CORRESPONDENCE

Effect of Supplementation with Iron Fortified Biscuits on the Hemoglobin Status of Children in Rural Areas of Shimoga, Karnataka: Correspondence

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To the Editor: We read with great interest, the article entitled 'Effect of supplementation with iron fortified biscuits on the hemoglobin status of children in rural areas of Shimoga, Karnataka' [1]. There are few following methodological issues which need to be clarified by the authors of this publication so that the readers of the IJP are benefitted.

The authors have taken hemoglobin cut-offs of 11.5 g/dl for all children in the age group of 6–12 y. According to WHO, the hemoglobin cut-offs to be utilized for classification of anemia is 11.5 g/dl for children in the age group of 5–11 y and 12.0 g/dl for children 11– < 14 y. The anemia classification utilized in the study is not valid [2].

The Recommended Dietary Allowances (RDA) of iron for children as per Indian Council of Medical Research, 2010, for the age group of 7–9 y is 16 mg/d. Similarly, the RDA for children in the age group of 10–12 y for boys and girls is 21 mg/d and 27 mg/d, respectively [3]. According to the study, children in Group 1 were given 30 mg of iron (30 mg/6 biscuits). The supplemental dose was more than 200 % of the RDA for children in 7–9 y. Hence, in this study, a high dose of supplementation of iron was administered. The food fortification strategies recommend only 30 % of the RDA for a nutrient to be added under the fortification program with micronutrients.

It is not clear from the research methodology, whether it was supervised administration consumption of biscuits by students, especially on holidays.

The mean weight gain in the Group I with high doses of iron fortified biscuits was 1.7 kg in 120 d. It is an interesting finding as this was achieved without significant increase in nutrients like calories, protein and fats.

The increase in hemoglobin amongst children with 7, 8, 9, 10 and 11 g of Hb/dl at the baseline survey may be shared. This could actually reveal the benefits to the children with moderate and mild levels of anemia.

This intervention study does not document the impact of fortification of biscuits with iron, as more than 200 % of RDA of iron was administered to the children in 7–9 y of age.

Compliance with Ethical Standards

Conflict of Interest None.

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