Reviewer's report

Title: Association of sexual maturation with excess body weight and height in children and adolescents

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Reviewer: Anna L Newton

Reviewer's report:

This is an interesting cross-sectional investigation into the associations of sexual maturation and body weight and height. This manuscript does provide some insight into field of pediatric growth and development; however, there were some concerns regarding the manuscript which are listed below.

Introduction
1) Puberty is a critical period for the development of body weight, in which EXCESS body weight may occur. Please clarify.
2) There needs to be some reference or clarification between body weight and body fat. Body fat, particularly in females, is related to earlier onset of puberty; however, it seems body weight and body fat are being used interchangeably? If the authors are primarily referring to body weight then I think they should include body fat in their analysis/discussion.

Methods
1) What is the relevance of the last sentence in the first paragraph of the methods?
2) What is the reliability of self-report for Tanner staging? Should address this.
3) BMI is a measure of weight status, not nutrition status
4) Define quantitative and qualitative variables when discussing statistical analysis

Results
1) Is excess weight prevalence based off BMI? If so, use that terminology instead of ‘excess weight prevalence’ to describe the population.
2) Include height, weight and BMI in table 1

Discussion
1) State strengths and limitation at the end of the discussion
2) Please shorten and make the discussion specifically paragraphs 2-4 more concise.

Reference
1) Consistency throughout regarding language used to cite

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

No conflict of interest