Reviewer's report

Title: SEAS (Scientific Exercises Approach to Scoliosis): a modern and effective evidence based approach to physiotherapeutic specific scoliosis exercises

Version: 9 Date: 18 December 2014

Reviewer: Eric Parent

Reviewer's report:

I received communication from the Editor that he was satisfied with the additional level of details and will therefore not request any further major changes. I summarize below clarifications that the reader interested in adopting this approach may which to obtain before practicing the SEAS approach. In any event, formal training would be necessary and as the authors suggested, this article introduces the method but does not constitute a manual to instruct in using the approach.

There is an improved description of how assessments findings guide the selection of exercises but there is in my opinion still a lack of specificity in describing what should be part of a SEAS evaluations and where would a therapist begin in prescribing the exercises. I understand that the more thorough description of which tests are done when and which results consist of priorities in developing the treatment are possibly presented in the courses. Without such details, I wonder how the intervention can be standardized and popularized with confidence that results be generalizable.

Similarly the tables summarizing the evidence produced to date are informative but I would have like the text to summarize these studies more thoroughly rather than only explaining the results of the RCT by Monticone et al. Still the reader will find the key information the tables.

Within each of the 20minutes or 45 minutes-long home exercise sessions, I am still unclear how therapists decide on a certain number of exercises and what the criteria are to determine the number of reps and duration of each exercises. Again, this is likely presented in the course and is an important factor to ensure generalizability of the approach to other therapists and settings.

Discretionary revisions

I uploaded an annotated copy of the PDF suggesting some English and typo corrections.

In the abstract: I suggest:

The SEAS exercise program is prescribed until the patient reaches skeletal maturity appraised by a Risser 5, where the risk of progression of scoliosis is deemed sufficiently low.
Under learning self-correction you wrote: “on the vertebra that shows the most serious coronal tilt.” The translation is usually centered at the apex which is the most laterally shifted level but not the most tilted. Did you really mean “tilt”? The reference list uses inconsistent underlining. The copy editor will want to review this aspect.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'