Reviewer's report

Title: Use of smokeless tobacco among groups of Pakistani medical students - A cross sectional study.

Version: 2 Date: 9 May 2007

Reviewer: Kenneth Ward

Reviewer's report:

General
The authors have conducted a cross-sectional survey of smokeless tobacco use among 1025 students at three Pakistani medical schools. Lifetime use (trying smokeless tobacco once or twice only) was 6.4%; current daily use was 1.3%. Smokeless tobacco use was associated with cigarette use, male gender, and geographic location of the college.

This paper is very well written. Given the high prevalence of smokeless tobacco use in this region, and the paucity of epidemiological data on this topic, the paper provides interesting and useful information. Strengths include its large sample size and its targeting of medical students—a group with great potential (either positive or negative) to influence tobacco use in the general population.

I have some suggestions aimed at improving the manuscript:

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The three tobacco use categories reported here (lifetime, daily, heavy) are somewhat confusing and don’t capture some potentially important features of smokeless tobacco use.
   a. The term “lifetime” use, as used in this paper, really assesses “experimental” use (tried smokeless once or twice but never advanced beyond this). In much of the tobacco literature, “lifetime” use is synonymous with “ever” use (experimental users + former regular users + current regular users). Consider using the term “experimental use” rather than “lifetime use” to avoid this confusion.
   b. The term “heavy” use (defined in this paper as use on >100 occasions) is somewhat confusing because in much of the literature, “heavy” refers to the frequency or intensity of current use, and use on >100 occasions is often the criteria to define an individual as a “regular” user (as opposed to “experimental” user). Consider using the term “established user” instead of “heavy user.”
   c. It would be useful to know the prevalence of current occasional smokeless use (less than daily). Can this be calculated from the data?

2. Correlates of “lifetime” use are presented in Results. Since these individuals haven’t smoked more than once or twice in their lives, these analyses don’t seem especially important. It might be more interesting to report correlates of ever (experimental + former + current) vs. never use, if this is possible to compute.

3. Including power calculations in Methods is a good feature of this paper. One confusion is that the authors state they have adequate power to “achieve the objectives of the study” but it’s unclear to which objectives they are referring (e.g., estimating prevalence within a certain confidence bound? Comparing NWFP vs. Karachi students?)

4. A limitation of this study is that convenience sampling was used and therefore the sample is not representative of Pakistani medical students. This should be noted in the “Limitations” section. In Methods, it would be helpful to describe the sampling strategy and response rates to help the reader assess the extent of bias likely caused by convenience sampling.

5. Specify in Results what outcome is being modeled in the multivariate analysis (daily? heavy?)

6. Consider providing two data tables: one that reports sociodemographic characteristics, tobacco use history, and tobacco use prevalence, and a second that reports the results of the multivariate analysis

This is a nicely conducted study that contributes interesting and important data on the topic of tobacco use
among medical students.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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