Reviewer’s report

Title: Improvements in maximal strength are not associated with improvements in sprint time or jump height in high-level female football players. A cluster-randomized controlled trial.

Version: 0 Date: 05 May 2019

Reviewer: João Silva

Reviewer's report:

General Comments'

The authors investigate the training-induced effects of a five weeks maximal strength training program in maximal strength measures and physical performance parameters of female football players. Th authors reported that MST improved players maximal strength but was not transferred to increase in sprint speed or jump height. I have some smaller comments regarding the overall structure of the manuscript

Abstract
1- Line 22 Please do not use in the same sentence two times "improvements ". Maybe "Maximal strength increments are reported to result in improvements…"

2- Line 40 I believe "translational" is not the most adequate term…maybe "transference" would be more suitable

Introduction

The introduction
3- Line 57-62 Please edit the sentence (the use of 6 lines decreases the clarity)

4- Line 67 Be specific to the sport (soccer)

Methods

5- Can the authors provide some information on the training plan of the control group? Was this group performing any type of strength training?
6- Please inform the reader about what are the reliability values of testing measures applied. Can be from other papers

7- Line 151-152 If possible state how many trials were necessary on average for estimate the 1RM

Statistical Analyses

I'm not sure if this was the correct test (paired sample t-test). Would a general linear model for repeated measures be more adequate.

Results

8- How many players performed 70% of the sessions. Because in this case some players could had 2 weeks with 2 sessions and 3 with just one session. As so include this as a limitation in the discussion section. Second, would be interesting to run some associations between increments in strength and the physical performance measures...just a thought

Discussion

9- Line 238 I believe that the limited number of studies don't allow to affirm that "...there seem to be a small sex differences in strength improvements...". Please edit for not be so conclusive

10- Line 256-259 Please edit for clarity. 2 sentences may help

11- Line 262-263 The authors discuss a very interesting point that training should incorporate scenarios for allow that the strength gains can be transferred to sport-related high velocity movements. More discussion on this could be an advantage. Please include also some discuss on:

- How future studies with female soccer players could be improved based on the present research;

- What recommendations to "practice" can be provided based on the current study;
Regarding the effect of the high running load during this specific training phase on the observed results (lack of improvement in High velocity actions such as sprint and jump ability) would be beneficial. In fact, the "concurrent effect" is expected to me more visible in powerful actions than in the increments in strength per se;

The benefit of an increase strength for female players. It's well documented the importance of strength to injury prevention (even more relative strength) and the greater susceptibility of female players to specific injuries such as ACL. As so, the observed increments in strength are a value outcome although at that moments was not observed any improvement in "performance";

11- Line 288 I believe "translational" is not the proper term to apply. Maybe "transference" would be more adequate.

12- Table 2 "Effect of training on body mass and strength derivatives (Mean±SD)" maybe "Effect of training on body mass, physical performance measures and strength derivatives (Mean±SD).

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review
**Quality of written English**

Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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No

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