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.

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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.

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- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
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- 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://sites.kowsarpub.com/kowsar/knowledgebase/category/tree.html#opr.html

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Peer Review Report for "Training Load and Injury Incidence Over One Season in Adolescent Arab Table Tennis Players: A Pilot Study"

Author(s): Samuel Andrew Pullinger, Abdallah Rejeb, Evdokia Varamenti, Marco Cardinale

Review Timeline:

Submit Date: 24 Sep 2018
Revised Date: 15 May 2019
Accepted Date: 27 May 2019

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) — 13 Jan 2019

Dear AE,
Please follow these comments for the best outcome:
As the writing and long sentences were hard to understand, I read this manuscript generally . Here I have collected some of my general comments, may be helpful for best result of yours. The results of this study demonstrate that differences in training load are evident during a training season and as the training times are increased, the injuries might happen by a greater chance. This is the conclusion that is established in some articles before .Please add the novelty of your study in introduction and some practical way to decrease this injury rate related to training times in conclusion due to your results.And also add the reason of choosing eight athletes in the method.
Thanks.

REFEREE: Associate Editor | **Revision** (0) — 14 Jan 2019

DearEIC,
I believe the article is in the scope of AsJSM. but some minor changes are required.
the English is good.

1. The introduction should follow this pattern: a. What's known b. What's unknown (limitations and gaps in previous studies) c. Your burning question/hypothesis/aim d. Your experimental approach e. Why your experimental approach is new and different and important (fills in the gaps) in 3-4 paragraphs, please take the reader step by step from what is known to what is unknown. End with your specific question. please summarize at a high level! Leave detailed descriptions, speculations, and criticisms of particular studies for the discussion.
2. Please consider Reviewer's comments. Regards.
Thanks.

REFEREE: EIC | **Revision** (0) 14 Jan 2019

Dear Author,
Thank you for submitting your manuscript to Asian J Sports Med. 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.

Thank you very much for the comments which have been provided. We appreciate the work and effort put into this and hope we can further clarify and change our manuscript according to your requirements.

Thank you for submitting your valuable manuscript to our journal. We would like to inform you that the peer review process of your manuscript is complete and requires "Minor Revision". Although it has several useful points, it needs Minor Revision to be reviewed again. Below you can find the abstracts of the peer review decision made by our editorial board members.

Reviewers' Comments:

Reviewer 1:

Dear author/s, Please follow these comments for the best outcome:

Q 1. As the writing and long sentences were hard to understand, I read this manuscript generally. Here I have collected some of my general comments, may be helpful for best result of yours. The results of this study demonstrate that differences in training load are evident during a training season and as the training times are increased, the injuries might happen by a greater chance. This is the conclusion that is established in some articles before. Please add the novelty of your study in introduction and some practical way to decrease this injury rate related to training times in conclusion due to your results. And also add the reason of choosing eight athletes in the method.

A 1. Thanks for your comments.

- We have re-read the manuscript and made sure to cut down the length of sentences which are too long and unclear to help the reader.
- We have altered parts of our introduction and added more regarding the novelty of our design.
- We have added the reason as to why we chose eight athletes in the methodology.

Associate Editor's Comments:

Associate Editor 1:

Dear corresponding author, I believe the article is in the scope of AsJSM. but some minor changes are required.

Q 2. 0. I am happy to say, the English is good.

A 2. Thank you for your comments. We made sure to have the manuscript proof read by individuals who are fluent in English and obtained PhD's from British institutions. As mentioned above, we have re-read the manuscript and made sure to cut down the length of sentences which are too long and unclear to help the reader

Q.3. 1. The introduction should follow this pattern: a. What's known b. What's unknown (limitations and gaps in previous studies) c. Your burning question/hypothesis/aim d. Your experimental approach e. Why your experimental approach is new and different and important (fills in the gaps) in 3-4 paragraphs, please take the reader step by step from what is known to what is unknown. End with your specific question. please summarize at a high level! Leave detailed descriptions, speculations, and criticisms of particular studies for the discussion.

A 3. Thank you for your comments. We have re-structured the introduction to ensure we follow the suggested pattern of:

a. What's known – We have first provided an introduction regarding table tennis and the requirements in order to excel in the sport and then discussed in detail the current information in the literature regarding injury incidence and training load.

b. What's unknown (limitations and gaps in previous studies) – We have written in detail the gaps that are present in previous studies by relating the lack of findings in injury incidence and training load within table tennis.

c. Your burning question/hypothesis/aim – we have provided in-depth information related to what our hypethesis, aim and burning question is in relation to what is unknown and what we are looking to establish.

d. Your experimental approach – We have provided a few sentences regarding our experimental approach and why it is more valid and reliable compared to previous studies, without going into too much detail as this is further covered in the methodology and discussion section.

e. Why your experimental approach is new and different and important (fills in the gaps) in 3-4 paragraphs. We have also provided in relation to point d a few extra paragraphs regarding our new approach and how this will contribute further information to the literature. After this we have gone into our aims of our study by relating it to our experimental approach

2. Please consider Reviewer's comments. Regards.

EIC Decision:

Thank you for submitting your manuscript to Asian J Sports Med. 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.

OPEN PEER REVIEW

Revision (1)

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

REFEREE: Associate Editor | **Revision** (1) 31 Mar 2019

Dear EIC,
We have received a precious review from an expert in the able tennis after the previous round of review, we believe it would help a lot to the manuscript, so please incorporate the comments in the attach PDF file in the review.
Thanks.

REFEREE: EIC | **Revision** (1) 2 Apr 2019

Dear Author,
The second round of peer review of your manuscript is completed. I now have the reports of the Referees, which suggest that your manuscript needs more correction.
Thanks.

OPEN PEER REVIEW

Revision (2)

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.

We would like to thank the reviewers for the comments they have provided and have given answers regarding the changes which we made.

Q1 Abstract

A2 We have made the following changes in the abstract to make the abstract clearer to read and provide more detail to the following:

Abstract

Background: It has been established that injury incidence data and training load in table tennis is somewhat limited.

Objectives: The purpose of this study was to analyse and report training load and injury incidence. This was established over a full season in highly trained youth table tennis athletes. We further aimed to establish what variables related training load have a statistically significant effect on injury in youth table tennis.

Methods: Data was collected from eight male adolescent table tennis players of Arabic origin. Training and game time were monitored continuously throughout each training session and match. Heartrate was measured throughout and then subsequently analysed to quantify internal training load.

Results: Players were subjected to an average of 1901h33min ± 44h30min of training time and 140h0min ± 11h29min of game time over the season. Overall injury incidence was 8.3 (95% CI: 4.6–12.0), time-loss injuries 4.4 (95% CI: 1.9–6.9) and growth conditions 2.0 (95% CI: 0.6–3.3) per 1000h. Internal training loads quantified via the Edwards (38) training impulse equation were significantly different between training weeks ($P=0.001$), with lowest values around competition periods ($P<0.05$). For every extra auxiliary unit of relative training load per minute during training, a significant increase ($P = 0.014$) in injury occurrence was present.

Conclusion: Most of the injuries occurred during the first quarter of the year (65%), when training loads were highest. In conclusion, the results of this preliminary study showed that training loads increase during a season until competition period, with relative training load per minute being linked to the likelihood of injuries. The rate of overuse injuries and growth-related conditions were higher than have been previously reported in adolescents in other racquet sports.

Q2 Background

A2. Changes have been made to help with the clarity of the introduction and provide more detail regarding other racquet sports and injury incidences. We have kept references of other youth sports as some highlight the effects of growth and maturation. In addition, some sentences have been changed or shortened to help text flow. We have highlighted in red the changes in the text. The following has changed:

Injury incidence data in table tennis is somewhat limited with the current literature showing that risks of injury in senior and junior (8-10) table tennis players are insignificant compared to team-sports (11,12) and more importantly other racquet sports (13-17). It has been established that most injuries in table tennis are related to muscle tissues or affect the waist and shoulder girdle (8,10). Other body parts which are affected are the ankle and spine (8). Many epidemiology

studies have examined the injury incidence in highly trained adolescent athletes in racquet sports (9,13-17). Most of the available studies have done so by collecting injury data through means of questionnaires (13,15-17). Although this makes analysis easier it puts into question the validity and reliability of measurements. Therefore, studies using a surveillance record to collect data have recently been deemed more appropriate (9,14). A recent study performed by Rejeb et al (9) prospectively collected injury data on 166 male adolescent athletes ranging from 12–18 years age from several different sports, of which 20 were table tennis athletes (9). The major findings in the study showed high rates of time-loss injuries (87.0%) in youth athletes. Further, it was found that the rate of overuse injuries (70%) and growth-related conditions was higher than findings of similar studies in other racquet sports. However, they also established that injury incidences in youth table tennis athletes were found to be the lower compared to their squash counterparts.

To improve performance, changes in training duration, intensity and frequency are required to adjust training load at various phases during the season (18). With training load linked to injury rates many studies have found a relationship in elite athletes (11,12,19-23). Studies investigating the influence of training load on injury rates have generally reported a significant correlation between training load and injury suggesting that the harder individual trains, the higher the likelihood of injury (22-24) and illness (23,25). Despite the wealth of research documenting the training-injury in elite sport, there us a lack of research reporting typical training loads and injury in professional table tennis and in youth athletes. While various measures of training load have been proposed over the years (26), combining information about intensity and duration of training can represent a low-tech method able to evaluate training load. Heartrate based methods can provide such information and be a reliable source of quantification for cardiovascular load and training intensity in sport where such demands are relevant (27). Previous work has reported typical cardiorespiratory and metabolic demands of elite junior players (28) and the influences of different playing styles on such parameters (29). It therefore seems feasible to utilise simple heartrate-based methods to quantify training activities in youth table tennis players.

There is a lack of research and understanding surrounding the impact of training/competition on adolescent athletes (30) and more specifically youth table tennis athletes, it is important to gather more information. The prescription of training to achieve optimal performance has largely been instinctive and there is a strong belief that increased training time results in increased performance and well-being. Nevertheless, this comes with varying degrees of success and could increase the likelihood of injury and overtraining (31,32). The effect of training on the physiological adaptation, subsequent performance, and injuries requires optimised training prescription that involves an integrative approach to quantification of playing and training load and can provide us with a better framework to understand the demands of playing table tennis at different age groups. Collecting more scientific information could help athlete and coaches effectively improve their performance, through modifications in training prescription and training load. Altering frequency, duration, and intensity of training sessions can help decrease injury risk and rates and provide ultimate adaptations to training as well as for competition performance.

Q3 Hyptothesis

A3 A hypothesis has been added:

We hypothesised as training load and intensity increased pre-competition, the risk of injury in athletes would also display an increase. In addition, training load and relative training load will vary at different time-points during the training season, with higher values observed when less competition was scheduled.

Q4 Materials and Methods

A4 As per your request we have changed a number of aspects which were not clear.

1. Selection and Description of Participants

Eight male adolescent table tennis players of Arabic origin [age (mean ± SD) 14.5 ± 1.4 yr, maximal oxygen uptake (VO_2 max) 50.0 ± 6.4 mL.kg.min-^{1}, stature 166.7 ± 6.6 cm, body mass 53.6 ± 7.9 kg, Σ of 7 skinfolds 9.9 ± 5.1 % body fat and PHV -0.48 ± 1.65] were included in this one-year prospective study (January 2016-January 2017). Players who were full-time members of Aspire Academy and the Qatar table tennis Association took part in the study. These players have been identified as the best young Qatari table tennis players in the country and are recruited to represent the national table tennis Association. As a result, due to our stringent selection process, only players which exhibit exceptional table tennis talent, and the players who successfully pass the selection process and are admitted. Therefore, only eight males fitted the criteria set to ensure training load information and injury information collected was of athletes of national level. All boys had previous clearance from a physician to participate in table tennis having been through medical screening procedures to determine their health and injury status. Written informed consent was sought and obtained from their parents. The study was approved by the Aspire Academy Scientific Committee and Ethics approval was obtained from the IRB of the antidoping laboratory in Qatar and conformed to the recommendations of the Declaration of Helsinki. This study is part of a larger study on growth and maturation of young athletes.

2. Classification and definition of injury types

All injuries were assessed by a physical therapist (one of the authors) with experience of working within youth Table Tennis at Aspire Academy.

3. *Game time*

During official games (Aspire Academy, Club and Federation), players were unable to wear a HR monitor and video data was only recorded for a small number of games. Therefore, the duration of playing time in such games without video data was predicted, according to previously collected data in junior table tennis matches, which have shown to range from 20 to 40 min on average, depending on the tournament format (3).

Q5 Results

A5 You had the following concern regarding the results: The overall average of days lost through injury over the course of a year amounted to 2.4 days, while the median of days lost through injury over the course of a year amounted to 1 day.

We can confirm that this is the case. Our main priority when we have injured athletes is to ensure they are back in training as quickly as possible. However, this could mean that if an injury has a lower extremity injury, he is training his upper extremity to ensure he does not lose any training hours and as little days as possible through injury.

Q6 References

A6 All references have been changed in the reference list and text.

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Revision (2)

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

REFEREE: Associate Editor | **Revision** (2) 28 Apr 2019

Dear EIC,
I have collected reviewers comments, happy to say that the manuscript has vastly improved but there are still some major problems:
1. Proofreading is required, some simple problems.e.g:
Background:
Success [is] highly dependent on the interaction
competition requires [a] very good level
2. The background is too long and it loses the reader. I suggest a concise and more straightforward one. .
3. Tables should stand alone (no abbreviation until explained in the caption).
Thanks.

REFEREE: EIC | **Revision** (2) 13 May 2019

Dear Author,
The third round of peer review of your manuscript is completed. I now have the reports of the Referees, which suggest that your manuscript needs more correction.
Thanks,

OPEN PEER REVIEW

Revision (3)

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.

Associate Editor's Comments:

Associate Editor 1:
I have collected reviewers comments, happy to say that the manuscript has vastly improved but there are still some major problems:

1. proofreading is required, some simple problems.e.g:
Background:
Success [is] highly dependent on the interaction
competition requires [a] very good level
2. The background is too long and it loses the reader. I suggest a concise and more straightforward one.
3. Tables should stand alone (no abbreviation until explained in the caption)

1. Thanks for the comment. The manuscript has been proofread and changes have been made accordingly. This was done by two native English speakers with PhD's from UK universities.

2. Thanks for the comment. The background has been reduced and changed to make it easier for the reader to understand. It has been made more concise and straightforward.

3. Thanks for the comment. Tables now stand alone, and abbreviations are explained in the caption for clartity.

OPEN PEER REVIEW

Revision (3)

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

REFEREE: Associate Editor | **Revision** (3) 26 May 2019

Dear EIC,
it looks like that the manuscript has been changed but there is no way for reviewers to find those changes. please highlight or track change the manuscript for changes.
Thanks.

REFEREE: EIC | **Revision** (3) 27 May 2019

Dear Author,
The fourth 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.