

# Sports Medicine and Rehabilitation

Review Report

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**Article Title:** The Effects of Localized Vibration on the Flexibility of the Spine and Lower Extremities

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**Review Status:** Revision Required

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## Review Report

1. Total participants were 43 including 37 females and 6 males with age 21-40 years old. The sample size for male participants is too small, I think. How about the gender effect? Is the flexibility of the spine different between male and female? What is the aging effect? Is the flexibility of the spine different between 21 years old male and 40 years old male? Does the race affect the flexibility of the spine and lower extremities? I noted that one African American was in the treatment group, is the result different if removed this African American from the treatment group?
2. Table 2: Regular Exercise Program: Yes—57 should be 27 (13+14), I think.
3. Fig. 1: The pictures for three treatments should be labeled with A, B, C or 1, 2, 3 and described in more details.
4. Procedures should be given more details, such as the treatment types and time for each visit? I guess that each treatment is for 2 min, total 6 min for 3 treatments at each visit, and total 18 min for 3 visits for each person.
5. Page 3, right part, line 5: "...vibration [16-21] Although pain..." should be "...vibration [16-21]. Although pain..."
6. The following results shown in Figure 2 and Figure 3 should be discussed:
  - Why the double inclinometer thoracolumbar flexion measurements decreased in control group in all three visits;
  - The pre-data for the double inclinometer thoracolumbar flexion measurements increased for all groups, why the control group also showed an increase?
  - All pre-data in LV group for the double inclinometer thoracolumbar flexion measurements were higher than control group, why?
  - All post data for hamstring goniometric popliteal angle measurements in control group decreased in all three visits; why?
  - All pre-data in LV group for hamstring goniometric popliteal angle measurements were lower than control group, why?

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- There was no change in pre-data in LV treatment group for hamstring goniometric popliteal angle measurements among three visits. If LV treatment can increase flexibility of the spine and lower extremities, the pre-data for the second visit should be higher than the first visit, and the pre-data for the third visit should be higher than the first and second visits, I think. The authors should discuss this.
- Three times treatments (2 min/each time/each treatment) may be too short, long term treatment should be studied in the future.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.