- 3 Rogers J, Agius M, Zaman R. Diagnosis of mental illness in primary and secondary care with a focus on bipolar disorder. *Psychiatr Danub* 2012; 24 (suppl 1): 86–90.
- 4 Agius M, Murphy H. Proving that a patient has bipolar disorder. *Cut Edge Psychiatry Pract* 2013; 1: 174–80.
- 5 Bongards EN, Zaman R, Agius M. Can we prevent under-diagnosis and misdiagnosis of bipolar affective disorder? Repeat audits to assess the epidemiological change in the caseload of a community mental health team when bipolar disorder is accurately assessed and diagnosed. *Psychiatr Danub* 2013; 25 (suppl 2): 129–34.

Mark Agius, Clare College, Cambridge, UK. Email: ma393@cam.ac.uk; Jonathan Rogers, Caius-Gonville College, Cambridge, UK; Eva Bongards, Christ's College, Cambridge, UK; Stuart O'Connor, University of Warwick, UK; Norma Verdolini, University of Perugia, Italy; Sandro Elisei, University of Perugia, Italy

doi: 10.1192/bjp.204.6.493a

**Author's reply:** In the article<sup>1</sup> we presented data describing the clinical stages in developing bipolar disorder based on longitudinal repeated assessment of the offspring of well-characterised parents with bipolar disorder. The findings emphasise the importance of including family history and clinical course in the diagnostic formulation to improve early identification, given that early risk syndromes are non-specific and include anxiety and depressive syndromes. We also showed that offspring of lithium-responsive parents develop classic episodic mood disorders, whereas offspring of parents with a lithium non-responsive illness follow a trajectory that overlaps with psychotic disorders – both in early and end-stage disorders. We did not suggest that 'a history of lithium use in relatives changes the trajectory', rather we used an operationalised published protocol to identify a more homogeneous subtype of bipolar disorder based on the excellent

response to long-term lithium in the affected parent.<sup>2</sup> Second, the staging model proposed by McGorry and colleagues<sup>3</sup> was originally based on clinical observations in help-seeking youth (clinically high risk) and only later validated by conversion rates to psychosis and more recently neurobiological findings. Our cohort is a genetically high-risk cohort and we are intensively investigating markers of illness predisposition and progression through the clinical staging model.<sup>4</sup> In regard specifically to neuroanatomical markers, in collaboration we have reported that enlarged right inferior frontal gyrus volumes may be a marker of bipolar disorder predisposition in high-risk offspring.<sup>5</sup>

- 1 Duffy A, Horrocks J, Doucette S, Keown-Stoneman C, McCloskey S, Grof P. The developmental trajectory of bipolar disorder. Br J Psychiatry 2014; 204: 122–8.
- 2 Grof P, Duffy A, Alda M, Hajek T. Lithium response across generations. *Acta Psychiatr Scand* 2009; **120**: 378–85.
- 3 McGorry PD, Nelson B, Goldstone S, Yung AR. Clinical staging: a heuristic and practical strategy for new research and better health and social outcomes for psychotic and related mood disorders. Can J Psychiatry 2010; 55: 486–97.
- 4 Duffy A, Horrocks J, Doucette S, Keown-Stoneman C, Grof P, Andreazza A, et al. Immunological and neurotrophic markers of risk status and illness development in high-risk youth: understanding the neurobiological underpinnings of bipolar disorder. *Int J Bipolar Disord* 2014; 2: 4.
- 5 Hajek T, Cullis J, Novak T, Kopecek M, Blagdon R, Propper L, et al. Brain structural signature of familial predisposition for bipolar disorder: replicable evidence for involvement of the right inferior frontal gyrus. *Biol Psychiatry* 2013; 73: 144–52.

Anne Duffy, Mathison Centre for Mental Health Research, 4th Floor TRW Building, Room 4D68, Calgary, Alberta T2N 4Z6, Canada. Email: acduffy@ucalgary.ca

doi: 10.1192/bjp.204.6.494

## Correction

Stimulant treatment for attention-deficit hyperactivity disorder and risk of developing substance use disorder. *BJP*, 203, 112–119. In Table 1 (p. 115): of those with ADHD in the no-stimulant treatment group, the percentage of males is 59%.

doi: 10.1192/bjp.204.6.494a



## Trauma and memory

Jonathan I. Bisson

Anyone can experience a major traumatic event; some are more likely to than others but most of us will suffer trauma at some time in our lives. Most traumatic experiences are processed through a normal response, with or without distress but without the development of mental disorder. Traumatic memories characteristic of post-traumatic stress disorder are unbidden, intrusive, vivid, distressing and accompanied by avoidance of them and their triggers. They are often amenable to treatment; trauma-focused psychological therapies are the treatments of choice. Some medications and non-trauma-focused psychological therapies can reduce the intensity of traumatic memories and their impact on functioning.

The British Journal of Psychiatry (2014) 204, 494. doi: 10.1192/bjp.bp.112.108571