Review

Original title:

Novice raters demonstrate good intra-rater agreement and reliability when determining pressure pain thresholds; a cross-sectional study

Authors:

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Dear Authors and Editor:

I really appreciate Your work, the topic is really interesting and your paper surely will have significant impact on practice in pain monitoring and assessment. Here below I have some suggestions which may help You increase the quality of work.

The structure and language is very well and professional which gives the reader comfort in going through the whole paper.

The raw data files are supplied and can be opened in SPSS, they are well structured and labeled .

The figures and tables are well presented, (minor suggestions below).

A. Basic reporting

1 Title change:

Consider changing title to:

Novice raters' ~~demonstrate good~~ intra-rater agreement and reliability when determining pressure pain thresholds; a cross-sectional study.

This should increase the interest to look into and read through the paper to get the most valuable information instead of giving it straight away in the title ;)

2. If this is possible for You it would be very interesting putting in the results of a very experienced rater using this two algometers as a reference to the novice ones.

3. Figure 2 – I know that for the scientists this is well known, but the readers of Your work should also be physiotherapists and trainers in physiotherapy and they they are not always

familiar with statistical parameters. What is more – in this particular case the stat.parameters differ in scale interpretation (normal person naturally thinks that higher is better). That's why I recommend putting in text or under the figure 2 short information – CV – the higher CV means the greater dispersion, ICC – the higher ICC means the greater reliability.

4. Key words – I suggest adding "pressure pain threshold"

5. Spelling, grammar, language check:

- line 123 – delete "was"

- line 140-141 – it is unclear for how much time the raters practiced on different types of algometers – the reader may suppose that f.e. they used wagner for 5,5 h and Somedic for 0,5h – so please specify.

- line 142 – add "main" study.

- line 161 – change to Then, every participant

- line 163 – change to All four rooms were the same in means of temperature, quiet and … .

- line 294 – change to "using both algometers"

- line 328-330 – "Exploration of individual intra-rater, inter-session and within-session agreement some differences per rater, but within acceptable (i.e., -6.0 to +9.3 percentage points)

330 per rater." This needs reframing because there is no action word in this statement.

Line – 338 – repetition

- line 346 – change "worse" to "lower"

- line 349 – change trainings hours to training hours

6. Please align the text and move single characters like "a" or "in" to the next line of text. Also increase the space between titles of subsection and text.

7. Please check the interpunction through whole manuscript

– text under figure 5 should end with "." After "rater".

- Table 1. BMI – Body Mass Index, PPT – Pressure Pain Treshold etc.

B. Experimental design and presentation of results

1. The main limitation of the experimental design is that raters assessed different number of participants – f.e. 6 vs 14. This is like one had more "training" and gaining

experience and the other less which could have impact on the results. Of course very strong statistical analysis levels this effect.

2. "Dotted lines represent classification of Koo et al (2016): values g0.75 indicate good reliability

and 0.9 excellent reliability." This is obvious to me, but… You have different kinds of dotted lines on the different panels of Figure 2. So I suggest using different style of the line for ICC borders and more traditional style for the error bars

3. presentation of the results:

I think that from the general point of view the question what is the general agreement and general reliability is interesting, so I propose putting in the figure 2 a line representing the mean agreement for these 4 examined muscles both for reliability and agreement graphs.

What is more – for a person who is just getting to know the world of algometer testing, the important information is what were the average values of PPTs for a given muscle. With this information, the difference value will be easier to interpret. meanwhile, the article talks about differences all the time, without specifying measured values.

4. table 1

– add unit for alcohol use

- height and weight, BMI – these are not demographics but antrophometrics, sports h/week and alcohol use are neither demographics so please change the structure of the table on demographics

- age

-sex

Antrophometrics or morphological parameters

- height

-weight

-BMI

Quality of life?

-Sports [h/week]

-Alcohol use [unit]

5. table 2

– shouldn't SEM have a kPa unit?

- change Wagner algometer and Somedic algometer in **bold**

C. Validity of the findings

Strong statistical analysis was conducted using adequate tests and methods which is strongly supported by references from the up-to-date literature. The topic is crucial for scientists and physios using algometers in their research and practice. The further studies directions are clearly stated.

D. General comments.

If You Dear Authors would like to put it in this paper it would be interesting to see whether there are differences between male and female raters. I know that this could be a material for another paper, but even briefly with one graph you can show that there are / there are no differences between male and female raters present in Your study.

I suggest putting in the graphs results of a very experienced rater to be a point of reference to the novice ones.

I suggest putting in the text average results of the PPTs on each muscle to give the reference for the values of differences.

All the best in Your further research!

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