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Letter to Editor

Paediatrics Section

Correspondence: Age, Sex and Seasonal Variations of Vitamin D Level in Children of Jammu Region

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Dear Editor,

We read with interest the article on the prevalence of vitamin D deficiency in Jammu region [1]. This study reinforces the fact that vitamin D deficiency is prevalent across the country. However, there are certain points we would like to highlight which might bring more clarity to this issue.

1. Recently published review of International guidelines on vitamin D deficiency, as well as, Indian Academy of Paediatrics (IAP) recommends a cut-off of 20 ng/mL as sufficient and <12 ng/mL as deficient [2,3]. Defining a standard cut-off is very necessary as it greatly affects the prevalence rate of insufficiency/deficiency and hence treatment rate. The cut-offs used in this study are based on the old recommendation and that too has been modified. Authors defined "25-(OH)-D level <5 ng/mL as severe vitamin D deficiency, 5-10 as moderate hypovitaminosis and 10-20 ng/mL as mild hypovitaminosis". What was the rationale for choosing these cutoffs? More importantly, throughout the manuscript, varying cutoffs are used. It would have been better if uniform cut-off concordant with recent standard recommendations followed. To ensure uniformity, the prevalence of vitamin D deficiency using 12 mg/mL as the cut-off should have been calculated.
2. Authors did not mention anything about the sample size calculation.
3. Authors mention that "American Academy of Paediatrics (AAP) recommends that children less than six-month-old should be kept out in direct sunlight" which is incorrect and contradict the original recommendations of avoiding the direct sunlight exposure in infancy [4].
4. IAP recommends routine supplementation of vitamin D and calcium for every child. So, here, it will be prudent to know, that how many children were on vitamin D supplementation and whether they were having sufficient vitamin D levels? It will help in understanding the actual coverage of the recommendation and hence in formulating better policy for its implementation.
5. Authors compared the absolute values of the vitamin D levels in summer and winter, which is inappropriate. If we compare the absolute values of numerical variables by statistical methods then even a difference of 0.5 or less (which is clinically irrelevant) will be statistically significant. So, best meaningful strategy to compare among two seasons would have been to compare the prevalence of deficiency/insufficiency, not the absolute concentration.

Vitamin D deficiency is an important public health problem. Based on evidence and previous experiences, we know that food fortification is the most convenient and cheapest method to combat this issue. There is an urgent need to consider food fortification while keeping the diverse dietary, social, economic, cultural and religious practices in mind in India. So, health-care professionals, academic bodies like IAP, Indian Medical Association (IMA), bureaucrat as well as political leaders must acknowledge this need and should formulate policies for the fortification of vitamin D.

Also, it is high-time for the researchers to agree on a single well defined scientific cut-off.

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AUTHOR'S REPLY

The explanations are provided hereby:

1. The AAP criterion was followed [Table/Fig-1] [1].
2. Random sampling was done.
3. We regret for this error.
4. We had taken the children coming for the first time to the OPD. So, supplementation was given but follow-up was not done.

Serum 25(OH)D concentration (ng/mL)		
Deficiency	Insufficiency	Normal
<15 ng/mL Number of children (Percentage of children)	16-20 ng/mL Number of children (Percentage of children)	≥20 ng/mL Number of children (Percentage of children)
76 (50.67%)	63 (42%)	11 (7.33%)

[Table/Fig-1]: Distribution of children according to serum 25(OH)D concentration.

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