PUBLISHING INSTITUTE
Journal Website
Article history:
Received 07 January 2025
Revised 13 March 2025
Accepted 21 March 2025
Published online 01 April 2025

Psychological Research in Individuals with Exceptional Needs

OPEN PEER-REVIEW REPORT

E-ISSN: 3060-6713

Detraining Effects on Body Mass Index and Motor Performance in Boys with Down Syndrome: A One-Year Follow-Up Study

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Editor	Reviewers
Izet Pehlić Full professor for Educational sciences, Islamic pedagogical faculty of the University of Zenica, Bosnia and Herzegovina izet.pehlic@unze.ba	**Reviewer 1:** Mohsen Golparvar Professor, Department of Psychology, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran. mgolparvar@khuisf.ac.ir **Reviewer 2:** Mohammadreza Zarbakhsh Bahri Associate Professor ،Department of Psychology, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran. Email: M.Zarbakhsh@Toniau.ac.ir

1. Round 1

1.1. Reviewer 1

Reviewer:

While exclusion criteria are mentioned, there is no explanation of how confounding factors such as comorbidities, medication use, or daily activity levels were monitored during the follow-up year. Adding this would enhance the internal validity of the study.

While partial η^2 is reported, the clinical significance of these effect sizes is not interpreted. Adding a short discussion of whether η^2 values indicate small, medium, or large effects for BMI and motor skills would help contextualize the results.

The description of post-hoc testing is brief. Consider adding the actual post-hoc comparisons and adjusted p-values for group differences at each time point to make the results section more robust.

Figures are referenced (e.g., “Figure 1. Changes in BMI for Boys with Down Syndrome”) but their axes, units, and error bars are not described in the text. Add figure captions detailing sample size per group, error bar meaning (SD vs. SE), and significance markers.

The discussion would benefit from restating the study’s primary hypothesis and explicitly stating whether it was supported or partially supported by the findings.

You highlight the school's role but could integrate evidence about inclusive PE programs' long-term effectiveness or reference frameworks for sustainable exercise in special education.

Authors revised the manuscript and uploaded the document.

1.2. Reviewer 2

Reviewer:

The article notes that participants had no organized exercise, but does not specify if incidental physical activity or physiotherapy was tracked. Including any monitoring approach (e.g., questionnaires, parental logs) would clarify whether "detraining" was consistent across groups.

The perceptual–motor tests used are not specified in detail. Readers would benefit from the exact test names, validation status for children with Down syndrome, and reliability indices (e.g., test-retest ICC, Cronbach's alpha).

It is unclear whether any participants were lost to follow-up or how missing data were handled (e.g., listwise deletion, imputation). Clarifying attrition and statistical treatment of incomplete cases would improve transparency.

Although some references are cited, a deeper contrast with similar long-term follow-ups (if available) could strengthen external validity and place your results in a broader context.

BMI changes are reported statistically, but the clinical meaning (e.g., progression toward overweight thresholds, cardiometabolic risk increase) is not discussed. Translating effect sizes into health risk categories would improve applied relevance.

This section could be expanded by citing specific psychosocial models or barriers (e.g., Theory of Planned Behavior, caregiver burden) to inform interventions beyond physical programming.

Authors revised the manuscript and uploaded the document.

2. Revised

Editor's decision: Accepted.

Editor in Chief's decision: Accepted.

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