Does mania exist in children and what are its duration and prognostic factors?

**METHODS**

**Design:** Four-year prospective study.

**Setting:** St Louis, USA; September 1995 to December 1998.

**Population:** 86 children aged 7–16 years (mean age at baseline 10.8 years) with prepubertal and early adolescent bipolar disorder (PEA-BP). PEA-BP was defined as DSM-IV bipolar I disorder (manic or mixed) with elation or grandiosity or both, and assessed using the Washington University in St Louis Kiddie Schedule for Affective Disorders and Schizophrenia (WASH-U-KSADS), and the Children's Global Assessment Scale (CGAS). Exclusion criteria were a baseline episode of less than 2 weeks' duration, adopted children, an IQ of <70, developmental or other neurological disorders, pregnancy, or mania induced by prescription drugs.

**Prognostic factors:** The average length of manic episode was determined and correlated to age, sex, stage of puberty, CGAS score, psychosis, mania plus major depressive disorder (mixed status), cycling rate, and maternal warmth (assessed using the Psychosocial Schedule for School Age Children-Revised).

**Outcomes:** Episode and illness length, and rates of recovery (eight consecutive weeks not meeting DSM-IV manic criteria) and relapse (two consecutive weeks meeting DSM-IV manic criteria and CGAS score <60). Parents and children were interviewed separately and by different investigators.

**Follow up period:** 48 months (208 weeks).

**MAIN RESULTS**

Mean age of onset of mania was 6.9 years. Episodes of mania lasted for a mean of 79.2 weeks from baseline. During follow up, participants received at least one bipolar diagnosis in 67.1% of weeks (mania in 38.7%, hypomania in 18.3%, and depression in 47.1% of weeks). Polarity switches occurred 1.1 times per year on average. Mean time to recovery was 60.2 weeks, and estimated rate of recovery was 87.2% (95% CI 80.2% to 94.3%). Mean time to relapse was 40.4 weeks, and estimated relapse rate was 70.2% (95% CI 57.4% to 83.0%). Low maternal warmth was associated with increased risk of relapse (relapse rates 50.3% with high maternal warmth, HR 3.7, 95% CI 1.8 to 7.4). The presence of psychosis at baseline was associated with increased duration of manic episode (p = 0.028). No other factors tested predicted outcome.

**CONCLUSIONS**

This prospective study demonstrated the existence of chronic, long episode mania in children with prepubertal and early adolescent bipolar disorder. The presence of psychosis predicted increased duration of manic episode, and low maternal warmth predicted relapse.

**NOTES**

Out of 93 participants, 86 completed follow up (92.5%).

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**Commentary**

Research on childhood onset bipolar disorder remains contentious because of substantial controversy over the differentiation of mania from attention deficit/hyperactivity disorder (ADHD). During the past 10 years the debate regarding childhood onset bipolar disorder focused more and more on the features and instruments key to the diagnosis of mania in children. Still, many European child and adolescents psychiatrists are questioning whether these severely impaired children have bipolar disorder (BP) or a variant of ADHD. Longitudinal follow up studies will help to clarify differentiating features of these initially overlapping clinical syndromes.

With this study Dr Geller and colleagues provide pioneering research on prepubertal and early adolescent BP (PEA-BP). Geller et al define the PEA-BP phenotype by elated mood and/or grandiosity as one inclusion criterion. This is the first prospective four year follow up study of a sample with this PEA-BP phenotype. Geller et al conclude that their findings validate the existence, long episode duration, and chronicity of child mania. Interestingly, 86% of the participants showed comorbid ADHD and it remains unclear whether community physician administered treatment with stimulants or anti-depressants might have affected the occurrence of mania. The authors indicate future publications will report on the predictive value of various treatments.

The PEA-BP children described by Geller et al have clinical characteristics of the most severely ill adults with BP. However, a relatively small percentage of adult bipolar patients develop in due time this severe chronic form of mixed bipolar disorder with poor response to treatment. The authors raise the possibility that child and adult BP are discontinuous, but note this is unlikely because of high familial aggregation. For childhood onset disorders, an additional rationale for longitudinal naturalistic investigation is to establish continuities and discontinuities among syndromes with onset in childhood and those with onset in adulthood. Therefore further follow up of this PEA-BP sample and other samples is necessary to understand the development of this syndrome into adolescence and adulthood and to help identify subtypes of BP or ADHD.

For clinicians it remains challenging to diagnose and treat these children with a variety of severe psychopathological syndromes. This study contributes to the understanding of the phenotype which is essential to develop prevention and intervention strategies.

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