

Inspiring change for adults experiencing neurological fatigue through fatigue education. A systematic review with meta-analysis.



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No financial disclosures or conflict of interest to declare.

Fatigue

Characterized by overwhelming exhaustion not relieved by rest; impacts daily life, work, and quality of life.

Education is widely used but often based on **consensus**.

Clinical Question

- Do fatigue-focused education programs reduce fatigue in neurological populations?
- Does effectiveness vary by delivery method?

Methods

Systematic Review

PROSPERO protocol (CRD42023466070)

Risk of Bias Assessment

GRADE rating

Inclusion criteria



- RCTs
- Reducing fatigue was the primary aim of study
- A measure of fatigue was primary outcome measure
- The intervention must be “active education-base”
- Full text was in English

Results: Population

19 RCTS = 1,970 participants

- Multiple sclerosis (14)
- Stroke (3)
- Traumatic brain injury (1)
- Mixed population (1)

Comparators

- Usual care (3)
- Waitlist control (4)
- Other intervention (6)
- Physical activity management or passive fatigue information (3)
- Relaxation program (1)

Results: Sessions

Group delivery (58%)

- In-person, 42%
- Online, 16%

Individual delivery (42%)

- Phone, 10.5%
- Telehealth, 21%
- In person, 10.5%

Results: Sessions

Duration

- < 6 weeks (10)
- 7 to 10 weeks (5)
- > 12 weeks (4)

Frequency

- Once per week (15)
- Twice per week (1)
- Once per fortnight (2)
- Not stated (1)

Results: Educational Content

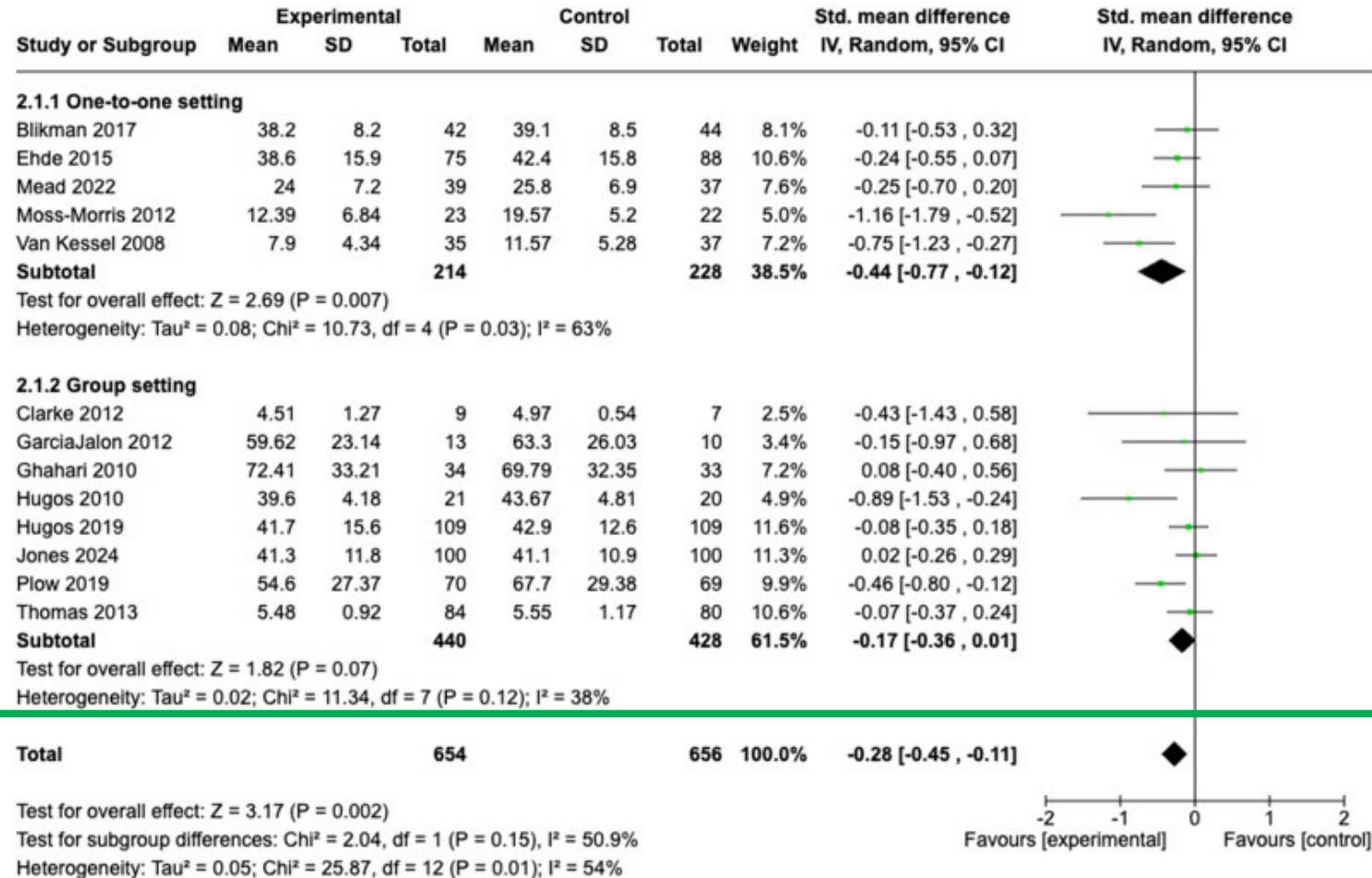
All RCTs included:

- Self management
- General fatigue management strategies

Some included:

- CBT interventions (8)
- Problem solving approach (1)
- Peer Support (1)

Results: Overall Treatment Effect



Results: Treatment Effect

Outcome	Treatment Effect	No. of Participants	GRADE
Fatigue	-0.28 (-0.45, -0.11)	1310 (13)	Low
Setting			
One-to-one setting	-0.44 (-0.77, -0.12)	442 (5)	Moderate
Group setting	-0.17 (-0.36, 0.01)	868 (8)	Very low
Delivery			
In-person delivery	-0.22 (-0.43, -0.01)	820 (8)	Moderate
Telehealth delivery	-0.36 (-0.66, -0.06)	490 (5)	Moderate
Diagnosis			
Stroke	-0.08 (-0.31, 0.15)	292 (3)	Low
Multiple Sclerosis	-0.37 (-0.59, -0.15)	951 (9)	Moderate

Key Findings

Education-based interventions can help reduce neurological fatigue in people with multiple sclerosis, though evidence for other neurological conditions remains limited.

One-to-one delivery appears more effective than group-based formats.

Effectiveness is comparable across delivery modes, with no major difference between telehealth and in-person sessions.

References



Delbridge, A., Howlett, O., English, C., & Simpson, D. B. (2025). What is the effect of education on fatigue in adults with neurological conditions? A systematic review and meta-analysis. *Clinical rehabilitation*, 39(8), 1019–1033. <https://doi.org/10.1177/02692155251351510>



Delbridge, A., Howlett, O., Simpson, D., & English, C. (2025). What is the effect of education on fatigue in adults with neurological conditions? A systematic review and meta-analysis. A protocol. PROSPERO, Accessed 28/ 03/ 2025. <https://www.crd.york.ac.uk/PROSPERO/view/CRD42023466070>

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