Author’s response to reviews

Title: The effect of Spinal Manipulative Therapy on Heart Rate Variability and pain in patients with chronic neck pain: A Randomized Controlled trial

Authors:
Anders Galaasen Bakken (Anders.galaasen.bakken@ki.se)
Andreas Eklund (andreas.eklund@ki.se)
Sören O’neill (Soeren.ONeill@rsyd.dk)
Iben Axén (iben.axen@ki.se)

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We would like to thank the reviewers for valuable input and suggestions.

Reviewer #1: Although the methodology and procedures are now clearer, I still think the manuscript can be better organised, as I still had to scroll through the document to find the appropriate information. In particular, I think the section on procedures could benefit from the use of subheadings, rather than just anonymous new paragraphs.

I still have doubts as to the methodological choices made by the authors, specifically using a pragmatic design in an explanatory study; however, as long as these are clearly described, then they should be judged on their merits.
I have annotated a copy of the manuscript with specific comments", in his individual comment section.

-Thank you for this! It was very useful to see some specific comments from you. We have made some appropriate changes, outlined in the latest version of the manuscript.

Reviewer #2: The authors have made a number of changes and improvements which have addressed some of my comments. I still have a small number of recommendations:

1. The primary outcome (log root mean squared successive differences in RR intervals) has been clarified in the section on sample size. Please also make this explicit in the section on outcome measures.

2. Stratification of the randomisation is still unclear. If each clinic is opening their own envelopes then presumably there is a separate batch of envelopes (randomised in blocks) for each clinic. If this is the
case, then please clarify by stating explicitly that the randomisation is stratified by clinic.

3. I think I have introduced unnecessary complexity by asking for more details of the analysis. The new section on regression models is, I fear, less transparent than before. The principle issue where I wanted clarity was in the analysis addressing the secondary aim. What is needed is a statement along the lines that "to investigate whether CPM is a predictor of treatment outcome we will look at the statistical interaction between CPM and SMT in their effects on the primary outcome". The regression equations do not need to be set out in detail.

- This has been of great value, and we have now made the final changes to the protocol. The changes can be found in the latest uploaded version. Your comments have been highly appreciated.