

## Methodological issues in article titled “Association of pediatric obstructive sleep with poor academic performance”

Sir,

We read with great interest the recent article by Goyal *et al.*<sup>[1]</sup> Authors have done a commendable job by studying the highly prevalent but neglected problem of pediatric obstructive sleep apnea (OSA) and its impact on academic performance in school-going children. However, there are certain issues in the methodology and analysis which severely undermine the validity of the study which needs mention.

First, the authors mentioned that children were recruited from three purposively selected schools whereas the sample size estimation for the study was done on the basis of simple random sample (SRS) which was later adjusted for clustering effect. Author did not establish the link between SRS and purposive sample. As authors were estimating the prevalence of OSA in the children in the age group of 5–10 years, the result from participants selected through purposive sampling technique may not be generalizable because purposive sampling has its own inherent bias.<sup>[2]</sup>

Second, only class teachers were explained about the study objectives and procedure and the children were instructed to get the questionnaire filled by their parents, but no formal briefing of the parents about the study was made by the study investigators. This might have led to information bias.<sup>[3]</sup>

Third, no mention was made about training and evaluation of teachers for performing anthropometric measurements. Concern also arises more as author mentions that there were a lot of missing data on heights which restricted calculation for body mass index for many participants. Interindividual variation might have played a major role in the study findings in the absence of proper training and nonuniform scale used.<sup>[4]</sup> The information about inter- and intra-observer variability certainly could have given more credibility to the study findings.

Cronbach's alpha value of 0.70 is considered acceptable in most of the scientific research situations, but higher values are preferable.<sup>[5]</sup> Authors have also used interchangeably multivariable and multivariate terms, which are inherently different.<sup>[6]</sup> Author's claim of representativeness of community from only three schools is also questionable. These are some pertinent issues which need to be considered and addressed to maintain high quality in scientific publication.

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### Conflicts of interest

There are no conflicts of interest.

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