

Wellcome Open Research

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Measuring the effects of exercise in neuromuscular disorders: a systematic review and meta-analyses

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Affiliations + expand

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Objective:

To develop an innovative, interactive, outcome measures database as an open access online resource.

Open practices used:

Wellcome Open Research **publication** (including pre-registration)

Interactive **database** of systematic review data

Interactive **meta-analysis** data

Computational Research Platform – **published executable code** (Codeocean)

Databases

www.newcastle-mitochondria.com/train-nmd/

Codeocean

<https://codeocean.com/capsule/1683542/tree/v2>

Barriers encountered:

- Resources/time commitments
- Need specialist training
- Lack of standardisation / raw data available
- Perception of ↑ benefits from publishing in 'well-regarded' peer-reviewed journals

VS

- PI support appreciate time required
- Collaborative project across disciplines
- Approached corresponding authors to obtain missing data
- Additional research assessment criteria indicators

Benefits:

NMD Community

- OA tool/s:
 - 1) inform clinical trial design and delivery;
 - 2) evidence-based clinical exercise prescription & assessment

WCMR

- Documented workflow to streamline future work
- Adhere to OA standards
- Aligns to our WCMR research culture ethos
- OA advocate

Broader

- Greater integrity
- Increasing collaborations and research opportunities
- Global – equitable access

Impact:

*“Overall this is a huge advancement to the field
and will no doubt influence care”*

OA peer review

Team Science:



Dr Renae Stefanetti

Exercise Physiologist



Dr Alasdair Blain

Statistician



Linda Errington

Medical Librarian



Dr Jane Newman

Physiotherapist



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