Reviewer’s report

Title: Arabian incense burning: a common trigger for asthma symptoms in Omani children

Version: 2 Date: 24 September 2008

Reviewer: David S. Chi

Reviewer’s report:

This is a community based study of a public health issue investigating the relationship of Arabian incense burning (bakhour) and the prevalence of asthma in Omani children. The study was a continuation of a previous work of the International Study of Asthma and Allergies in Children (ISAAC) and offered some interest data. Generally, the report is straight forward and concise, but a couple of tables should be better edited.

Discretionary Revisions:
None.

Minor Essential Revisions:
1. English writing needs to be checked extensively.
2. In the Discussion section, when data were mentioned/discussed, it will be clearer and easier for reader if the Table number from which the data was shown was cited in the text.
3. Page 4, line 13, in “have,” “,” should be deleted.
4. Page 9, line 7, the number in “(39.7 versus…)” needs to match that in Table 2, which listed as 39.1.
5. Page 11, line 12, the sentence, “The few previous studies on the same were case control and based on a dichotomous variable of the exposure (users and non-users)” is not clear and needs to be re-written.
6. Page 13, line 2, in “……80% asthmatic children compared to 66%.”, 66% of what? It needs to be spelled out.
7. Table 1 is very confusing. I believe all the numbers in Table 1 are percent, except “sample size” and “mean age.” But only “males” indicates (%). I would suggest that all actual numbers are given with percentages in parenthesis. The P-value should be footnoted regarding the type of statistical test.
8. The title of Table 2 should be re-worded and omit the “n” numbers of each category. The term of the categories of asthma are not used uniformly. For instance, in the title of Table 2 the asthma is possible was termed as “undetermined,” while in the Table heading it was “indeterminate.” Also, in the title of Table 2 the term for the asthma is unlikely was “Normal,” while in the Table heading it was “Non asthmatics.” The authors should decide to have a uniform term and use it throughout text and Tables consistently.
9. Why was the frequency per week of using bakhour divided into two groups in Table 1, but 3 groups in Table 2? The ‘Never or rarely” group in Table 2 is dubious and needs to be redesigned.

10. In Table 2, according to my own calculation, the sum of three groups is 1069 and 990 for the “Non asthmatics” and “indeterminate,” respectively, but they were listed as 1073 and 992, respectively in the Table heading. They need to be corrected. Since this inconsistency was found here and other places (see below), it would be important for the authors to double check the numbers throughout the text and Tables.

11. In Table 2, all “No” rows should be deleted as they are not needed. The type of the statistical test for this table also needs to be footnoted.

12. In Table 3, for consistency, add “confidence intervals” in front of (CI) (the same for Table 4) and in “Bakhour use ‘n’ the child room,” it missed an “i” before “n” and child should be child’s.

13. Figure 1 “**” needs to be footnoted.

Major Compulsory Revisions:
1. The aspect of statistical analysis needs to be reviewed or checked by a statistician, as I am not an expert in statistics.
2. Page 14, line 3, in “…association (protective effect) which….“ It is not a protect effect, just a negative association! Thus, “(protect effect)” needs to be deleted!
3. The numbers of father and mother of no school education are listed 973 (41.1%) and 1,328 (55.3%), respectively, in Table 3. If the total number is 2441, the % of father and mother of no school education should be 39.9% and 54.4%, respectively. Again, the authors needs to double check the data!
4. Since the surveys were completed by parents. With due respect, could it possible that forty percent of parents with no school education completed the survey. This reviewer also wonders how accurate and validity the survey could be.

Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
'I declare that I have no competing interests’