

# Review of: "Evaluating the Impact of Nutritional and Socioeconomic Factors on Cognitive and Academic Performance in age 6-13 years"

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Potential competing interests: No potential competing interests to declare.

## Evaluating the Impact of Nutritional and Socioeconomic Factors on Cognitive and Academic Performance in Children Aged 6-13 Years

This article contributes to knowledge of the link between nutrition and academic performance. However, the manuscript requires extensive re-writing for sentence structure. Also, there is a need to revise some portions of the methods. Detailed comments below

### Abstract

1. Please define ASER at first mention
2. "Over half of the children did not meet their daily requirements for cereals, fruits, and meat". This sentence is quite ambiguous; it will be helpful to write this with some clarity. For instance, over half of the children ate fruits less than twice weekly
3. Healthy children generally performed better academically, with 93% of them achieving A grades. This also needs clarity in writing.
4. Overall, what was the association between nutritional status indices and cognition/academic performance? I suggest that you clearly present this

### Introduction

1. The first paragraph needs re-writing for clarity. Also, check the prevalence estimates. These estimates should be taken from WHO, UNICEF, and manuscripts looking at global trends
2. Effected should be affected in the sentence "Cognitive and academic performance is effected in both under-nutrition and over-nutrition"
3. This sentence "Intelligence level of children can't be affected due to nutritional as well as socioeconomic status because hereditary is mainly responsible for intelligence." Contradicts the whole paper, and there is no need for this paper
4. This whole paragraph is poorly written " A healthy nutrition for a child is defined as the adequate intake of all the nutrients including macro- as well as micronutrients. However, high energy foods intake declines micronutrient

consumption in the diet. In other words, low-nutritious and caloric-dense foods are used to consumed by children nowadays while high-fiber and nutrient-dense foods such as fruits and vegetables are not preferred, which gives an unbalanced space to the child's plate [11]."

5. Effected is used in place of affected in the introduction

## Methods

1. The methods suggest that cognition was never assessed but rather academic performance. The title and abstract are, therefore, misleading and should be edited accordingly.
2. I suggest you list the six food groups in the FFQ and also indicate what data were collected with the FFQ, e.g., did the FFQ collect only frequency of intake and what reference period? Did the FFQ include a portion size estimate, and how did you handle this?
3. The statistical analysis requires a bit more elaboration, especially on how the association between nutritional status and academic performance was analysed.

## Results

1. Height should be presented in the internationally standardised unit, centimetres.
2. It is not ideal to start a sentence with a number, e.g., "11% had <5th percentile and the remaining 14% had >85th percentile."
3. It is not ideal to use abbreviations such as 'didn't' and "can't" in scientific writing. I suggest writing this in full.
4. Somewhere in the results, I see that odds ratios for the ordered logit analysis were used in the data analysis but not mentioned anywhere in the statistical analysis. I suggest reorganizing the flow of the paper.
5. Abler.