OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://brieflands.com/briefland/knowledgebase/category/tree.html#opr.html

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Peer Review Report for "Introducing an Activity-Based Balance Index for Soccer Players: A Validity and Reliability Study"

Author(s): Jalil Reisi, Shahram Lenjani, Filipe Clemente, Cain Craig Truman Clark

Review Timeline:

Submit Date: 4 Sep 2020
Revised Date: 21 Oct 2020
Accepted Date: 3 Nov 2020

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (0)

16 Sep 2020

Dear AE,

- The more suitable title should be selected for the article. Title should decrease to 10-12 words.
- The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone.
- The necessity and innovation of the article should be presented to the introduction.
- It is suggested to present the structure of the article at the end of the introduction.
- The major defect of this study is the debate or Argument is not clear stated in the introduction session. Hence, the contribution is weak in this manuscript. I would suggest the author to enhance your theoretical discussion and arrives your debate or argument.
- Sections and subsections should be numbered in order.
- More suitable title should be selected for the table 1 instead of “Anthropometric data of subjects.”.
- It is suggested to compare the results of the present research with some similar studies which is done before.

- Following, you will find some new related references which should be added to the literature review:
Paranjape & Singhania. Effect of Body Positions on Quadriceps Angle Measurement;
Ettefagh et al. Position Control of a Flexible Joint via Explicit Model Predictive Control: An Experimental Implementation;
Hilton, D. J. Sports Monitoring with Moving Aerial Cameras Maybe Cost Efficient For Injury Prevention.
- Page 5: the following paragraph is unclear, so please reorganize that:
“The Y Balance Test is reliable and valid (24) measuring dynamic balance. The subject while standing on one foot on a centralized stance platform touch with another foot in the anterior, posteromedial, and poster lateral directions (24). Each participant performed six practice trials before the three data-collection trials.”
- Much more explanations and interpretations must be added for the results, which are not enough.
- Please make sure your conclusions' section underscore the scientific value added of your paper, and/or the applicability of your findings/results, as indicated previously. Please revise your conclusion part into more detail. Basically, you should enhance your contributions, limitations, underscore the scientific value added of your paper, and/or the applicability of your findings/results and future study in this session.
- “Notation” should be added to the article.
- DOI of the references must be added (you can use “https://crossref.org/").
Thanks

Noureddin Nakhostin Ansari: Associate Editor | **Revision (0)** 14 Oct 2020

Dear EIC,
The authors need to provide evidence for the novelty of the study. Also, the discussion should be expanded for an in-depth interpretation of the results in the context of the literature.
Thanks

REFEREE: EIC | **Revision (0)** 16 Oct 2020

Dear Authors,
Thank you for submitting your manuscript to Asian J Sports Med. Your manuscript has now been reviewed by a reviewer and an Associate Editor. I now have the reports of the Referees, which suggest that your manuscript might be suitable for publication following a number of revisions. I attach some reviewer comments and invite you to submit a revised version of your manuscript addressing the points made.
Thanks

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Dear professor Ziaee,

We would like to thank the journal to give us an opportunity for considering our answer to editor and reviewers. We would also like to express our thanks to the reviewers for the valuable comments that improved our manuscript considerably. The manuscript has been revised to address the reviewers' comments. Finally, we very much hope the revised manuscript is accepted for publication in Asian Journal of Sport Medicine.
Sincerely yours,
Jalil Reisi
On behalf of the authors

Firstly, we would like to thank Reviewers #1 and Associate Editor for completing the review of our manuscript. In order to clarify how we have responded to the Reviewers' comments, we have cut-and-pasted each of their comments below then responded to each comment and explained how the comment has been addressed in the revised manuscript.

Reviewers' Comments:

Reviewer 1:
- More suitable title should be selected for the article. Title should decrease to 10-12 words.

>> Thank you very much for your comment. Title was edited as." Introducing an activity-based balance index for soccer players: A validity and reliability study"

- The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone.

>> Thank you very much for your comment. But we do not understand your comment we think abstract section is so clear and described whole manuscript.
- The necessity and innovation of the article should be presented to the introduction.

>> Thank you very much for your comment. in line 120 and objective section we state the novelty of our study as " Finally, given the distinct lack of appropriate studies in this field, the present study aimed to firstly introduce a novel index for evaluating the balance during activity using an accelerometer, and subsequently, to investigate the validity and reliability of the novel index in assessing the balance in static, dynamic, and soccer performance balance."

- It is suggested to present the structure of the article at the end of the introduction.

>> Thank you very much for your comment. Unfortunately we do not understand your comment.

- The major defect of this study is the debate or Argument is not clear stated in the introduction session. Hence, the contribution is weak in this manuscript. I would suggest the author to enhance your theoretical discussion and arrives your debate or argument.

>> Thank you very much for your comment. The following section add to introduction as " The oscillation of COP over the foot axis during walking may be considered as a balance index. Because this oscillation could be intuitively and objectively understood, we defined a new activity-based balance index. Oscillations of movement-related parameters over their optimal values (Figure 1, solid line) were quantitatively calculated. The movement-related parameters consisted of the object position and its first and second derivations, known as velocity and acceleration. Each of these parameters is asserted to have specific application based on the type of the activity. To the best of our knowledge there is no data about this hypothesis. "

- Sections and sub-sections should be numbered in order.

>> Thank you very much for your comment. apologies for this , It was corrected.

- More suitable title should be selected for the table 1 instead of "Anthropometric data of subjects."

>> Thank you very much for your comment. It was corrected as "Table 1. Participant characteristics and their professional experience.

- It is suggested to compare the results of the present research with some similar studies which is done before.
Following, you will find some new related references which should be added to literature review:
Paranjape & Singhania. Effect of Body Positions on Quadriceps Angle Measurement;
Ettefagh et al. Position Control of a Flexible Joint via Explicit Model Predictive Control: An Experimental Implementation;
Hilton, D. J. Sports Monitoring with Moving Aerial Cameras Maybe Cost Efficient For Injury Prevention.

>> Thank you very much for your comment. We exactly read above studies carefully, but we did not any relationship with our study. And to the best of our knowledge there is no data about this hypothesis. This study is the first study in this field hence we could not compare our result with previous studies

- Page 5: the following paragraph is unclear, so please reorganize that:
"The Y Balance Test is reliable and valid (24) measuring dynamic balance. The subject while standing on one foot on a centralized stance platform touch with another foot in the anterior, posteromedial, and poster lateral directions (24). Each participant performed six practice trials before the three data-collection trials."

>> Thank you very much for your comment. It was corrected as "The Y Balance Test is a measure of dynamic balance in unilateral stance that has been deemed to be reliable and valid (Butler et al., 2012). The participant reaches with one foot in the anterior, posteromedial, and poster lateral directions while standing on the other foot on a centralized stance platform (Butler et al., 2012). The test is performed barefoot with both left and right limbs. Each participant performed six practice trials before the three data-collection trials. Subjects was instructed to reach as far as he could while maintaining his balance, With the stance-foot toes immediately behind the start line (Butler et al., 2012). All raters were trained in performing the Y Balance Test protocol (Butler et al., 2012). The reach distance in each direction was normalized to the height length. The sum of 3 normalized reach distances was then averaged and multiplied by 100 to generate a composite score (Butler et al., 2012).

- Much more explanations and interpretations must be added for the results, which are not enough.

>> Thank you very much for your comment. It was edited.

- Please make sure your conclusions' section underscore the scientific value added of your paper, and/or the applicability of your findings/results, as indicated previously. Please revise your conclusion part into more details. Basically, you should enhance your contributions, limitations, underscore the scientific value added of your paper, and/or the applicability of your findings/results and future study in this session.

>> Thank you very much for your comment. And to the best of our knowledge there is no data about this study and this is the first study in this field we could not compare our result with previous studies We have read the discussion and conclusion section several times and at the beginning of this section a summary of the most important results is presented and then we interpret the results and the value of the article is mentioned and then the limitations of the article are mentioned. Finally, possible implications and future studies are mentioned. Also the following paragraph was added to discussion as " The aim of this study was to evaluate the validity and reliability of introduced a new activity-based balance index using a triaxle accelerometer during activity. The results showed high reliability (ICC = 0.87- 0.89; 95% CI = 0.77–0.93) in calculating ABI for 3 trial performed all tests. A significant positive correlation between ABI and both static and dynamic balance scores (r=0.62, p=0.002) was observed. Further, negative correlation was found significantly between ABI and dribbling scores (r=-0.61, p=0.026) and Y Balance Test (r=0.6, p=0.002), respectively. The introduced ABI demonstrates great potential to determine balance and skill scores, based on accelerometer-based measures. This indicate that ABI is valid and reliable index for assessing balance during activity. In line with our data Cain C. T. Clark et al (2016), showed that the Slam Tracker was shown to be an accurate and reliable device for measuring the raw accelerations of movement (16). Also Noamani et al (2019) investigate the validity of using wearable inertial sensors for assessing the dynamics of standing balance and showed that accelerometers are accurate and recommended for standing balance evaluation (11). "

However, we are very happy to guide us. Exactly which part of this topic is ambiguous?

- "Notation" should be added to the article.

>> Thank you very much for your comment.it was added as footnote as" Author Contributions: Study concept and design: J. R., and SH. L.; analysis and interpretation of data: SH. L., and S. B.; drafting of the manuscript: F. C.; critical revision of the manuscript for important intellectual content: F. C., C. C., and J.

R.; statistical analysis: J. R and SH. L."
- DOI of the references must be added (you can use "https://crossref.org/").

>> Thank you very much for your comment. DOI of the references were added.

Associate Editor's Comments:

Associate Editor 1:
The authors need to provide evidence for the novelty of the study. Also, the discussion should be expanded for an in-depth interpretation of the results in the context of the literature.

>> Thank you very much for your comment. in line 120 and objective section we state the novelty of our study as " Finally, given the distinct lack of appropriate studies in this field, the present study aimed to firstly introduce a novel index for evaluating the balance during activity using an accelerometer, and subsequently, to investigate the validity and reliability of the novel index in assessing the balance in static, dynamic, and soccer performance balance.
Also the following paragraph was added to discussion as " The aim of this study was to evaluate the validity and reliability of introduced a new activity-based balance index using a triaxle accelerometer during activity. The results showed high reliability (ICC = 0.87- 0.89; 95% CI = 0.77–0.93) in calculating ABI for 3 trial performed all tests. A significant positive correlation between ABI and both static and dynamic balance scores (r=0.62, p=0.002) was observed. Further, negative correlation was found significantly between ABI and dribbling scores (r=-0.61, p=0.026) and Y Balance Test (r=0.6, p=0.002), respectively. The introduced ABI demonstrates great potential to determine balance and skill scores, based on accelerometer-based measures. This indicate that ABI is valid and reliable index for assessing balance during activity. In line with our data Cain C. T. Clark et al (2016), showed that the Slam Tracker was shown to be an accurate and reliable device for measuring the raw accelerations of movement (16). Also Noamani et al (2019) investigate the validity of using wearable inertial sensors for assessing the dynamics of standing balance and showed that accelerometers are accurate and recommended for standing balance evaluation (11). "

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Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (1) 31 Oct 2020

Dear AE,
The study is reviewed carefully. According to comments and revisions by the author, this manuscript is accepted.
Thanks

REFEREE: Associate Editor | **Revision** (1) 1 Nov 2020

Dear EIC,
The authors have addressed the issues raised by the reviewers. The manuscript can be now accepted for publication,
Thanks

REFEREE: EIC | **Revision** (1) 3 Nov 2020

Dear Authors,
The second round of peer review of your manuscript has been completed, and I am pleased to inform you that your manuscript has now been accepted for publication in our journal.
Thanks