Reviewer's report

Title: Factors associated with early menarche: results from the French Health Behaviour in School-aged Children (HBSC) study

Version: 1 Date: 16 January 2010

Reviewer: Anthony Jorm

Reviewer's report:

- Major Compulsory Revisions

1. Previous studies on this topic have found that the family environment is associated with early menarche. The present study treats family environment variables as covariates (Table 2). However, the authors do not report whether these family environment variables are associated with early menarche in the multivariate model. These findings need to be reported.

2. There is literature associating early menarche with depression. The “recurrent health complaints” variable contains some psychological symptoms and some physical. Given the overall association is significant, the authors should do a post-hoc analysis to check whether the association applies to all complaints or only the more psychological ones.

3. The authors choose a cutpoint of 11 years for defining early menarche. This raises the issue of what is the most appropriate threshold in screening for a high-risk group. I suggest that they consider exploring various cutpoints (perhaps using an ROC analysis) to confirm what is most appropriate.

4. The Discussion speculates that girls with early menarche look older and associate with older adolescents, leading to increased deviance and substance use. However, there are no data presented to support this. Unless there is some evidence showing that this is the mediating mechanism, this interpretation needs to be more tentative. The findings on lower peer acceptance might be interpreted to mean that these girls are more socially isolated rather than affiliating with older girls.

- Minor Essential Revisions

The meaning of “declarative statements” on p. 4 and p.9 is unclear.

- Discretionary Revisions

None

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being
published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'