Reviewer's report

Title: Non-verbal communication of compassion: measuring psychophysiologic effects

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Reviewer: shirley telles

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The study is an interesting attempt to address whether blinding can used in complementary healing methods and also whether patients can sense the mental state of a healer.

MAIN CONCERNS

1. A trained and experienced meditator often gets into the meditative state involuntarily. How can the experimenters be sure the meditators did not get into a meditative state when they were asked to ‘pretend to read’? Were they asked about whether they were able to avoid meditating? Was there any physiological marker which could have indicated whether they were meditating or not?

2. The small sample size is a cause for concern. What were the effect size and the Power?

3. Did the meditators turn the pages of the book at the same rate when they were not meditating?

4. Respiration is not regulated by the autonomic nervous system. Hence the breath rate should not be mentioned as the primary outcome for ANS function (See Page 6, last paragraph, first line).

5. A good alternative would be the low frequency to high frequency ratio obtained from the heart rate variability. The low frequency component correlates fairly well with sympathetic tone, while the HF component correlates chiefly with the vagal tone. The ratio hence gives an idea of the sympathetic / parasympathetic balance. Hence the authors should add the power in the LF band and the LF/HF ratio.

6. The correlation between the breath frequencies of P and S were interesting. It would be interesting to know whether anyone has examined whether merely being in the room together causes two people’s breath frequencies to correlate with each other. The authors should present these data as an additional control. This is necessary despite the fact that positive correlations occurred during meditation periods alone. It could be argued that this was just a coincidence.

7. Given the small sample size the authors need to emphasize that this is a preliminary report. This should preferably be communicated in the abstract and in the discussion.
8. For the same reason the last sentence of the abstract should be removed.

MINOR CONCERNS

1. Visual analog scales have been used in certain circumstances to assess pain, fear, and other feelings.

Why were visual analog scales chosen to assess stress and relaxation when there are validated scales for them? The authors would have had a reason but this needs to be made clear.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**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