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: 26 May 2012

Reviewer: Jason H Goodchild

Reviewer's report:

The authors have made significant progress on the manuscript; however I still have some concerns and a few suggestions:

Overall the manuscript reads much better but there still are areas that could be improved to increase reader comprehension.

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

2) Page 3, Background, 1st paragraph, second sentence: The authors should consider deleting the word “ether”. While it is true that Guedel’s planes of anesthesia refer to the use of ether, it is confusing to mention ether anesthesia and nitrous analgesia in the same sentence.

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

4) Page 4, Background, 1st paragraph, second sentence: The authors should consider revising the end of the sentence as follows, “…lack of clinical experience and additional costs for purchasing the equipment may have an inhibitory effect on the practice of RA for children [5].”

5) Page 4, Background, 1st paragraph, third sentence: delete the word “habitualy”.

6) Page 4, Background, 1st paragraph, 4th and 5th sentence: The authors should consider combining the two sentences. An example is as follows: “Although the costs for RA may be lower than general anesthesia or multiple drug sedation (e.g. intravenous sedation), RA is not recommended as an alternative for all cases referred for general anesthesia due to its particular indications and limitations.”

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

8) Page 4, Background, 2nd paragraph: The authors should revise this paragraph for clarity and comprehension. An example is as follows, “In Brazil, the use of RA in dentistry was endorsed by the Brazilian College of Dentists (BCD) in 2004. Current legislation dictates that dentists are permitted to provide RA
following a 96-hour training course and submitting proof of completion to the BCD. It is important to note that many Brazilian dentists have limited training and practice experience in outpatient sedation as part of dental school [8]. Criticism by anesthesiologists concerning the competency of dentists to provide outpatient sedation has been reported as a barrier that prevents RA practice among licensed dentists [9]."

9) Page 4, Background, 3rd paragraph, 1st sentence: Delete “exploratory” and “perceived”.

10) Page 5, Methods, Study design and sample, 1st paragraph, 2nd sentence: The authors should consider replacing the word “conduct” with “provide”.

11) Page 5, Methods, Questionnaire development, 1st paragraph, 1st sentence: The authors should consider revising the sentence as follows, “For construction of the self-administered questionnaire, a series of individual in-depth interviews were previously conducted with six dentists trained in RA.”

12) Page 6, Methods, Questionnaire development, 3rd paragraph, last sentence: “Six out of 9 statements had reversed scores.” Please explain further.

13) Page 8, Results, Respondents’ characteristics and RA practice, 3rd paragraph, starting with “Among the circumstances mentioned in the questionnaire…” The authors should revise this paragraph for improved clarity and comprehension.

14) Page 9, Results, Respondents’ opinions about RA, 1st paragraph, 2nd sentence: the authors should consider replacing, “…showing fairly positive opinions by the respondents about RA”, with, “…indicating the opinion of RA by respondents was slightly positive.”

15) Page 10, Discussion, 2nd paragraph, 2nd sentence: the authors should consider replacing the word “analgesia” with “modality”.

16) Page 11, Discussion, 1st paragraph, 4th sentence: Delete the word “meanwhile”.

17) Page 11, Discussion, 1st paragraph, 5th sentence: “In fact, nitrous oxide is one of the least approved techniques by Kuwati patients, because the use of pharmacological techniques can be perceived as risky in some cultures.” This sentence needs revision.

a. Replace “approved” with “accepted”.

b. Are there a lot of Kuwati patients in Brazil? If not, the mention of Kuwati patients has limited relevance to this manuscript.

c. The sentence is about the limited acceptance of nitrous by Kuwati patients, but the authors state that the technique is seen as risky by “some cultures”. What other cultures perceive RA as risky? Why do they perceive it as risky when RA has an overwhelmingly positive safety record? If those cultures are not part Brazil then, again, there is limited relevance to this manuscript.
18) Page 11, Discussion, 6th sentence: Replace “cheaper” with “less expensive”.

19) Page 11, Discussion, 7th sentence: Replace “environmental” with “occupational”. Also, the authors mention the occupational risks with the chronic exposure to unscavenged nitrous oxide. There have been numerous publications describing the mitigated risk to dental personnel when the proper use of scavenging is employed. The authors should add something about the increased safety of nitrous oxide use for the dental team when proper scavenging is used.

20) Page 12, Discussion, 2nd paragraph, last sentence: The authors should consider replacing “actual data” with “generalizable conclusions”.

21) Page 12, Discussion, 3rd paragraph, starting with “All in all, admitting there is a need…” This sentence should be moved to the last paragraph of the Conclusions section. Also, it could be revised as follows, “There is a need to provide more comfortable treatment for dental patients. It is the author’s recommendation that the concerns discussed herein should be addressed by RA-training course directors, especially in locations where the use of RA for dental treatment is not well-established or commonly practiced.”

22) Page 18, Table 1, change to: “Population served by relative analgesia”

23) Page 18, Table 1, change to: “Practice of relative analgesia in respondents’ own dental practice”. Could “own” be replaced by “primary”?

24) Page 18, Table 1, change to: “Frequency of practice of relative analgesia (includes respondents’ use in other dental practices)”. Could it be further revised to “(includes respondents’ use in dental practices other than their primary practice location)”?

**Level of interest:** An article of limited interest

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

**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