been suggested:[17,18]

The BATHE technique

Background: 'What is going on in your life?'

Affect: 'What do you feel about it?'

Trouble: 'What troubles you the most about that situation?'

Handle: 'What helps you handle that?'

Empathy: 'This is a tough situation to be in. Anybody would feel (down, depressed, stressed, etc.). Your reaction makes sense to me (even if it doesn't) …..'

Do:

- use one designated physician
- schedule frequent, brief, regular visits not contingent on new complaints
- allow 'sick role' focus on function rather than symptoms
- explore psychosocial (and cultural) issues
- prescribe benign treatments and enjoyment time.

Don't:

- suggest 'It's all in your head'
- pursue invasive diagnostic tests, medications or surgical interventions without good indications.

References

1. Walker LS, Greene JW. Negative life events and symptom resolution in paediatric abdominal pain patients. *J Pediatr Psychol* 1991; 16: 341-360.
2. Gureje O, Simon GE, Ustun TB, Goldberg DP. Somatisation in the cross-cultural perspective: A World Health Organisation study in primary care, *Am J Psychiatry* 1997; 154: 989-995.
3. Ayorinde A. Heat in the head or body – A semantic confusion? *African Journal of Psychiatry* 1977; 1 (2) 59-63.
4. Jegede RO. Depression in Africans revisited: a critical review of the literature, *Afr J Med Sci* 1979; 8: 125-132.
5. Ebigbo PO, Ihezue UH. Psychodynamic observations on heat in the head. *African Journal of Psychiatry* 1981; 7: 25-30.
6. Idemudia ES, Jegede SA, Madu SN, Ibe B. Somatisation symptom report in a sample of Nigerian prisoners. *Journal of Social Sciences* 2001; 5: 101-107.
7. Ohaeri JU, Adeyemi JD. The pattern of somatisation symptoms at the Ibadan teaching hospital psychiatric clinic. *West Afr J Med* 1990; 9: 26-34.
8. Garralda ME. Somatisation in children. *J Child Psychol Psychiatry* 1996; 37:13-33.
9. Taylor DC, Szatmari P, Boyle MH, Offord DR. Somatisation and the vocabulary of everyday bodily experiences and concern: a community study of adolescents. *J Am Acad Child Adolesc Psychiatry* 1996; 35: 491-499.
10. Steinhausen HC, Aster MV, Pfeiffer E, Godel D. Comparative studies of conversion disorders in childhood and adolescence. *J Child Psychol Psychiatry* 1989; 30: 615-621.
11. Walker LS, McLaughlin FJ, Greene JW. Functional illness and family functioning: a comparison of healthy and somatising adolescents. *Fam Process* 1988; 27: 317-325.
12. Larson BS. Somatic complaints and their relationship to depressive symptoms in Swedish adolescents. *J Child Psychol Psychiatry* 1991; 32: 821-832.
13. Zwaigenbaum L, Szatmari P, Boyle H, Offord DR. Highly somatising young adolescents and the risk of depression. *Paediatrics* 1999; 103: 1203-1209.
14. Campo JV, Fritsch SL. Somatisation children and adolescents. *J Am Acad Child Adolesc Psychiatry* 1994; 33: 1223-1235.
15. Terre L, Ghiselli W. Do somatic complaints mask negative affect in youth? *J Am Coll Health* 1995; 44: 91-96.
16. Mechanic D. The experience and reporting of common physical complaints. *J Health Soc Behav* 1980; 21: 146-155.
17. Servan-Schreiber D. Somatisation patients: part I. Practical diagnosis. *Am Fam Physician* 2000; 61: 1073-1078.
18. Lieberman JA. BATHE: An approach to the interview process in the primary care setting. *J Clin Psychiatry* 1997; 58 (suppl 3): 3-8.

Storm in a teacup or cause for concern - SSRIs, youth and suicidality

LYNDA A ALBERTYN, ***FCPsych (SA), MMed (Psych), BM, BA***

Principal Specialist Psychiatrist and Head, Child and Adolescent Psychiatry, Child and Family Unit, Johannesburg Hospital

In the 1990s several published articles raised concerns that the selective serotonin reuptake inhibitors (SSRIs) increased suicidality in adults.[1,2] Most subsequent studies have refuted this claim.[3-5] We are again struggling with claims that SSRI use in children and adolescents increases suicidal behaviour (ideation and attempts).

In 2004 the FDA, having analysed 24 randomised placebo-controlled, short-term trials of SSRI use involving 4 400 children and adolescents, concluded that there was a two-fold greater risk of suicidality (ideation or behaviour) in children and adolescents on antidepressants, compared with those on placebo. This led to a black box warning being placed on SSRI use in this age group.[6] In the UK, the Medicines and Health Care Regulatory Agency reviewed previously unpublished trials of SSRI use in children and adolescents and concluded that certain SSRIs were ineffective in children and increased the likelihood of suicidal behaviour. They also issued warnings about prescribing SSRIs in these age groups.[7] South Africa followed suit with the Medicines Control Council issuing a warning that none of the SSRIs are approved for use in youth under 18 years and that they cause an increased risk of suicide.[8]

Yet, there has been an overall *increase* in the number of prescriptions for SSRIs to youth in all these countries and the overall youth suicide rate has decreased over the past 14 years.[9] It is also important to note that there was not a single successful suicide in any of the studies on which the black box warning was based. In a review of the UK Research Database of more than 3 million people, there were no suicides among the 6 976 10 - 19-year-olds who were taking 1 or 2 SSRIs. However, 15 of that group, who had not been on an antidepressant, died by suicide.[5] Several large population studies of adults and adolescents have shown evidence consistent with antidepressant use *decreasing* the risk of suicidal acts and no evidence of an increased risk of suicide during the initial treatment phase.[10-12] A large national country-level suicide study of children aged 5 - 14 years (1996-1998) found that greater SSRI prescription was associated with lower suicide rates, which may reflect the efficacy of SSRIs in decreasing depression.[13] Finally, a recent large toxicology study on completed suicides found no increase in levels of SSRIs in suicides.[14]

What are prescribing doctors to make of this contradictory evidence and advice, when faced with a depressed child or adolescent patient? Various statements issued by a variety of reputable medical bodies help with decision making. The American Academy of Child and Adolescent Psychiatry Association issued a statement, which has been endorsed by over 12 US organisations composing a national coalition of concerned parents, providers and professional associations, which is in favour of the judicious use of antidepressants, along with other therapeutic measures for depressed children and adolescents.[15,16] The joint statement issued by the Royal Australian and New Zealand College of Psychiatry, the Royal Australian College of GPs and the Royal College of Australian Physicians states that it is important for children and adolescents to continue to have access to SSRIs. Not treating depression is more likely to result in harm than the appropriate

use of antidepressants.[17] The American Academy of Neurodevelopment concluded that SSRIs are efficacious, alternative treatment is not easily available, there is weak evidence of suicidality causation, suicidal behaviour was not significant in any single trial analysed by the FDA and there was no suicide in any of the trials.

Several studies have criticised the stance taken by the FDA and other regulatory medication bodies, citing the multiple problems associated with the trials on which the black box warning is based. Some trials had as few as 8 participants, the duration of the trials was short (8 weeks mostly), the patient population consisted of a mixture of in- and outpatients, the exclusion criteria in many trials were too strict (excluding the more depressed patients, who would show the greatest response to SSRIs), trials varied in methodology, only if the trials were pooled was the increase in suicidal behaviour present, the trials were not designed to address whether SSRIs increase suicidality and there were varying trial methods used.[18] Suicide and suicidality are symptoms of depressions, so it is difficult to interpret suicidal behaviour in depression studies.

Depression is a common (up to 8% of youth), chronic and serious illness and if untreated leads to a host of problems.[19] The major cause of suicide in youth is depression. Recent studies showing that cognitive behaviour therapy (CBT) in youth has no greater efficacy than placebo make recommendations to rely solely on psychotherapy problematic.[20]

Universally recommended guidelines for depressed youth are:

- treat first episodes with psychotherapy for 6 - 12 weeks
- if there is no response, or if the depression is moderate or severe, add an SSRI
- treat co-morbid conditions
- manage environmental factors
- watch for side-effects
- monitor carefully
- continue treatment for 6 - 12 months
- many patients require longer treatment.[18]

Despite contradictory findings, most clinicians would agree that SSRIs used judiciously are efficacious and safe in the treatment of the majority of depressed children and adolescents.

References

1. Teicher MM, Glod C, Cole JO. Emergence of intense suicidal preoccupation during fluoxetine treatment. *Am J Psychiatry* 1990; 47: 207-210.
2. Mansard P, Gupte S, Dewan M. Suicidal ideation related to fluoxetine treatment. *N Engl J Med* 1991; 324: 420.
3. Martinez C, Rietbrak S, Wise L, *et al*. Antidepressant treatment and the rise of fatal and non-fatal self-harm in first episode depression: posted case-control study. *BMJ* 2005; 330: 389-393.
4. Gunnell D, Ashby D. Antidepressants and suicide: what is the balance of benefit and harm? *BMJ* 2004; 329: 34-38.
5. Jick H, Kaye J, Jick SS. Antidepressants and the risk of suicidal behaviours. *JAMA* 2004; 292: 338-343.
6. Food and Drug Administration. Background information on the Suicidality Classification Project. March 22, 2004. Available at http://www.fda.gov/cder/drug/antidepressants/classificationproject.htm
7. Medicine and Healthcare Products Regulatory Agency, Committee on Safety of Medicines. *Selective Serotonin Reuptake Inhibitors (SSRIs): Overview of regulatory status and CSM advice relating to major depression disorder (MDD) in children and adolescents including a summary of available safety and efficacy data*. 2003. www.mhra.gov.uk/home/idcplg
8. National Adverse Drug Event Monitoring Centre MCC. Drug alert: Warning: SSRI in children and adolescents. *S Afr Med J* 2005; 95: 660.
9. Olfson M, Shaffer D, Maras SC, *et al*. Relationship between antidepressant medication treatment and suicide in adolescents. *Arch Gen Psych* 2003; 60: 978-982.
10. Valuck RJ, Libby AM, Sills MR, Giese AA, Allen RR. Antidepressant treatment and risk of suicide attempt by adolescents with major depressive disorder: a propensity-adjusted retrospective cohort study. *CNS Drugs* 2004; 18: 1119-1132.
11. Sondergard L, Kvist K, Anderson PK, Kessing LV. Do antidepressants prevent suicide? *Int Clin Psychopharmacol* 2006; 21: 211-218.
12. Simon GE, Savarino J, Operskalski B, Wang PS. Suicide risk during antidepressant treatment. *Am J Psychiatry* 2006; 163: 41-47.
13. Gibbons RD, Hur K, Bhawmik DK, Mann JJ. The relationship between antidepressant prescription rates and rate of early adolescent suicide. *Am J Psychiatry* 2006; 163: 1898-1904.
14. Isacsson G, Holmgren P, Ahlers J. SSRI antidepressants and the risk of suicide: a controlled forensic database study of 14, 857 suicides. *Acta Psychiatr Scand* 2005; 111: 286-290.
15. Hanson E. AACAP/APA Press conference introduces new guides for educating parents, consumers about antidepressants. *Amer Acad Child Adolesc Psych News* 2005; 36: 60-61.
16. American Psychiatric Association and American Academy of Child and Adolescent Psychiatry. The use of medication in treating children and adolescent depression. Information for parents and families available at http://www.parentsmedguide.org (accessed Feb. 2006)
17. Lyndon B, Rowel L Fraser A. Clinical guidance on the use of antidepressant medications in children and adolescents. *Aust Fam Physician* 2005; 34: 9.
18. Amy CH, Emslie GJ, Myers TL. Review of the efficacy and safety of antidepressants in youth depression. *J Child Psychol Psych* 2005; 46: 735-754.
19. Flemming JE, Offord DR, Boyle MH. Prevalence of childhood and adolescent depression in the community: Ontario Child Health Study. *Br J Psych* 1989; 155: 647-654.
20. March J, Silva S, Petrycki S, *et al*. Treatment for Adolescents with Depression Study (TADS) team. Fluoxetine, cognitive behaviour therapy and their combination for adolescents with depression: TADS randomized controlled trial. *JAMA* 2004; 292: 807-820.