Author's response to reviews

Title: High-intensity compared to moderate-intensity training for exercise initiation, enjoyment, adherence, and intentions: an intervention study

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Author's response to reviews: see over
Once again, we appreciate the reviewers’ comments and suggestions. Our responses are provided in bullet points following each comment below.

**Response to Reviewer 1**

- **Major Compulsory Revisions**
  I apologize for not catching this earlier. The analytic approach for the primary outcomes is confusing and it is hard to tell from the reporting in the results or the table whether the significant differences presented (or p-values in Table 3) refers to the between group or within group t-test results. In addition, for the between group (independent samples t-test), what was the outcome? Did they use the post-test scores and use the baseline on that measure as a covariate or did they use a difference score (i.e., post-test minus baseline). In terms of parsimony, I think it would be best to either use the change score for the between group difference only or the authors could opt to do a 2x2 factorial analysis (i.e., repeated measures ANOVA), with one factor being the group of assignment (HIFT vs. ART) and the other factor being time (baseline vs. post-test) as the authors seem to be interested in within group change over time also. Using this approach they would be able to examine the main effect for group assignment, the main effect for time, and the interaction between group assignment and time.
  
  - We appreciate the reviewer pointing out their confusion with the presentation of our results.
  - We have edited the title of table 3 to reflect that it is presenting only within-group differences: *Table 3. Within-Group Differences from Baseline to Posttest in Exercise Enjoyment, BMI, and Body Composition.*
  - For the between group analysis, we followed the reviewer’s recommendation to conduct 2x2 ANOVAs and have added the following description to the end of our methods section: *To examine differences from baseline to posttest in exercise enjoyment, BMI, and body composition, paired samples t-tests (within-group) and 2 (group) x 2 (time) repeated measures ANOVAs (between-groups) were conducted.*
  - Accordingly, we have added the following sentences to the results sections:
    - Reflecting the improvements in the ART group, there was a statistically significant main effect for exercise enjoyment between groups [F(1, 16) = 14.52, p = .002], as well as a significant group*time interaction effect [F(1, 16) = 7.81, p = .013].
    - No significant main effects or interactions were found between groups for changes over time in BMI, body fat percentage, lean body mass, or fat mass.
  - We also added the following information to the Conclusions: *However, it may be helpful for adults with lower exercise enjoyment to initiate moderate-intensity ART training when beginning a new exercise program, as significant improvements in exercise enjoyment can occur.*

- **Minor Essential Revisions**
  I think it would be good to note that the time to complete daily workouts exclude warm-up and warm-down times, stretching, and skill work.
  
  - We have added that description in the methods section: *Times to complete daily workouts (excluding time for warm-up, stretching, skill work, and cool-down) were recorded.*

- **Discretionary Revisions**
It might be useful to also present the injury rate as injuries per X hours trained, as was done in the Hak et al., paper (in the discussion).

- The total training time for all participants in the HIFT group was 52.6 hours. In order to have a comparable number to Hak et al. (3.1 injuries per 1000 hours trained) we would have had to 0.17 of an injury. To calculate our injury rate on the same scale (per 1000 hours trained) would grossly inflate our actual injury rate.

- We have added the following to the discussion: *Future research could include a larger sample with extended follow-up to determine sustained adherence as well as injury rates per 1000 hours (total training time for all HIFT participants was only 52.6 hours).*

**Response to Reviewer 2**

The authors addressed my concerns and suggestions adequately, there are not further major, minor or discretionary revision suggestions.

**Additional Editorial Request:**

1.) Please provide the specific name of the ethics committee which granted approval in your manuscript.

- We have added the requested information as follows: *Participants completed written informed consent and procedures were approved by the Kansas State University Institutional Review Board.*