Reviewer's report

Title: Changes in sex difference in swimming speed in finalists at World Championships and Olympic Games from 1992 to 2013

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Reviewer: Kevin S.C. Kwong

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Stefanie Wild et al
Changes in sex difference in swimming speed....

I read with pleasure this readable article which is written in a fluent language without unnecessary professional jargons. This paper outlines a highly relevant report of importance for those readers who are involved in the swimming competition for elite athletes at top level, and particularly professional personnel involved in the training of elite swimmers for World Championships and Olympic Games.

This paper provides a complete swimming speed evaluation and an overall view of the trends and sex difference in swimming speed for finalists participated in the World Championships and Olympic Games in the period between 1992 and 2013, which are prestigious and major international events in the field of swimming.

The theme of this study is focused with its aims clearly defined and new ideas well-articulated. On the whole the study is well-structured and systematically organized. The authors should be congratulated for making an effort in analyzing the swimming speed, on the basis of official data obtained from credible sources, throughout this period of time.

This report is informative with comprehensive relevant background information and data, and a clear and reasoned explanation of the findings of other research teams. This paper also addresses the factors which might affect the performance of swimmers, e.g psychological skills, emotional competencies, training processes, pool design and ‘antiwave lane’ ropes as well as drag-reducing swimsuits, though the authors did not attempt to establish a causal relation between swimming speed and these factors.

The data collection process and the statistical procedure have been clearly described and suitably reported. The statistical tests used are appropriate. This report also provides readers a large volume of credible data and information (graphs and tables) which show the convincing trend and sex difference in all different events of swimming performance at top levels. The authors also provide a reasoned explanation and conclusion of the outcome of this study. It is expected that the outcome of this study would facilitate the development of ideas
and strategies for training elite performers in swimming competitions at world class level.

This paper is therefore recommended for publish.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I do not have any competing interests in relation to the paper.