Reviewer's report

Title: Surface electromyography during physical exercise in water

Version: 1
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Reviewer: Catherine Disselhorst-Klug

Reviewer's report:

The authors present the results of a literature review on the state of the art on muscular activation during exercises performed in water and on dry land. With that, the authors address a major problem in an up-coming field of interest in rehabilitation sciences. The paper is clearly written and the results are discussed in detail.

• Major Compulsory Revisions

My most concern is about the description and the way the papers analyzed in this review have been selected. Within the manuscript, the reported numbers differ and it becomes not clear why. For example:

1) According to Figure 1, it was started with 316 potentially relevant studies and at the end only 9 studies have been included in the review.

2) According to the “study appraisal and synthesis method”: 42 relevant articles have been found initially, reduced to 31 after reviewing the abstract.

3) In the “Result” section, initially 92 articles are mentioned which were reduced to 24 relevant ones.

4) In Table 24 relevant articles are listed and

5) in the discussion the number of 21 articles is reduced to 9.

Additionally, the main tool for appraising seems to be the CASPe. However, no detailed information is given how this tool works and what are the main criteria. Even no reference is given, which somebody could use to understand the selection process a bit better.

• Minor Essential Revisions

There is one arrow wrong in figure1.

Figure 1: When I exclude 92 from initially 316 relevant studies 224 are left not 24!

• Discretionary Revisions

none

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: 
I have no competing interests.