

Dear Editor,

Below are the changes and corrections, which we have made according to the criticism outlined in the enclosed reviewers' reports, and our response to the reviewers.

Additionally, the manuscript was also updated according to the Editor's suggestions.

ISSUE ARISED FROM COMMENTS FROM TWO REVIEWERS (Ref. 2 and Ref. 3)

These both reviewers asked us the method of calculating the sample size. According to their statement we contacted with the Department of Biostatistics and according to their suggestion and because of the limited number of subjects included in the study we changed the statistical analysis to non-parametric tests. Besides, power analysis was also performed to determine the sample size. According to the analysis, group sample sizes of $n_1=n_2=11$ achieved 98% power to detect a mean difference = 0.07 and standard deviations of both groups = 0.04 with a significance level (alpha) of 0.05.

To see the effects of stretching versus non-stretching percent change values between pre and post intervention for each variable were calculated and Mann-Whitney test was performed to investigate the differences between the groups. Therefore, in addition to the previous 3 tables, we composed 3 figures about the percent change values for the quadiceps strength (Figure 3), hamstring strength (Figure 4) and functional H/Q strength ratios (Figure 5). (see manuscript clean file page 27, 28 and 29).

In addition, some expressions in the Results section were also changed due to the changes in the statistical analysis (see manuscript clean file page 10, line 28-32 and page 11, line 1-16).

Editor's suggestions

(1) A short running title was provided (see manuscript clean file page 1, line 10-11).

(2) Author information was given (see manuscript clean file page 1, line 13-19).

(3) All the authors' contributions were given (see manuscript clean file page 1, line 21-27).

(4) Corresponding address was provided (see manuscript clean file page 1, line 29-32 and page 2, line 1-3).

- (5) Telephone and fax was given (see manuscript clean file page 2, line 5-8).
- (6) The institutional review board statement was stated in the title page and was also provided in pdf format (see manuscript clean file page 2, line 10-12).
- (7) Informed consent statement was given in the title page and was also provided in pdf format (see manuscript clean file page 2, line 14-15).
- (8) A statement that the statistical review of the study was performed by a biomedical statistician was given in the title page and in the materials and methods section. In addition, a document was also provided in pdf format (see manuscript clean file page 2, line 17-19 and page 10, line 11-13).
- (9) A conflict of interest statement was given in the title page and was also provided in pdf format (see manuscript clean file page 2, line 21-22).
- (10) Data sharing statement was given in the title page and was also provided in pdf format (see manuscript clean file page 2, line 24-27).
- (11) An informative, structured abstract of no less than 336 words as required was provided (see manuscript clean file page 3, line 1-31).
- (12) Six keywords, which reflect the content of the study, were listed (see manuscript clean file page 4, line 1-3).
- (13) A summary of no more than 100 words were written to present the core tip (see manuscript clean file page 4, line 5-13).
- (14) Audio core tip was created and will be submitted (see manuscript clean file page 4, line 16-17).
- (15) The comments were written according to the writing requirements for each subsection (see manuscript clean file page 15, line 10-31 and page 16, line 1-13).
- (16) PubMed citation numbers and DOI citation was added to the reference list. Unfortunately, we could not find these numbers for some references following the search in “<http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed>” and “<http://www.crossref.org/SimpleTextQuery/>”. (see manuscript clean file page 16, line 15-32 and page 17, 18, 19 and 20).

REPLY TO SPECIFIC COMMENTS

(1) Abstract:

According to the suggestion of the reviewer and the requirements of the journal the Aim of the abstract was re-arranged. Consequently the abstract does not start with the word “Although” in the final version (see manuscript clean file page 2, line 2-3).

(2) Introduction, line 25:

The abbreviations KF and KE were explained (*....by a functional knee flexion/knee extension (KF/KE) ratio.....*) (see manuscript clean file page 5, line 24).

(3) Methods, line 75:

The reviewer stated that we should explain concentric and eccentric contractions to remind the reader. According to his suggestion we added these explanations (*To remind, concentric muscle contraction is a type of muscle activation that increases tension on a muscle fiber as it shortens. On the other hand, eccentric muscle contraction is a type of muscle activation that increases muscle tension on a muscle fiber as it lengthens*) (see manuscript clean file page 7, line 11-14).

(4) Methods, line 98:

The reviewer wanted to add photos for both standing and sitting quadriceps stretching to demonstrate the position. Accordingly, one figure about the quadriceps stretch (*Figure 1: The two types of static stretching exercise for the quadriceps muscle*) was composed and added to the text (see manuscript clean file page 8, line 7-16).

(5) Methods, line 107:

The reviewer wanted to add photos for both standing and sitting hamstring stretching to demonstrate the position. Accordingly, one figure about the hamstring stretch (*Figure 2: The two types of static stretching exercise for the hamstring muscle*) was composed and added to the text (see manuscript clean file page 8, line 17-27).

(6) Conclusions, line 295:

The reviewer stated that the findings of this study do not provide any evidence regarding injury risk. We agree with the reviewer. Actually, our aim with this sentence was to express that static stretching does not increase the imbalance between the quadriceps and hamstring muscles. Therefore, instead of deleting this sentence we changed the sentence as *“Hereby, our findings also show that static stretching does not increase the imbalance between the quadriceps and hamstring muscles”*. We hope the reviewer is in agreement with this decision (see manuscript clean file page 15, line 2-3).

(7) Conclusions, line 296:

The reviewer signified the issue about “strength-based sports”. When we scrutinized the expression we agree with the reviewer that this sentence was very definite. Our aim during the writing was to mean to say the sports that are mainly based on sheer power. Of course every sport activity uses certain muscle groups. Consequently, we

aimed at those sports like wrestling, weightlifting or power lifting those performances will be strictly affected following strength decline. Therefore, we changed this sentence as: *"The take home message for the practitioner is that elite women athletes not involved in sports mainly based on sheer power like wrestling, weightlifting or power lifting can confidently perform static stretching during warm-up."* We hope the reviewer is in agreement with this decision. (see manuscript clean file page 15, line 3-6).

Ref. 2 (03071041)

REPLY TO SPECIFIC COMMENTS

(1) Materials and Methods:

The reviewer stated that the authors have not mentioned how they calculated the sample size. Accordingly, we contacted with Dr. Deniz Sigirli from the Department of Biostatistics and she reviewed the statistical methods again. Eventually, due to the limited number of subjects included in the study we chose to perform non-parametric statistical testing. Besides, power analysis was also performed to determine the sample size. According to the analysis, group sample sizes of $n_1=n_2=11$ achieved 98% power to detect a mean difference = 0.07 and standard deviations of both groups = 0.04 with a significance level (alpha) of 0.05. This expression and the new statistical analysis method were included in the Statistical Analysis section. Following the non-parametric testing the results did not change as to the previous repeated measure 2×2 ANOVA model (see manuscript clean file page 10, line 14-26).

(2) Materials and Methods:

The reviewer asked to mention the type of study in the methods section. According to his suggestion we included information to the first sentence (*A total of participate in this observational study.*) in the Subjects section (see manuscript clean file page 6, line 22-23).

(3) Tables and Figures:

The reviewer stated that table 1 and 2 should mention in the footnote what PT60 and PT180 do mean. According to the new statistical method the three tables were re-arranged. Consequently, the abbreviations PT60 and PT180 are also explained in the footnotes (see manuscript clean file page 22, 23, and 24).

Ref. 2 (03070252)

REPLY TO GENERAL COMMENTS

(1) Sample size:

The reviewer stated that the authors have not mentioned how they calculated the sample size. He suggested that due to the small sample size the study may be underpowered. Accordingly, we contacted with Dr. Deniz Sigirli from the Department of Biostatistics and she reviewed the statistical methods again. Eventually, due to the limited number of subjects included in the study we chose to perform non-parametric statistical testing. Besides, power analysis was also performed to determine the sample size. According to the analysis, group sample sizes of $n_1=n_2=11$ achieved 98% power to detect a mean difference = 0.07 and standard deviations of both groups = 0.04 with a significance level (alpha) of 0.05. This expression and the new statistical analysis method were included in the Statistical Analysis section. Following the non-parametric testing the results did not change as to the previous repeated measure 2 x 2 ANOVA model (see manuscript clean file page 10, line 14-26).

(2) Stretching protocol selection:

The reviewer signified that we did not give documentation about the stretching time used by the athletes. We do not think that this is necessary, because almost all athletes stretch one muscle maximum 30 seconds and repeat this 2–3 times before athletic events. This situation is known by everyone in sports area. Beyond, there are many studies in the literature that stretched a muscle for 20 to 30 seconds that was the case also in our study.

(3) Elite female athletes:

The reviewer claimed that the study is limited in its scope or application because subjects were only elite female athletes. We agree with him. To prevent the misunderstanding of the reader we included in the Conclusion section that the results of the study concerns women athletes (The take home message for the practitioner is that *elite women athletes* not involved in sports mainly based on sheer power like wrestling, weightlifting or power lifting can confidently perform static stretching during warm-up). (see manuscript clean file page 15, line 4).

Furthermore, a sentence about the issue that women athletes who perform static stretching exercises before athletic activities should consider these results is added in the Conclusion section (*Women athletes who perform static stretching exercises for both the quadriceps and hamstring muscles before athletic activities should consider these results*). (see manuscript clean file page 15, line 6-8).