Reviewer's report

Title: The influence of parental smoking and family type on saliva cotinine in UK ethnic minority children: a cross sectional study.

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Reviewer: Marcela Fu

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Whitrow and colleagues reports an interesting study about SHS exposure in children at home, as measured by questionnaire and salivary cotinine from children. It is an important public health topic in the context of the UK and might be of international interest. The study focuses in ethnic differences that, as the authors hypothesized, may affect SHS exposure. The report is well-written, the methods and results are clearly described, and the discussion is adequate to the objectives and results.

Major compulsory revisions

1. Methods. The period of the study is not mentioned. Are these data from after or before the English ban defining workplaces and enclosed public places in England as smoke-free environments?

2. It is not clear if the authors considered in the analysis the possible contribution of any other smoker kin to SHS exposure apart from parents (brothers, aunts,...). As the authors stated at the beginning of the Background, parental tobacco smoking is the main source of passive smoking in children. However, considering the authors also assess crowded household, and asked about number of persons living at home and number of smokers at home, it could be of interest if some of them smoked when parents did not. Although the authors asked if any of the people children lived with smoked tobacco, they classified SHS exposure by the person who smoked as: mother, father, or both. What about other relatives? How or in which category they were classified? (especially if parents did not smoke).

3. The authors could mention the prevalence of smoke-free homes in the UK according to ethnic groups from the EHS; it could be of interest to compare these prevalences with those derived from their study.

Minor essential revisions

4. I suggest the use of the expression “Second-hand smoke exposure” better than “ETS exposure” through the manuscript.

5. Abstract, Background section: Please put in context the statement about the increase in cigarette smoking among ethnic minorities: In the last 30, 40 years? Put also the objective of the study.
6. Abstract, Methods section: It does not mention the use of a questionnaire, or the analysis performed.

7. Abstract, Results section: please put 95%CI where appropriate [40% (95%CI 1, 94%)].

8. Methods. Please give a minimum description of the questionnaire.

9. Methods. Which was the original sample size of white UK children, and which was the criterion to define the subsample (n=515)?

10. Methods. While parental smoking is the main source of SHS exposure in children, the study sample is composed by children who were almost adolescents (11-13 years old), who could have been exposed in other environments.

11. Results, p8, 2nd line: where it says “mean cotinine concentrations by household…” it must say “geometric mean cotinine concentrations by household…”.

12. Results, 1st paragraph, 5th sentence: According to Table 1, besides Black African origin children, Black Caribbean origin children were also more likely to be living in a lone parent household than White UK. Moreover, in the Discussion section (1st paragraph, 4th sentence) it says “Black African origin and White children in lone parent households had higher cotinine levels than those in dual parent households”, but it is also the case of Black Caribbean and Pakistani origin children. And again, in the 3rd paragraph of the Discussion, Black Caribbean origin children had also significant lower cotinine than White UK children after adjustment for household smoking. Why are some results more emphasized than others?

13. Discussion, p11, 1st paragraph: Please specify the meaning of HSE.

14. Table 1. Please add “(95%CI)” in Cotinine columns.

15. Table 3. There are two different signs for asterisk. Please correct them.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.