Reviewer's report

Title: Relative analgesia (nitrous oxide and oxygen sedation) and licensed dentists: interplay of practices and opinions from a national survey in Brazil

Version: 2 Date: 31 May 2012

Reviewer: Mark Donaldson

Reviewer's report:

Thank you again for the opportunity to review this manuscript. The authors have made significant changes to the original draft, however, there are still some salient points that need to be addressed:

Sample size: In my original review I mentioned that, “Brazil has an estimated population of 189,841,456 and is the fifth largest country in the world. It has 191 institutions granting degrees in dentistry (137 private and fifty-four public), 17,157 available student positions, and graduates 10,000 professionals annually and the WHO estimates that there are 160,781 practicing dentists.” This study developed a questionnaire that was sent out to 281 dentists of which 136 responded, yet only 127 were deemed complete/usable. The Discussion still stops short of emphasizing that any conclusions whether statistically significant or not are probably not generalizable based on the 127 total respondents to this survey (less than 0.08% of the population being represented (127/160,781). I continue to stress this because the implication in the “Background” section of the Abstract is very clear, “This study aimed to assess Brazilian dentists’ practices and opinions about RA in the dental setting.” What this study actually reviewed was the opinions of a small group of Brazilian dentists (127). This fact should be first and foremost in the manuscript, and I would still question the accuracy of the current title which insinuates that this is a, “national study.” For better accuracy in the Abstract's Conclusions, this should again be stated as, “Most of the 127 licensed Brazilian dentists (n=90; 70.9%) interviewed currently use RA. Current practice of RA and frequency of use among this group determined the degree of favorable opinion about this inhalation sedation among respondents.

Without splitting hairs too much, even if 136/281 surveys were returned (response rate = 48.4%), if 9 of the surveys were, “inadequately filled out and were excluded from the final analysis,” shouldn’t the return rate be 127/281 or 45.2%?

Page 3, Background, 1st paragraph, first sentence: “Dentistry” does not need to be capitalized.

Page 4, Background, 1st paragraph, first sentence: “Pediatric” and “Dentistry” do not need to be capitalized.

Page 4, remove the word, “habitually” and we usually refer patients “for” general
anesthesia not “to” general anesthesia as general anesthesia is not a physical location.

Page 4, Background, 1st paragraph, last sentence: Replace “cheaper” with “less expensive”.

Page 4, Background, 2nd paragraph: The authors should revise this paragraph to improve readability.

Page 5, Methods, “The final sample comprised 281 dentists who agreed to participate in the study.” This is a false statement. There were 281 practitioners whom you were able to locate e-mail addresses for to send the questionnaire, but they DID NOT agree to participate in the study. If they had agreed your response rate would have been 100%. In fact only 127 dentists returned usable questionnaires.

Page 5, Methods, “posterior analysis” is an interesting term. Do the authors' mean, “retrospective analysis?”

Page 6, Why is Table 3 the first table being introduced? Shouldn't the first Table be Table 1?

Page 6, Methods, “Six out of 9 statements had reversed scores.” This sentence needs further explanation. If six of the nine scores were reversed then was the maximum achievable score really still 45?

Page 8, Results, Now Table 1 and Table 2 appear? These are out of order.

Page 8, Results, I do not believe that, “dentally anxious patients” is a grammatically correct term. It appears more than once in this manuscript. Also, Table 2 lists “fearful patients” and “anxious patients” separately – how do you differentiate these populations?

Page 8, Results, I am not sure there are really three groups here, “most of them had acquired RA equipment (88 out of 126, 69.8%); others had not acquired it (18 out of 126, 14.3%) or intended to acquire (n=20 out of 126, 15.9%).” Respondents either have the equipment or they do not; whether they “intend” to purchase it at some point in the future should not enter into your analysis.

Page 8, Results, 3rd paragraph: The authors should revise this paragraph to improve readability.

Page 11, Discussion, 1st paragraph, “This survey sought to profile RA practice within a group of licensed Brazilian dentists.” This relates to my introductory comments about sample size and accuracy of language. This statement is probably a more accurate description of the study, but it contradicts what is written in the Abstract and Title which state, “A cross sectional national survey” and “a national survey in Brazil.” These are examples of hyperbole.

Page 10, Discussion, 1st paragraph: Replace “to sedation” with “for sedation.”
Page 10, Discussion, 2nd paragraph: Replace “analgesia” with “sedation technique.”

Page 11, Discussion, 6th sentence: Replace “cheaper” with “less expensive”.

Page 11, Discussion, 7th sentence: “Moreover, a recent trial . . .” goes on to cite 3 references. Should this read “trials”?

The Conclusions section should again be re-written to more accurately reflect the study population and the overall findings as it relates to the thesis statement. Please see my comments above

Why are some of the references bolded?

I am not familiar with the referencing format here where a colon appears after the last author.

Table 1, last sentence, “Did not answer” should be omitted since there were no respondents.

Table 2, would benefit from some definition of terms (Fearful versus anxious? Mentally compromised? Physically compromised? Long appointments? Etcetera).

Table 2, also needs spaces between the absolute numbers and the percentages in parentheses: 39 (94.4) and not 39(94.4).

Table 3, requires periods after each description as these sentences tend to run into each other.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

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