Reviewer's report

Title: Factors influencing incidents of complications while using Nickel-Titanium rotary instruments for root canal treatment; a questionnaire study

Version: 0 Date: 10 Jun 2019

Reviewer: Giovanni Veronesi

Reviewer's report:

I read with interest the manuscript by Madarati AD. My review will focus on the methodological aspects of the paper related to the statistical analysis. In particular, I believe the author should improve some aspects mentioned below:

1. Participation rate is the number of respondents over the number of invited, i.e. 51% (395/775). The exclusion of n=32 participants with no experience in RCTs at all should not affect the participation rate, but only the number of respondents available for the analyses. The author should modify the text in the relevant paragraph ("Response rate and participant classification"), and correct participation rate as 51% across all the manuscript. Also, the author should consider providing participation rates separately for GDs and endodontists.

2. As the author correctly acknowledged in the discussion, a participation rate close to 50% can result in selection bias. I appreciate the comparison between early and late responders (although a formal definition of the latter should be added to the methods section). The author should give less emphasis on the remaining points mentioned in the discussion on this aspect ("First, second and third): these are merely speculative and based upon dated references. Instead, I would suggest the author to consider additional comparisons between responders and non-responders, if data are available, including age, gender, working experience, geographic distribution (city vs. country-side). This would strengthen the confidence over the representativeness of the study sample.

3. Tables are really difficult to read. I suggest a few improvements: first, results should be reported as absolute and relative frequencies (n and % in brackets). Second, please use only one layout and structure within a given table: for instance, in table 2 keep the respondents' mansion (GDs, endodontists, other) always on the columns or on the row. The same argument holds for "number of fractured NiTi-Ris) in Table 6. The total columns in Table 6 does not make sense. If possible, keep the same structure also across the study tables. I had very hard time understanding the number reported in current Table 4.

4. Inference is based upon the chi-square statistics, which test the null hypothesis of no association between two variables. However, now and then there are some reported p-values for single proportions: see for instance line 55 on page 5 ("Overall, 71.9% of the responders were using NiTi-RIs (p<0.0001))"; or lines 7-9 on the following page ("Significantly, the highest proportion…(p<0.0001)"). What is the null hypothesis for these p-values, and what is the test statistics adopted? Please also mention it in the methods section.

Minor:

1. I suggest adding the study location early in the title or in the abstract. The reader should arrive up to the end of the introduction to understand where the study was conducted.
2. There is no description of the study sample in terms of socio-demographic profile. A few lines or a supplementary material table will improve the possibility to compare these results with other similar studies in different populations/contexts.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal