Reviewer's report

Title: Associations of Body Mass Index, Weight-related Concerns and Behaviors With Eating Disorders Among Non-clinical Chinese Adolescents

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Reviewer: Bin Xie

Reviewer's report:

This study addresses an important public health problem of body weight, weight concerns and behaviors with eating disorders in an understudied population. There is very little in the literature pertaining to Chinese adolescents in this area. This study filled the gap in the literature. Findings of this manuscript will enhance our understanding of associations among body weight, weight concerns and behaviors with eating disorders. The authors did a brief review on weight concerns and behaviors with eating disorders. It would be better for the authors to give a discussion on the theoretic background/mechanisms of analysis aims for this study, especially the possible theoretical rationale for the mediating role of weight control concerns. As the cluster-sampling strategy was adopted in recruitment and each whole class of students was recruited from each school, potential interdependence of outcome responses (i.e. weight control concerns and behaviors on eating disorder) may not be completely removed. An estimate of intra-class correlation (ICC) may be a good indicator for the existence and extent of this potential interdependence. If needed, multi-level analysis strategy should be considered. The mediation analysis was carried out based on steps proposed by Baron and Kenny. It would very useful to estimate the specific effect of mediation and its standard error for a hypothesis testing according to the statistical formula outlined by Baron and Kenny, which can determine the statistical significance of the mediation effect. There are multiple variables of weight concerns. It is not sure the authors treated them separately or jointly when they ran multiple logistic regressions for mediation. It may be needed to consider testing multiple mediators. In addition, what are the correlations among these weight concern variables and those multiple variables of eating disorder behaviors? Would multicollinearity be an issue when these variables were included in the regression model simultaneously? Why 15th percentile rather than 5th percentile of BMI was used as the cutoff for underweight? This definition may overestimate the prevalence of underweight. Finally, the authors need to mention IRB approval and informed consent process in the manuscript.

Level of interest: An article of importance in its field

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

Statistical review: Yes, and I have assessed the statistics in my report.