Reviewer's report

Title: Health, poverty and cognitive function in pre-school children: a cohort study in a middle income urban context

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Reviewer: Richard Guerrant

Reviewer's report:

General
This manuscript entitled "Health, poverty and cognitive function in pre-school children: a cohort study in a middle income urban context" by DN Santos et al describes the association of impaired cognitive performance (by Wechsler Pre-School and Primary Scale of Intelligence scores) at 5yo with poor SE conditions, poor maternal education, paternal absence, poor sanitary conditions in the homes and low birth weights; and better scores with domestic stimulation (by HOME, home observation for measurement of the environment inventory) and preschool attendance. Lack of correlation with diarrhea may relate to only 15% having 6d of diarrhea or more; despite early weaning.

This report is of interest; however, several questions and comments include:

1. What were the rates of diarrhea episodes, and were these correlated (only days of diarrhea are mentioned)?

2. Was the HAZ of the children at 2 years old separately assessed for correlations with cognitive performance? This may be an excellent 'surrogate' measure of sanitation, enteric infections or malnutrition after birth, especially if analyzed independently of birthweights/lengths.

3. A few typos need clarification; such as "Careers" on page 6 (do they mean Caregivers?).

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
4. The authors should look for interaction effects -- especially how their model applies within the lowest income group.

5. The authors need to show how the factors may be weighted differently as influences to negative outcomes. Within the factors that adversely effect outcome is there a difference or do the contribute differently?

Discretionary Revisions (which the author can choose to ignore)


What next?: Accept after minor essential revisions

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:

i have no competing interests