Dear Prof. Byrne,

Thank you for your email dated 9 July 2019 enclosing the reviewers’ comments. We have reviewed the comments and have revised the manuscript accordingly. Our responses are given in a point-by-point manner below. Changes to the manuscript are shown in red type.

Author’s response to reviews

Title: Immediate effect of ACL Kinesio Taping technique on Knee Joint biomechanics during a Drop Vertical Jump: a randomized crossover controlled trial

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Version: 2 Date: 06 Aug 2019

Author’s response to reviews:

Prof. Darren Byrne
Section Editor
BMC Sports Science, Medicine and Rehabilitation
August 6, 2019

Subject: Submission of revised paper “Immediate effect of ACL Kinesio Taping technique on Knee Joint biomechanics during a Drop Vertical Jump: a randomized crossover controlled trial” (SSMR-D-18-00066R1)

Dear Prof. Byrne,

Thank you for your email dated 9 July 2019 enclosing the reviewers’ comments. We have reviewed the comments and have revised the manuscript accordingly. Our responses are given in a point-by-point manner below. Changes to the manuscript are shown in red type.
We hope the revised version is now suitable for publication and look forward to hearing from you in due course.

Sincerely,

Weerawat Limroongreungrat, Ph.D., PT

College of Sports Science and Technology

Mahidol University

Reviewer 1

Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format.

Please overwrite this text when adding your comments to the authors.

We thank the reviewer for their comments. Unfortunately the editorial manager system will not allow us to respond in a separate comments box, rather the pdf file is generated including the reviewer comments.

Comment 1
The presented data show a statistical significance that can be due to a repeatability issue. According to Malfait, B. et al (2014) who have used the 3D LJMU model have shown that inter-trial errors that ranged from 1.1° - 3.5° for all peak kinematic parameters and from 3.6 N · m - 12.9 N · m for all peak kinetic parameters. The findings of the present manuscript are within the above-mentioned range. I question the reliability of the presented data.

We thank the reviewer for raising the issue about how our significant findings in peak kinematic and kinetic variables could be attributed to inter trial errors. We would like to point out that in contrast to Malfiat et al’s (2014) study, which reported absolute values, we presently normalized our data by body weight. This may have some discrepancy. Additionally, we investigated only the kinematics and kinetics of the knee joint, which had small inter-trial error as compared to Malfiat et al’s study.

Comment 2

The taping technique must be better described and justified. Why has the application shown in figure 2 been chosen?

This study applied a standardized Kinesio-taping method for an ACL injury, which was adopted from Kase K, et al. Clinical Applications of the Kinesio Taping Method, 2nd Edition (2003). This technique has been recommended to be applied to prevent injury.

Comment 3

A lack of control group in the design.
Please see the Reviewer 2 response (Comment 7, below).

Comment 4

Who applied the KT tape? Was he or she an expert?

The KT tape was applied by an experienced physiotherapist, a certified KT practitioner, to ensure the consistency between the taping conditions. The physiotherapist has extensive experience of KT taping and could therefore be considered an expert. This has now been included in the text (see page 3, line on: 21 - 22).

Comment 5

Where the participants blind?

All participants were blinded to the experimental conditions in our study. The participants were not prior informed about the condition they were undertaking upon arrival at the laboratory or provided information about the tension applied to the KT tape (please see page 3, line no:30 - 33)

Comment 6

Why the groups were divided in 8 and 12 participants?
We thank the reviewer for highlighting this important point. It was originally our intention to have 10 subjects in each group, however we mistakenly first tested 2 subjects who were randomized to receive the placebo condition into the experimental condition.

Reviewer 2

ADDITIONAL REQUESTS/SUGGESTIONS:

The small number of patients in each group and the lack of no-taping control may be a source of criticism.

We thank the reviewer for their comments. We have added text as limitations in the discussion based on previous comments.