Adolescents in need: recognizing the broad impact of mental health problems in adolescents

David Coghill

Published online: 29 September 2010
© Springer-Verlag 2010

Although the earliest forays into child mental health focused primarily on early development and pre-adolescence mental health, professionals have long recognized that adolescents have their own unique mental health needs with about 10% of adolescents having a diagnosable mental illness [2]. Notwithstanding the significant continuity that is apparent across development adolescents are now acknowledged as being neither “big children” nor “little adults”. Recently published studies of adolescent brain development have identified that, following the increases in grey matter during childhood, the teenage years are typified by a decline in grey matter that are associated with functional, structural increases in connectivity and integrative processing. These complex changes result in alterations in the balance between limbic/subcortical and frontal lobe functions that extend well into young adulthood [3]. Whilst warning that we must make sure that we do not prematurely over-interpret the possible functional and behavioural consequences of these anatomical findings Giedd suggests that they may throw light on the drive towards separation from family of origin, increased risk taking, and increased sensation seeking that are associated with adolescence. On a more general level, they highlight several other important issues; the potential for real and meaningful positive change that still exists in adolescence which may be able to facilitate continued growth, or remediate for past difficulties; the importance of continued support and learning during adolescence and the

potential for harm resulting from either a lack of appropriate support and opportunity or from a wide range of traumas.

From a clinical perspective, it is also clear that adolescence represents an important stage in development that is associated with unique challenges. For example, whilst the heritability of adolescent onset depression is much higher than for depression that begins in childhood [10] and similar to that associated with depression that begins in adulthood, the response to antidepressant medications in adolescents is considerably different to that in adults [5]. Another important and frequently cited example concerns the development of conduct disorder whereby an early onset is associated with a much higher risk of developing an antisocial personality disorder than does an adolescent onset conduct disorder which is often self-limiting [8]. Notwithstanding these frequently quoted examples there is still much to be learned about the mental health of adolescents and the continuities and discontinuities from childhood through adolescence into adulthood.

Compared to either early childhood or adulthood, mental health in adolescence has not been particularly well studied. Whilst we are starting to see psychopharmacological studies in adolescence [1] some readers may be surprised to know that many of the more recently licensed modified release stimulant preparations used in the treatment of ADHD that have been trialled in children and adults are only now being formally trialled in adolescents and few studies have investigated the impact of autism during the teenage years. On the positive side many of the large prospective birth cohort studies have now reported data on adolescent outcomes [11] and specific studies looking at the developmental correlates of adolescence mental health problems have been completed [7].

D. Coghill (✉)
Clinical and Behavioural Neurosciences,
Centre for Neuroscience, Division of Medical Sciences,
College of Medicine, Dentistry and Nursing,
Ninewells Hospital and Medical School, Dundee, UK
e-mail: d.r.coghill@dundee.ac.uk

All five papers in this issue have investigated some aspect of adolescence. Three of these report on findings from large Scandinavian population cohort studies. Two investigate the impact of aggression and violence on adolescent well being. Undheim and Sund [12] examine the relationships between being bullied, aggressive behaviours, and self-reported mental health problems in a large sample of Norwegian adolescents. Both the aggressive and the bullied young people reported more psychopathology and lower self worth than students not involved in bullying. Even though those who were bullied had lower social acceptance scores and more social problems than the aggressors the authors properly suggest that interventions designed to improve social competence and interactions skills should be used in anti-bullying programs. Peltonen et al. [9] investigate the impact of parental violence on adolescent mental health. Using data from two large scale community samples in Finland and Denmark they found high rates of parental violence towards adolescents (40%) and demonstrated a clear dose–response relationship between parental violence and the adolescent's mental health problems and poor prosocial behaviours. It will be very interesting to see whether recent changes in the laws designed to prevent parental physical violence result in improved mental health.

The last of the large cohort studies in this issue addresses the relationship between difficulties in preadolescence and admission to a psychiatric hospital in adolescence and early adulthood. Utilizing longitudinal data from the Finnish Birth cohort study Gyllenberg et al. [4] found that, for both boys and girls, the strongest early predictors of later admission to a psychiatric hospital for treatment in adolescence was the combination of parent-reported conduct and emotional problems at age 8 years. Clearly this combination of difficulties needs to be taken seriously and suggests that we should consider whether there are early interventions that could reduce later difficulties and avoid admission to hospital. Whilst in Finland, psychiatric hospitalization is uncommon and is reserved for those with the most serious problems the situation in Germany is rather different with many more children and young people with less severe psychopathology being admitted to hospital for psychiatric assessment and treatment. Walter et al. [13] describe the effects of inpatient cognitive behavioural treatment of adolescents with anxiety–depression-related school absenteeism. The intervention had clear short-term benefits with almost 90% of the sample achieving continuous school attendance by the time of discharge and continued attendance after 2 months in over 80%. Whilst it will be important to hear whether these improvements are maintained in the long term they are very impressive and certainly provide food for thought as they seem much more hopeful than my own experience

trying to re-establish regular school attendance via outpatient treatments.

Finally in a very interesting study Ivarsson et al. [6] investigate the relationship between attachment status and obsessive–compulsive disorder (OCD), depressive disorder, and the combination of the two. Whilst around half of the control sample had secure states of mind most of those in the clinical groups did not. Different patterns of insecurity were associated with the different disorders with OCD predominantly showing dismissing traits and depression attachment states of mind commonly associated with severe adverse events. Whilst it is not yet clear whether these attachment difficulties are causal in the pathway to OCD such possibilities should now be assessed in longitudinal studies.

References

1. Arango C, Robles O, Parellada M, Fraguas D, Ruiz-Sancho A, Medina O, Zabala A, Bombin I, Moreno D (2009) Olanzapine compared to quetiapine in adolescents with a first psychotic episode. *Eur Child Adolesc Psychiatry* 18:418–428
2. Frigerio A, Rucci P, Goodman R, Ammaniti M, Carlet O, Cavolina P, De Girolamo G, Lenti C, Lucarelli L, Mani E, Martinuzzi A, Micali N, Milone A, Morosini P, Muratori F, Nardocci F, Pastore V, Polidori G, Tullini A, Vanzin L, Villa L, Walder M, Zuddas A, Molteni M (2009) Prevalence and correlates of mental disorders among adolescents in Italy: the PrISMA study. *Eur Child Adolesc Psychiatry* 18:217–226
3. Giedd JN (2008) The teen brain: insights from neuroimaging. *J Adolesc Health* 42:335–343
4. Gyllenberg D, Sourander A, Niemelä S, Helenius H, Sillanmäki L, Piha J, Kumpulainen K, Tamminen T, Moilanen I, Almqvist F (2010) Childhood predictors of later psychiatric hospital treatment: findings from the Finnish 1981 birth cohort study. *Eur Child Adolesc Psychiatry*. doi:10.1007/s00787-010-0129-1 (this issue)
5. Hazell P (2009) Depression in children and adolescents. *Clin Evid* (online)
6. Ivarsson T, Granqvist P, Gillberg C, Broberg AG (2010) Attachment states of mind in adolescents with obsessive–compulsive disorder and/or depressive disorders: a controlled study. *Eur Child Adolesc Psychiatry*. doi:10.1007/s00787-010-0120-x (this issue)
7. Marsman R, Rosmalen JG, Oldehinkel AJ, Ormel J, Buitelaar JK (2009) Does HPA-axis activity mediate the relationship between obstetric complications and externalizing behavior problems? The TRAILS study. *Eur Child Adolesc Psychiatry* 18:565–573
8. Moffitt TE, Caspi A, Dickson N, Silva P, Stanton W (1996) Childhood versus adolescent onset antisocial conduct problems in males: a natural history from ages 3–18 years. *Dev Psychopathol* 9:399–424
9. Peltonen K, Ellonen N, Larsen HB, Helweg-Larsen K (2010) Parental violence and adolescent mental health. *Eur Child Adolesc Psychiatry*. doi:10.1007/s00787-010-0130-8 (this issue)
10. Thapar A, McGuffin P (1994) A twin study of depressive symptoms in childhood. *Br J Psychiatry* 165:259–265
11. Thompson L, Kemp J, Wilson P, Pritchett R, Minnis H, Toms-Whittle L, Puckering C, Law J, Gillberg C (2010) What have

- birth cohort studies asked about genetic, pre- and perinatal exposures and child and adolescent onset mental health outcomes? A systematic review. *Eur Child Adolesc Psychiatry* 19:1–15
12. Undheim AM, Sund AM (2010) Prevalence of bullying and aggressive behavior and their relationship to mental health problems among 12- to 15-year-old Norwegian adolescents. *Eur Child Adolesc Psychiatry*. doi:[10.1007/s00787-010-0131-7](https://doi.org/10.1007/s00787-010-0131-7) (this issue)
13. Walter D, Hautmann C, Rizk S, Petermann M, Minkus J, Sinzig J, Lehmkuhl G, Doepfner M (2010) Short term effects of inpatient cognitive behavioral treatment of adolescents with anxious-depressed school absenteeism: an observational study. *Eur Child Adolesc Psychiatry*. doi:[10.1007/s00787-010-0133-5](https://doi.org/10.1007/s00787-010-0133-5) (this issue)