Reviewer’s report

Title: Exposure to Phthalates among Premenstrual Girls from Rural and Urban Gharbiah, Egypt

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Reviewer: Wolff S Mary

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This paper shows interesting exposures to phthalates in a developing country. The exposures and sources are a contribution, but the small dataset seems overanalyzed. Not clear that there is power to undertake principal components, and the data would be more easily understood if simple bivariate comparisons were provided in tabular fashion, with appropriate statistics. In Table 1, there is no reason to include anthropometry as it is not involved in the study; rather include more SES variables and perhaps data about the exposure sources, such as plastics, personal products, and construction materials. Were any of these sources correlated with SES other than urban/rural? In the figures, it would be more informative to delete the PCs and plot the food sources vs urban/rural.

Other Comments:

“toxic” on page 3 seems misused. Effects” on the last line 82 of page 3 should be changed to associations; and “carcinogenic” is a stretch. On page 7, were the collection materials phthalate-free? Provide a reference for lines 168-170. p 9, li 199-200, provide references; however, it is strongly suggested not to include PCs in an underpowered study. Li 215 “95th ..”, clarify. P 10, li 221, clarify. P 12, a recent study reported levels in Peru, which might be included. Add specific gravity to Tables 2 and 3. Consider deleting tables 4-5 and the figures, and including bivariate comparisons of foods/urbanity/SES/other sources and phthalates that are of interest.

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