Reviewer’s report

Title: Pain and sensory detection threshold following acupuncture are modulated by the association between coping strategy and acupuncture sensation

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Reviewer: Shu-Ming Wang

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Title: Pain and sensory detection threshold following acupuncture are modulated by the association between coping strategy and acupuncture sensation

Authors: Lee etc

Overall critiques:

The conception of this study is very interesting, however, there are questions not fully addressed which make this manuscript hard to understand and difficult to confirm the validation of the results.

They are:

The manuscript described that subjects were randomized into two groups while Figure 1 indicated that there are 13 subjects not blinded so the data were excluded. It is hard to know whether the integration of the study was maintained.

The research groups did focus on the level of belief, expectation, toward acupuncture, however, there is no baseline anxiety level assessment as anxiety is another factor that can affect the interpretation of QST.

There is description about the assessment of individual electrical pain threshold but where were testing sites were they consistent for all subjects, at the same location?

The detail of all the QSTs were not described especially whether the location(s) were consistent between subjects and/or how long the break between repetitive testing.

Owing to the fact that not all QST devises were available for every subjects, there are different data from QST being collected. Thus the researchers decided to analyze data based on the availability of QST were all the subjects, do they have a subjects with full assessments of all QSTs at all and how many of them have pre-post f same QST?

The AC group has greater “expected acupuncture sensation” than PC, how does research account for this differences in their data analysis especially in the data analysis.

While the manuscript described (page 12) that “Even though no significant difference of acupuncture intensity between the AC and PC groups was found in
the first-phase and the second-phase, it seemed that the AC group had greater intensity in the second phase compared to the first phase while the PC group had less intensity. There was a tendency that AC group showed greater change of acupuncture intensity (the second 4mins phase – the first 4mins phase) than the PC group did (acupuncture intensity change from the first phase to second phase: 0.69±2.84 in AC and -0.84±2.60 in PC, P=0.06). And the AC group didn’t show significantly different acupuncture sensations compared to the PC group.”

--- in a scientific study, “its seems” may not be the best descriptive about the study results.

Suggestion:
It may be best to put figure 5 under hypothesis move to introduction.

Minor: please consider add ISI in the figure 2B and add the full description into the list of abbreviations.

May want to reanalyze the data only include subjects with all QST, autonomic data in both AC and PC groups.

Please clarify the description about what were subjects perceptions from the stimulations’