

Review 1

Thank you for the opportunity to review: ***Adaptive Wakeboarding: A Case Report on Equipment Modifications and Strength Training for Improved Performance***. The authors present a case study on a 30-year old female with CP with an assistive technology intervention, before and after a targeted fitness intervention. The article highlights not only the importance of adaptive sports equipment but that physical training is necessary for individuals to attain the full benefits when using adaptive equipment. I have two major concerns but the remain I consider minor.

Major Concerns

1. Data Analysis/results. The authors utilized t-tests to analyze pre-post differences. A test requires $n > 1$ to be performed. Similarly, Cohen's d cannot be calculated. For case studies, the authors are limited to reporting descriptive statistics and change scores. Similarly, the SD and CV from table 2 provide little information since these measures rely on a normal distribution of data which cannot be achieved with three measures.
2. It is not clearly state whether informed consent was obtained.

Minor Concerns

1. Abstract
 - a. Line for regard the gap. An important component of this study is self-direction. The participant was able to participate in a desired activity. The level of success could be less if an adaptive sporting opportunity was provided that did not fit into the participant's interest (like if they were given an adaptive mountain bike motivation would have been less). This gap is also not clearly identified in the introduction.
 - b. In text references can be removed from the abstract.
2. Literature Review
 - a. This section is typically title "Introduction"
 - b. The use of adapt vs modify. Please check each use in the manuscript. For instance in the 4th line of the introduction "modifications" should be used rather than adaptions.
 - c. Transport would not be an environmental barrier (this is financial). Environmental would be for instance accessing the dock unaided.
 - d. On page 2 it should be noted that most people with a disability do not meet minimum physical activity guidelines.

- e. The gap from the abstract should be strongly introduced somewhere in the introduction.
3. Client profile
 - a. The sentence “drawn to wakeboarding” should be revised to “The client expressed interest in wakeboarding but was not able to participate”.
 - b. How was frustration and reduced quality of life measured?
4. Table 1
 - a. The term “run time” is confusing. Can this be revised to “ride time”?
 - b. Move the table to results section.
5. Assistive Technology Intervention
 - a. A figure of an unmodified wake board and a figure with the modified wake board should be provided. All the modifications should be highlighted and labelled. The figures need to be referenced where appropriate in the manuscript.
 - b. Run times are reported here but should be moved to results. Table 2 is reference but it should be table 1.
 - c. The authors note that while the gains were significant, further improvements can be anticipated. This is a limitation and should be moved to the limitations section.
 - d. Move table 2 to results section.
6. Targeted fitness intervention
 - a. Provide additional details of the 12-week exercise program and group sessions. This is clearly intensive and needs more details and related costs.
7. Discussion
 - a. Requires in text reference support.
 - b. What is meant by “biomechanical” training?
8. Figures
 - a. Figure 1
 - i. Requires a caption and needs to be referenced in the text
 - b. Figure 2
 - i. Specific modifications need to be identified and labelled. Should also include an image of a nonmodified board.