

Figure S1. APPECO flowchart

Flowchart through which newly published articles are identified, selected for inclusion, data is extracted, verified, synthesized, appraised, and additional materials are obtained to assist knowledge transfer. Items in blue reflect active involvement from the "editor" role.

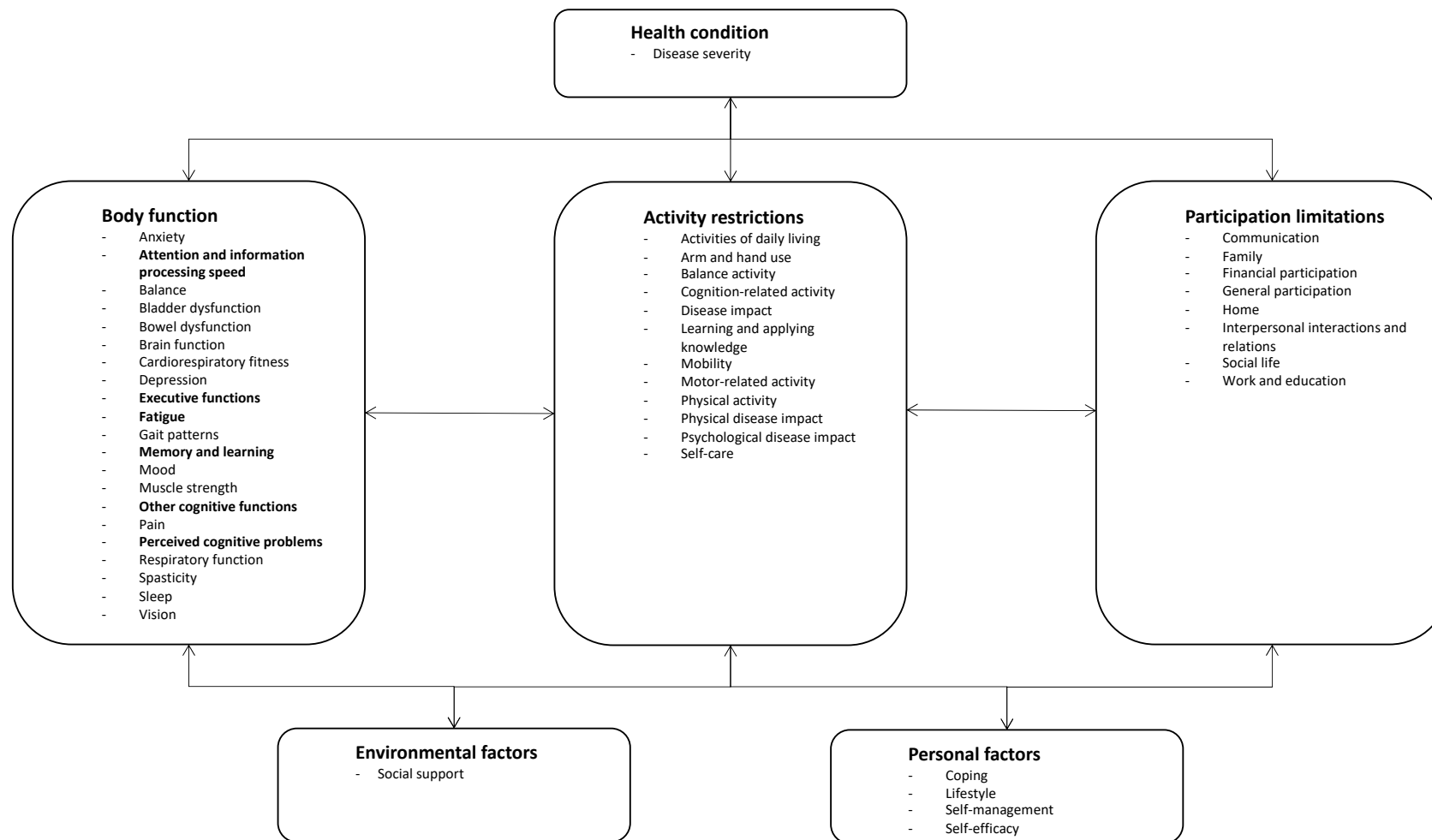


Figure S2. APPECO outcomes

All outcomes that are extracted and categorized according to the International Classification of Functioning model. Outcomes related to fatigue and cognitive function (bold) were extracted as part of the initial proof-of-concept APPECO platform.

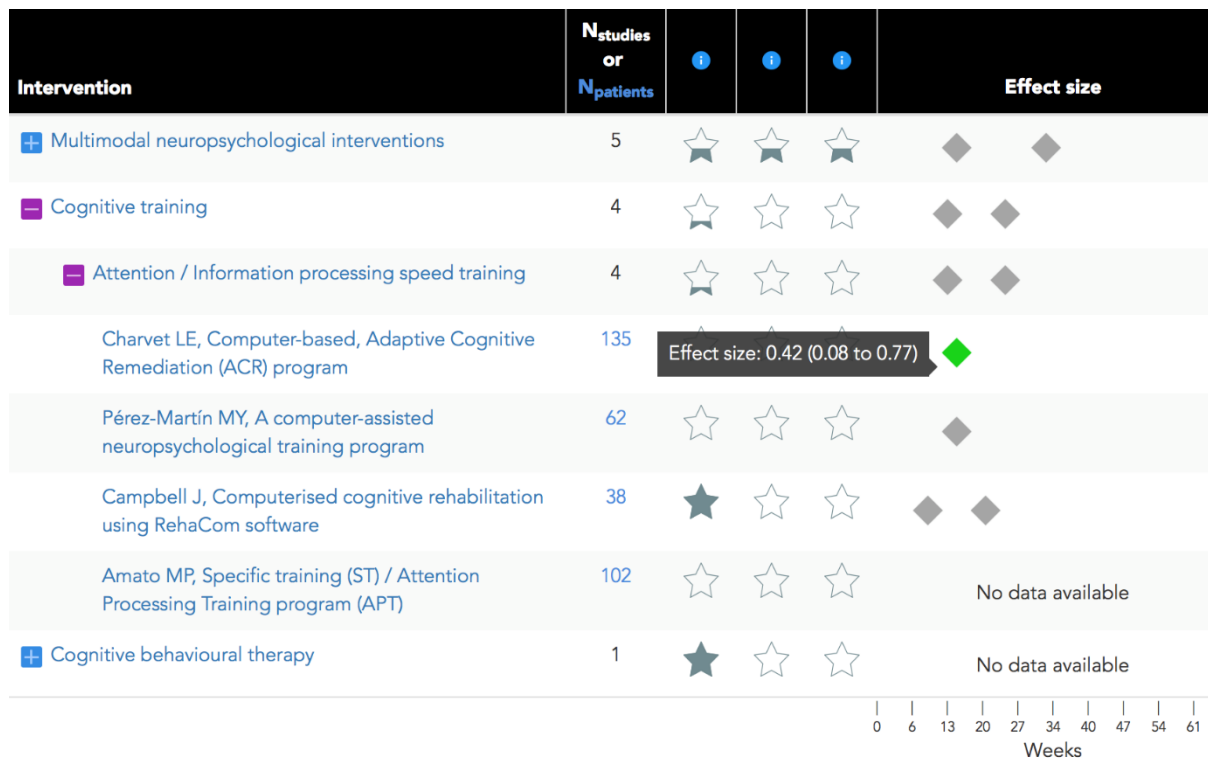


Figure S3. Screenshot of APPECO

From left to right, the intervention (eg, cognitive training), subtype (eg, attention / information processing speed training), study (eg, Charvet et al), the number of participants (or studies, depending on the layer), the three-star system, a main effect, and follow-up effect (if available) positioned at the (average) duration of the intervention (x-axis), and (average) duration of follow-up.

An actual value for the effect size can be obtained by hovering the pointer over the diamonds (as shown for Charvet et al). Color coding is used to mark significant positive effect (green), nonsignificant effect (gray), or significant negative effect (red). Info buttons in the header (i) are used to provide additional information.

Panel S1. Overview of data items extracted for each study

Study information

Authors*
Publication data (eg, journal)*
Abstract*
Corresponding author e-mail*
Link to publication*

Intervention type(s)

- Intervention duration (eg, 12 weeks)
- Follow-up duration (if applicable)

Control group

- Control intervention duration
- Follow-up duration (if applicable)

Defining primary and secondary outcomes

- Name of the outcome measure(s)
- Domain (eg, fatigue)
- Patients included based on outcome (yes/no)
- Outcome direction (eg, lower score is better outcome)?
- Number needed to treat calculated (yes/no)

Patient characteristics

- Inclusion criteria
- Exclusion criteria

TIDieR checklist per study arm⁶

- Brief name
- Why
- What
- Who provided
- How
- Where
- When and how much
- Tailoring
- Modifications
- How well

Risk of bias of study (Cochrane tool)⁸

- Random sequence generation
- Allocation concealment
- Blinding of participants and personnel
- Blinding of outcome assessment
- Incomplete outcome data
- Selective reporting
- Other sources of bias

Outcome data (see Figure S2)

- Number of participants (N)
- Covariates (eg, gender, MS disease severity)
- N, Mean score (difference), Standard Deviation for each outcome post-intervention per study arm
- N, Mean (difference), Standard Deviation follow-up furthest in time per study arm

*Extracted from e-mail alert.

Appendix S1. PubMed/MEDLINE search strategy

1. Rehabilitation

"Rehabilitation"[Mesh] OR "rehabilitation"[Subheading] OR "Rehabilitation Nursing"[Mesh] OR "Physical Therapy Modalities"[Mesh] OR "Physical Therapy Department, Hospital"[Mesh] OR "Exercise"[Mesh] OR "Exercise Movement Techniques"[Mesh] OR "Exercise Therapy"[Mesh] OR "Physical Therapy (Specialty)"[MeSH] OR "Psychotherapy"[Mesh] OR "Complementary Therapies"[Mesh] OR "Nutrition Therapy"[Mesh] OR "Health Education"[Mesh] OR "Self-Help Devices"[Mesh] OR "Orthopedic Equipment"[Mesh] OR rehabilitati*[tiab] OR physiotherap*[tiab] OR (physical[tiab] AND (therapy[tiab] OR therapies[tiab] OR activity[tiab] OR activities[tiab])) OR exercis*[tiab] OR training*[tiab] OR (occupational[tiab] AND (therapy[tiab] OR therapies[tiab])) OR "ms-nursing"[tiab] OR speech therap*[tiab] OR language therap*[tiab] OR language training*[tiab] OR psychotherap*[tiab] OR logotherap*[tiab] OR art therap*[tiab] OR behavior therap*[tiab] OR behaviour therap*[tiab] OR behavioral therap*[tiab] OR behavioural therap*[tiab] OR biofeedback*[tiab] OR feedback*[tiab] OR myofeedback*[tiab] OR yoga*[tiab] OR complementar*[tiab] OR acupunctur*[tiab] OR electroacupunctur*[tiab] OR kinesio*[tiab] OR chiropra*[tiab] OR osteopath*[tiab] OR dance therap*[tiab] OR music therap*[tiab] OR cognitive therap*[tiab] OR cbt[tiab] OR cognition therap*[tiab] OR relaxation*[tiab] OR meditati*[tiab] OR chronotherap*[tiab] OR diet[tiab] OR diets[tiab] OR dietary[tiab] OR caloric restrict*[tiab] OR nutrition*[tiab] OR health educati*[tiab] OR patient educati*[tiab] OR patients educati*[tiab] OR health litera*[tiab] OR health informati*[tiab] OR energy conserv*[tiab] OR energy management*[tiab] OR fatigue management*[tiab] OR wheel chair*[tiab] OR wheelchair*[tiab] OR orthos*[tiab] OR orthot*[tiab] OR brace[tiab] OR braces[tiab] OR cane[tiab] OR canes[tiab] OR crutch*[tiab] OR walker[tiab] OR walkers[tiab] OR mindfulness*[tiab]

2. Multiple Sclerosis

"Multiple Sclerosis"[mh] OR "Encephalomyelitis"[mh] OR "Myelitis"[mh] OR multiple scleros*[tiab] OR optic neurit*[tiab] OR acute disseminated encephalomyelit*[tiab] OR myelo optic neuropath*[tiab] OR myelo optico neuropath*[tiab] OR myelit*[tiab] OR neuromyelitis optica[tiab] OR encephalomyelit*[tiab] OR clinically isolated syndrome*[tiab] OR transverse myelit*[tiab] OR devic disease*[tiab] OR devics[tiab] OR demyelinating disease*[tiab] OR demyelinating disorder*[tiab] OR adem[tiab]

3. RCTs

((random*[tiab] AND (controlled[tiab] OR control[tiab] OR placebo[tiab] OR versus[tiab] OR vs[tiab] OR group[tiab] OR groups[tiab] OR comparison[tiab] OR compared[tiab] OR arm[tiab] OR arms[tiab] OR crossover[tiab] OR cross-over[tiab])) AND (trial[tiab] OR study[tiab])) OR ((single[tiab] OR double[tiab] OR triple[tiab]) AND (masked[tiab] OR blind*[tiab]))))

4. Humans

NOT (animals[mh] NOT humans[mh])

Appendix S2. Embase search strategy

1. Rehabilitation

'rehabilitation'/exp OR 'rehabilitation nursing'/exp OR 'physiotherapy'/exp OR 'exercise'/exp OR 'kinesiotherapy'/exp OR 'psychotherapy'/exp OR 'alternative medicine'/exp OR 'diet therapy'/exp OR 'health education'/exp OR 'rehabilitation equipment'/exp OR 'orthopedic equipment'/exp OR (rehabilitati* OR physiotherap* OR (physical NEAR/3 (therapy OR therapies OR activity OR activities)) OR exercis* OR training* OR (occupational NEAR/3 (therapy OR therapies)) OR "ms-nursing" OR 'speech therap*' OR 'language therap*' OR 'language training*' OR psychotherap* OR logotherap* OR 'art therap*' OR 'behavior therap*' OR 'behaviour therap*' OR 'behavioral therap*' OR 'behavioural therap*' OR biofeedback* OR feedback* OR myofeedback* OR yoga* OR complementar* OR acupunctur* OR electroacupunctur* OR kinesio* OR chiropra* OR osteopath* OR 'dance therap*' OR 'music therap*' OR 'cognitive therap*' OR cbt OR 'cognition therap*' OR relaxation* OR meditati* OR chronotherap* OR diet OR diets OR dietary OR 'caloric restrict*' OR nutrition* OR 'health educati*' OR 'patient educati*' OR 'patients educati*' OR 'health litera*' OR 'health informati*' OR 'energy conserv*' OR 'energy management*' OR 'fatigue management*' OR 'wheel chair*' OR wheelchair* OR orthos* OR orthot* OR brace OR braces OR cane OR canes OR crutch* OR walker OR walkers OR mindfulness*):ab,ti

2. Multiple Sclerosis

'multiple sclerosis'/exp OR 'myelitis'/exp OR ('multiple scleros*' OR 'optic neurit*' OR 'acute disseminated encephalomyelit*' OR 'myelooptic neuropath*' OR 'myelo optico neuropath*' OR myelit* OR 'neuromyelitis optica' OR encephalomyelit* OR 'clinically isolated syndrome*' OR 'transverse myelit*' OR 'devic disease*' OR devics OR 'demyelinating disease*' OR 'demyelinating disorder*' OR adem):ab,ti

3. RCTs

random* OR factorial* OR crossover* OR (cross NEXT/1 over*) OR placebo* OR (doubl* AND blind*) OR (singl* AND blind*) OR assign* OR allocat* OR volunteer* OR 'crossover procedure'/exp OR 'double blind procedure'/exp OR 'randomized controlled trial'/exp OR 'single blind procedure'/exp

Appendix S3. ISI/Web of Science search strategy

1. Rehabilitation

rehabilitati* OR physiotherap* OR (physical NEAR/3 (therapy OR therapies OR activity OR activities)) OR exercis* OR training* OR (occupational NEAR/3 (therapy OR therapies)) OR "ms-nursing" OR "speech therap*" OR "language therap*" OR "language training*" OR psychotherap* OR logotherap* OR "art therap*" OR "behavior therap*" OR "behaviour therap*" OR "behavioral therap*" OR "behavioural therap*" OR biofeedback* OR feedback* OR myofeedback* OR yoga* OR complementar* OR acupunctur* OR electroacupunctur* OR kinesio* OR chiropra* OR osteopath* OR "dance therap*" OR "music therap*" OR "cognitive therap*" OR cbt OR "cognition therap*" OR relaxation* OR meditati* OR chronotherap* OR diet OR diets OR dietary OR "caloric restrict*" OR nutrition* OR "health educati*" OR "patient educati*" OR "patients educati*" OR "health litera*" OR "health informati*" OR "energy conserv*" OR "energy management*" OR "fatigue management*" OR "wheel chair*" OR wheelchair* OR orthos* OR orthot* OR brace OR braces OR cane OR canes OR crutch* OR walker OR walkers OR mindfulness*

2. Multiple Sclerosis

"multiple scleros*" OR "optic neurit*" OR "acute disseminated encephalomyelit*" OR "myelooptic neuropath*" OR "myelo optico neuropath*" OR myelit* OR "neuromyelitis optica" OR encephalomyelit* OR "clinically isolated syndrome*" OR "transverse myelit*" OR "devic disease*" OR devics OR "demyelinating disease*" OR "demyelinating disorder*" OR adem

3. RCTs

TOPIC:(random* or control* or study or trial or compar* or group or groups or therapy or treatment or intervention)