Author's response to reviews

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

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REFEREE 1 (R1) (Reviewer: Paul Ashley)

R1: Aim – This was reasonable given the intro of RA into Brazil recently. Though perhaps it might have been more useful to interview dentists who didn’t use RA and why.

AUTHORS (AU): Thank you for this observation. We agree that we should seek for opinions of dentists who are not licensed to practice RA, but this is the purpose of a future study. We first decided to know about the opinions of dentists who received RA training as a continued education course, because there was a common sense in Brazil that few of them would use RA in their dental routine. We attempted to clarify our aim changing the last paragraph of the ‘Background’ section as following: “The purpose of this exploratory survey was to identify current perceived practices and opinions of RA licensed Brazilian dentists about nitrous oxide/oxygen sedation for dental patients”.

R1: Sample – What does "not localised mean" in the study design section - that they couldn’t determine the address?

AU: Yes. To elucidate it, we rewrote the sentence in the ‘Study design and sample’ section: “From 652 eligible dentists, 305 were excluded because their contact information was not available online.”

R1: Results – So how many dentists out of the original possible sample actually took part – 136 of 652 is not 48%

AU: Our apologies for have not been so clear regarding the response rate. We considered response rate the result of the number of complete surveys divided by the number of participants contacted that agreed to participate. Although 652 dentists were eligible (licensed RA dentists), we could contact 285. The first contact was an invitation email asking for the dentist consent to participate in the
study. In this phase, only 4 refused to participate. Then a second email containing the questionnaire was sent to 281 dentists who agreed to participate. So we think that our sample is 281 dentists, and the response rate is 136/281 = 48.398%. We did some changes in the manuscript to address your question:

- ‘Data collection and analysis’ section, first paragraph: “If a dentist sent an email back agreeing to participate, the self-administered questionnaire used for data collection was sent”.

- ‘Results’ section, first paragraph: “A total of 136 participants sent back the email (response rate = 48.4% out of the 281 dentists contacted who agreed to receive the questionnaire).

R1: And do the authors believe that showing that RA usage is associated with RA acquisition is an interesting finding? Or that people who use RA more frequently are more likely to view it favourably?

AU: We believe that our finding “people who use RA more frequently are more likely to view it favourably” is more interesting that the other finding that you pointed out. That’s why we emphasized it in the first paragraphs of the ‘Discussion’ section and in our ‘Conclusion’.

R1: The first line of the conclusion is not supported by this study. Given that 76% of respondents report that they use RA sometimes or often, why do they state in the conclusion that RA is used infrequently?

AU: That’s a good point, thank you for this comment. We deleted the first line of the ‘Conclusion’ section and changed the next statement to “A majority of the respondents practice relative analgesia ‘sometimes’ (...)”.

R1: Background – On the background authors suggest that the high cost of RA may be a barrier to its uptake. They then use the US as an example of where invasive procedures are undertaken under GA instead. This is not the case. RA is not suitable for multiple invasive procedures. And the authors should provide data supporting the cost argument - is RA cheaper than GA? is RA cheaper than multiple drug sedation? It probably is.

AU: We attempted to clarify this issue in the second paragraph of the ‘Background’ section by rewriting it and adding data discussing the cost argument: “Nevertheless, even in countries where dentists routinely use RA, lack of clinical experience and additional costs for purchasing the equipment may have an inhibitory effect on the intention and practice of providing RA for children [5]. General dental practitioners in Northern Ireland, for example, habitually had RA equipment in their practices in 29% of cases, and discussed RA as a treatment alternative for pediatric extractions with children and accompanying adults, but most preferred to refer patients to general anesthesia to have teeth
extracted [5]. RA has particular indications and is not recommended as an alternative for all cases referred to general anesthesia. One cannot deny, however, that costs for RA can be lower than those for multiple drug sedation or general anesthesia. A systematic review did not find randomized clinical trials to support the cost-effectiveness of sedation versus general anesthesia for provision of pediatric dental treatment [6], but another study which analyzed the cost of time spent on the procedure found RA to be cheaper than general anesthesia for dental extractions in children [7]."

R1: Quality of written English – Needs some language corrections before being published
AU: Before we first submitted our manuscript to the BMC Oral Health, we had it revised by the “Proof reading service” (http://www.proof-reading-service.com/). Unfortunately it seems that language problems remained. We sent it again for the same editing service and asked them for a certification letter (attached).

REFEREE 2 (R2): Jason H Goodchild
Reviewer’s report:
R2.1) The Title should be revised so that “nitrous oxide and oxygen sedation” is included somehow. For example: Relative analgesia (nitrous oxide and oxygen sedation) and licensed dentists: practices and opinions interplay from a national survey of Brazilian dentists.
AU: Thank you for the suggestion. We changed the title to address the concerns from Referees 2 and 3. The manuscript title is now “Relative analgesia (nitrous oxide and oxygen sedation) and licensed dentists: interplay of practices and opinions from a national survey in Brazil”

R2.2) Abstract, Background, page 2: “relative analgesia’ should be defined in the first sentence. Perhaps like, “Relative analgesia (RA), defined as the use of inhalation sedation with nitrous oxide and oxygen, is one of the most ...
AU: Accepted.

R2.3) Abstract, Results, page 2: The authors should consider revising the sentence, “Through nine statements intended to measure…” for clarity and comprehension.
AU: We changed the sentence to: “The scores for dentists’ opinions ranged from 15 to 41 points (mean 29.2, SD = 5.6), based on nine items scored from 1 to 5.”

R2.4) Key Words, page 3: ‘Relative Analgesia’ should be added
AU: We did not use ‘Relative analgesia’ in the first version of the manuscript because this key word is not inserted in MeSH. However, as the BMC Oral Health does not require that the key words should be extracted from MeSH
terms, we added it as Referee 2 suggests.

R2.5) Background, page 3: The first sentence, “Relative analgesia (RA) refers to the use…” is almost a direct quote from another publication (Saudi Dental Journal 1994;6:35-41.) Pulling up the Saudi Dental Journal article (titled, Use of Nitrous Oxide Relative Analgesia in Children) it is suggested that the term relative analgesia was originally introduced by Guedel in 1937 and refers to the first stage of analgesia attained during nitrous oxide and oxygen sedation. Furthermore, relative analgesia is not a commonly used term to describe nitrous oxide and oxygen sedation in the United States and has been considered confusing by at least one author (Emerg Med J 2004;21:646-647.). If the authors choose to use the term relative analgesia in this manuscript they should clearly define it, including its origins.

AU: We respectfully chose to keep the term relative analgesia because it is used by many of our references. Accepting your suggestion, we added information about the term ‘relative analgesia’ in the first paragraph of the ‘Background’ section as following: “Relative analgesia (RA) is a term introduced in Dentistry by the American Harold Langa, in 1968, to represent inhalation sedation with a continuous flow and variable concentrations of nitrous oxide and oxygen to produce sedation and analgesia [1]. Langa proposed three planes of analgesia within the first stage of ether anesthesia described by Arthur Guedel in 1937 [2]; those planes vary from moderate to total analgesia according to the concentration of nitrous oxide in the mixture, and the signs and symptoms shown by patients.”

R2.6) Background, page 3, first paragraph, second sentence: “RA aims at helping fearful and/or anxious patients…” This sentence should be revised for clarity and comprehension. Nitrous oxide and oxygen sedation doesn’t really help patient feel more confident, it makes them feel more relaxed. If fearful/anxious patients are more relaxed than they may more easily tolerate invasive dental procedures. It doesn’t take away fear/anxiety, but rather facilitates coping.

AU: Accepted. We changed the sentence to: “The aim of RA is to help fearful and/or anxious patients feel more relaxed, thereby facilitating patient behavior management during medical and dental procedures.”

R2.7) Background, page 3, second paragraph, second sentence: “Nevertheless, even in countries where…” A reference should be provided for this sentence. AU: Accepted. We added reference number: [5].
R2.8) Background, page 3, second paragraph, third sentence: “General dental practitioners in the United States, for example...” The authors cite an article published in the International Journal of Pediatric Dentistry that is a survey of dentists in Northern Ireland.

AU: Sorry for this mistake. It was a copy/paste thing. In the 'Discussion' section we mentioned it correctly. We corrected the sentence: “General dental practitioners in Northern Ireland, for example, habitually had RA equipment in their practices in 29% of cases, and discussed RA as a treatment alternative for pediatric extractions with children and accompanying adults, but most preferred to refer patients to general anesthesia to have teeth extracted [5].”

R2.9) Methods, page 4: Was this survey undertaken with help or assistance from the BCD? How did the authors get the complete names of the dentists who completed the nitrous training course? The authors should describe how they got this information. Is it freely available online? Why did the authors limit the survey to only email? With such a small sample size regular mail is feasible. Approximately 10% of the potential sample size did not even have an email address.

AU: This survey did not have any direct help from the BCD. We got the complete names of the licensed dentists from the BCD web site; it’s freely available online. We changed sentences to address your comments: “According to the BCD web site, there were 652 licensed dentists able to conduct RA in 2007. Eligible dentists were those who formally presented the RA training course conclusion certificate to the BCD (complete names available at the BCD web site). Dentists’ names were used to search for their electronic addresses and/or telephone numbers via internet tools (Google, social networking services, and a resume database). From 652 eligible dentists, 305 were excluded because their contact information was not available online. From the remaining 347 licensed dentists, 62 did not have a valid electronic address (automatic message “mail returned to sender”) and 4 refused to participate. (…)”.

The BCD does not allow us to know telephone numbers or other contact information from any dentist due to privacy issues. We contacted every dentist that had telephone and/or email address in the internet. We asked them if we could send emails and they agreed. The 10% of the potential sample size actually had an email address available online, but the email we sent automatically returned. If they did have other contact information we would use it.

R2.10) Methods, page 4, second sentence: Should the sentence be, “According to the BCD, there were 652 licensed dentists…”
AU: You are right. We changed the sentence.

R2.11) Methods, page 4, 6th sentence: “From 652 eligible dentists, 305 were excluded because they could not be localized…” What does this mean? They could not be located?
AU: We have explained this information in the manuscript and in your comment #9.

R2.12) Methods, Questionnaire Development, page 5: In the development of the survey questionnaire the authors tested it on a total of 22 dentists. Were these same dentists also surveyed during the data collection period and were their responses included in the results? This may introduce bias in approximately 8% of the sample size (22 of 281).
AU: We agree, we did not surveyed them. We added the sentence: “None of the 22 respondents from the questionnaire development steps participated in the final data collection phase.”

AU: Thank you for your attention. We corrected the reference.

R2.14) Methods, Data collection and analysis, page 6: How were complete questionnaires returned? By email, fax, mail?
AU: By email. We added this sentence to clarify readers: “Questionnaires were returned by email.”

R2.15) Results, page 7: The final sample size was quite small (136-9=127). Considering the population of Brazil (~195 million) and the number of dentists (~160,000), this sample size is extremely small.
AU: We understand the concerns from Referees #2 and #3 regarding sample size, but we have already addressed this limitation of our study in the ‘Discussion’ section: “We recognize that this study as a survey had a major limitation in the non-response rate. Although we sent the questionnaire to all RA licensed dentists with available electronic mail, our response rate did not reach 50% of the study population. This response rate could be considered low for a national survey, but this is expected in electronically mailed questionnaires [31].
There have been other studies with a similar purpose which had even lower response rates of 47% [32] and 16% [16]. We understand that, as in another study with Brazilian health professionals [9], factors influencing response rates might include an unwillingness to participate or lack of interest in the subject. Also, we did not include dentists who attended a RA course but did not ask for their BCD license. In fact, the interpretation of the results should be viewed with caution because they primarily represent opinion rather than actual data, as stated in another opinion study of professionals [16].”

The issue of small sample sizes is not uncommon even in developed countries studies and in general health sciences.

R2.16) Results, page 8, first sentence: “Considering RA practice as a dependent variable (yes or no)...” Again, this is a survey of dentists that have all taken the certification course. The better question is why are the dentists not using RA who have completed the 96-hr certification course? Cost? And assuming that there are 160k dentists in Brazil, 652 dentists represents 0.4% of dentists in the country. Why don’t the other 99.6% of dentists in Brazil offer the service or attend the certification course? Why isn’t nitrous oxide and oxygen sedation training offered in the dental school curriculum like in other countries? Also, I do not understand the number in this sentence [i.e., 76% (n=76)], the authors should check this.

AU: Thank you for this observation. We agree that we should seek for opinions of dentists who are not licensed to practice RA, or even did not attend continued education courses, but this is the purpose of future studies. We first decided to know about the opinions of dentists who received RA training as a continued education course, because there was a common sense in Brazil that few of them would use RA in their dental routine. We attempted to clarify our aim changing the last paragraph of the ‘Background’ section as following: “The purpose of this exploratory survey was to identify current perceived practices and opinions of RA licensed Brazilian dentists about nitrous oxide/oxygen sedation for dental patients.”

We checked, adjusted and clarified the numbers in the aforementioned sentences as following: “The region of a dentists’ practice was also associated with RA practice (p=0.02, one case missing): 76.2% (n=77 out of 101) of dentists working in the South/Southeast regions used RA in their current practice, against 52.0% (n=13 out of 25) working in less wealthy geographic regions (Midwest and Northeast).”

R2.17) Discussion, page 9, second paragraph: “As these kinds of deficiencies are easily identifiable, we hypothesize that this group of dentists...” Was this tested? Consider replacing ‘hypothesize’ with ‘suspect’. The same for the last sentence
of the same paragraph.
AU: No, this was not tested. We accepted your suggestion.

R2.18) Discussion, page 9, last paragraph: This should be revised to include the American Dental Association’s position on the provision of nitrous oxide and oxygen sedation by dentists.
AU: Accepted. We included this sentence in the aforementioned paragraph: “The American Dental Association advocates that an RA course should be a minimum of 14 hours, completed as a part of the predoctoral dental education program or in a postdoctoral continuing education competency course [20].”

R2.19) Discussion, page 10, second paragraph, first sentence: “Respondents usually agreed that RA has favorable…” This sentence needs to be revised for clarity and comprehension.
AU: We revised the sentence and changed it to: “Respondents in this study generally agreed that RA has positive aspects, including its effectiveness, and satisfaction from both patients and professionals.”

R2.20) Discussion, page 10, second paragraph, fourth and fifth sentences: Are these sentences basically the same. Please revise. What are the cultural aspects that contraindicate nitrous oxide use? Is nitrous oxide equipment and gas really cost prohibitive?
AU: We rewrote the sentences and added information about culture and costs, to comply with Referees #2 and #3: “Meanwhile, participants in this study reported one of the disadvantages of RA is that its acceptance by professionals and patients depends on cultural aspects and costs. In fact, nitrous oxide is one of the least approved techniques by Kuwaiti parents, because the use of pharmacological techniques can be perceived as risky in some cultures [24]. Regarding the costs of RA, it is cheaper than general anesthesia [7] and probably other multidrug sedation, but carries an initial charge for the dentist to purchase the equipment.”

R2.21) Discussion, page 10, second paragraph, last sentence: What are the environmental risks of nitrous oxide? Are the authors referring to nitrous oxide’s effect on greenhouse gases? If so, it has been reported that anesthetic-related nitrous represents 1% of global production and this accounts for 0.05% of the Greenhouse effect. (Anaesthesia 1998;53(3):213-215.)
AU: We understand your point, but we referred to occupational and other health hazards. To make it clearer, we added information to the sentence as follows: “According to the literature, this is one of the most commented on points related
to RA that limits its use [25]; chronic exposure to high levels of ambient nitrous oxide presents health hazards for dental personnel and patients which can have reproductive, hematologic, immunologic, neurologic, hepatic, and renal impacts [26]."

R2.22) Discussion, page 10, third paragraph: The sentence should be revised to, “In Brazil, a study showed that 93.7% of anesthesiologists surveyed disagreed that licensed dentists are adequately prepared to provide RA after the 96-hr training course required by the BCD.” Why? The authors of this paper suggest that there may be some financial motivation of anesthesiologists to limit dentists’ ability to provide this service.

AU: Thank you for this suggestion, we accepted it and revised the sentence. We should explain that anesthesiologists in Brazil tend to follow a tendency of banning nitrous oxide from their general anesthetic procedures as the ENIGMA trial advocates. Also, they do not learn RA in their residency programs, so we suspect that they think that dentists can provide general anesthesia with nitrous oxide in the dental office and cause serious morbidity and mortality for the patients.

R2.23) Discussion, page 11, first paragraph: Should ‘ostensive’ by ‘extensive’?

AU: Yes, we changed.

R2.24) Discussion, page 11, second paragraph: second to last sentence: Should ‘require’ be ‘acquire’?

AU: We changed “require” by “ask for”.

R2.25) References: #7 is incorrect, see bullet 13 above

AU: Corrected.

R2.26) Table 2: Why did the authors have separate indications for fearful and anxious patients? Is it possible to tell the difference between fear and anxiety easily? Are dentists really able to distinguish?

AU: Anxiety and fear are interrelated, but we can understand anxiety as “a diffuse, unpleasant, vague sense of apprehension….”. On the other hand, fear is an emotional response to a known or definite threat (please see more about this discussion in http://panicdisorder.about.com/od/understandingpanic/a/fearandanxiety.htm). For example, if a patient is undergoing a dental implant surgery for the first time, s/he can be anxious about the procedure but do not know why; however, if a patient felt pain in a dental implant surgery once s/he can be fearful of having another procedure like that. Maybe dentists do not distinguish it, but we separated it in different items because in a questionnaire we should not include more than one
question in the same item, and if we had included fear and anxiety in the same item we could have dentists confused about what to mark if they think that these emotions are different concepts.

R2.27) Figures 1 & 2 are not needed.
AU: We agree that figure 1 does not add to the manuscript, so we took it out. However, we understand that figure 2 adds new information for the ‘Results’ and ‘Discussion’ sections. As the other two referees did not suggest removing figure 2, we chose to keep it.

R.2. Quality of written English: Needs some language corrections before being Published.
AU: Before we first submitted our manuscript to the BMC Oral Health, we had it revised by the “Proof reading service” (http://www.proof-reading-service.com/). Unfortunately it seems that language problems remained. We sent it again for the same editing service and asked them for a certification letter (attached).

REFEREE 3 (R3): Mark Donaldson
Major Essential Revisions

R3.1) Many of the percentages reported are incorrect. In some cases just to one decimal point, while in others the results are markedly incorrect. This may be the result of a bigger methodology flaw which is the denominator that is being used. The Results section beginning on Page 7 states that there were 127 usable respondents. Table 2 however, contradicts this by stating that only 126 surveys were usable. Regardless, all of these numbers need to be reviewed and more clearly shown how they were derived. There are too many discrepancies which decrease the overall readability.
AU: Our apologies if we were not clear to explain our numbers, but we warrants that the editor, referees, and readers can trust our statistical analysis.

The denominator is really 127 in many cases, but in others we had missing information that made us exclude a particular case from a certain analysis. We could not permanently exclude all questionnaires with missing data because our sample size does not allow it.

We reviewed all the numbers of the ‘Results’ section, including tables, and attempted to improve the study clarity. We also standardized relative frequencies and means/SD to one decimal point, and P-values to two decimal points (except when P<0.001).

Table 1 brings information for the 127 respondents for each variable, showing the number of dentists that did not answer.

Table 2 represents 126 responses because one participant did not answer any of the RA indications and contraindications; we stated this in the table footnote of
the first version of the manuscript: “** One questionnaire considered missing was excluded from the analysis”.

We added a column to table 3 to show the number of participants that did not answer each item. For cluster analysis, we already said in the text (‘Results’ section) that “Seven questionnaires were excluded from this analysis because they had incomplete items in Part 2.”, so we also added this and other information about missing data as footnotes for table 4.

R3.2) There is a significant problem with formatting – not just the lack of spacing between paragraphs, but also the incorrect punctuation in every reference. As stated below too, this manuscript would greatly benefit from a general review by a native English speaker prior to being considered for publication in an English language Journal.

AU: Before we first submitted our manuscript to the BMC Oral Health, we had it revised by the “Proof reading service” (http://www.proof-reading-service.com/). Unfortunately it seems that language problems remained. We sent it again for the same editing service and asked them for a certification letter (attached).

R3.3) I would pay particular attention to your references and the exactness of your citations. Just one example is Reference #4 which is cited on page 3 (Freeman R, Carson P: Relative analgesia and general dental practitioners: attitudes and intentions to provide conscious sedation for paediatric dental extractions. Int J Paediatr Dent 2003, 13:320-326). This citations makes claims about, “General dental practitioners in the United States . . .,” however, this data is from dentists in Northern Ireland! There are many other examples of problems with the Reference section (see the title of Reference #8 or the misspelling of “Kuwait” in Reference #20 and on page 10 where it is cited). These are just a few examples of the many problems that need to be addressed.

AU: Reference #4: Sorry for this mistake. It was a copy/paste thing. In the ‘Discussion’ section we mentioned it correctly. We corrected the sentence: “General dental practitioners in Northern Ireland, for example, habitually had RA equipment in their practices in 29% of cases, and discussed RA as a treatment alternative for pediatric extractions with children and accompanying adults, but most preferred to refer patients to general anesthesia to have teeth extracted [5].”

Reference #8: Corrected.

“Kuwait” was corrected.

We revised the references list to address format problems.

4) The term “Relative Analgesia” is not routinely used and is certainly not
widely-understood to mean nitrous oxide – oxygen sedation.

AU: We respectfully chose to keep the term relative analgesia because it is used by many of our references. Accepting the suggestion from Referee#2, we added information about the term ‘relative analgesia’ in the first paragraph of the ‘Background’ section as following: “Relative analgesia (RA) is a term introduced in Dentistry by the American Harold Langa, in 1968, to represent inhalation sedation with a continuous flow and variable concentrations of nitrous oxide and oxygen to produce sedation and analgesia [1]. Langa proposed three planes of analgesia within the first stage of ether anesthesia described by Arthur Guedel in 1937 [2]; those planes vary from moderate to total analgesia according to the concentration of nitrous oxide in the mixture, and the signs and symptoms shown by patients.”

Minor Essential Revisions

R3.1) The title should indicate the country of origin as in, “Relative analgesia and licensed dentists: practices and opinions interplay from a national survey in Brazil.”

AU: Thank you for the suggestion. We changed the title to address the concerns from Referees 2 and 3. The manuscript title is now “Relative analgesia (nitrous oxide and oxygen sedation) and licensed dentists: interplay of practices and opinions from a national survey in Brazil”.

R3.2) The Methods section in the Abstract should more correctly state 126 (or 127) dentists since data is not being drawn from 281 dentists. This brings up a bigger issue which should be addressed in the Discussion section of this paper. Brazil has an estimated population of 189,841,456 and is the fifth largest country in the world. Brazil has 191 institutions granting degrees in dentistry (137 private and fifty-four public), 17,157 available student positions, and graduates 10,000 professionals annually. The WHO estimates that there are 160,781 practicing dentists in that country. While the Discussion section of this manuscript does admit to many shortcomings, it stops short of emphasizing that any conclusions whether statistically significant or not are probably not generalizable based on the 126 (or 127) total respondents to this survey (less than 0.08% of the population being represented (127/160,781).

AU: We understand the concerns from Referees #2 and #3 regarding sample size, but we have already addressed this limitation of our study in the ‘Discussion’ section: “We recognize that this study as a survey had a major limitation in the non-response rate. Although we sent the questionnaire to all RA licensed dentists with available electronic mail, our response rate did not reach 50% of the study population. This response rate could be considered low for a
national survey, but this is expected in electronically mailed questionnaires [31]. There have been other studies with a similar purpose which had even lower response rates of 47% [32] and 16% [16]. We understand that, as in another study with Brazilian health professionals [9], factors influencing response rates might include an unwillingness to participate or lack of interest in the subject. Also, we did not include dentists who attended a RA course but did not ask for their BCD license. In fact, the interpretation of the results should be viewed with caution because they primarily represent opinion rather than actual data, as stated in another opinion study of professionals [16].”

The issue of small sample sizes is not uncommon even in developed countries studies and in general health sciences.

R3.3) How are “wealthy” and “less wealthy” geographic regions defined?
AU: According to the Brazil socioeconomic description, South and Southeast regions are more developed (wealthy), and the other 3 regions are less developed and have major problems associated with poverty (less wealthy).

R3.4) How were the cutpoints of 15-28 for “less favorable” and 29-41 for “more favorable” determined?
AU: According to our questionnaire, higher scores would mean more favorable opinions. Cluster analysis divided the respondents based on their opinions about RA.

We did not choose the cut off points, it was done by the cluster analysis instead. Cluster analysis is a technique to group cases that share the same variance, this means that we clustered groups of people that have similar opinions on RA.

R3.5) What does, “Dentists who practiced RA in their routine . . .” mean? Hours per day or hours per week of using nitrous? How was this determined in the survey?
AU: Thank you for this observation. We corrected the text to: “Dentists who practiced RA (p<0.01) and were women (p=0.04) (…)”. The frequency of RA practice was answered by dentists according to their self-perception about the categories ‘never’, ‘sometimes’, ‘often’ or ‘always’ (Table 1), as recommended in ordinal scales.

R3.6) Specifics such as, “cultural aspects” are not defined, “costs” are not defined
(cost of a course, cost of equipment; even just relative numbers would make these concepts less abstract).
AU: We rewrote the sentences and added information about culture and costs, to comply with Referees #2 and #3: “Meanwhile, participants in this study reported one of the disadvantages of RA is that its acceptance by professionals and patients depends on cultural aspects and costs. In fact, nitrous oxide is one of the least approved techniques by Kuwaiti parents, because the use of
pharmacological techniques can be perceived as risky in some cultures [24]. Regarding the costs of RA, it is cheaper than general anesthesia [7] and probably other multidrug sedation, but carries an initial charge for the dentist to purchase the equipment.”

R3.7) The Conclusion needs to be reconsidered. Considering that there were only 126 (or 127 respondents out of a possible 281, does support the first sentence, “This study points out that RA is not widespread in Brazilian dental offices.”

AU: We changed the conclusion to comply with Referees #1 and #3. It is now written as follows: “A majority of the respondents practice relative analgesia ‘sometimes’ and have a fairly positive opinion about it. Although there may be questions about the theoretical criteria which indicate the technique, RA licensed dentists had more favorable opinions if they performed RA as part of their routine practice.”